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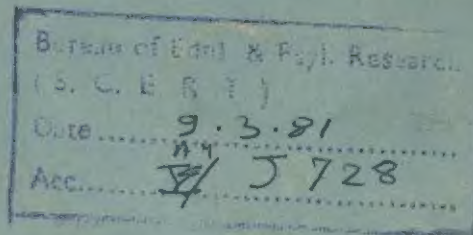
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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

A cumulative index issue contains: Table of Contents for the six-month volume; complete list of all journals regularly searched by PA; list of volunteer abstractors; list of abbreviations used in the abstracts; the cumulative author index for the six-month volume; list of subject index heading terms; and cumulative subject index for the six-month volume, which consists of index heading terms, descriptive phrases for each abstract, four-letter abbreviations indicating languages other than English and abstract numbers.

Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA, e.g., an issue of the *Journal of Psychology* may include 20 relevant articles; abstracts for 17 of these articles may appear in the May issue of PA, the other 3, in the June issue.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.)—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA=Psychological Abstracts.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA=Psychological Abstracts.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., in. = inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
 AC = alternating current
 ACTH = adrenocorticotrophic hormone
 AM = ante meridiem
 amp. = ampere
 bpm = beats per minute
 C = centigrade
 ¢ = cents
 CA = chronological age
 cc = cubic centimeter
 CER = conditioned emotional response
 CFF = critical flicker frequency
 CNS = central nervous system
 cps = cycles per second
 CR = conditioned response (or reflex)
 CRF = continuous reinforcement
 CRT = cathode ray tube
 CS = conditioned stimulus
 CVC = consonant-vowel-consonant
 db. = decibel
 DC = direct current
 DL = differential limen
 DNA = deoxyribonucleic acid
 DRL = differential reinforcement of low rates

E = experimenter
 ECS = electroconvulsive shock
 EEG = electroencephalogram (or -graphy)
 EKG = electrocardiogram
 EMG = electromyogram
 ESP = extrasensory perception
 Exp. = experiment

F = Fahrenheit
 ft-c = foot-candle
 ft-L = foot-lambert

g = gravity
 gm. = gram(s)
 GPA = grade-point average
 GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
 im = intramuscularly
 ip = intraperitoneally
 IQ(s) = intelligence quotient(s)
 ITI = intertrial interval
 iv = intravenously

kc. = kilocycle
 kg. = kilogram
 kg/m = kilogram per meter
 kHz. = kilo-Hertz

LD = lethal dose
 LSD = lysergic acid diethylamide

m. = meter
 M = mean
 M = mole or molar
 ma. = milliamperes
 MA = mental age
 MAO = monoaminoxidase
 mL. = millilambert
 mm. = millimeter
 mph = miles per hour
 msec. = millisecond(s)

N = number
 NREM = nonrapid eye movement

O = observer

p = probability
 % = percent

PM = post meridiem
 pps = pulses per second
 PRE = partial reinforcement effect
 PSE = point of subjective equality
 psi = pounds per sq. in.

r = product-moment correlation
 r = roentgen
 REM = rapid eye movement
 rms = root mean square
 RNA = ribonucleic acid
 rpm = revolutions per minute
 RT = reaction time

S = subject
 SEU = subjectively expected utility
 SPL = sound pressure level

TV = television

UCR = unconditioned response
 UCS = unconditioned stimulus
 UHF = ultrahigh frequency

V = volt
 VHF = very high frequency
 vs. = versus

YMCA = Young Men's Christian Association
 YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
 California F Scale (Fascism)
 CMA scale = Children's Manifest Anxiety scale
 CPI = California Psychological Inventory
 CTMM = California Test of Mental Maturity
 EPPS = Edwards Personal Preference Schedule
 MA scale = (Taylor) Manifest Anxiety scale
 MMPI = Minnesota Multiphasic Personality Inventory
 MPI = Maudsley Personality Inventory
 16 PF = Cattell's 16 Personality Factor Questionnaire
 SVIB = Strong Vocational Interest Blank
 TAT = Thematic Apperception Test
 WAIS = Wechsler Adult Intelligence Scale
 WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
 Assoc. = associates
 Co. = company
 Coll. = college
 Corp. = corporation
 Dept. = department
 Div. = division
 Inst. = institute
 Hosp. = hospital
 Lab. = laboratory
 Inc. = incorporated
 U. = university

Ave. = avenue
 Bldg. = building
 Blvd. = boulevard
 Ct. = court
 Dr. = drive
 Ft. = fort
 Mt. = mount
 Pkwy. = parkway
 Pl. = place
 PO = post office
 Rd. = road
 St. = street
 N, S, E, W = North, South, East, West
 U.S. = United States
 USSR = Union of Soviet Socialist Republic

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Psychological Abstracts

VOLUME 46

JULY 1971

NUMBER 1

GENERAL

OBITUARIES

1. Arlow, Jacob A. (120 W. 59th St., New York, N.Y.)
Bertram D. Lewin: 1896-1971. *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 1-4.—Presents an obituary of a leading psychoanalyst and co-founder and editor of *Psychoanalytic Quarterly*. J. Z. Elias.

HISTORY

2. Cleghorn, R. A. (McGill U., Montreal, Quebec, Canada) **The shaping of psychiatry by science and humanism: II. An emerging synthesis of science and humanism.** *Canadian Medical Association Journal*, 1970(Oct), Vol. 103(9), 933-941.—Presents an outline of the growing balance between humanism and science in psychiatry. Various studies in the field of medicine have become applicable to vital psychiatric problems. The implications for psychiatry of the growing development of modern knowledge of the sympathetic nervous system and the adrenal medulla and cortex are discussed. The assessment of the incidence of mental disturbance and altered EEGs noted in Addison's disease by G. L. Engel and S. G. Margolin is seen as breaking the somatic barrier. Subsequent studies of the catecholamines, serotonin and mental states, metabolic changes in depression, psychopharmacology, neurophysiology, and the interaction of environment and sex are noted. The contemporary relevance of psychoanalysis and the psychosocial aspects of diseases are considered. It is concluded that while "the basic sciences of biochemistry, physiology and genetics are combining to propel psychiatry closer to the mainstream of medicine... we must not lose our concern for the humanistic needs of our patients." (78 ref.).—S. Knapp.

3. Hall, Elizabeth. **Alfred Adler: A sketch.** *Psychology Today*, 1970(Feb), Vol. 3(9), 45, 67.—Adler's earliest recollections concerned his own or his brother's sicknesses. After becoming a physician, he joined Freud's group, but in 1911, he and 9 of the 23 other members left. Adler and Freud never agreed "on the role of early sexual trauma in mental illness or on dream analysis." After being forced to leave Austria by the Fascists, Adler settled in New York. He died on a lecture tour in 1937. There are active groups and a journal furthering his approach to personality.—E. J. Posavac.

4. Nassefat, Morteza. **La psychologie et l'épistémologie de Jean Piaget.** [The psychology and epistemology of Jean Piaget.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 177-188.—Presents an overview of Piaget's work of 6 decades and approximately 450 publications, and an examination of its biological and philosophical origins. Greatest coverage is given to Piaget's work in developmental and genetic psychology from 1922-1949.—R. E. Smith.

PHILOSOPHY

5. Baumrin, Bernard H. (Lehman Coll., City U. New York) **The immorality of irrelevance: The social role of science.** In F. F. Kortzen, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 73-83.

6. Rossi, Remo. (United States International U., San Diego, Calif.) **A soliloquy on man's presence: An existential exploration of homelessness and anonymity, longing and fulfillment as dimensions of the idea of presence in this modern age.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2264-2265.

PARAPSYCHOLOGY

7. Rogo, D. Scott. **The transference of mediumistic control.** *Parapsychology Review*, 1970(May), Vol. 1(2), 15-17.—The "control" or spirit "guide" is usually interpreted as a secondary personality of the medium. This view, however, does not account for instances where the "control" transfers from one medium to another, or several control personalities in different mediums communicate incomplete messages that must be pieced together to be understood. Instances of such transference and cross-correspondence are reviewed, and it is concluded that explanations other than a survivalistic theory cannot cope with the phenomena.—P. F. Grim.

8. Stevenson, Ian. **Precognitions of disasters.** In H. S. Abram (Ed.), "Psychological aspects of stress." (See PA, Vol. 46:Issue 1) 3-28.

9. Turner, Ralph H. (Oberlin Coll.) **Parapsychology: A topic illustrating basic concepts in psychology.** *Psychological Record*, 1970(Fal), Vol. 20(4), 505-508.—Tradition suggests starting with basic scientific principles and later showing how they can be applied. To capitalize on the recent emphasis upon "relevance," one might start with a topic that is inherently interesting and introduce scientific principles where appropriate to the discussion. 1 example is presented. The technique may be expanded so that scientific principles always are taught within the context of an interesting problem-oriented discussion.—*Journal abstract*.

THEORY & SYSTEMS

10. Couzin, Robert. **Leibniz, Freud, and Kabbala.** *Journal of the History of the Behavioral Sciences*, 1970(Oct), Vol. 6(4), 335-348.—Leibniz' efforts in and sympathy for the spirit of Kabbalistic science make the equation of Allport's Locke-Leibniz and Bakan's behaviorism-psychoanalysis dichotomies considerably more creditable. Allport's doubts notwithstanding, many of Leibniz' conceptions bear close affinities to those of Freud, e.g., the petites perceptions of the monad may well be viewed as a precursor to Freud's discovery—or revival—of the unconscious. Perhaps most striking is

Leibniz' anticipation of Freud's teleology of concrete psychological acts.—C. M. Franks.

EDUCATION & TRAINING

11. Arthur, Artur Z. (Queen's U., Kingston, Ontario, Canada) **Applied training programmes of psychology in Canada: A survey.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 46-65.—Reports a survey of professional applied training programs in Canadian universities including 17 in clinical psychology, 4 each in counselling and school psychology, 1 each in educational psychology and learning disabilities, and 2 in experimental psychopathology. The number of places in the universities was related to the expected manpower requirements. Information was also given concerning the numbers of teachers in each program, the types of applied settings utilized, and the different courses offered. (French summary)—*Journal abstract*.

12. Fisch, Rudolf; Orlik, Peter, & Saterdag, Hermann. (U. Düsseldorf, Inst. of Psychology, W. Germany) **Warum studiert man Psychologie?** [Why do people study psychology?] *Psychologische Rundschau*, 1970(Oct), Vol. 21(4), 239-256.—94 freshmen, 23 graduate students in psychology, and 12 faculty psychologists indicated on questionnaires which books had influenced their decision to study psychology and their satisfaction with this decision. Most Ss listed interest in humans as the decisive factor for going into psychology. With the exception of the faculty members all other groups mentioned Freud as the author who had influenced them most. The survey detected an information gap between the actual activities of a psychologist and the expectations of beginning students.—W. J. Koppitz.

13. Johnson, Ronald W. (St. Francis Xavier U., Antigonish, Nova Scotia, Canada) **A student looks at graduate training.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 37-41.—Discusses 2 problems which face many of the 2000 Canadian graduate students in psychology. As the academic job market continues to provide relatively fewer openings for the increasing number of new PhDs, the new graduate is faced with seeking employment in areas for which he has no training. The idealistic graduate student who wishes to engage in "relevant" research is forced by the type of graduate training he is receiving to do conservative research and to become more like his teachers in attitudes and values. The question is raised as to whether or not tomorrow's psychologists should be identical to today's psychologists. Suggestions for changes are offered for consideration by the planners of graduate programs. (French summary)—*Journal abstract*.

14. Schaub, Ronald E. (U. Calgary, Alberta, Canada) **Reafferentation in psychology.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 42-45.—Discusses a survey among students who have recently graduated in psychology which suggested the need for feedback in the development of departmental policy. 88 Ss were sent a questionnaire and 36 responded. Results indicate that "this kind of feedback is essential for a department to evolve in relationship with both the academic community and the community at large." (French summary)—*Journal abstract*.

PROFESSIONAL DEVELOPMENTS

15. ———. **Transcript of the protestors' ses-**

sion. In F. F. Kortan, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 366-376.

16. Arthur, Artur Z. (Queen's U., Kingston, Ontario, Canada) **Psychology as engineering and technology of behaviour.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 30-36.—Asserts that a scientific type of applied psychology has failed to develop within the profession of psychology. Reasons for the failure seem to lie in the historically continuous opposition of the educated academicians to the practical and applied science. Understanding and theory construction is placed above useful action. The establishment of schools of applied psychology could solve many problems of the development of engineering and technology of behavior. They would permit the unification of psychological expertise, the development of psychological applied services to the community within the academic framework of training and research, and they would provide opportunity for training psychologists in personal responsibility, to replace the present reliance on the medical and educational professions. (French summary)—*Journal abstract*.

17. Blau, Theodore H. (U. South Florida) **The APA Commission on Accelerating Black Participation in Psychology (CABPP).** *Counseling Psychologist*, 1970, Vol. 2(2), 77-78.—A call is issued for CABPP to join with the Black Students Psychological Association (BSPA) in becoming involved with an initial 3-yr project that began in July 1970. One's involvement could include: (a) committing self or one's group to financial support; (b) inviting BSPA and the Association of Black Psychologists to engage in dialogue or address one's group; (c) accelerating the pace of acceptance of black students and professionals within one's institution; (d) making personal associations with black Americans; (e) avoiding fitting "blacks into the white experience"; (f) influencing researchers to study the source of problems; and (g) expanding the awareness of one's own limitations.—W. S. Sahakian.

18. Carter, Launor F. **Psychologists and federal legislation.** In F. F. Kortan, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 22-23.

19. Fraser, Donald M. (U.S. House of Representatives, Washington, D.C.) **Congress and the psychologist.** In F. F. Kortan, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 25-31.

20. Guernsey, Bernard G., Stollak, Gary E., & Guernsey, Louise. (Pennsylvania State U.) **A format for a new mode of psychological practice: Or how to escape a zombie.** *Counseling Psychologist*, 1970, Vol. 2(2), 97-104.—Broad scale application of the educational model ("Edu Mod") is sought, including its displacement of the medical and clinical model, identified as the "zombie" or "Med Mod." Its advantages include wider offering of services where professional manpower is limited, greater reliability and superiority of educationally oriented tests, reevaluation and clarification of the role played by value judgments in psychological services, wider public acceptance, greater utilization of services, greater framework for problem prevention, broader base for personality theory development, broader population base research in personality, attitude, and behavior modification, plus more meaningful cooperation among academicians, researchers, and practitioners. It is hoped that the recommendations will lead toward an alternative model

for professionals, and away from the "service-delivery-system of the practicing physician." (16 ref.)—*W. S. Sahakian.*

21. Kondrasuk, John N. (U. Minnesota) **Graduate students' rankings of prestige among occupations in psychology.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 142-146.—To ascertain occupational prestige hierarchies, 269 psychology graduate students ranked 20 occupations in psychology. The prestige rankings of the total sample and 12 subgroups were analyzed. Results show that (a) the total sample rankings exhibited an occupational prestige hierarchy similar to previous studies, except that service and academic positions were upgraded while research job titles were downgraded; (b) interindividual variability was greater than hypothesized; and (c) subgroups tended to upgrade occupations related to their area of specialization. Possible causes for differences between this and prior studies are discussed.—*Journal abstract.*

22. Korten, Frances F., Cook, Stuart W., & Lacey, John I. (Eds.) **Psychology and the problems of society.** Washington, D. C.: American Psychological Assn., 1970. xii, 459 p.

23. Nelson, Thomas M. & Poley, Wayne. (U. Alberta, Edmonton, Canada) **Publication habits of psychologists in Canadian universities.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 68-76.—Presents a survey of publication habits of psychologists. Histograms of publication frequency were prepared for biology, chemistry, history, mathematics, political science, psychology, physics, and sociology. Psychologists were most like sociologists both in the mean number of publications/individual and in the form the distribution assumed. Other clusters also appeared. Assistant, associate, and full professors holding staff appointments in Canadian universities did not appear to differ by rank in frequency of publication. Higher academic ranks did appear to be more varied in their publication habits, however. Psychologists are much less prone to multiple authorship of papers than physicists and this must be considered when publication records are evaluated. There has been a general increase in the average frequency of publication since 1961 which has resulted in a doubling of publication frequency and the present national average of .9 papers/staff member/yr. (French summary)—*Journal abstract.*

24. Thomas, Ernestine. **Recommendations for Division 17 from the Black Students Psychological Association.** *Counseling Psychologist*, 1970, Vol. 2(2), 79.—These recommendations call for the recruitment and retention of black students in counseling psychology programs by financial commitment on the part of universities until degree requirements have been completed by such students. Also sought are programs planned by black students at state association meetings, thus establishing closer and more personal contacts plus a working relationship. Moreover, state associations should provide for black student representation on boards and committees, with *Counseling Psychologist* being the vehicle for the publication of pertinent programs and articles.—*W. S. Sahakian.*

INTERNATIONAL PSYCHOLOGY

25. Myers, C. Roger, et al. (U. Toronto, Ontario, Canada) **Open forum: Research funding for psychologists in Canada.** *Canadian Psychologist*,

1971(Jan), Vol. 12(1), 3-24.—Presents an edited transcript of discussions of problems in the area of research funding for psychologists in Canada at an open forum by a panel of 5 psychologists who have been directly involved in recent developments, by the Secretary of the Science Council of Canada, by several psychologists associated with the major granting agencies, and by a number of those attending the forum. (French summary)—*Journal summary.*

26. Wright, Mary J. (U. Western Ontario, London, Canada) **Number of psychologists in Canada: 1970 estimate.** *Canadian Psychologist*, 1971(Jan), Vol. 12(1), 66-67.—A survey of registered psychologists, members of psychological associations, and faculties or departments of psychology showed that there are now at least 3400 psychologists in Canada. This is more than double the number reported in 1966. It was also found that the number of psychologists in academic settings in Canada has more than tripled in this 4-yr period. (French summary)—*Journal abstract.*

GENERAL BOOKS & REFERENCE WORKS

METHODOLOGY & RESEARCH TECHNOLOGY

27. Gerben, Martin J., Jones, Leeroy G., & Smoake, James A. (U. S. Army Research Inst. of Environmental Medicines, Natick, Mass.) **Behavioral tolerance of squirrel monkeys to hypoxia: A model for evaluating drug therapy.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 10-12.—Developed a behavioral tolerance-time procedure for measuring hypoxia-induced disruption of avoidance behavior using 5 adult male squirrel monkeys (*Saimiri sciureus*) under a Sidman avoidance contingency. Hypoxic atmospheres were acutely and repeatedly presented to highly trained Ss during avoidance sessions with 5 min. of normoxia between presentations of hypoxia. Behavioral tolerance time was defined as the period from the initiation of hypoxia to the occurrence of the 1st shock during each hypoxic presentation. Parametric studies demonstrate that reliable behavioral tolerance times could be obtained using a 5-sec response-shock interval and a 7% O₂ atmosphere. Acetazolamide, a drug previously shown to be beneficial for several types of functioning under hypoxic conditions, markedly lengthened behavioral tolerance time, suggesting a valid model for evaluating drug therapies.—*Journal abstract.*

28. Mahan, Jack L. (United States International U., San Diego, Calif.) **Toward transdisciplinary inquiry in the humane sciences.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3029.

29. Schönpluf, Wolfgang & Büch, Barbara. (Ruhr U., Inst. of Psychology, Bochum, W. Germany) **Psychische Prozesse beim Psychologischen Skalieren: V. Subjektive Beurteilungen von Skalenkategorien.** [Psychic processes in psychological scaling: V. Subjective judgments of scale categories.] *Psychologische Beiträge*, 1970, Vol. 12(3), 384-392.—Graded the categories of a 7 grade scale on an impression differential. The grading allowed conclusions as to the degree of subjectivity in the decision. There were differences, however, in bi- and unipolar scales.—*English summary.*

30. **Speer, David C. & Zold, Anthony.** (Amherst H. Wilder Foundation, Child Guidance Clinic, St. Paul, Minn.) **An example of self-selection bias in follow-up research.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 64-68.—Compared the data presented by a group of Ss who returned the materials in the first effort and a group of Ss who returned the materials after a telephone contact to solicit their cooperation. Results indicate that the cooperating group was unrepresentative of the population and biased in the direction of having greater intrafamily resources and being more receptive and responsive to clinical intervention. The return and nonreturn groups were reliably different on 7 of 10 variables. The amount of information requested was inversely related to degree of cooperation.—*E. J. Kronenberger.*

31. **Weber, Klaus.** (26 Waldweg, Göttingen, W. Germany) **Das Wegenetz des Menschen: Ein methodischer Beitrag.** [The human network of ways: A methodical contribution.] *Psychologische Beiträge*, 1970, Vol. 12(3), 459-478.—Uses the basic ethological categories of mammals in their network of ways for human ecology and psychology. A method for detecting a human network of ways is presented, and examined for its applicability. The method by which 50 Ss were tested was based on introspection and registration. (32 ref.)—*English summary.*

MODELS & MATHEMATICAL MODELS

32. **Abbe, Elizabeth N.** **Experimental comparison of Monte-Carlo sampling techniques to evaluate the multivariate normal integral.** *U. S. Army BESRL Technical Research Note*, 1969(Jun), No. 208, 30 p.—Evaluated 2 different numerical methods for estimating probability when a multivariate normal model (e.g., one involving scores on a battery of tests) can be assumed. In a series of simulation experiments in which random vector observations were generated, probability estimates were computed by each of the 2 methods. Precision of the 2 methods was compared from the magnitude of the variances of the probability estimates over independent samples. Results indicate that when the probability region is very small, the more complex of the 2 methods (importance sampling) is superior; the simpler Monte-Carlo procedure is favored when sampling approximation is poor.—*A. J. Drucker.*

33. **Gross, Alan L.** (Purdue U.) **A Monte Carlo study of a moderated regression model.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2307.

34. **Rich, Robert.** (Monash U., Clayton, Victoria, Australia) **Constant ratio rule for confusion matrices from short-term memory experiments.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 27-35.—Presents evidence that the constant ratio rule, i.e., the subset of a large confusion matrix may be used to predict a smaller confusion matrix based on data gathered under identical conditions, also holds for confusion matrices derived from short-term memory experiments. The 10×10 confusion matrix presented by R. Conrad (see PA, Vol. 39:706) is predicted from the appropriate submatrix of $2 \times 20 \times 20$ matrices, with moderate success. Besides confirming the applicability of the constant ratio rule to short-term memory data, the experiment also provides indirect support for R. Conrad's contention that order errors are a consequence of confusions.—*Journal abstract.*

MATHEMATICS & STATISTICS

35. **Campos, Leonel.** (U. Manila, Philippines) **A note on the significance of r_{pb} .** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 19-22.—Suggests that the point-biserial coefficient of correlation, r_{pb} , is the square root of the ratio of the "between" sum of squares to the "total" sum of squares, of the 1-factor, completely randomized analysis of variance design, and that an extrapolation of this design is distributed as student's t with degrees of freedom, $df = N-2$, and is therefore an appropriate test of significance for r_{pb} .—*Journal abstract.*

36. **De Finetti, Bruno.** (U. Rome, Italy) **Logical foundations and measurement of subjective probability.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 129-145.—Discusses subjective probability, as the only meaningful interpretation of the word "probability." It is shown that degrees of belief can be translated into prices which one is willing to pay for being allowed to bet on the outcome of an uncertain event. Several measuring devices for an operational definition of subjective probability are considered. It is argued that the rules of consistency form sufficient conditions for the existence of formally admissible subjective probabilities, although other, logical or empirical, reasons may induce to further restrictions. The usefulness of probabilistic thinking and behavior is emphasized and several recommendations are made for the further development of this area, including use of scoring rules and the evaluation of probability assessors. Whether subjective probabilities reflect true characteristics of the environment is discussed, and recourse to a concept of objective probability is rejected.—*Journal abstract.*

37. **Marsh, R. W.** (Victoria U., Wellington, New Zealand) **The limitations of the Tchebychev multiplier in ascertaining the true score range.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 249-251.—Illustrates some uses of the standard error technique in clinical practice for ascertaining the range of true scores from the obtained score on the WISC. The superiority of this method to the use of the Tchebychev multiplier is demonstrated.—*Journal abstract.*

38. **Murphy, Allan H. & Winkler, Robert L.** (U. Michigan) **Scoring rules in probability assessment and evaluation.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 273-286.—Discusses some questions and problems related to the use of scoring rules (SRs) both in connection with the actual assessment of probabilities and with the evaluation of probability forecasts and probability assessors. Under linear utility, important problems of concern in assessment are the sensitivity of SRs to deviations from optimality and the effect of psychological considerations arising from the use of different SRs. Under nonlinear utility, SRs should be modified to allow for the nonlinearity in such a manner that for a specific utility function, the modified SRs are strictly proper. In evaluation from an inferential viewpoint, attributes, e.g., validity may be of interest, and in certain circumstances these attributes may be related to SRs. From a decision-theoretic viewpoint, SRs may be related to a decision maker's utilities or expected utilities if the decision maker uses the assessed probabilities in an actual decision situation. (20 ref.)—*Journal abstract.*

39. **Stael von Holstein, Carl A.** (Economic Research Inst., Stockholm, Sweden) **Measurement of subjective**

probability. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 146-159.—Proposes the use of a scoring rule (a function of the assessed probabilities and the event which actually occurs) as an incentive to honest assessment of subjective probabilities. The various properties that scoring rules should possess in order to encourage honesty are discussed. Examples of scoring rules are given together with some practical and experimental experience with scoring rules. A survey of assessment techniques which do not rely on scoring rules is included. (36 ref.)—*Journal abstract*.

40. Stanley, Julian C. & Wang, Marilyn D. (Johns Hopkins U., Center for the Study of Social Organization of Schools) **Differential weighting: A survey of methods and empirical studies**. New York, N.Y.: College Entrance Examination Board, 1968. iv, 77 p.

41. Steingruber, Hans J. & Lienert, Gustav A. (U. Düsseldorf, Inst. of Psychology, W. Germany) **Ein Test nach Le Roy zum Vergleich von zwei Kontingenztafeln und seine Anwendung in der klinischen Psychologie**. [Le Roy's test for comparing two contingency tables and its application in clinical psychology.] *Psychologische Beiträge*, 1970, Vol. 12(3), 401-414.—A chi-square omnibus test suggested by H. L. LeRoy for comparing 2 $k \times m$ contingency tables as to differences in the frequencies of corresponding cells. If the null hypothesis, that both tables are samples of identical $k \times m$ classified populations, must be rejected, the sources of heterogeneity may be examined differentially by methods discussed for usefulness and adequacy. The test and the latter methods are illustrated by an example from clinical psychology. LeRoy's test and its generalization are compared with tests examining interaction between 2 contingency tables. Both types of tests are relevant for research in clinical psychology. (18 ref.)—*English summary*.

Factor Analysis

42. Holley, Jasper W. & Harris, Chester W. (U. Lund, Psychological Lab., Sweden) **The application of the Harris bridge in the generalization of the Burt reciprocity principle: A demonstration study**. *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 255-260.—The reciprocity principle, formulated by C. Burt, has related the Q and R factor systems when double-centered score matrices are used. Subsequently, Burt's bridge was 1st generalized by J. Sandler for single-centered matrices, but was applicable only under restricted conditions. A final generalization is described as a transition based on correlations rather than G indices, which provides for the conversion of rotated Q factors to equivalent R factors. An illustrative example is given, using hypothetical data.—*Journal abstract*.

43. Thorndike, Robert M. (U. Minnesota) **Method of extraction, type of data, and adequacy of solutions in factor analysis**. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2970.

COMPUTERS & PROGRAMING

44. Ainsworth, W. A. & Millar, J. B. (U. Keele, England) **A simple time-sharing system for speech perception experiments**. *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 21-24.—Describes a system which enables a background program to be run

in 1 field while another program in the other field controls an experiment. "Programming has been simplified by the use of modules, and the effective time available on the machine has been increased by the introduction of a simple form of time sharing." Although the system is described as a program for controlling speech perception experiments, it may also be readily applied "to other psychophysical experiments, to the processing of physiological data on-line, and probably to many other situations where the machinery to be controlled operates at human rather than computer speeds."—S. Knapp.

45. Baudot, Jean. **Informatique et Information**. [Information handling and information] *Interprétation*, 1968(Oct), Vol. 2(4), 47-58.—Examines the accomplishments of computers in their application to solving scientific problems; describes the machines themselves as well as programing procedures; and defines "information" within the context of data processing, finally considering computer handling of linguistic data. Subsequent discussion concerns the possibility of information handling being considered a "model," enabling the formulation in terms of communication complex phenomena relating to the behavioral sciences, and the application, if not transposition, of information concepts to the sphere of human communication, including the psychoanalytic situation.—T. N. Webster.

46. Blisellius, Per A. (AB ASEA-ATOM, Box 53, Vasteras, Sweden) **A PDP-9 computer program for on-line calculation of mean values, variances, and amplitude distribution**. *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 37-43.

47. Cavanaugh, C. R. & Ruback, Eugene P. (U. Maryland) **A semiautomatic system for preparing computer data cards**. *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 46-47.—Describes a system which eliminates manual coding and punching of computer data cards in a psychophysical experiment. Conventional relay logic is used to control the operation of a card punch and to enter data in selected card columns.—*Journal abstract*.

48. Cumming, Geoff. (Inst. of Experimental Psychology, Oxford, England) **LINC-8 presents and controls visual experiments**. *Behavior Research Methods & Instrumentation*, 1970(Jan), Vol. 3(1), 24-29.—Describes TSCOPE, a set of programs for use with a basic LINC-8, which "is suited to the well-controlled display of small amounts of material. Long sequences of presentations can be set up with the S sitting at the CRT initiating each trial with a footswitch, or runs of trials may be presented and the S's responses and reaction times recorded. TSCOPE should be a useful tool for work in the areas of visual perception of letters and digits which are masked or presented at fast rates, memory span and short-term memory for visually presented characters, and information handling with visual input."—S. Knapp.

49. Gardner, R. C. (Philippine Normal Coll., Language Study Center, Manila) **Psychology and the computer in the Philippines**. *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 43-56.—Briefly summarizes a series of computer programs which are available to psychologists and other researchers in the Philippines, and which do not require a knowledge of computer programing or technology. A group of 12 programs is presented with a description of each program, the information required by the computer to

perform the analysis, and the way in which the data must be prepared. The programs are considered to be aids in preparing statistical information.—P. R. Shibelski.

50. Michaux, J. & Bergmans, J. (U. Louvain, Electronics Research Lab., Belgium) **A program for simultaneous stimulation and data handling in neurophysiological research.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 33-36.—Describes the programed pulse generator (PPG) "which controls entirely the sequences of stimuli given to a preparation during a whole experiment, and at the same time executes analysis routines on the events occurring in response to the stimuli." Originally developed "to provide the experimenter with stimulus sequences which cannot be realized even with complex batteries of stimulators... the great power of the PPG has proven to be fruitful, particularly in suggesting experimental approaches which are not considered with conventional stimulators. Even for simpler experiments, PPG, by reducing the amount of manual operations shortens the duration of the experiment, and increases the viability of the stimulation series."—S. Knapp.

51. Sekuler, Robert & Armstrong, Robert. (Northwestern U.) **Luminance control of a small computer CRT display: A very cheap technique.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 48-49.—Describes an inexpensive (\$10-\$100) way to produce continuous variation in the luminance of a computer-controlled CRT display. One application of the system to the study of motion-analyzers in human vision is briefly discussed.—*Journal abstract*.

TESTING

52. Holroyd, Richard G. (California State Coll., Los Angeles) **On the translation of Koppitz's normative data into standard scores: A response to Furr.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 88.—Questions the use of normative data with the Koppitz Developmental Scoring System since there is some skewness and data cannot be properly converted into standard scores without first normalizing the distribution.—E. J. Kronenberger.

53. Iseler, Albrecht. (U. Mannheim, W. Germany) **Leistungsgeschwindigkeit und Leistungsgüte: Theoretische Analysen unter besonderer Berücksichtigung des Intelligenzbereiches.** [Speed and level of performance: Theoretical analyses with special regard to intelligence.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2960.

54. Wender, Karl. (Technical U. of Darmstadt, W. Germany) **Die psychologische Interpretation nichteuklidischer in der multidimensionalen Skalierung.** [The psychological interpretation of non-Euclid metrics in the multidimensional scale.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2972.

Construction & Validation

55. Hutchins, Charles W. (Ohio State U.) **A new approach to the construction of a prediction battery.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2340.

56. Waters, Carrie W. **Comparison of computer-simulated conventional and branching tests.** *U. S. Army BESRL Technical Research Note*, 1970(Mar), No.

216, 38 p.—Reports on a comparison of computer-simulated branching and conventional tests which varied in length, distribution of item difficulty, and item validity. Comparison was in terms of correlation between underlying ability and test scores (Lord's model). Principal finding was that in tests with higher item validities ($r_{bis} = .60$ to $.90$), a branching test had higher correlation with underlying ability than did any of the conventional tests, for all 3 lengths studied. Finding supports an earlier exploratory study and provides useful guidelines for further research with branching tests.—A. J. Drucker.

EXPERIMENTATION & OBSERVATION

57. Ballus, C. (U. Barcelona, Hosp. Clinic, Spain) **El factor tiempo en los tests psicofisiológicos.** [The time factor in psychophysiological tests.] *Anuario de Psicología*, 1969, Vol. 1, 5-13.—Discusses the time factor in relation to the time limitation of stimulus exposure. The validity of such a time factor on various psychophysiological tests is considered to be dependent upon CNS fluctuations within individuals. It is noted that a wide range exists in which CNS fluctuations could be considered normal. It is concluded that the technique of limiting the time of stimulus exposure has the greatest possibility for wide practical application in the perception-apperception sphere, and most concretely with tachistoscopic projection. (18 ref.)—P. Hertzberg.

58. Felton, Gary S. (U. Southern California) **Experimenter expectancy effect examined as a function of task ambiguity and internal versus external control of reinforcement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2277-2278.

59. Reid, John B. (U. Wisconsin) **Reliability assessment of observation data: A possible methodological problem.** *Child Development*, 1970(Dec), Vol. 41(4), 1143-1150.—Conducted an experiment to determine the accuracy of 7 female undergraduate Os under 2 conditions: overt reliability assessment, during which O knew her accuracy was being checked; and covert reliability assessment, during which she thought that her accuracy could not be checked. A marked drop in accuracy was observed for all Os from overt assessment conditions. Questions are raised concerning the veridicality of observation data which are not continuously monitored.—*Journal abstract*.

APPARATUS

60. Broušek, Ján. **Zautomatizované bludisko.** [An automatized maze.] *Psychológia a Patopsychológia Dieťa*, 1970, Vol. 5(3), 271-278.

61. Rogers, Peter L., Scherer, Klaus R., & Rosenthal, Robert. (Harvard U.) **Content filtering human speech: A simple electronic system.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 16-18.—Discusses the use of electronic bandpass filtering for content-masking speech samples in studies on expressive aspects of vocal behavior. A simple electronic filtering system, which can be built easily and which can be adopted readily for a variety of applications, is described. (16 ref.)—*Journal abstract*.

62. Stoller, D. F., Kinney, J. P., Burson, R. C., & McNew, J. J. (U. California, Brain Research Inst., Los Angeles) **Apparatus for collection of individual micturition samples from unrestrained primates.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 91-93.

—Describes an apparatus which consists of 3 major parts: a sensing head through which urine is detected by a photodiode; a control box which contains the power supply and circuitry; and a motor driven turntable which contains 12 large sample bottles. The detection of urine flow activates the logic in the control box. Following termination of the urine flow, a new sample bottle is automatically moved into position for the next sample collection.—*Journal abstract.*

EXPERIMENTAL PSYCHOLOGY

63. Rule, Stanley J. & Markley, Robert P. (U. Alberta, Edmonton, Canada) **Subject differences in cross-modality matching.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 115-117.—48 right-handed male undergraduates performed 4 tasks each: (a) magnitude estimation of area, (b) magnitude estimation of numerosness, (c) cross-modality matching of force of handgrip to area, and (d) cross-modality matching of force of handgrip to numerosness. An additional 48 Ss performed Tasks b and d. Psychophysical power functions were fitted to the data of each S for each condition. Higher correlations between individual exponents were found for conditions employing a common response (i.e., estimating or squeezing) than were found for conditions with the same set of stimuli. Individual differences among exponents stem more from the idiosyncratic use of the dependent variable than from different sensory characteristics.—*Journal abstract.*

64. Wagenaar, W. A. (Inst. for Perception, Soesterberg, Netherlands) **Appreciation of conditional probabilities in binary sequences.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 348-356.—Investigated the question of whether or not Ss are able to select a random binary sequence out of a set of nonrandom ones. 93 undergraduates and 110 officer-candidates judged binary sequences of white and black dots with respect to randomness. The conditional probability of white following white (black following black) was varied from .2-.8 with steps of .1. At the same time the order of dependency was varied among 1, 2, and 3. Results show that sequences with conditional probabilities around .4 were judged as most random. The standard deviation of successive judgments increased with the order of dependency. Data suggest that Ss did not process conditional probabilities or informational contents, but rather the run-structure of the binary sequences. It is concluded that the effect of subjective randomness is mainly to be attributed to a bias against runs of 6 or more elements.—*Journal abstract.*

PERCEPTION

65. Derrick, Ellen & Dewar, Robert. (U. Calgary, Alberta, Canada) **Visual-tactual dominance relationship as a function of accuracy of tactual judgment.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 935-939.—Investigated the question of dominance of either the visual or tactual modalities when information to the 2 is simultaneous and disparate but not conflicting. 36 undergraduates viewed 1 object while exploring another of different size using active touch, and then matched the seen and felt objects from an array of 10 such objects. Across the 3 conditions of tactual accuracy that were

used, the average visual match was in the direction of the tactual object's correct match and the average tactual match was in the direction of the visual object's correct match. An average tactual error significantly larger than the average visual error indicated a residual dominance of vision over touch. A further hypothesis, that as degree of tactual accuracy decreases the amount of visual dominance increases, was not confirmed.—*Journal abstract.*

66. Geller, E. Scott. (Virginia Polytechnic Inst.) **The effect of expected difficulty on psychophysical judgment.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 325-326.—Prior to estimating the midpoints of various line lengths, 1 experimental group was told that the judgment task was difficult and to expect large errors, while another group was instructed that the task was easy and to expect few judgment errors. Ss were 34 undergraduates. The average deviations of midpoint judgments from the measured midpoint of various line lengths was reliably larger for the group instructed to expect large deviations.—*Journal abstract.*

67. Goldner, Jeffrey; Reuder, Mary E., Riba, Benjamin, & Jarmon, David. (Lamont Geological Observatory, Palisades, N.Y.) **Neutral vs ego-orienting instructions: Effects on judgments of magnitude estimation.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 84-88.—Performed 3 experiments to examine the relative constancy of the exponent in the psychophysical power law under varying motivating conditions. Ss were 20 high school boys, 24 undergraduates, and 40 evening school students, respectively. The method of magnitude estimation was used to obtain judgments of apparent tactual roughness or of apparent area size of squares. Patterns of the qualitative observations of the 3 Es and of the various exponents for the 6 groups of Ss indicate that neutral instructions and "ego-orienting" instructions, which were perceived as unbelievable coming from an equal fellow student, both yielded exponents identical to those reported in the literature. Believable ego-orienting instructions given by an E of clearly perceived higher social status produced a statistically significantly lower exponent than neutral. Intermediate conditions, wherein Ss apparently disbelieved both types of instructions, but assumed that the superior-status E was "analyzing" them, yielded exponents of intermediate size. Results and supplementary trend analyses are discussed as possible, highly sensitive indicators of motivational impacts on sensory judgments. (19 ref.)—*Journal abstract.*

68. Harshfield, Stephen P. & DeHardt, Doris C. (California State Coll., Long Beach) **Weight judgment as a function of apparent density of objects.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 365-366.—5 cubes of equal size and weight made of balsa wood, mahogany, aluminum, brass, and steel were ranked from heaviest to lightest in the above order by 30 undergraduates who lifted each of these cubes, while 30 undergraduates who ranked the cubes visually reported the reverse order, as their apparent density would prescribe. Phenomenologically the present results, which might be called a density-weight illusion, are quite similar to those of the size-weight illusion.—*Journal abstract.*

69. Jennings, Luther B. & George, Stephen G. (Occidental Coll.) **The Spence-Holland theory of subliminal perception: A reexamination.** *Psychological Record*, 1970(Fal), Vol. 20(4), 495-504.—2 experiments,

with 149 and 46 undergraduates, respectively, replicated the D. P. Spence and B. Holland study (see PA, Vol. 38:1679) which yielded positive support for a psychoanalytic theory of subliminal perception. In Exp. I, groups were exposed to stimuli whose quality ranged from slightly above to well below the forced-choice detection threshold. In Exp. II, groups were exposed to stimuli whose quality was at 3 different levels below the forced-choice detection threshold. Only 1 of the 10 experimental groups gave support to the Spence and Holland theory that subliminal stimuli affect retention of words by communicating with unconscious associations on the basis of meaning. An attempt to replicate this finding with a 2nd group proved unsuccessful. Although some support may have been obtained for the contention that stimuli which are slightly above the forced-choice detection threshold affect retention of words on the basis of structural similarities between stimulus and words, the findings as a whole do not support the Spence and Holland psychoanalytic theory of unconscious perception.—*Journal abstract.*

70. Moed, H. K. (U. Amsterdam, Lab. of Psychology, Netherlands) **Constancy and contrast: Ille.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 525-645.—Describes a mathematical design of the model of perception. "The barrier between the objective and the subjective can be transcended by means of the ideal concept of number, but then any sign attached to the values should be regarded as a correlation sign only. From this point of view the fundamental difference between the mathematical and the perceptual complex planes, as well as their conformity could then be pointed out, the latter being determined by an absolute point transcending both mathematics and perception." (48 ref.).—S. Knapp.

71. Moore, Maxine R. (Brown U.) **The perceptual-motor domain and a proposed taxonomy of perception.** *AV Communication Review*, 1970(Win), Vol. 18(4), 379-413.—Describes a perceptual-motor domain characterized by sensory-dependent activity performed in the presence of the stimulus. Perception is defined as a process of extracting information from the stimulus; the focus of the discussion is on the perceptual, or input, end of behavior. A taxonomy of perceptual behaviors is proposed in which the elements are ordered on the principal of increasing information extraction. The major categories of the proposed taxonomy are derived from the factor-analytically based sensory dimension of the Guilford "structure of intellect." 2 assumptions underlie the proposed taxonomy: (a) many apparently diverse behaviors can be understood in terms of a single perceptual process, and (b) a hierarchy of information extraction is inherent in the nature of this process.—*Journal summary.*

72. Müller, Gisela. (Free U., Inst. of Psychology, Berlin, W. Germany) **Differential-psychologische Untersuchungen zum Vigilanzverhalten.** [Experiments in individual differences of vigilance behavior.] *Psychologische Forschung*, 1970, Vol. 34(1), 10-47.—In a simple and a complex vigilance task there was a negative correlation between the probabilities of signal detections and false alarms rates. With regard to the temporal characteristics of vigilance behavior it was found that Ss with the least decrease of detection rate showed the greatest reduction of their false alarms rate to the beginning of the vigilance task. Results are discussed in the context of the detection model.—*English summary.*

73. Payne, M. Carr. (Georgia Inst. of Technology)

Effects of altering stimulus components upon response latency. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 924-926.—Reports 2 experiments with 50 and 48 male undergraduates. In Phase 1, 0 responded by pressing the appropriate key when a light and a sound appeared at the same place and another key when they did not. In Phase 2, relations between location of the light and sound were altered. Phase 3 was identical to Phase 1. Time between presenting a signal and pressing the appropriate key (latency) was measured. Differences in latencies between Phases 1 and 2 were significantly less when both sound and light appeared on the opposite side from the corresponding position of Phase 1 than when only the sound or the light was altered in position.—*Journal abstract.*

74. Rifkin, Jane B. (Tufts U.) **Modifications in the time-error as a function of the relevance of interpolated stimuli and practice with knowledge of results.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2325.

75. Yelen, Donald R. (Washburn U.) **The effects of dissonance and reward on perceptual distortion.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 319-321.—Aroused dissonance by persuading 39 undergraduates to make inconsistent psychophysical judgments. The inconsistent judgments were rewarded in 1 group and not rewarded in another group. Comparisons with a control group suggest that Ss in both the rewarded and nonrewarded groups reduced dissonance by distorting their perception of the psychophysical stimuli during postdissonance trials.—*Journal abstract.*

76. Zelkind, Irving & Bachhuber, Mary. (Loretto Heights Coll.) **Geometric correlates of temporal durations: Signs of the times.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 971-974.—Hypothesized that periods of time of increasing duration are associated with geometric figures of increasing dimensionality and complexity. Each of 60 female undergraduates chose geometric figures of 1, 2, or 3 dimensions as best representing temporal durations (second, hour, day, year, century, or forever). Assignment of figures to time periods was significantly nonrandom ($\chi^2 < .01$) for 5 of the 6 intervals. Agreement among the judges was significant ($p < .05$), and a generally monotonic, positive relationship, based on ordinal measurement of the variables, was indicated (Spearman rho = .808). Underlying factors of linear extension or complexity are suggested as the means of mediation between the variables.—*Journal abstract.*

Illusion

77. Lester, Gene & Morant, Ricardo B. (Wheaton Coll.) **Apparent sound displacement during vestibular stimulation.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 554-566.—Vestibular stimulation by means of angular acceleration around the midbody vertical axis produces a shift in the apparent position of a sound objectively rotating with the S—the audiogyril illusion. 2 possible explanations of the illusion were tested by a new method that leads to considerably reduced variance compared with previous methods. 4 undergraduates trained in auditory localization were Ss. There were no significant differences in the extent of the illusion when stimulus tones of 500~, 1024~, and 5000~ were used. The illusion was significantly diminished in extent when the Ss strained their immobilized heads in the direction opposite from the usual apparent

sound displacement during rotation. It is concluded that the illusion is based on a change in the felt position of the head rather than on differential hearing changes.—*Journal abstract.*

78. Massaro, Dominic W. & Anderson, Norman H. (U. California, San Diego) **A test of a perspective theory of geometrical illusions.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 567-575.—Used 3-dimensional Müller-Lyer figures in 3 experiments to test a perspective theory of geometrical illusions. Ss were undergraduates (N = 16, 16, and 20, respectively). The real depth cues were in 1 of 2 orientations, designed either to support or to oppose the action of the perspective depth cues hypothesized by the perspective theory. If any illusion is obtained with these 3-dimensional figures, the theory implies, its magnitude should be different in the 2 orientations. A substantial illusion was obtained, but the difference between the 2 orientations was small and opposite to the prediction of perspective theory.—*Journal abstract.*

79. Stanley, Gordon & Jackson, Robert. (U. Melbourne, Victoria, Australia) **The apparent lengths of arcs on white and black sectors of rotating discs.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 243-247.—Investigated the effect of background variables on the Ansbacher effect. In Exp. I 8 male and 8 female paid volunteers made magnitude estimates of the apparent length of white arcs located on the black $\frac{1}{2}$ of a white and black rotating disc. The apparent length was estimated of black arcs located on the white sector. Both white and black arcs lengthened as a function of increasing speed. The lengthening of the white arc is termed a negative Ansbacher effect. The apparent shrinkage of the white arcs on whole black discs (the original Ansbacher effect) was confirmed in Exp. II. The experiments demonstrate the importance of the relation between arc and surround for the appearance of shrinkage.—*Journal abstract.*

80. Warren, Richard M. (U. Wisconsin, Milwaukee) **Perceptual restoration of missing speech sounds.** *Science*, 1970(Jan), Vol. 167(3917), 392-393.—In a study of the effect of transient masking sounds, it was found that when an extraneous sound (e.g., a cough or tone) completely replaces a speech sound in a recorded sentence, listeners believe they hear the missing sound. The extraneous sound seems to occur during another portion of the sentence without interfering with the intelligibility of any phoneme. If silence replaces a speech sound, the gap is correctly localized and the absence of the speech sound detected. An experiment with 20 undergraduates exploring this phonemic effect is described.—*Journal abstract.*

Time

81. Long, Gerald & Mo, Suchoon. (U. Detroit) **Interval estimation as a function of constant and interrupted stimulation.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 87-88.—Investigated the relationship between a temporal interval's perceived length and the amount of stimulus and stimulus change within that interval. In 3 separate tests of 13 male and 12 female undergraduates, completely filled intervals were found to be significantly overestimated by the Ss in comparison with empty intervals, whereas, interrupted or divided intervals were underestimated.—*Journal abstract.*

82. Poppel, Ernest & Giedke, Henner. (Max Planck Inst. for Psychiatry, Munich, W. Germany) **Diurnal**

variation of time perception. *Psychologische Forschung*, 1970, Vol. 34(2), 182-198.—Investigated the influence of endogenous and exogenous factors on the diurnal variation of human time perception in a series of 6 experiments. In all experiments Ss produced 10-sec intervals. In Exp. I Ss lived according to their normal daily routine, sleeping at night and tested only during daytime. A significant influence of the time of day on time perception could be observed. In Exp. II Ss were awakened and tested during the night as well as during the day. The diurnal variation under this condition was more pronounced than in Exp. I. In Exp. III Ss had to stay awake during the night. Under this condition the range of variation, i.e., the difference between the daily maximum and minimum, was considerably decreased. The results of Exp. II and III were replicated in Exp. IV. In Exp. V an exogenous factor was tested as to its influence on time perception. During the 1st 4 days of the experiment the conditions of Exp. II were replicated. Then Ss had to live for 4 days in complete darkness. The removal of the light-dark cycle did not decrease the diurnal variation of time perception. In Exp. VI Ss lived for several weeks in complete isolation. Although there were no longer any external time cues, in this experiment a significant circadian variation of time perception was observed. It is concluded that the diurnal variation of time perception has an endogenous basis.—*R. Gunter.*

83. Preusser, David; Garner, W. R., & Gottwald, Richard L. (Yale U.) **The effect of starting pattern on descriptions of perceived temporal patterns.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 219-220.—28 undergraduates listened to and then described 4 continually repeating sequences of 9 tones presented at the rate of 3 tones/sec. Each tone was either 275 Hz. (high) or 250 Hz. (low). It was found that the greater the frequency of use of a pattern as a description, the more often will it be accepted as a description when started that way. If a pattern is not described as presented, then S is more apt to shift to a frequently used description than to an infrequently used 1.—*Journal abstract.*

84. Saxon, Stanley R. (Boston U., Graduate School) **Future time perspective in relation to role variability.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3006-3007.

VISION

85. Engelberg, Abraham A. (New York U., School of Engineering & Science) **The inhibition-disinhibition cycle in visual masking.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3044.

86. Furst, Charles J. (Stanford U.) **Automatizing of visual attention.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2304.

87. Gillman, Clifford B. (Indiana U.) **The effects of interstimulus interval and feedback on the time order effect in judgments of numerosness and line length.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2306.

88. Gyr, John W. & Willey, Richmond. (U. Michigan) **The effect of efferece to the arm on visual adaptation to curvature: A replication.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 89-91.—Tested the findings of L. Festinger, C. A. Burnham, H. Ono, and D. Bamber (see PA, Vol. 41:12903) using prisms of 20, 30, and 55 diopters. 48 female undergraduates inspected a curved line through a prism that made it appear straight, then moved 1 finger along the line in 1 of 2 ways: (a)

encouraged the learning of a new efferent program for a curved movement (learning), and (b) (accuracy) offered little opportunity for such learning. Replicating a finding by L. Festinger, et al., the learning condition produced slightly, but significantly, more visual adaptation to curvature than did the accuracy condition. There was some suggestion that greater prismatic strength produced greater adaptation. Results support the idea that efferent commands to the arm can affect visual perception of contour shape.—*Journal abstract.*

89. Katz, Murray J. (New York U., School of Engineering & Science) **Visual processing of overprinted digits as a function of list length and off time.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3045-3046.

90. Kintz, Robert T. (U. Rochester) **A comparison of monocular and binocular temporal resolution in human vision.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3027.

91. Lockhart, John M. (U.S. Army Natick Lab., Pioneering Research Lab., Mass.) **Ambient temperature and the flicker-fusion threshold.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 314-319.—Exposed 24 unprotected 19-25 yr. old Army enlisted men for 90 min. to ambient temperatures of 40°, 80°, and 120° F with 35% relative humidity. After 1 hr. of exposure, the flicker-fusion threshold (FFT) was determined using both the method of constant stimuli and the forced-choice procedure, with stimulus conditions of 35 and 95% of light to cycle (P_L) at both 30° and 2° visual angle (VA). An increase in FFT frequency during cold exposure found for 1 stimulus condition was interpreted in terms of subjective criterion effects. Sensory sensitivity effects were inferred from the significant increases in frequency at FFT during heat exposure for the 35- P_L , 30° VA condition across the 2 psychophysical procedures. Sensory sensitivity effects of heat exposure on FFT are discussed in terms of a 2-component retinal response to brightness changes of an intermittent light at FFT.—*Journal abstract.*

92. Lockhart, John M. (Tufts U.) **The role of selective ambient temperature effects across per cent of light to cycle and visual angle in the analysis of the flicker-fusion threshold.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2316-2317.

93. Ravey, John. (Queen's U., Belfast, Ireland) **A study of sensory interactions.** *Papers in Psychology*, 1969(Oct), Vol. 3(2), 67-68.—Investigated the findings by V. Urbantschitsch in 1903 that, "in binocular rivalry, unilateral auditory stimulation heightens the acuity of the ipsilateral eye." Red and green stimuli were presented to 40 Ss in 4 groups receiving various presentations of auditory stimuli. Results did not support the previous finding. The possible physiological mechanisms of sensory interaction are discussed.—*S. Knapp.*

94. Rinalducci, Edward J., Higgins, Kent E., & Cramer, Joan A. (U. Virginia) **Nonequivalence of backgrounds during photopic dark adaptation.** *Journal of the Optical Society of America*, 1970(Nov), Vol. 60(11), 1518-1524.—Investigated equivalence for long-term photopic dark adaptation using 2 target diameters (.13° and .33°) and 4 chromatic combinations of red and green test and adapting stimuli (red on red, red on green, green on green, and green on red). 2 Ss had normal color vision, 1 was slightly protanomalous, and 2 were deuteranomalous. Except under special conditions employing color-defective Os for which there was more

complete isolation of cone mechanisms, equivalence between adaptive states was generally found not to exist. It is concluded that more than 1 process is needed to control the spatial integration of light in the photopic system, and these are hypothesized to be the wavelength-dependent excitatory and inhibitory processes of the visual receptive field. (27 ref.)—*Journal abstract.*

95. Swisher, Charles W. (George Washington U.) **A comparison of color flicker, brightness flicker and residual brightness flicker in heterochromatic flicker fusion.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2330.

96. Welch, Robert B. (U. Kansas) **Prism adaptation: The "target-pointing effect" as a function of exposure trials.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 102-104.—Examined the amount by which target pointing enhances prism adaptation (the target-pointing effect) as a function of exposure trials. Each of 12 undergraduates in 3 conditions—target-pointing, no-target, and control—wearing 20-diopter prism goggles in the 1st 2. S was measured prior to the exposure period on target-pointing accuracy with normal vision but with no visual feedback regarding his performance. Similar measures were taken after the 5th, 10th, 15th, 25th, 35th, 55th, and 95th exposure trials and after each of 2 consecutive 5-min postexposure periods in the dark. The 2 experimental conditions led to sharply rising and negatively accelerated adaptation (negative aftereffect) curves, the asymptotes of which differed markedly, in favor of the target-pointing condition. This difference in asymptotes indicates that the target-pointing effect is not limited to the early portion of the exposure period but, instead, is a relatively permanent phenomenon. There was no decline in adaptation during the postexposure period. (17 ref.)—*Journal abstract.*

Perception

97. Aiken, Leona R. (Purdue U.) **Perceptual classification of random and schematic visual patterns: A feature processing approach.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2295.

98. Bischof, Norbert & Scheerer, Eckart. (Max Planck Inst. for Physiology of Behavior, Starnberg, W. Germany) **Systemanalyse der optisch-vestibulären Interaktion bei der Wahrnehmung der Vertikalen.** [Systems analysis of optic-vestibular interaction in the perception of verticality.] *Psychologische Forschung*, 1970, Vol. 34(2), 99-181.—The problem of CNS processing of vestibular and optical data in the perception of the vertical was used to develop a methodology of cybernetical systems psychology. 3 Ss continuously adjusted a luminous rod to the phenomenal vertical. The background of the rod was a field of stripes slowly rotating in the fronto-parallel plane around S's visual axis. Ss were in different degrees of body tilt when making the adjustments. Data were interpreted using a block diagram model, which was developed in successive steps. Each premise used in the construction of the model is discussed extensively. Essentially, the model can be described by the following propositions: (a) The (approximative) direction constancy of phenomenal space under conditions of head tilt depends on an orthogonal transformation of the phenomenal space coordinates, the direction of the transformation being opposed to that of head tilt ("compensation theorem"). (b) Under the conditions of this experiment, the

compensatory rotational transformation essentially was controlled by the vestibular and visual systems. (c) The vestibular system by itself was capable of controlling rotational transformation; however, its activity was supported by visual influences, which were superimposed in an additive manner ("superposition hypothesis").—*English summary.*

99. Corwin, Thomas R. (U. Rochester) **The apparent contrast of flashed spatial sinusoids under the influence of forward and backward masking by light.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2299-2300.

100. Eckhardt, Beverly M. (Tufts U.) **The visual discrimination of electro-optically formed images in the presence of noise.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2302.

101. Groman, William D. & Worsham, Robert W. (Virginia Commonwealth U., Richmond) **Some evidence for a visual slant averaging mechanism.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 221-223.—Hypothesized that when 2 surfaces at different angles of slant were presented stereoscopically, the resulting percept would be a single slanted surface seen at an angle equal to the mean slant of the stimulus objects. 15 undergraduates were tested on the Groman binocular disparator under 15 different conditions of disparity, (20° to $+20^\circ$). 10 judgments were made for each condition in a random order. The stimulus cards were $2 \times 3 \times 4$ in. white cards ruled into $1/2$ -in. squares. Each exposure was 2 sec. in duration. Following exposure E manipulated a test card until S indicated that it was at the same angle as the preceding perceived slant. Results strongly support the hypothesis. Findings are discussed in terms of a gradient theory of slant perception and a neurophysiological averaging mechanism.—*Journal abstract.*

102. Henderson, David C. (Columbia U.) **Movement perception and the displacement threshold.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2308.

103. Karras, Harry G. (U. South Carolina) **The effect of color and light intensity on motion aftereffect.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2312-2313.

104. Lefton, Lester A. (U. Rochester) **Metacontrast: Further evidence for monotonic functions.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 85-87.—Examined 3 variables which could be responsible for nonmonotonic metacontrast functions in 3 separate experiments with 4 graduate students. Using letters as stimuli, monotonic functions were obtained for all 3. Whatever the variables are, spatial uncertainty, retinal location, or spatial cueing do not seem to be involved in producing nonmonotonic functions.—*Journal abstract.*

105. Lund, Thorleif. (U. Oslo, Inst. of Psychology, Norway) **Multidimensional scaling of geometrical figures.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 246-254.—Compared 2 metric and 2 nonmetric multidimensional scaling methods. 2 experiments with geometrical figures as stimuli, constructed in order to generate perceptual variation of roundness and height, were conducted with 54 army men and 27 psychology students. All 4 methods gave similar solutions. It is concluded that results support the validity of the methods. (19 ref.)—*Journal abstract.*

106. Michalewski, Henry J. (California State Coll., Long Beach) **Flash-induced stabilized images.** *Psy-*

chonomic Science, 1970(Nov), Vol. 21(4), 237-239.—Selected 11 representative stimulus targets from previous corneal studies for presentation via a momentary flash, and compared disappearance, fading, and image breakdown findings. 6 adult Ss observed the afterimages and reported fading, regeneration, and image breakdown similar to results reported for stabilization studies employing contact lenses and afterimage techniques. The experimental methodology is discussed. (19 ref.)—*Journal abstract.*

107. Prestirude, Albert M. (Florida State U.) **Visual latencies of photopic levels of retinal illuminance.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3032-3033.

108. Putz, Vernon & Smith, Karl U. (U. Wisconsin, Behavioral Cybernetics Lab.) **Human factors in operating systems related to delay and displacement of retinal feedback.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 9-21.—Evaluated theories of response to altered retinal feedback—i.e., associative learning doctrines and the feedback-compensation hypothesis in relation to their application in defining human factors principles in machine and perceptual training designs. Using 12 Ss, controlled comparisons were made of the relative effects of reversed and delayed feedback of head and eye movements under conditions in which head movements could not compensate altered feedback of eye movements and vice versa. Findings, e.g., the accuracy of ocular tracking, etc., are discussed. Some results indicate that there was little or no learned adaptation to the reversed and delayed vision produced by head and eye movements. Findings support a behavioral cybernetic interpretation of the guidance factors in man-machine and perceptual systems relationships by showing that the effects of altered feedback in machine and systems operation are determined by movement capabilities in compensating displacements and delays in sensory input. Results also suggest that visual impairments may be produced by delays in the retinal feedback effects of eye and head movements and that these defects may require dynamic methods of optometric diagnosis and training for their measurement and correction.—*Journal abstract.*

109. Royer, Fred L. (Veterans Administration Hosp., Brecksville, O.) **Information processing of visual figures in the digit symbol substitution task.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 335-342.—Studied the Digit Symbol subtest of the WAIS as an information-processing task using 553 undergraduates. Results indicate that (a) when the visual figures used as symbols are varied according to the size of the equivalence set from which they are selected, rate of information processing decreases as set size increases; (b) substituting a digit with a symbol results in faster rates than the opposite substitution if several members of the same equivalence set are present, but not if the members are from different sets; and (c) the balance of the distribution of the frequency of items interacts with the type of substitution. The balanced, digit symbol substitution produces fastest rates. Implications for perceptual theory are discussed. (18 ref.)—*Journal abstract.*

110. Schurman, Donald L. (U. Illinois, Urbana-Champaign) **Dark intervals as stimulus events and their effect on visual masking and time-intensity reciprocity.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3034.

111. Semjen, Andris. (Hungarian Academy of Sciences, Psychological Inst. Budapest) **A mozgascél előzetes vizuális lokalizálásának hatása a mozgásteljesítményre diszkrét célpontkövetési helyzetben.** [Effect of preliminary visual localization on motor-activity in step-tracking behavior.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 1-16. Intrapersonal as well as intergroup comparisons show that in responding to successive positional changes of a visual target there is no discontinuity of step-tracking behavior when the time interval between displacements is in the 60-180 msec. range. Preliminary visual localization of the target had no significant effect on the motor performance. (English & Russian summaries)—*M. Moore*.

112. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) **Information retrieval from two rapidly consecutive stimuli: A new analysis.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 89-91.—Analyzes data from an experiment in which Ss reported letters from 2 consecutive stimuli by a nonmetric multiple regression analysis that permits the evaluation of nonlinear—e.g., quantal—hypotheses. Data contradict the hypothesis that total stimulus duration is the critical factor in response accuracy and the hypothesis of a quantal time period. They support the theory of visual persistence and continuous processing, namely, visibility of a stimulus persists for a few tenths of a sec. after a stimulus has been turned off; the effect of a 2nd stimulus exposure coming quickly after the 1st is to terminate visibility of the 1st stimulus and to substitute for it visibility of the 2nd; information is retrieved at a rapid rate from whichever stimulus is visible.—*Journal abstract*.

113. Stadler, Michael & Kano, Chizu. (U. Münster, Inst. of Psychology W. Germany) **Richtungsspezifische Bewegungsdetektion in der menschlichen Gesichtswahrnehmung?** [Direction-specific movement detection in human visual perception.] *Psychologische Beiträge*, 1970, Vol. 12(3), 367-378.—Measured movement thresholds immediately after presenting a fast moving object. If the object moved in the same direction the thresholds were higher. After a movement in the other direction, however, the movement thresholds did not change. (25 ref.)—*English summary*.

114. Taub, Edward. (New York U.) **Prism adaptation and intermanual transfer: An application of a learning theory of compensation for sensory rearrangement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2331.

115. Virsu, Veiho. (U. Helsinki, Finland) **Tendencies to eye movement, and misperception of curvature, direction, and length.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 65-72.—Infers from previous studies of eye movements that there are 3 types of eye-movement tendency: (a) rectilinear movements, (b) horizontal or vertical movements, and (c) center-of-gravity fixations. The possible influence of these tendencies on perception was investigated in 2 experiments with 20 and 22 undergraduates. In Exp. I, errors in perceived location of intersection in arc figures were studied varying arc-point distance and arc length. Tendencies a and b accounted very well for the resultant S-shaped functions. In Exp. II, the Müller-Lyer illusion with 3 different oblique angles and a line-segment illusion were measured as a function of the distance between the vertex and the center of gravity of the

arrowhead. Tendency c accounted well for the inverted-U forms of the obtained functions but not for the increase of error with increasing angle (27 ref.) *Journal abstract*.

116. Wenderoth, Peter M. (U. Sydney, New South Wales, Australia) **A visual spatial aftereffect of surface slant.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 576-590.—In 5 experiments with 137 undergraduates, it was found that the long (binocular) inducing period required by R. Bergman and J. J. Gibson (see PA, Vol. 34:5184) to generate a measurable slant aftereffect was not necessary for a high-contrast surface. The aftereffect for the black-on-white lattice pattern dissipated exponentially. The complex surface, however, produced concomitant interfering effects, possibly decreasing the precision of aftereffect measures. A simpler surface, of vertical contours, sufficed for relatively accurate binocular (but not monocular) adjustments to the vertical. This pattern also produced interfering effects, possibly accounting for the correlation of aftereffect variance with inducing-figure slant. Studies suggest using a single vertical contour as both inducing and test figures to study a hypothesized relationship between tilt and slant aftereffect.—*Journal abstract*.

117. Williams, Charles M. (North Carolina State U.) **An investigation of the stimulus variables specifying surface quality.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2334.

Size & Distance & Depth Perception

118. Cohen, Barry J. (St. Louis U.) **Temporal summation in human depth perception.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3016.

119. Dwyer, William O. & Lit, Alfred. (Memphis State U.) **Effect of luminance-matched wavelength on depth discrimination at scotopic and photopic levels of target illumination.** *Journal of the Optical Society of America*, 1970(Jan), Vol. 60(1), 127-131.—Required 2 Os to make equidistance settings in a 2-rod apparatus with illuminated white and colored targets photometrically matched at 8-9 illumination levels ranging from 0.03-30 trolands (td). The equidistance settings were analyzed in terms of the angular magnitude of both the variable error, ηAD , and the constant error, $\eta \Delta R$. The ηAD vs. retinal-illuminance curves for the white and colored targets show that at low retinal illuminances, ηAD is initially large. With increasing target illumination, ηAD progressively decreases to approach a final low asymptotic value. Each experimental curve shows a discontinuity at about 1 td. The curves representing the different wavelengths essentially overlap throughout the entire luminance range, indicating that, at both scotopic and photopic levels, wavelength has no differential effect on the variability of equidistance settings. Although the corresponding data for the angular constant error, $\eta \Delta R$, are considerably less regular, no differential wavelength effects are evident. The absolute magnitude of the constant errors generally decreases for all wavelengths as target illumination is increased. Data are discussed in terms of the duplicity theory of vision, emphasizing the effect of brightness matches performed at subphotopic (i.e., at scotopic and mesopic) levels. *Journal abstract*.

120. Franklin, Samuel S., Ross, Helen E., & Weltman, Gershon. (Fresno State Coll.) **Size-distance invariance in perceptual adaptation.** *Psychonomic Science*,

1970(Nov), Vol. 21(4), 229-231.—Objects viewed through a facemask under water appear larger and closer than when viewed in air. Adaptation to this distortion was measured in 11 experienced scuba divers and 15 undergraduate controls by obtaining estimates of the size and distance of an array of targets before and after a 20-min underwater dive. A negative correlation between size- and distance-adaptation scores indicates that most divers adapted to 1 dimension by counteradapting to the other. Some Ss adapted to size by increasing the distortion of apparent distance and some did the reverse. Results are discussed in relation to the size-distance invariance hypothesis.—*Journal abstract.*

121. **Fulgosi, Ante & Fulgosi, Ljerka.** (Philosophical Faculty, Zagreb, Yugoslavia) **The boundaries of entoptic space and Emmert's law.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 516-520.—Obtained 3 measurements from each of 34 psychology students: (a) size of the entoptic afterimage, (b) apparent distance of such image, and (c) the distance of the screen for the projected afterimage of the same size as the entoptic one. From the average size of the entoptic afterimages, theoretical distances for each S were computed. Statistical analysis showed that the differences between the distances of the screen from 1 side, and the theoretical distances and the apparent distances of the entoptic afterimages from the other side, were significant. Results are interpreted as a proof that the spaces of the projected and entoptic afterimages are not comparable. The difference between the apparent distances of the entoptic afterimages and theoretical distances, predicted on the basis of Emmert's law, was not significant. The latter result is interpreted as a proof that Emmert's law for projected afterimages is also valid for the entoptic ones. It is concluded that there are as many boundaries of the entoptic space as there are different sizes of entoptic afterimage.—*Journal abstract.*

122. **Gogel, Walter C.** (U. California, Santa Barbara) **The validity of the size-distance invariance hypothesis with cue reduction.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 92-94.—Asserts that results of 2 recent studies by W. Epstein and A. A. Landauer (see PA, Vol. 44:3060 and 44:3062), "interpreted by these authors as being in opposition to the size-distance invariance hypothesis and in agreement with the direct perception of retinal size," in reality "support the size-distance invariance hypothesis and consequently are in opposition to the conclusion that a perception of size can occur independently of perceived distance." The procedures and conclusions of the studies are discussed in terms of the new interpretation.—*M. West.*

123. **Haubensak, Gert.** (U. Münster, Inst. of Psychology, W. Germany) **Spricht die "Überkonstanz" für die nichteuklidische Struktur des Sehraums?** [Does over-constancy speak in favor of a non-Euclidean structure of visual space?] *Psychologische Beiträge*, 1970, Vol. 12(3), 379-383.—Attempts to find out whether or not overconstancy is due to the method used. Objects (pencils) of different size were simultaneously compared. Results show that over-constancy could be observed only in simultaneous comparing. Over-constancy, therefore, does not speak in favor of non-Euclidean structuring of the visual space.—*English summary.*

124. **Metzger, W., Vukovich-Voth, O., & Koch, I.** (U. Münster, Inst. of Psychology, W. Germany) **Über optisch-haptische Masstäuschungen an**

dreidimensionalen Gegenständen. [On errors in measuring three-dimensional objects resulting from optic and haptic conditions.] *Psychologische Beiträge*, 1970, Vol. 12(3), 329-366.—Concludes, on the basis of experiments with 3-dimensional objects, that any theory of errors becomes impossible in which (a) the special way of functioning of the eye, and (b) the formation of a 3-dimensional world of perception on the basis of 2-dimensional retina pictures, is presumed. (48 ref.)—*English summary.*

125. **Newman, Colin V.** (U. Birmingham, England) **The influence of texture density gradients on judgments of length.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 333-334.—48 adult Ss judged the relative lengths of pairs of surfaces viewed successively under restricted monocular conditions. Artificial deformations in the gradients of texture density derived from 1 surface in each pair had a significant influence on judged length. Surfaces on which the packing density of the texture units progressively increased toward the horizon were judged as longer than surfaces of equal physical dimensions but with evenly spaced texture elements.—*Journal abstract.*

126. **Sperling, George.** (Bell Telephone Lab., Murray Hill, N.J.) **Binocular vision: A physical and a neural theory.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 461-534.—Discusses 3 major processes of binocular vision: accommodation (a), horizontal vergence (v), and fusion (u). A simple model of energy levels illustrates how the same external stimulus may produce different vergence states, and how extreme values of vergence can be achieved. The model applies directly to vertical vergence and torsional eye rotations. A similar model fits the accommodation and fusion systems and can be extended to account for the v-a-u interactions. Neural structures underlying the systems differ. The neural theory of fusion proposes 2 neural binocular fields (NBFs): a primary NBF for fine details and depth discrimination in the stimulus, and a secondary NBF for coarse details and large depth signs. The fusion model illustrates how the same retinal stimulus may produce different stable perceptual states, depending on recent stimuli, and accounts for fusion and rivalry within the same system and neurons. A general definition of image blur, and a quantitative analysis of the multistable phenomena in rivalry and fusion are included.—*Journal abstract.*

127. **Stanley, Gordon.** (U. Melbourne, Victoria, Australia) **Varying amount of static visual noise and the Ansbacher effect.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 343-344.—128 undergraduates viewed either a stationary or a moving illuminated arc line in 1 of 4 conditions: no static visual noise or 5%, 25%, or 45% static visual noise. The visual noise consisted of randomly placed light circles of 1-cm diameter optically superimposed on the surface of the disk on which the arc line was located. An analysis of variance based on the median magnitude estimates of arc length yielded no significant noise effect, but a significant static/dynamic effect indicating contraction with movement (the Ansbacher effect). Results are discussed in relation to other research on the Ansbacher effect.—*Journal abstract.*

128. **Teghtsoonian, Robert & Teghtsoonian, Martha.** (Smith Coll.) **Scaling apparent distance in a natural outdoor setting.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 215-216.—Obtained magnitude estimations of

apparent distance in an outdoor setting from 48 high school students. It was found that judgments of apparent distance in outdoor settings are power functions of physical distance, just as they have been shown to be in indoor settings. But the exponents obtained out of doors are not only appreciably lower—all less than 1—but are affected by range: the exponent is largest for the smallest ratio of extreme distances.—*Journal abstract.*

129. Teghtsoonian, Robert & Teghtsoonian, Martha. (Smith Coll.) **The effects of size and distance on magnitude estimations of apparent size.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 601-612.—Studied size constancy in a natural viewing situation by constructing scales of apparent area for irregular polygons at several viewing distances by the methods of magnitude estimation (number matching). These scales had the form of a power relation, $\psi_A = kA^n$, where ψ_A is apparent area and A is physical area. For a stimulus of fixed area, ψ_A did not decrease with increasing distance, but increased (in Exp. I, with 16 high school students) or remained constant (in Exp. II, with 18 undergraduates). The relation between ψ_A and distance depended, 1st, on k , the scale factor, which, like ψ_A itself, increased with distance in Exp. I and remained constant in Exp. II, and 2nd, on n , the exponent, which was invariant with distance in both experiments.—*Journal abstract.*

Color Vision

130. Balcom, Margaret M. (National Bureau of Standards, Inst. for Basic Standards, Washington, D.C.) **Influence of red and blue pre-adaptation on hue matching of purple samples.** *Journal of the Optical Society of America*, 1970(Jan), Vol. 60(1), 118-121.—Attempted to show the effect, if any, of chromatic adaptation on hue matching of purple painted samples of different saturations. 5 experienced Os were adapted for 1 min. to a red field, then asked to find the hue match for each of 3 test samples from among a set of samples representing the complete hue circuit in 100 steps at middle saturation. The 3 test samples were of slightly greater saturation and representative of a range of purple samples. The entire procedure was repeated with blue and neutral preadapting fields, all under source C (over-all covering of grey cardboard) illumination. Results indicate that preadaptation did influence the hue-match selections, the average red-blue adaptive shift being about 1 Munsell hue step. Os made systematically different hue matches for the same test sample, in accordance with their ages. A method for determining graphically the state of adaptation at the time when the hue judgments were made showed that the chromaticity of the test samples was at least as influential as either the neutral surround used or the preadaptation stimuli.—*Journal abstract.*

131. Chason, L. Ralph & Mockovak, William P. (U.S. Air Force Academy) **The effects of sound on color intensity perception.** *U.S. Air Force Academy Technical Report*, 1970(Dec), No. 70-6, 15 p.—Sensory interaction occurs when the response elicited by a sense modality due to a specific stimulus is significantly affected by the simultaneous stimulation of that sensory system by any other sense modality in the body. This experiment was concerned with the interaction of audition and vision where the auditory conditions consisted of no sound, pleasant sound, and unpleasant sound (as judged by the

S), and the visual conditions consisted of equal intensity judgments on red, green, and blue lights against a white standard. The data from 30 Ss are discussed including main effects and interaction of experimental conditions. The hypotheses concerning the differential sensitivity of the dark-adapted eye to red, green, and blue colored lights were confirmed. The hypotheses concerning the influence of audition on vision were not confirmed. The potential influence of the reticular activating system is discussed in light of these findings.—*Journal abstract.*

132. Sharp, George A. (Temple U.) **Visual response latencies of the three human color mediating mechanisms.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2327-2328.

133. Siegel, Michael H. & Siegel, Anne B. (Albion Coll.) **A comparison of techniques for measuring hue appearance.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 1-4.—Evaluated and compared the techniques of color naming, color estimation, and color setting in the measurement of color appearances. Although results with 7 Os indicate that the 3 techniques produced nearly identical results, Os' showed a clear preference for the color estimation technique.—S. Knapp.

134. Sternheim, Charles E. (U. Maryland) **Chromatic contrast and visual sensitivity: Evidence for disparate mechanisms.** *Journal of the Optical Society of America*, 1970(May), Vol. 60(5), 694-699.—Varied the hue, saturation, and brightness of a field of white light by the simultaneous chromatic stimulation of neighboring retinal areas. Visual sensitivity was measured in 3 Ss with normal vision by determining the threshold luminance of chromatic test stimuli presented as increments upon these background fields. The spatial position of the test stimulus was varied within the central field of induced color. Chromatic-contrast effects extending over relatively large retinal areas may be maintained by a mechanism operating at a different level of the visual system than that at which increment sensitivity is determined. Data are discussed in relation to the explanation of chromatic contrast based upon selective lateral adaptation and the concept of opponent-response induction. (27 ref.)—*Journal abstract.*

135. Wilder, Dennis G. (U. California, Los Angeles) **The photopic spectral sensitivity of color normal, protanopic and deuteranopic observers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2333-2334.

Form & Pattern Discrimination

136. Campbell, Fergus W., Nachmias, Jacob, & Jukes, John. (Physiological Lab., Cambridge, England) **Spatial-frequency discrimination in human vision.** *Journal of the Optical Society of America*, 1970(Apr), Vol. 60(4), 555-559.—Presented 2 Ss with 2 gratings with different spatial frequencies and asked them to discriminate 1 from the other. Their ability to discriminate between the gratings was found to depend primarily on the ratio of their spatial frequencies over a wide range of absolute frequency. At high spatial frequencies, discrimination deteriorates when differences of subjective contrast are eliminated. (15 ref.)—*Journal abstract.*

137. Collins, James F. (U. Illinois, Urbana-Champaign) **Correlations in sensitivity on different foveal areas.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3016-3017.

138. Dimond, Stuart J. (University Coll., Cardiff, Wales) **Hemisphere function and word registration.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 183-186.—Directed word pairs to 1 hemisphere or the other of 22 Ss using a divided visual field technique. Each word was composed of 4 letters presented in succession. When 1 member of the word pair was directed to 1 hemisphere and the other member to the other, words directed to the right hemisphere of right-handed Ss were reported more accurately than words directed to the left. This finding implicates the primary visual projection hemisphere as of importance regarding language registration in the intact brain. When both members of the word pair were directed to the same hemisphere, those directed to the left were more accurately reported than those directed to the right. The left hemisphere has a greater capacity than the right for registering large amounts of concurrent information.—*Journal abstract.*

139. Gupta, Seheav K. (U. Toronto, Ontario, Canada) **A study of subset formation and confusion matrices for form discrimination under visually noisy conditions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3022-3023.

140. Mavrides, Cynthia. (Laurentian U., Sudbury, Ontario, Canada) **Selective attention and individual preferences in judgmental responses to multifeature patterns.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 67-68.—Conducted 3 experiments with a total of 19 undergraduates to show that the physical features of star-shaped patterns were preferred and used consistently as a basis of judgment across all pairs of patterns and throughout various tasks. Superior prediction of responding was achieved when it was hypothesized that within any pattern pair the feature having the relatively larger difference in level would be emphasized in responding. Both consistent preferences and selective attention to relative discriminability of features effect judgments for pattern pairs.—*Journal abstract.*

141. Torrey, Charles C. (Macalester Coll.) **Trace localization and the recognition of visual form.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 591-600.—In Exp. I with 65 undergraduates as Os, previous research by H. Wallach and P. Austin (see PA, Vol. 29:2017) suggesting localized storage of visual traces was replicated, using new stimulus materials. In Exp. II with 48 undergraduates as Os, an alternative hypothesis accounting for trace selection by phenomenal, rather than anatomical, locus was examined and rejected. In Exp. III with 120 undergraduates as Os, the possibility that eye-movement tendencies may provide mediating stimuli that govern trace selection was explored, with negative results. The hypothesis of differential trace localization originally put forth by Wallach and Austin is the most economical explanation of their results, but neither their research nor the present experiments indicate whether the localized trace is best described as a template or as a set of features.—*Journal abstract.*

Eye Movement

142. Cunliff, Robert J. (U. Maryland) **Relationship between slow drift and smooth pursuit eye movements.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3017.

143. Yesselson, Melvyn D. (U. Rochester) **A study of the relationship between nystagmus eye movements**

and the oculogyral illusion. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2335-2336.

Brightness & Contrast Discrimination

144. Anderson, David E. (U. Oregon, Medical School, Portland) **Border contrast as a function of retinal locus.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 105-109.—Reports that when the visibility of a small test spot was measured by direct brightness matching at various locations along the white edge of a black and white border, the white background was perceived by 2 Os as becoming progressively brighter as the border was approached. The effect was greater when a corner was neared. Moreover, greater effects, i.e., larger differences between the edge effect and base level (no border) were found at distances farther removed from the fovea ($0^{\circ}12'$ to $3^{\circ}52'$).—*Journal abstract.*

145. Cole, Robert E. & Diamond, A. Leonard. (Simon Fraser U., Vancouver, British Columbia, Canada) **Amount of surround and test-inducing separation in simultaneous brightness contrast.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 125-128.—Investigated simultaneous brightness contrast in the fovea of 3 male undergraduates with 20/20 vision as a function of (a) amount of surround of the inducing fields (Exp. I), and (b) separation between the test and inducing fields (Exp. II). Circular test and match fields subtending 14 min. (radius) were used throughout. The inducing field, held constant in area, was a circular annulus (615 sq. min.) varying from a quadrant on 1 side of the test circle to an annulus completely surrounding the test circle. Test-field apparent brightness was not significantly affected by amount of inducing-field surround when the separation between centers of the test and inducing fields was held constant (Exp. I). Exp. II, however, showed that apparent brightness increased significantly as the separation between the centers of the test and inducing fields was increased.—*Journal abstract.*

146. Fitzgibbons, David J. & Marino, Dominic R. (Inst. of Living, Hartford, Conn.) **Technique for measurement of individual differences in autokinetic response tendency.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 915-918.—Describes a technique for measuring autokinetic response tendency by increasing background illumination to the cease setting, the point of background illumination at which the perception of movement is destroyed. Data from a study with 42 Ss show that single trials can be used to order Ss in a manner consistent with the use of the mean score from a series of trials. Scores are also shown to remain constant over time.—*Journal abstract.*

147. Haimson, Barry R. (Boston U., Graduate School) **The relationship of brightness contrast to brightness constancy.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3023.

148. Hess, Carl & Pretori, Hugo. **Quantitative investigation of the lawfulness of simultaneous brightness contrast.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 947-969.—Presents a translation of an article published in 1894 with notes by H. R. Flock. It is maintained that their work varies little from modern research and presents the most complete set of experiments in simultaneous brightness contrast. It is suggested that the "comments about the possibility of small extraneous bands between focal and surround regions... reservations about the use of the matching

method at many treatment-levels," and their "alert attention to the niceties of stimulus control throughout the description of their apparatus" are still of value.—S. Knapp.

149. Young, Stephen J. (U. California, Los Angeles) A linear analysis of the relation between contrast thresholds and spatial parameters of a luminous grating pattern under different exposure durations. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2336.

AUDITION

150. Butler, Robert A. (U. Chicago) The monaural localization of tonal stimuli. *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 99-101.—Asked 17 normal hearing Ss with 1 ear occluded to locate tone bursts, .25, .4, .6, .9, 1.4, 2, 3.2, 4.8, and 7.2 kHz., generated by a loudspeaker concealed from view. The S's response was to call out that number, from a series of numbers arranged horizontally, behind which he thought the tone bursts originated. Ss perceived the sounds as emanating from the side of the unoccluded ear, but their judgments bore no consistent relation to the actual location of the sound source. Rather, Ss showed a strong tendency to locate a tone burst, within the range of .9-7.2 kHz., in a fixed spatial relation to the next higher- and lower-pitched tone burst. Distorting the pinna of the unoccluded ear failed to modify the perceptual pattern. It is suggested that the perceived spatial relations among the various frequencies was a by-product of the tonotopic organization of the auditory nervous system.—*Journal abstract*.

151. Gaston, Audley D. (U. Texas) Effect of sampling plan on performance of an auditory detection model. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2306.

152. Wightman, Frederic L. (U. California) Detection of binaural tones as a function of masker bandwidth. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3040.

Perception

153. Black, J. W. The magnitude of pitch inflection. *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Jan), Vol. 30(1), 5-16.—Upward inflections were judged to be of greater extent than downward ones, slow inflections were judged to be of greater extent than fast ones, large inflections were judged to be of greater extent than small ones, and different psychophysical procedures yielded the same results.—L. L'Abate.

154. Calfee, Robert C. (Stanford U.) Effects of payoff on detection in a symmetric auditory detection task. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 895-901.—Tested the assumption, common to several models for signal detection, that increased payoff should have no effect on detection rate, in a 2-interval forced-choice auditory signal detection task. The signal occurred equally often in each interval, and amount of gain or loss was the same for both intervals. Payoff values (0, .1, .5, and 1¢) were changed within sessions in 50-trial blocks. Detection rate increased noticeably in Exp. I with 6 female undergraduates, was significant in Exp. II with 4 female undergraduates, and had no effect in Exp. III with 4 graduate students. It is suggested that with minimal payoffs of the sort typically used, significant effects may depend on convincing S of the

importance of the incentive. Analysis of conditional error probabilities showed that errors were more likely to follow errors, which suggests periodic variation in level of attention.—*Journal abstract*.

155. Elflner, L. F. (Florida State U.) Continuity in alternately sounded tone and noise signals in a free field. *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 914-917.—Reports 2 experiments that employed 10 normally hearing listeners who demonstrated an ability to concentrate on an interrupted white noise that alternated with a tonal burst to demonstrate continuity effects in a free-field situation and to investigate the effects of frequency and level of the signal component, the duration of the noise component, and the angular separation of the 2 components. Results show that the level and the duration variables effected changes in continuity thresholds. Angular separation did not appreciably affect the perception of continuity in the noise.—*Journal abstract*.

156. Green, David M. (U. California, San Diego) Masking with continuous and pulsed sinusoids. *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 939-946.—Measured the detectability of a brief 10-msec sinusoidal signal in the presence of a sinusoidal masker using 3 experienced undergraduate Os. The frequency of the masker was varied while the frequency of the signal was fixed at either 250, 1000, or 2800 Hz. In Exp. I, the masker was either continuous or gated; when gated, it was also 10 msec. in duration and occurred simultaneously with the signal. When the masker was continuous, the data agreed essentially with those reported by R. L. Wegel and C. E. Lane. If the masker was gated and near the signal in frequency, there was little difference in the amount of masking produced by the gated and the continuous conditions, although gating the maskers produced somewhat more masking, about 5 db. When the frequency of the signal and masker differed, e.g., in the case of a masker at 1200 cps with a signal at 1000 cps, the gated condition produced substantially more masking, about 40 db. Exp. II measured how the signal level must be changed to compensate for an increase or decrease in the masker level. In Exp. III, the signal was presented at various delays after the onset of the maskers to determine how long the masker must be present to achieve, effectively, a continuous-masker condition. (21 ref.)—*Journal abstract*.

157. Perrott, David R. & Fobes, James L. (California State Coll., Los Angeles) Autokinesis as a binaural localization phenomenon: Effects of signal bandwidth. *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 172-175.—Tested 40 experimentally naive Ss with normal hearing under diotic listening conditions. Apparent movement effects were inversely related to signal bandwidth. Auditory autokinesis can be accounted for in terms of the known organizational structure of the auditory system and the adaptation of the peripheral auditory system's response to a prolonged steady-state acoustical signal.—*Journal abstract*.

158. Raab, David H. & Taub, Harvey B. (Brooklyn Coll., City U. New York) Click-intensity discrimination with and without a background masking noise. *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 965-968.—Revealed 3 unusual effects of intensity discrimination employing click stimuli observed by 2 adult Ss: (a) clicks are difficult to differentiate with respect to intensity; (b) the Weber function differs from those usually obtained with

stimuli of longer duration; and (c) click-intensity discrimination is improved by the addition of a continuous background noise. Since click stimuli have virtually no energy variations, the results cannot be explained by stimulus-oriented theories of detection and discrimination. (16 ref.)—*Journal abstract.*

159. Sullivan, Richard; Warren, Richard, & Dabice, Margaret. (New York U., Medical Center) **Minimal aversion thresholds for white noise: Adaptation.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 613-620.—Presented noises of 4 different amplitudes to 20 undergraduates, who then judged minimal aversion thresholds for a white noise presented binaurally in ascending and descending series. Both adaptation and series influenced their judgments, but the differences in judgments were greater between series types than across adaptation levels. Findings suggest that thresholds for the attribute of aversive loudness can be effectively specified. The possibility of a psychological scale of aversiveness common to all sensory systems is discussed.—*Journal abstract.*

160. Ward, Lawrence M. & Lockhead, G. R. (Duke U.) **Response system processes in absolute judgment.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 73-78.—In 3 studies with 3 Ss in each, consistent relationships were found between Ss' absolute judgments of the value of a stimulus and the previous sequence of both stimuli and responses. The form and magnitude of these sequential effects are shown to depend on the presence or absence of feedback on a task difficulty. The pattern of the sequential effects found allows the conclusion that they are due to purely response-system processes. A 2-stage model of the judgment process is proposed, and it is argued that observed assimilative effects account for the central tendency effects observed in category judgments.—*Journal abstract.*

Speech Discrimination

161. Franklin, Barbara. (San Francisco State Coll.) **The effect on consonant discrimination of combining a low-frequency passband in one ear and a high-frequency passband in the other ear.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 365-378.—The Fairbanks Rhyme word lists spoken by a male were filtered into 2 passbands, 240-480 cps (LB) and 1020-2040 cps (HB). The consonant articulation score for 36 normal-hearing young adults was 40% when the HB was presented at 0-db sensation level (SL) to 1 ear. When the LB, which contained negligible information in isolation, was added either to the same or opposite ear at 20-db SL, the articulation scores rose to about 61%. When the LB was added at 40-db SL to the same ear, the score was 54%, but dropped to 38% if the LB was added to the same ear. Evidently adding the LB to the opposite ear can under some conditions increase the total information available by reducing the masking of speech by speech. (21 ref.)—*Journal summary.*

162. Irvin, Bruce E. (Stanford U.) **An investigation of factors influencing minimal cues for vowel identification.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2346.

163. Lowe, Sena S. (Louisiana State U.) **Perception of dichotic and monotic simultaneous and time-staggered syllables.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2317.

164. McGlone, Robert E. & Brown, William S. (State

U. New York, Buffalo) **Identification of the "shift" between vocal registers.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 1033-1036.—Investigated the ability of listeners to identify the point where speakers indicated that they shifted from 1 register to another during phonation. 9 females and 10 males phonated an ascending and descending series of tones, identifying the level at which they perceived a shift between registers. These phonations were recorded and played back to judges, who made the same identifications on a perceptual basis. Results indicate that (a) females were slightly less variable in self-judgment of their shift between registers than were males, and (b) greater variation in register-shift identification was found for judges listening to the recording than for the speakers' self-judgments while phonating. It is concluded that registers should be more rigorously defined—perhaps on both a perceptual and physiological basis—in order to account for the difficulty in perceptual identification.—*Journal abstract.*

Audiometry

165. Durrant, John D. & Shalloo, Jon K. (Northwestern U., Auditory Research Lab.) **Effects of differing states of attention on acoustic reflex activity and temporary threshold shift.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 907-913.—Observed temporary threshold shift (TTS) and acoustic reflex activity in 20 normal hearing Ss under several different states of attention. The Zwislocki acoustic bridge (Model 3) was used to monitor acoustic reflex activity. Compliance shifts (changes in relative compliance) were measured during exposure of the contralateral ear to a 1000-Hz narrow-band noise presented at 105-db SPL, and TTS was measured at 1000 Hz. for the contralateral ear after approximately 4½ min. of noise exposure. These measures were taken under 3 different conditions or modes of attention as defined by task performance: reverie (no task performance, high auditory attention), intelligibility test, and high visual attention (visual-motor task). Also, levels of attention, as operationally defined by levels of task performance, were considered. It is concluded that there is a so-called factor involved in acoustic reflex activity although task performance per se, not type of task, is the important factor. However, such a factor in TTS, if observed, is probably an artifact of the type of task performance of the listener. (20 ref.)—*Journal abstract.*

166. Fraser, Winifred D. & Petty, Joseph W. (Wayne State U., Auditory Research Lab.) **A comparison of three methods for measuring auditory adaptation.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 352-357.—Examined 3 variations of the Simultaneous Dichotic Loudness Balance method frequently used in measuring perstimulatory auditory adaptation, selected to examine the effect of a continuous change relative to a discrete change in the intensity of the comparison stimulus. 7 Ss were run under tracking, fixed-intensity, and varied-intensity procedures. The temporal course of adaptation for all procedures was highly similar to previous studies, there was no statistically significant difference in the absolute level of adaptation due to procedure, and the often observed large individual differences were also present here. It is felt that when these data are considered along with previous methodological studies the only reasonable conclusion is that

the discrepancy found in the amount of adaptation reported by various investigators for like stimulus parameters is the result primarily of sample composition rather than of any aspect of the stimulus or procedure.—*Journal summary.*

167. Grauer, Robert A. & Dunn, Bruce E. (U. Calgary, Alberta, Canada) **Changes in monaural pitch jnd following pure tone stimulation of the contralateral ear.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 314-317.—Research in the past has tended to focus on the peripheral aftereffects of auditory stimulation. This experiment determined 1 effect of prolonged auditory stimulation on the CNS. The left ear of 9 normal-hearing young adults was stimulated by pure tones of 550-1200 cps at 45 dbB (an intensity low enough to be inaudible in the right ear) for 4 min., subsequently, changes in pitch just noticeable difference (jnd) at 900 cps in the right (nonstimulated) ear was studied. The pitch jnd in the right ear either increased or decreased depending on the frequency of the prior tone in the left ear. Prior stimulation at 700 cps increased the jnd whereas stimulation at 900 cps decreased it. It is concluded that there is some aftereffect of mild auditory stimulation in the CNS. Results are discussed in terms of their possible relationship to absolute pitch shifts and auditory localization. (16 ref.)—*Journal summary.*

168. Greenspan, Carrie F. & Pollock, Kenneth C. (U. Miami, Medical School) **Response variability and personality factors in automated audiometry.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 386-390.—Many factors have been investigated to account for response variability of Bekesy tracing widths in normals. This study examined the contribution of personality variables. A swept-frequency pulsed Bekesy tracing was obtained monaurally for 40 normal-hearing young adults. The FPPS yielded scores on 15 personality scales. Factor analysis and multiple linear regression analysis revealed that mean tracing width tended to increase, and was predictable at the 90% level, with a multiple R of .48, standard error of estimate of 1.6, when an individual scored low on the achievement, succorance, and dominance scales, and high on the deference and abasement scales. It is concluded that personality variables do, in part, contribute to the mean excursion size of Bekesy tracings among normals. (25 ref.)—*Journal summary.*

169. Gunn, Walter J. (U. Louisville) **Loudness changes resulting from an electrically induced middle-ear reflex.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2308.

170. Hipkind, Nicholas M. & Rintelmann, William F. (Michigan State U.) **Effects of experimenter bias upon pure-tone and speech audiometry.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 298-305. Investigated E bias and E effect in clinical audiological evaluation. 4 experienced and 4 inexperienced audiologists administered conventional pure-tone or pure-tone and speech audiometric tests under 4 conditions of prior information. For any S, a tester was given: (a) the results of an experienced audiologists's assessment, (b) no information, (c) assessment results falsely recorded as "better," or (d) assessment results falsely recorded as "worse" than actual. Subgroups of adults had sensorineural, conductive, or no hearing loss; subgroups of children had normal or defective articulation. There was no significant difference between pure-tone audiometric scores obtained by skilled or unskilled testers as an unequivocal result of having either correct vs.

erroneous previous test information provided that strict threshold measurement procedures were adhered to. As a note of caution, the findings do not imply that relatively untrained testers can obtain valid or reliable pure-tone thresholds from Ss presenting difficult masking problems. (27 ref.)—*Journal summary.*

171. Pastore, Richard E. (Purdue U.) **Binaural signal detection: An analysis of decision spaces.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2320.

172. Soderquist, David R. (U. North Carolina, Greensboro) **Frequency analysis and the critical band.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 117-119.—Examined the performance of 2 groups of 4 male Ss on an auditory frequency analysis task. The groups were differentiated in terms of musical training and background. Predictions based on the assumption that frequency analysis is dependent upon the critical band were derived from 2 synthetically produced inharmonic complex stimuli. Results indicate that nonmusicians are inferior to professional musicians in their ability to analyze complex waveforms. Results suggest that musicians possess critical bands which are rectangular in shape and approximately 20% narrower in width than published values.—*Journal abstract.*

173. Watson, Charles S. & Gengel, Roy W. (Central Inst. for the Deaf, St. Louis, Mo.) **Signal duration and signal frequency in relation to auditory sensitivity.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 989-997.—Determined levels of monaural signals at behavioral threshold by a psychophysical method of adjustment for 7 highly trained listeners. Thresholds were studied as a function of signal frequency (octave steps, from 125-8 kHz) and of signal duration (logarithmic steps, from 16-1024 msec.). Measurements were made in the presence of a contralateral broad-band masking noise with a spectrum level of 30-db SPL. The time constant, τ , estimated from at least 12 replications of each measurement, was found to range systematically from values considered normal (125-175 msec.) by some earlier investigators, at low frequencies, to much lower values (30-70 msec.) at high frequencies. Comparison between the performance of listeners with normal audiograms and those with high-frequency hearing loss shows this interaction between frequency and the time constant to be similar for both samples. Data are also compared to the results of a 2nd experiment that employed a 2-alternative forced-choice psychophysical method. (26 ref.)—*Journal abstract.*

174. Weller, Ernest M. (U. Louisville) **Auditory adaptation, signal detection, and the coding of loudness.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2333.

175. Wilson, Richard H. & Carhart, Raymond. (Northwestern U., Auditory Research Lab.) **Influence of pulsed masking on the threshold for spondee.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 998-1010.—Studied the changes in masking for spondee words that result from varying both the level and the interruption rate of a white-noise masker with 14 normal-hearing Ss and 14 Ss with sensorineural hearing loss diagnosed as resulting from cochlear otosclerosis. The masker was a white noise and was presented monaurally at either 90-db SPL or 30-db sensation level (SL). It was either continuous or was pulsed at rates of 1, 10, or 100 sec with 50% duty cycle. During the burst-off $1/2$ of each cycle, the noise was

either dropped 14 db. in level or was fully interrupted. The masked speech-reception threshold (SRT) was not improved re the masked SRT in continuous noise when the 30-db SL masker was pulsed 100 times/sec. Reduction in masking was observed under all other circumstances of cycling the noise. This reduction was more pronounced when the noise was completely interrupted rather than only modulated by 14 db., when the masker was at its higher level (90-db SPL as opposed to 30-db SL), and when the masker was interrupted at the slowest rate (1 interruption/sec). During equivalent conditions, the reduction in masking was greater for normal-hearing Ss than for those with cochlear otosclerosis. Appreciable residual masking (re SRT in quiet) persisted across the range of all parameters of noise level, modulation depth, cycling rate, and type of S encompassed. This last finding appears to be contradictory to some of the results from earlier studies but not to others. This discrepancy, along with other aspects of the present findings, are discussed.—*Journal abstract.*

CHEMICAL SENSES

176. Gregson, R.A. & Simmonds M. B. (U. Canterbury, Christchurch, New Zealand) **Qualitative gustatory characteristics of disodium-5'-guanylate.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 81-88.—Reports descriptions of the taste qualities of a nucleotide, disodium-5'-guanylate, under 2 different response sets, lenient and stringent. Control comparison stimuli were deionized water and weak sodium chloride, and near threshold taste concentrations were used. Results with 20 undergraduates, 10 under each response set, indicate that D5'G has a complex taste, and induces a marked false positive detection response pattern which resembles its own taste. Implications for methodology in gustatory psychophysics are noted. (26 ref.)

177. Mitchell, M. J. & McBride, R. L. (U. Canterbury, Christchurch, New Zealand) **Effects of propanol masking odor on the olfactory intensity scaling of eugenol.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 309-313.—Performed a constant stimulus, category scaling, olfactory intensity experiment using eugenol as a target odor, scaled in the presence of a simultaneously presented propanol masking odor. 18 male and 8 female undergraduates served as Ss. The slope of the psychophysical power function, relating sensation and stimulus magnitudes, decreased with increasing concentration of the mask. Olfaction is tentatively inferred to be a synthetic sensory continuum within the context of this study.—*Journal abstract.*

178. Pangborn, Rose M. (U. California, Davis) **Individual variation in affective responses to taste stimuli.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 125-126.—Reports that in previous experiments on hedonic responses to the taste of sodium-chloride solutions it was shown that 3 Ss had distinctly liked and 5 Ss had distinctly disliked increasing concentrations. A paired-preference presentation of the same concentrations of sodium chloride resulted in almost identical conclusions for the same 9 university employees, but not with solutions of monosodium glutamate. A 2nd group of 29 male prison inmates demonstrated 3 hedonic distributions to increasing concentrations of sodium chloride and of sucrose—increased dislike, increased liking, or an increase followed by a distinct reduction.—*Journal abstract.*

179. Smith, David V. (Rockefeller U.) **Taste intensity as a function of area and concentration: Differentiation between compounds.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 163-171.—Asked 24 undergraduates to give magnitude estimates of several concentrations of sodium chloride, citric acid, quinine hydrochloride, and saccharin for 4 differently sized areas of stimulation. Taste intensity was found to be a power function of both area and concentration with the equation $I = C^a \times A^b$ describing the relation between intensity (I), concentration (C), and area (A). Equal intensity functions ($C \times A^m = k$) for the various compounds had different exponents (m) that were equal to the ratio of the exponents for area and concentration (p/n). Since the 4 compounds had different exponents for concentration (n) but not for area (p), the differential area effect on threshold reported by earlier workers appears to be the result of unequal binding strengths for the various taste stimuli rather than a differential distribution of sensitivities to compounds on the tongue.—*Journal abstract.*

180. Wender, Ingeborg. (U. Saarland, W. Germany) **Intensität und Qualität in der Geruchswahrnehmung.** [Quality and intensity in olfactory perception.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2972.

SOMESTHESIA

181. Boyer, William N., Cross, Henry A., Guyot, Gary W., & Washington, Donnell M. (Colorado State U.) **A TSD determination of a DL using two-point tactual stimuli applied to the back.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 195-196.—Utilizing a theory of signal-detection (TSD) approach, stimuli of 80, 85, 90, and 95 mm. were applied to the backs of 4 undergraduates. The DL appeared to lie between 10-15 mm. This DL was larger than 1 previously reported for the dorsal forearm, in harmony with the fact that the 2-point threshold is larger for the back than for the forearm.—*Journal abstract.*

182. Christina, Robert W. (U. Maryland) **Proprioception as a basis for the anticipatory timing of motor responses.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3015-3016.

183. Cross, Henry A., Boyer, William N., & Guyot, Gary W. (Colorado State U.) **Determination of a DL using two-point tactual stimuli: A signal-detection approach.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 198-199.—Determined a DL for 2-point tactual stimuli, all of which were supraliminal. A signal-detection procedure was employed, and subsequent research possibilities in this area were considered.—*Journal abstract.*

184. Diespecker, D. D. (Wollongong University Coll., New South Wales, Australia) **Learning a vibrotactile code at five different loci.** *Cortex*, 1970(Sep), Vol. 6(3), 293-298.—5 groups of Ss each learned the same 9-element vibrotactile code (3 durations and 3 intensities) but through different areas of skin. The 5 areas were the left upper arm, forearm, wrist, palm, and fingertips. Although there was a significant difference between the groups over 10 practice trials there was no clear distal-proximal ordering effect. There was a significant learning effect for the groups, and the performance of Ss learning the code through the skin of the wrist was superior.—*R. Gunter.*

185. Haslam, Diana R. (U. Bristol, England) **The effect of anchoring upon pain threshold.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 107-108.—Reports an experiment designed to measure the effect of anchoring upon the heat-pain threshold. 10 male and 10 female undergraduates served as Ss. The anchor stimulus, which took the form of repeated application of a low-intensity stimulus prior to the assessment of pain threshold, was found to have a significant effect. It is concluded that the low threshold values found when a small stimulus interval is used in the assessment of heat-pain threshold by the limiting method can probably be attributed to this effect.—*Journal abstract*.

186. Hoff, Phyllis A. (U. New Hampshire) **Scales of selected aspects of kinaesthesia.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 118-120.—50 male undergraduates, all of whom participated in 5 experiments, made judgments of (a) thickness by finger span, (b) extent of arm movement, (c) heaviness of lifted weights, (d) force by handgrip, and (e) speed of arm movement. The method was fractionation: halving the magnitude of each stimulus. Comparisons were made in terms of the size of the exponent of the sensory scale.—*Journal abstract*.

187. Weissman, Seymour. (U. Massachusetts) **Effects of visual cues on the standing body sway of males and females.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3039-3040.

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

HYPNOSIS & SUGGESTIBILITY

188. Land, Jay M. & Greenberg, Roger P. (State U. New York, Upstate Medical Center, Syracuse) **The influence of some situational variables on initial hypnotic susceptibility.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 37-45.—The relationship between situational variables and hypnotic susceptibility has been a topic of considerable controversy. 2 situational variables were manipulated: the attitude of E and the prestige of the experimental situation. 3 E-attitudes were presented by having E treat Ss in a warm, cold, or neutral manner. Ss were 48 paid female volunteers, over 21 yr. of age. Prestige was varied by using a clinic conference room with E as a doctor and a laboratory storeroom with E as a student. The hypnotist was on tape and was clearly differentiated from E. Results do not support the idea that initial hypnotic susceptibility is affected by these extraneous variables. (Spanish & German summaries) (21 ref.)—*Journal abstract*.

189. Leonard, James R. (U. Kentucky) **An investigation of hypnotic age-regression.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2258-2259.

190. Linetzkii, M. L. (Ukrainian Inst. for Advanced Training of Physicians, Kharkov, USSR) **New information of the neurodynamics of perception of inadequate suggestions under hypnosis.** *Soviet Psychology*, 1967(Win), Vol. 6(2), 44-50.—Discusses (a) the neurodynamic characteristics manifested in repeated experiments with suggestions addressed to various

functions (gastric juice secretion, carbohydrate and water metabolism); and (b) the relationships between autonomic manifestations of perceived suggestions and sensations.

191. Sheehan, Peter W. (U. New England, Armidale, New South Wales, Australia) **An explication of the real-simulating model: A reply to Reyher's comment on "Artificial induction of posthypnotic conflict."** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 46-51.—J. Reyher (see PA, Vol. 43:7646) has criticized P. W. Sheehan's application of the real-simulating model of hypnosis and has challenged his findings on the artificial induction of posthypnotic conflict. Reyher's critique indicates a lack of understanding of the nature of the differences between the methodology he has adopted and that of the real-simulating model. Results from application of the real-simulating model show that Reyher's findings may indeed indicate that there are genuine effects of hypnosis, but their genuineness is far from having been proven. (Spanish & German summaries)—*Journal abstract*.

MOTIVATION & EMOTION

192. Aaronson, Bernard S. (Bureau of Research in Neurology & Psychiatry, Princeton, N.J.) **Some affective stereotypes of color.** *International Journal of Symbolology*, 1970(Aug), Vol. 2(1), 15-27.—66 males and females rated 11 colors on the Emotions Profile Index. Emotional stereotyping appeared for all colors but green. Sex differences in affective color response were found for yellow, yellow-green, purple, blue, black, orange, and white. Cluster analysis showed: red, orange, and yellow associated with outgoing exuberance; red, yellow-green, and purple, with hostility; and purple, gray, and black, with asocial despondency. An activation series running from a high for red to a low for blue seemed present. Achromatic colors all seemed negatively related to activation.—*Journal abstract*.

193. Agrawal, K. G. (National Inst. of Health Administration & Education, New Delhi, India) **Studies in colour symbolism: I. Object context and abstract colour labels.** *Indian Journal of Psychology*, 1970(Jun), Vol. 45(2), 141-157.—Selected 77 colors representing the entire range of saturation or brightness to show to college girls. 10 abstract and 10 concrete object context color names with high frequency were selected. Eliciting qualifiers for colors and names, 15 semantic differential scales were finalized. Adding another 5 scales from a previous study. 20 color names and patches and 10 objects (color context) were rated on 20 scales by 3 groups of 32 college girls each. Scales on scale factor analyses revealed 3 common factors: evaluation, potency, and activity. Objects fell between names and patches of colors. Objects appearing in color name context and color names seem to influence affective meaning of each other. Most objects and patches were more positively rated than the color names.—*Journal summary*.

194. Barclay, Andrew M. (Michigan State U.) **Information as a defensive control of sexual arousal.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 244-249.—Investigated the effect information about the true nature of an experiment has when the experiment deals with areas of defensive concern, e.g., sexuality. 61 male undergraduates, aged 21 yr. and older, were shown a sexually arousing film or a boring film

under conditions where Ss either knew the true purpose of the study or were misinformed. Pre- and postarousal urine samples were analyzed for urinary acid phosphatase, a possible indicator of sexual arousal. A significant interaction showed that informing Ss caused a paradoxical finding: acid-phosphatase secretion was high in control Ss, while Ss seeing an arousing movie showed no change from prearousal levels. Previous findings of increased acid phosphatase following arousal were replicated for noninformed Ss. Sexually experienced Ss responded to the film with increases in acid-phosphatase secretion, while sexually inexperienced Ss did not. Results are discussed in terms of defensive control of arousal and its implication for research dealing with high-concern, high-defensiveness areas, e.g., sexuality.—*Journal abstract.*

195. Buck, Ross W. (U. Pittsburgh) **Relationships between dissonance-reducing behavior and tension measures following aggression.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3015.

196. Evans, David R. (U. Toronto, Ontario, Canada) **Conceptual complexity, arousal and epistemic behavior.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2303.

197. Kaley, Harriette W. (New York U.) **The effects of subliminal stimuli and drive on verbal responses and dreams.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2284.

198. Moseley, T. J. & Power, R. P. (Queen's U. of Belfast, Ireland) **Auditory perceptual defence with taboo and non-taboo words.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 237-242.—Informed 11 male and 13 female undergraduates that they were participating in a signal detection task. Some of the signals were "taboo" words, structurally similar words, unrelated words, and taboo and unrelated words played backwards. The taboo words had a significantly lower rate of detection than all other signals, which did not differ significantly in their detectability. Results demonstrate the occurrence of auditory perceptual defense. (16 ref.)—*Journal abstract.*

199. Poirier, Joseph G. (Duquesne U.) **A phenomenological-experimental investigation of behavior without awareness, a mode of intentionality.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3003-3004.

200. Prola, Max. (New York U.) **A re-evaluation of the motor inhibition-fantasy hypothesis.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2291.

201. Rahman, Mohammed M. (U. New Mexico) **Effects of pre-exposure on perceptual curiosity for stimulus similarity and novelty.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2323-2324.

202. Reynolds, Reginald M. (U. Waterloo, Ontario, Canada) **The effect of repressiveness on anxiety under conditions of repeated psychological stress.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2264.

203. Sullivan, Richard. (New York U., Medical Center) **Magnitude estimation of anxiety.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 209-211.—Compared subjective estimates of anxiety and MA scale scores. 26 male undergraduates rated and estimated magnitudes of anxiety experienced during a stress condition. Findings suggest that the direct method of magnitude estimation is an appropriate scaling procedure for the measurement of transitory anxiety. MA scale scores were not related to

anxiety levels expressed on either category or estimation scales. It is suggested that the method of direct estimation of anxiety may serve as a corollary to other measures of transitory anxiety and prove useful in behavioral therapy settings.—*Journal abstract.*

204. Zajonc, Robert. (U. Michigan, Research Center for Group Dynamics) **Brainwash: Familiarity breeds comfort.** *Psychology Today*, 1970(Feb), Vol. 3(9), 32-35, 60-64.—Various studies involving Turkish words, Chinese-like characters, and men's faces supported the hypothesis "that the mere repeated exposure of an unfamiliar stimulus is enough to increase one's attraction to that stimulus." Correlational evidence from word-frequency counts and experimental data from rats added further support. Possible explanations suggest that novel stimuli evoke uncertainty and conflict. The resulting stress is reduced and the stimulus becomes better liked when the individual develops a stable way of responding to the stimulus. Increased exposure encourages the development of such stable response patterns and, therefore, leads to increased attraction.—*E. J. Posavac.*

ATTENTION & EXPECTANCY & SET

205. Carr, Gordon D. (Tufts U.) **Introversiion-extraversiion and vigilance performance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2299.

206. Epstein, Seymour & Bahm, Robert. (U. Massachusetts) **Verbal hypothesis formulation during classical conditioning of the GSR.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 187-197.—Tested 2 groups of 16 undergraduates, 1 of which gave verbal estimates of the likelihood of receiving shocks throughout the experiment, and 1 which did not, in a conditioning situation designed to eliminate reflex orienting responses. The CS consisted of rectangles of uniform size arranged along the perimeter of a circle, around which moved a constant-speed pointer. The UCS was a shock delivered at the end of the CS. Verbal estimates facilitated conditioning and caused the acquisition curve to resemble that of other forms of conditioning, rather than to decrease during reinforcement, as was found for the nonverbalizing group and is typically found in GSR conditioning. The combined data from GSRs, verbal estimates, and postsession interviews provided a relatively comprehensive picture of cognitive processes during conditioning, which were more complex than initially suspected. (19 ref.)—*Journal abstract.*

207. Fletcher, Janet F. & Yates, Aubrey J. (U. Western Australia, Nedlands) **The repetition of single speech sounds under delayed auditory feedback.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 73-79.—Conducted 3 experiments with 25 male and 25 female undergraduates in each, to determine the effect of delayed auditory feedback (DAF) on the rate of repetition of single speech sounds. Other variables investigated were variation in repetition rate among speech sounds under DAF, and the effect of the S's sex on repetition rate. Ss were found to repeat sounds significantly fewer times under DAF. There was no significant variation among sounds repeated under DAF, nor was there a sex effect. A 4th experiment, with 24 male and 24 female undergraduates, found no relationship between performance under synchronous auditory feedback and speech breakdown under DAF.

Experimental variables are discussed which may account for the opposite findings of R. A. Chase (see PA, Vol. 34:5283).—*Journal abstract.*

208. Hritzuk, John & Janzen, Henry. (U. Calgary, Alberta, Canada.) A Soviet and Western concept of set. *Alberta Journal of Educational Research*, 1970(Dec), Vol. 16(4), 217-225.—Administered the Luchins Hidden Word Test of 12 nonsense words and the Uznadze set of 3 spheres and 4 circles to 31 females and 20 males. No significant differences were noted between the tests in either the haptic or visual modality for either the set fixation or extinction phases. There appears to be little empirical difference, therefore, between the Luchins concept of set as habituation and the Uznadze concept of set as readiness.—*N. M. Chursky.*

209. Mettee, David R. (Yale U.) Rejection of unexpected success as a function of the negative consequences of accepting success. *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 332-341.—Hypothesized that: (a) acceptance of unexpected success can involve negative consequences other than psychological inconsistency; (b) unexpected success would be rejected more firmly when the added negative consequence of future subjective failure was highly probable than when it was obscure or minimally probable; and (c) unexpected success perceived as transient would be viewed as self-irrelevant and hence acceptable, because such a success would have no psychological implications for the individual. Hypotheses were supported by data from an experiment with 84 high school females. A self-irrelevant group did not reject unexpected success (i.e., did not perform to fail). When accepting unexpected success involved resolving inconsistency, success was rejected to a greater extent than when it was self-irrelevant ($t = 3$). When acceptance of unexpected success involved 2 negative consequences—inconsistency and the possibility of future subjective failure—rejection was even more pronounced than in the inconsistency-only case ($t = 2.3$). Results are discussed in terms of their implications for developing viable methods of changing ingrained negative self-expectancies.—*Journal abstract.*

210. Seymour, Philip H. (Dundee U., Scotland) Conceptual uncertainty and the latency of judgments of the congruence of word-shape pairs. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 451-461.—Recorded the latencies of verbal reports of the congruence of simultaneously displayed printed words and shapes. The labels used were black, white, large, small, square, and circle, the comparison shapes being squares or circles having 1 of 2 values on the dimensions of color and size. 12 undergraduates served as Ss. Latencies were about 700 msec. where Ss reported "yes" for same pairs and "no" for different pairs, but were nearly 250 msec. slower where this response allocation was reversed. Manipulation of the size of the set of labels from which displays were drawn within a block of presentations had little effect on the latency under either response allocation. However, where the set was limited to 2 labels referring to a single dimension, times were faster for congruent pairs than for incongruent pairs. This effect was eliminated as the size of the set of labels was increased. It is concluded that the congruence effect relates to the decision processes involved in computing the word-shape comparisons.—*Journal abstract.*

211. Tuton, Karen V. (Pennsylvania State U.) Level of activation during signal detection tasks. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2331-2332.

212. Vollman, Rita R. (U. California, Los Angeles) Effects of arousal on the range of cue utilization in extensive and minimal scanners. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2293.

213. Warm, Joel S. & Alluisi, Earl A. (U. Cincinnati) Influence of temporal uncertainty and sensory modality of signals on watchkeeping performance. *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 303-308.—Assessed the effects of signal density on the detection of increments in the duration of regularly occurring acoustic and visual pulses in a 1-hr watchkeeping task. 5 levels of signal density (6, 12, 24, 48, and 96 signals/hr) were combined factorially with the 2 sensory modalities to produce a total of 10 experimental conditions. Overall performance efficiency of 70 17-54 yr. old undergraduates, in terms of detection probability and RT to correct detections, was greater for acoustic than for visual signals. Variations in signal density were not associated with significant changes in the probability of correct detections. RT increased as a linear function of signal surprisal due to density—an information measure of the temporal uncertainty of signals. (15 ref.)—*Journal abstract.*

214. Zajkowski, Myron M. (Ohio State U.) The role of reinforcement in simple monitoring behavior. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2336.

MOTOR PERFORMANCE

215. Pool, Kenneth B. (U. California, Berkeley) Some effects of two types of augmented knowledge of results on pursuit rotor performance. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2323.

REACTION TIME

216. Bartz, Albert E. (Concordia Coll., Moorhead, Minn.) Reaction time as a function of stimulus uncertainty on a single trial. *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 95-96.—Measured in a discrete choice RT experiment RTs between the onset of a light and the start of S's pencil toward that light. The RTs of 166 unpracticed undergraduates, not aware that their 1st practice trial was being measured, increased as a linear function of stimulus uncertainty. Since this occurred without any prior experience, the effect must have been due to S's set or expectancy regarding the nature of the future task, formed while the instructions for the task were being given.—*Journal abstract.*

217. Bernstein, Ira H. & Edelstein, Barry A. (U. Texas, Arlington) Effects of some variations in auditory input upon visual choice reaction time. *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 241-247.—Replicated in Exp. I with 5 undergraduates the facilitating effect of irrelevant binaural tone upon 2-choice (left vs. right) visual RT. This effect was enhanced by monaural tone ipsilateral to the choice and largely eliminated by monaural tone contralateral to the choice. Comparable effects were obtained in Exp. II with 5 undergraduates using high- vs. low-frequency binaural tones and 2 visual alternatives that were located diagonally with regard to fixation. Auditory and visual stimuli were thus describable as high or low. RT was more rapid when both frequency and vertical position

were similar (both high or both low) than when they were opposite (1 high, the other low). The RT difference between ipsilateral (Exp. I) or similar (Exp. II) and control visual-auditory pairings were essentially the same when tone conveyed no response information vs. when it did convey response information.—*Journal abstract.*

218. **Christina, Robert W.** (State U. New York, Brockport) **Minimum visual feedback processing time for amendment of an incorrect movement.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 991-994.—Discusses some of the research on the average minimum time required by a performer to amend an incorrect movement based upon his ability to process visual feedback. A decremental effect of the psychological refractory period on minimal visual feedback processing time is suggested. (20 ref.)—*Journal abstract.*

219. **Clement, David E. & Carpenter, James S.** (U. South Florida) **Relative discriminability of visually-presented letter pairs using a same-different choice-reaction time task.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 363-365.—23 pairs of capital letters representing 4 combinations of high and low visual and auditory similarity, and 17 pairs of identical letters were used as stimuli in a same-different choice RT task. 8 Ss (4 of each sex) performed on 780 discrimination trials. Results indicate that same-different judgments were made essentially on the basis of visual characteristics, with letter pairs of high visual similarity having slower RTs than pairs of low visual similarity. Left-to-right order of letters in a pair had no effect, nor did auditory similarity. "Same" judgments had a more restricted range of RT and tended to be slower than "different" judgments.—*Journal abstract.*

220. **Dainoff, Marvin & Haber, Ralph N.** (Miami U.) **Effect of acoustic confusability on levels of information processing.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 98-108.—Employed a modification of M. I. Posner and R. F. Mitchell's choice RT design in which 10 experimentally naive undergraduates were required to respond "same" or "different" to simultaneous pairs of letters. Response was always on the basis of name identity (e.g., AA and Aa are "same," AB is "different"). Letter pairs were selected from populations of acoustically confusable or nonconfusable letters. Each pair of letters was either physically identical, had identical names, or had different names. The RTs to physically identical pairs were fastest, and did not differ between confusable and nonconfusable pairs. For all other comparisons, RT to acoustically confusable pairs took longer than to nonconfusable pairs. Results appear to support the hypothesis of an auditory encoding stage at which comparisons between items are made on the basis of acoustic components of their memory representations. (French summary) (20 ref.)—*Journal abstract.*

221. **Dainoff, Marvin J.** (U. Rochester) **The time course of visual and auditory encoding.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2300.

222. **Geffen, Gina; Bradshaw, J. L., & Wallace, G.** (Monash U., Clayton, Victoria, Australia) **Inter-hemispheric effects on reaction time to verbal and nonverbal visual stimuli.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 415-422.—Describes 5 RT experiments with a total of 60 right-handed undergraduates on laterality differences in visual perception. 3 experiments employed numerical digits and 2 used human faces which are immediately recognizable

but difficult to encode verbally. RTs were found to be sensitive to laterality differences in visual perception. Nonverbal stimuli (faces) were processed faster when presented in the left visual field. Conversely, stimuli which were verbally encoded and required an identificatory response were processed more quickly when presented in the right visual field. It is suggested that these differences could be due (a) to the time taken to cross from 1 cerebral hemisphere to the other, (b) to asymmetries between the hemispheres in their capacity to process verbal and nonverbal material, or (c) to both. (25 ref.)—*Journal abstract.*

223. **Hinrichs, James V.** (U. Iowa) **Probability and expectancy in two-choice reaction time.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 227-228.—Measured RTs of 12 male and 12 female undergraduates to 2 stimuli which were presented in a 2:1 ratio. The mean RT was inversely related to the probability of stimulus presentation, but no difference was found when the mean RT was calculated conditional on Ss' predictions of stimulus presentation. The probability effect in choice RT is interpreted as depending upon a weighted combination of fast RTs to correctly predicted stimuli and slow RTs to incorrectly predicted stimuli.—*Journal abstract.*

224. **La Berge, David.** (U. Minnesota) **Effect of type of catch trial upon generalization gradients of reaction time.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 225-228.—Obtained generalization gradients of tones from 4 experienced Ss with a Donders type c reaction under conditions in which the catch stimulus was a tone of neighboring frequency, a tone of distant frequency, white noise, a color, or nothing. When the catch stimulus was another tone, the latency gradients were steep, indicating strong control of responding by a frequency discrimination process. When the catch stimulus was a red light or nothing, the gradients were flat, and displaced downward, indicating that responding was being controlled by an early detection process.—*Journal abstract.*

225. **Naätänen, Risto.** (U. Helsinki, Inst. of Psychology, Finland) **The diminishing time-uncertainty with the lapse of time after the warning signal in reaction-time experiments with varying fore-periods.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 399-418.—Examined the observation that the shortest anticipatory, or foreperiods, in a randomized series of different durations usually yield the longest RTs, whereas the fastest RTs are found with the shortest foreperiods when they are constant within each set of trials. 5 experienced and 8 naive undergraduates were each tested twice. It was found that when the factor of increasing probability was eliminated, the shortest foreperiods in the series no longer yielded the longest RTs. It is concluded that the main reason for the diverging tendencies noted is the information-generating nature of the passage of time following the warning signal in RT experiments with randomizing foreperiods of different durations. 4 factors are proposed as exerting an influence on the relationship between the foreperiod and the RT when varying foreperiods are delivered in random order following a rectangular distribution of foreperiods. (23 ref.)—*Journal abstract.*

226. **Pease, Victor P.** (U. Arizona) **The effects of luminance and the duration of flash interval on simple visual reaction time.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2321.

227. **Poppel, Ernest.** (Max Planck Inst. of Physiology

of Behavior, Starnburg, W. Germany) **Excitability cycles in central intermittency.** *Psychologische Forschung*, 1970, Vol. 34(1), 1-9.—Choice RT with 2 alternatives (optic and acoustic stimuli) was measured in an experiment with 24 Ss. Individual distributions for both modalities were plotted. From a total of 48 distributions 46 were multimodal. The temporal difference between successive peaks had a mode value of 30 msec. For the interpretation of the results oscillatory processes are assumed. In a scanning model the hypothetical oscillations are independent of the stimuli. Such a model would predict only unimodal distributions. Since multimodalities were observed, the data can best be accounted for by a model of excitability cycles.—*Journal summary*.

228. Scrivner, Larry L. (U. Texas) **A study of reaction time as related to associative sets and to presumed associative networks.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2327.

LEARNING

229. Cooper, Lee G. **Multivariate analysis of simulated protocols for a multi-element pattern model of probability learning.** Urbana, Ill.: U. Illinois, Dept. of Psychology, 1969, v, 67 p.

230. Feehley, Cornelius J. (Catholic U. of America) **Test anxiety, task complexity, cue position and evaluative instructions as they affect performance on a learning task.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3020.

231. Franklin, Clyde W. (Ohio State U.) **Toward a clarification of operant principles in human interaction.** *Psychological Record*, 1970(Fal), Vol. 20(4), 489-494. While operant theoreticians have claimed that operant principles can be applied to social interaction, they have not been cognizant of the necessity for altering the principles. This necessity emerges as a consequence of the fact that human interaction is dynamic. A scheme is presented which attempts to correct the deficiency and thus facilitate the use of operant principles in human interaction.—*Journal abstract*.

232. Humphreys, Michael S. (Stanford U.) **Learning—repetition and recall—of symbolic rewards and punishments.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2311-2312.

233. Jones, Elvis C. (Frostburg State Coll.) **Schema learning with low redundancy patterns.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 74-75.—Attempted to determine if the tendency of Ss to perform poorly on schema learning tasks with patterns below 50% redundancy was due to either (a) inability to abstract the schema with low-redundancy patterns, or (b) a limited usefulness of the schema as an aid in the efficient encoding of low-redundancy patterns. 60 undergraduates who were pretrained on the schema prototype performed better when transferred to 40% redundant patterns than Ss who received only 40% redundant patterns. This indicates that poor performance with 40% redundant patterns is largely due to a failure to abstract the schema. The use of schematic learning sets, with a gradual decrease in redundancy, is suggested as a possible means for improving Ss' ability to abstract schemata from low-redundancy patterns.—*Journal abstract*.

234. King, Larry W. (Florida State U.) **Behavioral contrast in humans: The effect of reinforcement**

schedules and response cost. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2991.

235. Klatzky, Roberta L. (Stanford U.) **Inter-hemispheric transfer of test stimulus representations in memory scanning.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 201-203. Presented test stimuli in either the right or left visual field during a memory scanning task. Ss indicated whether or not a given test stimulus, either a letter or a picture, matched 1 of a previously presented set of letters. RTs were recorded and plotted as a function of the size of the set of letters. Results with 8 right-handed female undergraduates are in agreement with the hypothesis that the 2 types of test stimuli are processed by different cerebral hemispheres with differing stimulus representations.—*Journal abstract*.

236. Messick, David M. (U. California, Santa Barbara) **Learning probabilities of events: A discussion.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 172-183.—Discusses a number of theoretical issues which pertain to the question of how people learn event probabilities. It is concluded that while classical probability learning studies provide inadequate answers to this question, such studies do suggest some interesting conceptual issues. It is suggested that new theoretical efforts are needed. 2 recent theoretical developments are discussed and compared.—*Journal abstract*.

237. Miller, Frank D., Kalin, Richard S., & Meyer, Philip A. (U. South Dakota) **The effects of temporal variables on the acquisition of human avoidance behavior.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 241-243.—Manipulated signal duration and trace interval in a 3 × 3 factorial design that also permitted interstimulus interval (ISI) comparisons. 90 undergraduates were given avoidance training employing a blast of pressurized air directly behind the ear as the noxious stimulus, a button depression as the avoidance response, and a light as the warning signal. The most striking effect of the temporal variables was on avoidance latency, where longer latencies were associated with longer ISIs. Resistance to extinction appeared quite strong, and the suddenness of conditioning resembled all-or-none learning. The similarity of these results to previous findings and their significance are discussed. (15 ref.)—*Journal abstract*.

238. Schwartz, Marian. (U. Wisconsin) **Stimulus frequency and meaningfulness varied independently in the learning of word-number pairs.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 289-291.—Manipulated in a factorial design, stimulus Thorndike-Lorge as a within-S variable with 3 levels: stimulus meaningfulness (M), as a between-S variable with 2 levels. Groups of 30 and 20 undergraduate males served as Ss. Stimuli were nouns. The response class (2-digit numbers) was selected to minimize the possibility that differential similarity between stimuli and responses would bias the comparisons between the different stimulus conditions. Results show a significant inverse relation between stimulus frequency and learning, a nonsignificant trend toward better performance with higher stimulus M, and a significant Frequency × M interaction. Subsequent analyses indicate that the frequency effect was confined to the low-frequency vs. medium- and high-frequency comparison within the low-M list.—*Journal abstract*.

239. Shvern, Udi. (Temple U.) **The effect of escapable and inescapable auditory stress on**

acquisition and transfer of a motor paired-associate task. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2328.

240. Slak, Stefan. (Wayne State U.) **Difficulty of reversal and nonreversal shifts as a function of stimulus differentiation and adaptation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2329.

241. Vlek, Charles A. (U. Leiden, Netherlands) **Learning probabilities of events: An analysis of the problem and its relevance for the study of decision making.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 160-171.—Discusses the problem of learning to associate events with their probabilities of occurrence in the context of decision making under uncertainty. Knowledge of probabilities of hypothetical states of the world is essential for adequate decision making. Subjective probabilities assigned to these hypothetical states may be revised using available probabilistic information. Prior and conditional probability distributions may be learned by Ss in the process of observing a random sequence of events occurring with different relative frequencies. Multiple probability learning assumes that during the observation of such a random sequence the S through a perceptual learning process associates the events with subjective probabilities of occurrence. Possible different structures of the event sequence are considered and various questions are asked concerning the effects on learning of several important characteristics of the observed probability distribution. (26 ref.)—*Journal abstract.*

242. Vlek, Charles A. & van der Heijden, Lex H. (U. Leiden, Netherlands) **Aspects of suboptimality in a multidimensional probabilistic information processing task.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 300-310.—In a probabilistic discrimination learning task 5 male and 6 female undergraduates learned to discriminate between members of families A and B on the basis of normally distributed eye positions in standard faces. On training trials Ss learned the bivariate probability distributions of eye positions for families A and B simultaneously. On test trials Ss classified a given face as either A or B and assigned a posterior probability estimate to their choice. It appeared that Ss widely and consistently differed in the relative weighting of the horizontal and vertical stimulus dimensions, which caused the direction of their inferred subjective likelihood ratio axis to deviate from optimality. It is concluded that differential weighting of stimulus dimensions in multidimensional probability distributions is an aspect of suboptimality in a broader sense than conservative probability estimation.—*Journal abstract.*

243. Whitman, James R. & Anderson, E. Pat. (Veterans Administration Hosp., Tacoma, Wash.) **Transfer effects in part to whole free-recall learning.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 109-111.—Assigned 33 undergraduates to 3 experimental groups: Group A learned a list of 4 visual figures to the criterion of 2 perfect trials; Group B received additional practice, and Group C received no learning trials with the figures. All groups then received practice on a list of 8 figures, which included those learned by the experimental groups. Positive learning transfer was shown only by Group B. Transfer was not accounted for by an increase in the relative frequency with which overlearned stimuli were recalled while learning the 8 stimuli.—*Journal abstract.*

244. Wicker, Frank W. (U. Texas) **Continuous restricted associations to pictorial and verbal items.** *AV Communication Review*, 1970(Win), Vol. 18(4), 431-439.—Comparisons of verbal and pictorial items in studies of associative learning have often demonstrated greater recognition and recall with pictorial stimuli than with corresponding noun labels. In the present study 30 Ss gave 3 types of continuous restricted associations (single adjectives, verbs, and nouns) to a mixed list of 10 nouns. Findings indicate that pictorial items, because of their explicitness, are more limited in continuous associations than verbal items. This is taken as confirming the value of pictorial concreteness in instructional situations: learning is facilitated by restricting the associative power of stimuli.—D. E. Anderson.

Conditioning

245. Cho, Sam & Mitchell, Daniel S. (American Inst. for Research, Pittsburgh, Pa.) **Stimulus generalization in sensory preconditioning.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 405-409.—Conducted 2 experiments to determine (a) whether sensory preconditioning (SPC) results in the establishment of a gradient of stimulus generalization (GSG), and (b) whether the GSG in SPC tests varies as a function of the ordinal position of test stimuli. 192 undergraduates were divided into 12 groups consisting of 4 each of sensory preconditioned (PC), nonpreconditioned (NPC), and perceptual disparity reaction (PDR) groups. 32 PC Ss were presented with 4 paired presentations of light and a 1850-Hz tone, and the remaining 32 PC Ss received 4 paired presentations of light and a 670-Hz tone. NPC Ss received the same stimuli but the light and tones were unpaired. PDR Ss were run separately and did not receive tones in the preconditioning stage. All Ss were then conditioned to avoid a shock to the light, and were subsequently tested on 670-, 1000-, 1400-, or 1850-Hz tones. A significant SPC effect and a GSG indicating complete generalization were found. Results are discussed in light of the compound stimulus hypothesis of D. D. Wickens (see PA, Vol. 34:4009). (19 ref.)—*Journal abstract.*

246. Miller, Frank D., Kalin, Richard S., Eckenroth, William N., & Meyer, Philip A. (U. South Dakota) **Acquisition variables in human avoidance behavior.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 233-235.—Presented 4 sets of instructions which varied with regard to information about the study. 64 undergraduates were given avoidance training employing a blast of pressurized air directly behind the ear as the aversive stimulus, a button depression as the avoidance response, and a light as the warning signal. Better avoidance performance was obtained for the more informed conditions. The use of an escape contingency was not critical to response acquisition. Resistance to extinction appeared quite strong, and the suddenness of conditioning resembled all-or-none learning. Advantages of the use of the air-blast aversive stimulus are noted.—*Journal abstract.*

247. Peeke, Shirley C. (U. Southern California) **Some factors affecting UCR diminution.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3032.

248. Remington, R. E. & Strongman, K. T. (U. Exeter, England) **Instruction-dependent facilitation during a pretimeout stimulus in human subjects.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 348-349.—2 groups of 6

male undergraduates each were run for monetary reward in base line and test conditions using timeout (TO) as a UCS in a CER paradigm. Groups differed only with respect to experimental instructions. 1 group received instructions which established the TO discrimination, the other group received similar instructions which did not. A facilitatory effect during CS in the test phase was found to be mainly a function of those instructions which did not specify the significance of the TO stimulus.—*Journal abstract.*

249. Thornton, Jerry W. & Jacobs, Paul D. (Angelo State U.) **Learned helplessness in human subjects.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 367-372.—Attempted to test the learned helplessness hypothesis of J. B. Overmier and M. Seligman (see PA, Vol. 41:4314) with 80 undergraduates. 4 groups differing in shock contingency were given a fixed level of shock, while a 2nd 4 groups were given a variable level of shock. 30 choice RT training trials were given in which 1 group could avoid shock, a 2nd and 3rd group received inescapable shock yoked to the escapable group (1 with a training task to perform and 1 without), and the 4th performed the task but with no shock. 10 test trials, in a completely different task, followed in which all Ss could avoid shock. Results reveal in all phases of the experiment that variable shock is superior to a fixed level as a stress inducer. Learned helplessness is offered as an explanation to the yoked group's lack of responses in test trials. Implications for investigation of learned helplessness in humans and for the use of variable shock are discussed.—*Journal abstract.*

Verbal Learning

250. Cramer, Phebe. (Williams Coll.) **Discrimination as a factor in semantic generalization.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 396-400.—Investigated the role of discrimination as a factor in semantic generalization by varying the requirements to discriminate among the stimuli presented during training and/or testing. The influence of priming on the generalization process was also studied. Results with 48 paid undergraduates indicate that priming does modify the direction of generalization and that requirements to discriminate, while lowering the overall level of responsiveness, do not differentially affect the generalization process. (16 ref.)—*Journal abstract.*

251. Dey, Mukul K. (Jersey City State Coll.) **Influence of meaning category on transfer of training and retroactive inhibition in free-recall learning.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 462-470.—1 control and 4 experimental groups of 15 male and 15 female undergraduates each learned a list of 20 unrelated words through 3 cycles of alternate study and unpaced free recall. The experimental groups then learned a 2nd list of 20 words, which were neutral, synonyms, opposites, and antonyms to the words of List I, while the control group rested. Finally, a single free-recall trial was administered to all groups to measure List-I retention. Results indicate (a) indeterminate transfer when List-I words were synonyms of the List-II words but positive transfer when the former were either neutral, partly or entirely antagonistic in meaning to the latter; and (b) decrease of retroactive inhibition with change in meaningful relationship from synonymy through neutrality to antonymy. Implications for the associationistic interpretation of free-recall learning are discussed. (17 ref.)—*Journal abstract.*

252. Ellis, N. C. (Texas A & M U.) **Serial task structure and the doctrine of remote associations.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 121-122.

Utilized criteria for testing the validity of anticipatory and perseverative errors which were derived from the studies by N. J. Slamecka (see PA, Vol. 38:5296) to examine previous research and supplementary studies by N. C. Ellis and W. H. Manning (see PA, Vol. 41:3870). In addition to finding support for Slamecka's concept of item positioning, it was determined that intraitem structure also affects frequency and distribution of serial learning errors. Comparing these results with expectations predicted by remote association theory cast additional doubt on the validity of anticipatory and perseverative errors.—*Journal abstract.*

253. Horton, Margaret M. (Washington U.) **Verbal discrimination learning as a function of sensory modality of task and feedback presentation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2256.

254. Kirchner, Elizabeth P. (Pennsylvania State U.) **What is vividness?** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 239-240.—Studied the relationship of vividness (V) with semantic-differential dimensions, frequency of occurrence, and associative productivity. 93 undergraduates served as Ss. The V of verbal stimuli was found to be highly related to the semantic differential rating of active (and, in decreasing order of magnitude, to ratings of fast, aggressive, new, hard, and beautiful). It is concluded that studies manipulating V may thus involve demonstration of the effects of the activity dimension on verbal learning. (16 ref.)—*Journal abstract.*

255. Namenek, Andre A. & Schuldt, W. John. (U. Arkansas) **Differential effects of experimenters' personality and instructional sets on verbal conditioning.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 170-172.—6 Es, either high or low in conditions of genuineness, warmth, and empathy, attempted verbal conditioning with 36 undergraduate Ss. Ss were given either a set emphasizing the importance of these conditions or 1 in which no specific mention was made of the conditions. Although learning was not clearly demonstrated, results indicate that Es high in these conditions elicited a greater percentage of the response class than did Es low in these conditions. Moreover, results reveal that Ss responded differentially to high- and low-condition Es depending upon whether they received the set condition.—*Journal abstract.*

256. Norvilas, Algimantas A. (St. Louis U.) **The influence of syntactic structure on string learning.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3031.

257. Quaintance, Barbara & Shapiro, S. I. (U. Hawaii) **The influence of class membership, method of presentation, and restricted association strength on free-recall learning.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 70-76.—Composed free-recall lists of subordinate, superordinate, coordinate, contrasting, or unrelated pairs of words and presented them in random or block order for 8 presentation-recall periods. Ss were 310 undergraduates. Category clustering was greater for each related list relative to the unrelated list and for the subordinate and coordinate lists relative to the other related lists. Recall was superior for the subordinate list relative to the superordinate or unrelated list, and no other interlist differences in recall were obtained. All performance measures were superior with

block, compared to random, presentation. The normative strength of conceptual relations was not an influential factor within the range studied. (French summary)—*Journal abstract*.

258. Rogers, Pamela W. (U. Arizona) **The effect of rhyme and meter on acquisition and retention of meaningful verbal material.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3034.

259. Schmeck, Ronald R. (Southern Illinois U.) **The effect of intralist similarity on serial anticipation and free recall.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 371.—Investigated the effects of intralist similarity within serial-anticipation and free-recall paradigms, using a factorial design. It was hoped that, by keeping the procedures and material as similar as possible within the 2 paradigms, a comparison of learning within each of the paradigms would result and replicate intralist similarity effects previously demonstrated in separate experiments. Results indicate that high intralist similarity interfered with serial learning but had no statistically significant effect within the free-recall paradigm. Further, the free-recall paradigm produced superior learning only when the intralist similarity was high. The relationship between these results and those reported by L. M. Horowitz (see PA, Vol. 36:2c151H) is discussed.—*Journal abstract*.

260. Turnage, Thomas W. (U. Maryland) **Temporal shifts in the verbal behavior of introductory psychology students.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 621-629.—A series of 3 studies using association and paired-associate learning tasks with course-related materials show that both changes in verbal responsiveness and opportunities for associative interference were occurring over the semester in the population sampled (592 undergraduates). Some general implications of these findings for studies using similar pools of Ss and for studies of retroactive mechanisms in long-term retention are considered.—*Journal abstract*.

261. Wallace, William P. & Nappé, Gary W. (U. Nevada) **Re-pairing "rights" and "wrongs" in verbal discrimination learning.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 355-360.—Outlined a conceptual scheme for reinterpreting the "re-pairing decrement" in verbal-discrimination (VD) learning. It was hypothesized that the decrement could be accounted for within a frequency theory by liberalizing the "counting" postulate. The decrement was viewed as a special case of increased VD difficulty resulting from a breakdown in the rule that all correct alternatives are uniformly higher in frequency value than their respective incorrect partners. An experimental manipulation with 180 undergraduates was designed to increase the likelihood of a breakdown in this rule. Results support the hypothesis.—*Journal abstract*.

Verbal Paired Associate Learning

262. Bernbach, Harley A. & Bower, Gordon H. (Cornell U.) **Confidence ratings in continuous paired-associate learning.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 252-253.—Collected confidence ratings of 18 undergraduates in a continuous paired-associate learning task in which items were presented 3 times each. The relation between average confidence and presentation number apparently resulted from a bias to give higher ratings to later presentations of items, independently of whether or not the item was correctly

recalled, and therefore did not indicate a direct relation between recall probability and confidence. The inability of the Ss to discriminate correct from incorrect responses any better between Tests 2 and 3 is consistent with a 2-state theory of confidence judgments and recall.—*Journal abstract*.

263. Berry, Franklin M. & Baumeister, Alfred A. (Columbus Coll.) **Measuring single-letter cue selection in paired associate learning: A methodological note.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 181-187.—Describes a new approach to the scoring of single-letter cue selection data, based on a same-Ss transfer design, and compares it to the cue-selection methodology of L. Postman and R. Greenbloom (see PA, Vol. 41:3909). An argument was offered to the effect that this newer, "within-Ss double-criterion technique" is actually more useful than that of Postman and Greenbloom—in any situation in which letter selection is measured with a repeated measurements design. Illustrative data are presented to show the analytical usefulness of the newer technique.—*Author abstract*.

264. Dey, Mukul K. (Jersey City State Coll.) **An evidence of position association in serial paired-associate learning.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 471-479.—Administered 2 6-unit constant-order paired-associate lists 16 times each in random alternation to 24 male undergraduates. Results reveal that interlist intrusions were elicited at a significantly faster rate between identical than between nonidentical positions. This finding, together with the observation of a gradual decline in the frequency of intrusions between nonidentical positions with increase of positional disparity, provides evidence of association with serial position. (22 ref.)—*Journal abstract*.

265. Ley, Ronald & Locascio, David. (State U. New York, Albany) **Effects of familiarization, associative reaction time, and meaningfulness of response terms in forward and backward paired-associate learning.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 97-99.—Studied the effect of familiarization of response terms on the forward and backward acquisition rate of a list of paired-associates (PAs), in which the response terms were rated on associative RT and meaningfulness (Mn). 32 undergraduates individually received 20 familiarization trials in which, for 16 Ss, the 8 CVCVC units of the list were the response terms of a PA list which was subsequently learned. For the other 16 Ss, conditions were the same, except that of the CVCVCs of the familiarization list were different from the units of the PA list. Both RT and Mn were significant response-term variables in the forward anticipation learning task, but Mn interacted with familiarization, while RT did not, i.e., familiarization increased the learning rate of low-but not of high-Mn pairs. In the backward learning task, high-Mn pairs were learned in fewer trials than low-Mn pairs, but neither RT nor familiarization had an effect.—*Journal abstract*.

266. McGlaughlin, Alex & Dale, H. C. (U. Hull, England) **Stimulus similarity and transfer in long-term paired-associate learning.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 37-40.—Studied acoustic, semantic, visual, and formal similarity in the A-B, A'-B transfer paradigm. Results were analyzed for 8 groups of 10 young enlisted men. Substantial, highly significant, positive transfer was obtained with stimuli that were acoustically or semantically related. For those visually or formally related, the transfer was not

significant. It is concluded that the failure to find significant effects of acoustic similarity in previous long-term memory paired-associate learning studies has been due to a combination of low levels of acoustic similarity with the use of the relatively insensitive retroactive-interference technique.—*Journal abstract.*

267. Miller, Adam & McCrimmon, Russell. (St. Cloud State Coll.) **Extinction for systems learning.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 207-208.—Assigned 72 male and female undergraduates to learn associations between pairs of colored figures and nonsense words taken from a 4 × 4 miniature system. In a factorial design, the number of different associations from the system that were learned was varied at 2 levels, and an extinction procedure that followed learning was applied in 3 ways. Systems learning occurred. The number of different associations that were learned was not related to accuracy in reproducing the system. For Ss who learned 1/2 the system, the extinction procedure was effective on those associations produced without learning.—*Journal abstract.*

268. Nelson, Douglas L., Fosselman, John R., & Peebles, Jerry W. (U. South Florida) **Words as phonological sequences.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 361-366.—Presents 3 experiments using paired-associate word lists with varied word length and cue position. In Exp. I with 54 undergraduates each paired-associate pair consisted of 3 stimulus and 3 response words. Either the 1st, 2nd, or 3rd word of each pair was identical, so that each pair consisted of 2 3-word serial lists which overlapped in various locations. In Exp. II-III with 60 and 48 undergraduates 6-letter words, which overlapped in initial, medial, or terminal bigrams, served as stimuli and responses. Size of the set of potentially relevant response set was also varied. 1/2 the pairs within each overlap condition were selected so that there were a large number of words sharing that bigram within a particular locus, and 1/2 were chosen so that there were a small number of words sharing that bigram. All experiments indicate that providing initial and, to a much lesser extent, terminal portions of a sequence renders greater retrieval access to that sequence than medial components. When degree of phonological similarity was equated, potential set size had no reliable effect.—*Journal abstract.*

269. Norman, Kent L., Levin, Irwin P., & Williams, Jeral R. (U. Iowa) **Mediated responding on a multiple-choice test-only list following the acquisition of a double-function list.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 77-79.—Investigated a mediation paradigm employing a "double-function" paired-associate list for the acquisition of the A-B and B-C chaining associations. Following acquisition of the double-function list, 24 male and 24 female undergraduates received 4 multiple-choice test trials on a list containing "chaining" items for which 1 alternative could be chosen on the basis of a mediating chain. The tendency to choose the alternative represented by the mediating chain was significantly greater than chance in an unmixed list but was of only borderline significance for chaining items in a mixed list, for which only 1/2 the items were chaining items.—*Journal abstract.*

270. Runquist, Willard N. (U. Alberta, Edmonton, Canada) **Ordinal position of formal similarity among stimuli.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 270-273.—Taught 216 undergraduates

paired-associate lists in which pairs of stimulus terms shared 2 letters. The position of the identical letters was systematically varied. Both unmixed lists, in which the locus of identity was the same for all stimuli, and mixed lists, in which the locus differed for different pairs, were used. When the stimuli were words, locus of identity had no effect on performance. With CCC stimuli, identity in middle and last positions was easiest, followed by 1st and middle, and 1st and last. Results are consistent with the hypothesis and letter position will be relevant if stimuli are analyzed into subunits and coded by selection.—*Journal abstract.*

271. Runquist, Willard N. (U. Alberta, Edmonton, Canada) **Stimulus coding and interference in paired-associate learning.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 373-377.—Conducted 2 experiments using consonant trigrams and word trigrams as stimuli, in a paired-associate learning task. 432 undergraduates served as Ss. Within each experiment, response terms were either unrelated, shared a letter, or were associated meaningfully in some way with the stimuli. Within each of these 3 conditions were 3 levels of formal similarity among stimuli: no shared letters, shared letters all in the same position in the stimulus, or shared letters in different positions. Results for both stimuli were similar. For neutral responses, the low-similarity list was easiest, with the 2 high-similarity lists being about the same. For the letter-compatible condition, the low-similarity and same position lists were equally difficult, but easier than the different position list. For the meaning-compatible condition, both high-similarity conditions were inferior to the low-similarity list for the consonant stimuli, but only the different position list was inferior for the word stimuli. Results are interpreted in terms of developing specific discriminative stimulus codes by letter selection and meaning.—*Journal abstract.*

272. Schwartz, Marian. (U. Wisconsin) **Subject generated versus experimenter-supplied mediators in paired-associate learning.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 389-395.—Assigned 216 undergraduates 1 study and 1 recall trial on a list of 10 pairs. In 1 group, Ss were instructed to generate mediators to help them associate the stimulus and response terms; in another, Ss were supplied with mediators which, on a normative basis, had a high probability of being generated. A 3rd group served as control. Orthogonal variables were study-trial presentation rate (2 sec. vs. 6 sec.) and delay of recall (0 delay vs. 15-min delay). In response recall, the generated condition surpassed the supplied, which surpassed the control. Results of a postrecall mediation questionnaire suggest that the stimulus was a more effective retrieval cue for generated than for supplied mediators, although both types of mediators were equally effective as retrieval cues for the response. In all conditions, a strong relationship was found between reported use of a mediator on the recall trial and correct response recall.—*Journal abstract.*

273. Tilton, Jaylene S. (U. New Hampshire) **Effects of stimulus meaningfulness (m) and Thorndike-Lorge frequency in paired-associate learning in which responses have differential probabilities of occurrence to stimuli.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3038.

274. Tweedy, James R. (Stanford U.) **Rule learning and reorganization in a miniature linguistic system.**

Dissertation Abstracts International, 1970(Oct), Vol. 31(4-B), 2332.

275. **Wearing, Alexander J.** (Yale U.) **On the trace strength of responses varying in correctness.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 226-227.—Conducted a paired-associate learning experiment to determine if 2 presumed measures of memory trace strength, subjective certainty and latency, were able to distinguish between responses varying in their degree of correctness. Evidence from 61 female undergraduates was found for 3 discrete incorrect-response states: no response, near-random guess, and "tip-of-the-tongue." Response latency was closely related to subjective certainty, however, a sharp change in both latencies and confidence ratings was found between nearly correct and correct responses. It is concluded that the growth function of trace strength may be more complex than previously thought.—*Journal abstract*.

276. **Weinstock, Roy B. & Daly, Helen B.** (Mary Washington Coll., U. Virginia) **Response learning, association formation, and repeated testing effects in a paired-associate task.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 343-347.—Assigned 48 male and 48 female undergraduates to 1 of 6 experimental groups. Following 1, 3, or 7 trials of paired-associate (PA) learning, Ss were given separate paper and pencil response-recall, response-recognition, and associative-matching tasks. For both high and low intralist response similarity (IRS) conditions, response learning occurred faster than association formation between responses and stimuli. High-IRS groups performed, in general, more poorly than low-IRS groups on all 3 tasks. Repeated testing on the tasks resulted in greater facilitation for associative matching than for response recall. Results support the B. J. Underwood, W. S. Runquist, and R. W. Schulz (see PA, Vol. 34:4002) 2-stage analysis of PA learning and indicate that between-S designs should be used to test the rate of development of response learning and association formation.—*Journal abstract*.

277. **Williams, Jeral R., Levin, Irwin P., & Norman, Kent L.** (Illinois State U.) **Mediation effects in verbal chaining paradigms as a function of associative strength and the number of stages.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 348-354.—Demonstrated a mediated facilitation effect for an A-B, B-C, C-D, A-D extended chaining paradigm with 2 levels of B-C associative strength. Results of 2 experiments with 112 and 120 undergraduates indicate that (a) the magnitude of the effect increased as a function of increasing the strength of Stage 2 associations, (b) the mediated facilitation effect was less in magnitude for the extended chaining paradigm than for a comparable 3-stage paradigm, and (c) the use of S-paced test intervals on Stage 4 of the extended chaining paradigm did not lead to a significant enhancement of the mediation effect. A mediated interference effect was not observed. Results are discussed in terms of the possible role of memory in mediation.—*Journal abstract*.

278. **Wood, Gordon & Bolt, Martin.** (Michigan State U.) **Type of instruction, abstractness and mnemonic system.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 91-92.—Conducted 2 experiments to determine if the effect of manipulating imagery instructions and peg list abstractness depends on whether a paired-associate or 1-bun technique is used. Results with 108 undergraduates indicate that the paired-associate and 1-bun

techniques yield comparable results regarding the effectiveness of imagery instructions and peg list abstractness.—*Journal abstract*.

Reinforcement

279. **Long, John B.** (U. Kentucky) **The status of discriminative stimuli as secondary reinforcers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2259.

280. **Weiner, Harold.** (St. Elizabeths Hosp., Washington, D.C.) **Human behavioral persistence.** *Psychological Record*, 1970(Fal), Vol. 20(4), 445-456.—Human behavior may persist despite the fact that it produces unnecessary (preventable) loss of positive reinforcement. Data are presented which demonstrate that such persistence may be due to (a) a history of conditioning which fails to provide individuals with needed behavioral repertoires and (b) a current environment which reinforces such persistence, i.e., fails to make all net gains of reinforcement contingent upon change. Procedures which prevent or modify behavioral persistence in the face of preventable loss of positive reinforcement are illustrated.—*Journal abstract*.

281. **Weinstein, Lawrence.** (U. Melbourne, Victoria, Australia) **Magnitude of incentive contrast as a function of amount of verbal reward change.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 65-66.—Investigated human response to the variable of magnitude of reward change. In Exp. I with 17 male and 18 female undergraduates, a decrease in incentive magnitude resulted in negative incentive contrast effects, which were a positive function of the amount of verbal reward reduction. In Exp. II with 15 male and 15 female undergraduates, an increase in amount of reward produced positive incentive contrast effects, which were, as in Exp. I, a monotonic function of the amount of reward change. It is concluded that the magnitude of incentive contrast effects in human Ss is a positive function of the variable of magnitude of reward change.—*Journal abstract*.

282. **Weinstein, Lawrence & Colucci, Vincent M.** (U. Melbourne, Victoria, Australia) **Increase in incentive amount with verbal reinforcement.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 83-84.—Studied the responses of 13 male and 11 female undergraduates to an increase in incentive size. An increase in the amount of verbal reinforcement resulted in gradual, as opposed to sudden, increases in behavior and no evidence of positive incentive contrast effects. These results with human Ss agree with the data obtained from animal Ss, and suggest that a shift in incentive size in humans affects learning as opposed to some more temporary mechanism.—*Journal abstract*.

MEMORY

283. **Ackroff, John M. & Rouse, Richard O.** (Williams Coll.) **TSD and coding in STM.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 231-232.—60 undergraduates listened to a list of words and identified repeated words upon hearing them. Interspersed with the repetitions were words that were associatively or acoustically related to the repeated words. The intrusion errors were analyzed and the differences across word class found to be highly significant. Application of signal-detection theory provided a means of quantifying this difference. It

is concluded that the coding strategy for words is primarily associative, and that an acoustical strategy is almost never used.—*Journal abstract.*

284. **Birnbaum, Isabel M.** (U. California, Irvine) **Comment on "Initial-recall grouping in free-recall learning," by John A. Robinson.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 225.—Argues that the data do not permit the inference of J. A. Robinson (see PA, Vol. 44:20037) that the maintenance of organization of initially recalled words retards free-recall learning.—*Journal abstract.*

285. **Boltwood, Charles E. & Blick, Kenneth A.** (Ohio State U.) **The delineation and application of three mnemonic techniques.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 339-341.—Determined what mnemonic techniques Ss would employ in learning a list of 19 unrelated nouns. In Exp. I, 32 undergraduates used the first-letter (FL), clustering (C), and descriptive-story (DS) techniques. In Exp. II 3 groups (N = 146) applied the mnemonic techniques, and recall was compared to a no-mnemonic condition. No significant differences were found at the immediate-recall test; however, 1 wk. later the DS and C techniques produced significantly higher levels of recall, while 8 wk. later only the DS technique produced a significantly higher level of recall.—*Journal abstract.*

286. **Carey, Peter W.** (Lexington School for the Deaf, New York, N.Y.) **Verbal retention after shadowing and after listening.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 79-83.—Tested 72 undergraduates with normal speech and hearing who shadowed or listened to stories that had been recorded at 1 word/sec (wps), 2 wps, and 3 wps on word recognition, semantic retention, and syntax recognition. At the slowest rate, shadowers' word recognition and semantic retention were somewhat higher than listeners' scores, but this difference disappeared at faster rates. Significant positive correlations among all 3 retention scores were observed for listeners, but for shadowers word recognition was unrelated to either of the other 2 retention measures. Results are discussed in terms of monitoring during shadowing. Implications for experiments on selective attention are considered.—*Journal abstract.*

287. **Cermak, Greg; Schnorr, John, & Buschke, Herman.** (Stanford U.) **Word recognition as a function of spelling direction during study and test.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 127-128.—Varied factorially the spelling direction (backward or forward) of words presented for study and test. During recognition 16 male and 7 female undergraduates indicated which word of each test pair had been presented for study, and the incorrect choice of each pair was a homophone, a synonym, or a word unrelated to the correct choice. Recognition was worst with synonym distractors and best with unrelated word distractors. For each type of distractor, recognition was better for backward-spelled study words than for forward-spelled study words, and words spelled in the same direction in both study and test were recognized better than words spelled in a different direction during study and test. The latter result supports the hypothesis that visual information may be important for word recognition. The latencies of correct recognition responses suggest that memory of decoding acts can facilitate subsequent similar decodings.—*Journal abstract.*

288. **Checkosky, Stephen F.** (Lake Forest Coll.) **Speeded classification of multidimensional stimuli.**

Journal of Experimental Psychology, 1971(Mar), Vol. 87(3), 383-388.—Manipulated 2 factors in a speeded classification experiment: (a) the number of alternative stimuli in a predetermined memory set (M), and (b) the number of dimensions that need to be categorized to insure a correct response (D). Results with 12 right-handed female undergraduates indicate that the joint effect on mean RT was additive. This is interpreted as evidence that they are mediated at separate information-processing stages. Results are not consistent with Sternberg's exhaustive comparison model. Generation of a visual code for each of the memory set items is proposed to account for the effects of M. A subsequent stage in which this visual code is interrogated dimension by dimension is proposed to account for the effects of D.—*Journal abstract.*

289. **Cruse, Donna F.** (U. Massachusetts) **Recoding strategies and the retrieval of information from memory.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3017.

290. **Curnow, Paul F.** (U. Minnesota) **Integration of linguistic materials.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3017-3018.

291. **Daniel, Terry C.** (U. New Mexico) **The nature of the effect of verbal labels on recognition memory for form.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2300.

292. **Del Castillo, David M.** (U. New Mexico) **Interference effects in recognition memory for visual forms.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2301.

293. **Gallagher, Joseph W. & Patterson, William.** (U. Alabama) **The effect of two types of associative linkage and position of association linkage on the recall of sentences.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 75-76.—Examined the influence of 2 types of association data on the recall of sentences in 2 experiments with 30 and 90 undergraduates. Results show that "syntactic restricted" associations facilitated the recall of sentences while typical free associative connections may have some influence. However, the predominant underlying variable appears to be a syntactic association. The position of syntactic associative connection in the sentence had no differential effect on recall. It is suggested that in studying the associative hierarchies of individuals some attention be given to the fact that several associative hierarchies may exist.—*Journal abstract.*

294. **Gorfein, David S.** (New Coll.) **Effects of intralist activity on free-recall performance.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 331-333.—Studied performance of 60 undergraduates in a free-recall paradigm under 5 conditions of intralist activity. The activities were designed in such manner as to vary the likelihood of blocking either rehearsal of the items hooking contiguous items together, or both processes. Data support an explanation of free recall in terms of both of these processes being active with the major determinant of recall being the recirculation or rehearsal of the to-be-remembered item.—*Journal abstract.*

295. **Gruneberg, Michael M.** (University Coll. of Swansea, Wales) **A dichotomous theory of memory. Unproved and unprovable?** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 489-496.—Considers the theoretical and empirical basis for a dichotomy between short-term memory (STM) and long-term memory (LTM). It is noted that the theory was developed in order

to account for rapid forgetting, and that rapid forgetting is the criterion by which it is decided whether or not material has progressed beyond STM. A major problem for a dichotomous theory is the commonly held view, based on the work of G. Keppel and B. J. Underwood (see PA, Vol. 38:5326) that rapid forgetting in STM is due to interference, as is forgetting in LTM. This, if true, is fatal for a dichotomous theory. Even at an empirical level, however, it is noted that there is no evidence which unequivocally supports a dichotomous theory. A single system theory is recommended. It is concluded that those holding a dichotomous theory must do more than show the cause of forgetting in STM—it must be shown not to be the cause of forgetting in LTM. (22 ref.)—*Journal abstract*.

296. Halff, Nancy F. (U. Wisconsin) **Organization in free recall learning: The effects of taxonomic and grammatical list arrangements.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3023.

297. Hamilton, Peter & Hockey, G. R. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Recency/primacy ratio: A short test of task orientation.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 253-254.—13 adult Ss recalled 60 9-digit lists presented consecutively for 15 min. at a rate of 2 digits/sec. An analysis of errors by serial position revealed that (a) primacy errors in the 1st 2 list positions increased over time, and (b) recency errors in the last 2 list positions decreased over time. The ratio recency errors/primacy errors showed a consistent downward trend over the testing period. It is suggested that this ratio is an index of the degree of active information processing and may be a useful reflection of the vigilance type of decrement, which can be derived from the use of a short simple test.—*Journal abstract*.

298. Herring, Barbara S. & Bryden, M. P. (Box 146, Hagersville, Ontario, Canada) **Memory colour effects as a function of viewing time.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 127-132.—Instructed 60 Ss to judge the color of 2 objects, an apple, and a circle, relative to the colors of 5 samples. The apple was judged significantly redder than the circle, indicating a memory color effect. There was also an indication that this effect was stronger when the test object was viewed for 300 msec. than when it was seen for either more or less time. These results fit a modified version of J. S. Bruner's model of perceptual processing. (French summary)—*Journal abstract*.

299. King, David J. (State U. New York, Oswego) **Initial observations on the learning of connected discourse to complete mastery.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 329-330.—25 undergraduates learned a 95-word-long story to complete mastery. All recalls of each S were scored for accuracy of recall by 2 dependent variables, number of words and number of 3-word sequences. The mean number of trials to successive criteria were computed for both word and sequence measures. The relationship between successive criteria and the learning of words is curvilinear, while the relationship between successive criteria and sequence learning is a straight line.—*Journal abstract*.

300. Klatzky, R. L., Juola, J. F., & Atkinson, R. C. (Stanford U.) **Test stimulus representation and experimental context effects in memory scanning.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 281-288.—Asked 12 female undergraduates to perform a memory-scanning task in which they indicated

whether or not a given test stimulus (letter or picture) matched 1 of a previously memorized set of letters. The test stimuli presented during a given session were either exclusively letters (a letter session), exclusively pictures (a picture session), or a random sequence of both (a mixed session). RT functions relating response latency to the size of the memorized set of letters were plotted, and data are discussed in the context of the scanning models previously proposed by S. Sternberg. The RT functions of letter sessions and picture sessions were found to be consistent with the exhaustive model for memory scanning. However, the functions for mixed sessions deviated markedly from the predictions of such a model. The context in which a scanning task is imbedded appears to have a substantial effect on RT functions.—*Journal abstract*.

301. Loeb, Jane. (U. Illinois, Champaign) **Differences between retrieval cues in effectiveness as recall aids.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 193-194.—Instructed 75 undergraduates to learn a list of words to which 2 sets of cues were relevant with 2-16 items/cue. Cues for which relevant items were relatively high-frequency free associates (conceptual cues) led to higher recall than did cues to which list items were relatively low-frequency responses (alphabetical cues). Free-recall instructions led to higher recall than did alphabetical cues to which more than 6 items were relevant, but recall from large conceptual categories was not inferior to free recall of the same items. Results suggest that rather than sharing a common limit on the number of items they can retrieve, cues vary in effectiveness. Thus, free-recall performance will be affected by the particular subjective units into which S organizes a set of words, as well as by the number of such units he uses.—*Journal abstract*.

302. Loftus, Elizabeth F., Freedman, Jonathan L., & Loftus, Geoffrey R. (Stanford U.) **Retrieval of words from subordinate and superordinate categories in semantic hierarchies.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 235-236.—Investigated retrieval from long-term memory in an experiment in which S was shown a category name and asked to respond with a word belonging to the category (e.g., animal-horse, bird-robin). RTs of 32 undergraduates taken to retrieve a member of a given category were not significantly different from the time taken to retrieve a member of a superset of that category. The time taken to retrieve a category member was found to be strongly related to the Thorndike-Lorge frequency of the most frequent category member. Data support the concept of a semantic organization in which the category name can be located directly, rather than being accessible only via a search along a hierarchical path.—*Journal abstract*.

303. Morris, P. E. & Reid, R. L. (U. Exeter, England) **The repeated use of mnemonic imagery.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 337-338.—Hypothesized that the same mnemonic system can be used repeatedly without deterioration in performance through interference. 54 undergraduates used a "peg-word" system to memorize a single list of 10 nouns in different orders. No decline in performance was found. A control group improved on successive trials but at all times recalled less than the mnemonic group.—*Journal abstract*.

304. Nelson, Douglas L., Wheeler, Joseph, & Engel, Jane. (U. South Florida) **Stimulus meaningfulness and similarity, recall direction and rate of recall test.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 346-347.—In

a previous study, decreases in stimulus meaningfulness and similarity produced increases in the differences between forward and backward recall following paired-associate (PA) acquisition. Results from 160 undergraduates indicate that these relationships were not a result of the long recall test interval used. Although the overall level of recall was reduced under a faster test rate, the meaningfulness-similarity recall direction relationships were independent of test rate.—*Journal abstract.*

305. Postman, Leo & Parker, Janet F. (U. California, Berkeley) **Maintenance of first-list associations during transfer.** *American Journal of Psychology*, 1970(Jan), Vol. 83(2), 171-188.—Investigated the effects on transfer and retroactive inhibition of 1st-list recall during the test trials of 2nd-list learning (simultaneous method). In Exp. I this procedure was used with 16 undergraduates in each group under 4 paradigms of transfer: A-B, C-D; A-B, A-C; A-B, A-Br; and A-B, A-B. In Exp. II a direct comparison was made for 2 paradigms (C-D and A-C) between the simultaneous method and the conventional procedure with 16 undergraduates in each group. In the simultaneous condition the differences among paradigms in transfer learning paralleled those obtained under the successive treatment. The maintenance of 1st-list responses resulted in moderate retardation of transfer performance. Retroactive inhibition was reduced but not eliminated when the 1st list continued to be recalled in the transfer stage. In the simultaneous situation the amounts of retroactive inhibition for C-D and A-C did not differ reliably and appeared to reflect primarily a reduction in the availability of 1st-list responses. Progressive unlearning of 1st-list associations was in evidence only for A-Br. Mediated facilitation was observed under the A-B paradigm.—*Journal abstract.*

306. Puff, C. Richard. (Franklin & Marshall Coll.) **An investigation of two forms of organization in free recall.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 720-724.—Following multiple free-recall trials, the protocols for 15 undergraduates presented with a categorized (C) list were scored for both categorical clustering and intertrial (subjective) organization, while the data for 15 undergraduates given a noncategorized (NC) list were scored for just intertrial organization. Results indicate that organization in the form of broad conceptual grouping (clustering) was adopted more readily than fixed sequential ordering. Previous findings that the clustering with the C list did not influence the degree of fixed ordering were also replicated. Also, it was shown that percentage-of-maximum-possible scores are an adequate way of expressing the 2 forms of organization for comparison, while the standard observed-minus-expected scores are not as useful.—*Journal abstract.*

307. Robinson, John A. (U. Louisville) **Reply to Birnbaum.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 225.—Argues that the example presented by I. M. Birnbaum (see PA, Vol. 46:Issue 1) in criticism of an earlier experiment is not characteristic of the data in question. Original conclusions are defended.—S. Knapp.

308. Schmidt, Richard A. & Ascoli, Kenneth M. (U. Michigan) **Attention demand during storage of traces in motor short-term memory.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 497-504.—Describes 2 experiments designed to test the hypothesis that attention demand during the storage of motor traces in motor short-term memory (STM) would cause a decrement in recall. 18 male and 6 female right-handed

graduate and undergraduate students served as Ss in both experiments. Attention demand was manipulated by having Ss rehearse consonant trigrams (Exp. I) or by counting forward by "1s" or backward by "3s" (Exp. II) during storage of traces from a positioning task. Although rehearsing trigrams failed to influence accuracy of recall, counting backward resulted in nearly twice the error as counting forward, indicating that not all of the proactive inhibition found in earlier work could be attributable to motor interference.—*Journal abstract.*

309. Schulman, Arthur I. & Lovelace, Eugene A. (U. Virginia) **Recognition memory for words presented at a slow or rapid rate.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 99-100.—Tested recognition in 80 undergraduates with lists of common and rare English words presented at 1 word/sec or 1 word/4.25 sec. It was found that fast presentation impairs subsequent recognition of both common and very rare words. This presentation rate, slow enough for accurate perception but probably too fast for much more elaborate information processing also sharply reduces the variability of recognition memory scores.—*Journal abstract.*

310. Shapiro, S. I. (U. Hawaii) **Serial organization and prior free recall.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 57-63.—Assessed serial recall and organization of a list after different levels of prior free-recall learning with the same list. Performance was expected to be impaired as a direct function of amount of free recall because of inappropriate organizational units formed during free recall. Recall on serial trials following 15 free-recall trials was inferior to 5 or 10 prior free-recall trials. 4 groups of 24 Ss each were tested. Serial organization on the 1st serial trial was inferior if prior free recall occurred, but did not vary with the amount of free recall. These results, and those of part-whole and whole-part free-recall transfer studies, were interpreted by a component analysis of free recall, including response learning/unlearning and organizational learning/unlearning. (16 ref.) (French summary)—*Journal abstract.*

311. Shapiro, S. I. (U. Hawaii) **The commonality of subjective organization in free recall.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 81-83.—Presents measures of bidirectional commonality and bidirectional ratio of commonality to assess the extent of inter-S agreement of subjective organization in free recall. Results of an experiment with 24 male and female undergraduates employing the commonality measure indicate that commonality increases across trials and is positively correlated with the amount of recall. However, the amount of commonality is relatively low. The low amounts of commonality were confirmed further by analyzing the data of 3 additional and independent studies of free recall. (18 ref.)—*Journal abstract.*

312. Shapiro, S. I. & Bell, Jerold A. (U. Hawaii) **Subjective organization and free recall: Performance of high, moderate, and low organizers.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 71-73.—Reports a study by E. C. Carterette and E. A. Coleman which found that, at least for high organizers, subjective organization appears to follow recall. Since such relationship seriously brings into question the hypothesis that memory is largely dependent upon subjective organization, a replication and extension of the experiment was undertaken. When 51 undergraduates were divided into high, moderate, and low organizers, superior recall performance was clearly associated with greater

organization. However, increases in organization for the low and moderate organizers were minimal, despite marked improvements in recall. The general problem raised by Carterette and Coleman about the adequacy of the organizational hypothesis to account for the free recall of lists of unrelated words is upheld.—*Journal abstract.*

313. Smith, Anderson D., D'Agostino, Paul R., & Reid, L. Starling. (U. Virginia) **Output interference in long-term memory.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 85-89.—Reports 2 experiments, with 70 and 140 undergraduates, concerning the role of output interference on the recall of organized material. Groups of Ss received blocked presentation of a 49-item list consisting of 7 items in each of 7 categories. At recall, the category name served as the retrieval cue. In Exp. I, a 20-sec recall interval was allowed for each category and 10 Ss were assigned to each group. In Exp. II, this interval was increased to 90 sec. and 20 Ss were assigned to each group. Results of both studies indicate that the number of words recalled from a category is dependent on the position of the category in the output sequence. In general, the earlier a category appears in the output sequence, the greater the number of words recalled from that category. (French summary)—*Journal abstract.*

314. Stelmach, George E. & Bruce, Jack R. (U. California, Santa Barbara) **Recall load in STM.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 205-207.—Examined recall load and difficulty of information processing in kinesthetic recall using a within-S design with 15 right-handed undergraduates. The multiple-recall task had larger absolute error compared to the single task; however, algebraic error revealed little differences. Absolute error analysis indicates that both retention interval conditions were significantly different from control. Difficulty of information reduction activity was not found to be a significant variable, and the Recall Load \times Interpolated Activity interaction failed significance. No evidence was found to suggest that relative difficulty between the motor and verbal task can explain the empirical differences between the 2 domains.—*Journal abstract.*

315. Stoff, David M. & Eagle, Morris N. (Yeshiva U.) **The relationship among reported strategies, presentation rate, and verbal ability and their effects on free recall learning.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 423-428.—Presented 20 tape-recorded words to 64 undergraduates in a free recall test of meaningful words with 1- and 3-sec presentation rates. Memorizing strategies were reported by Ss either before or after recall test. The time of report did not influence the effect on recall, demonstrating that reported strategies are not an artifact of recall performance. Organizational strategies resulted in significantly better recall than rehearsal only under the slower presentation rate. Organizational strategy Ss performed significantly better on the similarities subtest of the WAIS than rehearsal Ss. Findings are discussed in terms of the distinction between discovery and utilization of strategies, the nature of the operations involved in effective learning strategies, and the importance of the interaction among stimulus conditions, individual difference variables, and mediation in verbal learning. (25 ref.)—*Journal abstract.*

316. Strand, Bonnie Z. (Georgetown U.) **Further investigation of retroactive inhibition in categorized free recall.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 198-201.—Tested the theory that

the estimated category-recall score used in previous experiments on retroactive inhibition in free recall which have noted discrepancies between the predictions and the results for category recall for the paradigm in which the same (S) categories appear in both lists may not be adequate. Actual recall of category names was required for some groups, after 2 lists with either S or different (D) categories. Individual testing was given to each of the 16 undergraduates in each condition. For other conditions, the presence or absence of category names during word recall was manipulated. On the category-recall test, in accordance with theory, the D Group forgot more than the control condition, while there was no loss for the S Group. Results on the word-recall tests were also consistent with predictions.—*Journal abstract.*

317. Turnage, Thomas W. (U. Maryland) **Free recall of minimal serial lists.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 378-382.—Investigated free recall of subspan (2-noun) lists over a 45-sec retention interval. The recall lists involved all combinations of high- and low-meaningful nouns. Results, with 160 undergraduates, show that free recall of the subspan lists produced many of the effects found with free recall of supraspan lists including a recency effect that diminished with delayed recall. There were also indications that an item's frequency and serial position were complex predictors of probability of recall, interference effects, and recall strategies. Results are discussed in terms of single vs. dual processing in memory.—*Journal abstract.*

318. Underwood, Benton J., Zimmerman, Joel, & Freund, Joel S. (Northwestern U.) **Retention of frequency information with observations on recognition and recall.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 149-162.—Determined retention of frequency discriminations among words for 3 intervals (0, 1, and 7 days) and for presented frequencies of from 1-6. Comparative judgments and absolute judgments were used to measure frequency discrimination. 9 groups of 40 undergraduates each were used. All Ss were given a single long list of words with the varying frequencies occurring within the list. Free recall was also obtained; all intervals and all 3 types of retention tests were represented by independent groups. Results show (a) appreciable losses of frequency discriminations over time, losses which could not be accounted for by the hypothesis that situational frequency merges into background frequency; (b) very heavy forgetting as measured by free recall; and (c) a positive relationship between free recall of words and their apparent frequency. Results support the theory that a frequency discrimination is dominant in recognition memory.—*Journal abstract.*

319. Zytoske, Adrian E. (Emory U.) **The effects of category size and serial position within categories on recognition memory.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3041.

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320. Brodie, Delbert A. & Lippman, Louis G. (Western Washington State Coll.) **Effects of shifts in visual, semantic, and acoustic-semantic stimulus attributes in STM tasks.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 335-337. 4 groups of 20 undergraduates recalled triads of spelled-out numbers for 3 trials. The type of material presented on the 4th trial was the same for the

control (C) group but differed either visually (V), semantically (S), or acoustically and semantically (AS) from prior material for 3 experimental groups. Recall for all groups decreased over the 1st 3 trials. Vocal and written recall on the 4th trial for Groups V and SA, but only vocal recall of Group S, was superior to that of Group C. In contrast to the recent emphasis upon acoustic storage, results indicate that short-term memory of verbal material entails both an auditory and visual process. Results are discussed in terms of extensions of the interference-encoding hypothesis.—*Journal abstract.*

321. Brodie, Delbert A. & Lippman, Louis G. (Western Washington State Coll.) **Symbolic and size shifts in short-term memory tasks.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 361-362.—Tested 5 groups of 30 undergraduates each for recall of triads of spelled-out numbers (SON) or arabic numbers (AN) for 4 trials in order to examine the effects of a shift in either symbolic presentation or physical size. Recall was facilitated by size and symbolic changes, overall recall of AN was superior to that of SON, and idiosyncratic item effects were observed. The relationship between these results and isolation effects is discussed.—*Journal abstract.*

322. Campos, Leonel. (U. Manila, Philippines) **Is primary memory the source of the recency effect in short-term serial recall?** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 57-59.—Explored the fate of the recency effect with delayed, reversed short-term serial recall. 33 Filipino undergraduates recalled 3 lists with 10 English words each and with an interval of delay—0, 10, or 20 sec. The outcome supports the notion that in short-term memory the probability of recall of an item within a series depends more on the order of arrival than on the order of retrieval of the items, and that primary memory is the source of the recency effect.—*Journal abstract.*

323. Cimbalo, Richard S. & Pelonero, Kathleen C. (Rosary Hill Coll.) **The isolation effect and mechanisms in short- and long-term memory.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 69-70.—Manipulated the duration of tachistoscopic exposure (2.5, 10, and 20 sec.) for 10-item lists in an attempt to emphasize either short-term memory (STM) or long-term memory (LTM). A Duration \times Isolation interaction was hypothesized such that overall performance for isolated and unisolated lists would not differ in STM but that the overall performance for isolated lists would be superior to unisolated lists in LTM. Results with 21 female undergraduates did not support the hypothesis. Performance for isolated lists was found to be superior for all 3 duration conditions. This result is explained in terms of an effective shortening of the encoded list caused by the presence of an isolated item.—*Journal abstract.*

324. Corballis, Michael C. & Raeburn, Barbara J. (McGill U., Montreal, Quebec, Canada) **Recall strategies in three-channel immediate memory.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 109-116.—Digits were spoken through earphones via 3 simultaneous auditory "channels," created by having 1 digit spoken to the left ear only, another to the right ear only, and a third (middle channel) to both ears at once. Also, each channel was spoken by a different voice, a woman's in the middle, and different men's voices to left and right. 18 right-handed and 18 left-handed Ss heard a series of 2 such triplets, with onsets of 1 sec. apart. Ss instructed to report the digits channel by channel recalled as many digits as those instructed to report them

triplet by triplet, but Ss who were permitted free recall chose the triplet-by-triplet strategy more often than the channel-by-channel one. (French summary)—*Journal abstract.*

325. Craft, John L. & Hinrichs, James V. (U. Iowa) **Short-term retention of simple motor responses: Similarity of prior and succeeding responses.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 297-302.—Investigated interference effects on the recall accuracy of a standard motor response as a function of the similarity of prior and interpolated responses, in 3 experiments with 54 undergraduates. S executed 2 blind linear movements of controlled length and recalled 1 of them. In Exp. I and II, S was informed which movement to recall after both had been executed. In Exp. III, S was informed which movement was to be repeated before either was executed. Standard recall error was observed to be increasingly in the direction of the interfering movement paired with the standard, and pre- and postcuing of the recall requirement did not produce differential magnitude or patterns of response error. Results are consistent with the hypothesis of memory trace interaction proposed by R. L. Pepper and L. M. Herman (see PA, Vol. 44:4545).—*Journal abstract.*

326. Daoust, Donald L. (George Washington U.) **An investigation of grouping in serial order short-term retention.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2300-2301.

327. Dey, Mukul K. (Jersey City State Coll.) **Reminiscence in paired-associate learning.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 41-51.—Investigated whether sufficient intralist stimulus similarity (ISS) is an essential condition for reminiscence to appear in paired-associate (PA) learning. 72 undergraduates served as Ss. Using lists of 6 tone-word pairs, 2 degrees of ISS were factorially combined with 0-, 2-, and 4-min rest pauses interpolated after the attainment of criterion 4/6. Recalls on the 1st 2 posttest trials reflected a depressive rather than facilitative influence on rest pause. Analyses of posttest trial to criterion 6/6 revealed that significant facilitation occurred only when the length of rest pause was 2 min. and stimulus similarity was high. This finding indicates that a reminiscence effect resembling the L. B. Ward and C. I. Hovland phenomenon is obtainable in PA learning provided there is high enough similarity among stimuli. Results appear to be best explained by a theory of PA learning which postulates a temporally labile competition-generated inhibitory potential. (48 ref.)—*Journal abstract.*

328. Dornbush, Rhea L. (New York Medical Coll., N.Y.) **Delay of auditory input in "simultaneous" auditory and visual short-term memory.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 97-98.—Attempted to facilitate visual recall when material is presented under bisensory simultaneous conditions (i.e., visual and auditory stimuli presented together), by delaying auditory material up to 1/4 sec. relative to the onset of the visual material. Visual recall for 174 undergraduates, however, remained stable across the auditory delays, suggesting a limitation in the visual system beyond that associated with the simultaneous occurrence of auditory material.—*Journal abstract.*

329. Elmes, David G. & Wilkinson, William C. (Washington & Lee U.) **Cued forgetting in free recall: Grouping on the basis of relevance and category membership.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 438-440.—Presented categorized

word lists for free recall to 12 Ss in Exp. I. In Exp. II, with 12 Ss, both categorized and uncategorized items appeared in the lists. Ss were cued to forget $\frac{1}{2}$ the items in some categories and $\frac{1}{2}$ the uncategorized words. Irrelevant or to-be-forgotten words were not recalled as well as relevant items. Recall of relevant items categorically related to irrelevant items was poorer than recall of other categorized items. Irrelevant items were retrieved adjacent to categorically related relevant items and other irrelevant words with about equal frequency. Uncategorized relevant items tended to appear next to each other in recall. It is concluded that irrelevant information is stored by labeling items within a category as relevant or irrelevant, and by grouping on the basis of relevance.—*Journal abstract.*

330. Ernest, Carole H. & Paivio, Allan. (U. Western Ontario, London, Canada) **Imagery and sex differences in incidental recall.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 67-72.—Tested 36 male and 75 female undergraduates who differed on measures of imagery ability for incidental recall in 2 experiments involving pictures and words as stimuli. In Exp. 1 high-imagery males surpassed their low-imagery counterparts in intentional free recall of words, but the reverse relation occurred with females. No relation was obtained between imagery ability and incidental recall for stimulus color. However, the colors were recalled better when associated with pictures rather than words as stimuli, suggesting an effect of stimulus concreteness on visual memory. The orientating task in Exp. II was item recognition. High-imagery Ss were more accurate than low-imagery in the recognition task, and high-imagery females (but not males) surpassed their low-imagery counterparts in incidental recall of the stimuli. Results provide further evidence for the functional significance of imagery in tasks involving a memory component.—*Journal abstract.*

331. Fisher, Dennis F. & Karsh, Robert. (Aberdeen Research & Development Center, Human Engineering Lab., Aberdeen Proving Ground, Md.) **Modality effects and storage in sequential short-term memory.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 410-414.—Notes that previous studies have not been effective in minimizing the temporal dependencies which have favored auditory over visual performance in short-term memory. 2 experiments were conducted using the keeping-track task which has been shown to place importance upon spatial relationships during encoding and storage. Exp. 1, with 18 undergraduates, resulted in fewer errors being made during the auditory presentations, suggesting the possibility of differences in the encoding task for each mode. Exp. 2, with 18 undergraduates, attempted to equate the encoding tasks and resulted in the same level of performance for each mode. Results are interpreted as giving support to the "spatial window" model. Both modes were found to be capable of spatial encoding and storage.—*Journal abstract.*

332. Hinrichs, James V. & McKoon, Gail. (U. Iowa) **Order and number requirements in immediate serial recall.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 215-219.—8 groups of 16 undergraduates recalled 10-number sequences in which 2 order requirements and 1 response number requirement were imposed. Both order requirements, production order and final protocol order, significantly influenced retention and interacted with primacy and recency effects within the recall sequences. Restriction of the number of

responses emitted influenced only the level of performance and did not interact with any other variable. Differences in ordered retention were attributed to differential availability of recency items in recall.—*Journal abstract.*

333. Klein, Helen G. (U. Pittsburgh) **The temporal development of meaning from very short-term memory.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2313-2314.

334. Krueger, Lester E. (City Coll., City U. New York) **Effect of direction of sequential presentation and redundancy on short-term recognition memory.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 121-124.—Tested short-term recognition memory by presenting 6 letters, 1 after the other, followed by a target letter to 20 undergraduates in each of 3 experiments, and having S indicate whether or not the target matched 1 of the 6 letters. Recognition memory for a letter was better when it was embedded in a 6-letter word, rather than a nonword, and when it was included in a sequence presented left-to-right, rather than right-to-left. Reducing the presentation rate from 4/sec to 2.5/sec largely eliminated the left-to-right effect. The effect of direction of presentation was (a) greater for redundant than for nonredundant sequences, (b) greater for Ss who more frequently formed a word out of the sequence, (c) no greater for words than nonwords, and (d) no greater for letter than for line-figure sequences. Findings suggest that the left-to-right effect depends as much, or more, on peripheral processes (e.g., eye movements) as on central processes (e.g., reading).—*Journal abstract.*

335. Madigna, Stephen A. (U. Southern California) **Modality and recall order interactions in short-term memory for serial order.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 295-297.—Forward serial recall of lists of 8 words showed marked modality effects, with auditory and visual inputs recalled equally well for initial serial positions, but with a much more extensive recency effect produced by auditory presentation. These modality differences were eliminated in backward recall. 16 Ss were tested. In terms of numbers of items recalled in correct positions, backward recall was noticeably superior to forward recall for visual presentation; for auditory presentation, recall order had negligible effects. The possible role of sensory storage mechanisms in the production of these effects is discussed.—*Journal abstract.*

336. McLeod, P. D., Williams, C. E., & Broadbent, D. E. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Free recall with assistance from one and from two retrieval cues.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 59-65.—Presented a list of 25 words for free recall to 34 undergraduates. Hints were later given for unrecalled words by presenting 1st 1 and then a 2nd cue word associated with the unrecalled words. Earlier results by E. Tulving and S. Osler (see PA, Vol. 42:16615) had shown that 1 cue assists recall but had shown no benefit from the 2nd cue; in their task, however, the associations were established with the experiment. In the present results, the 2nd cue did produce a further increment in recall; furthermore, the increment in recall was greater than that predicted on the assumption that there was no interaction between the 2 cues. The 1st cue had produced some effect even when it did not give full recall.—*Journal abstract.*

337. Miller, Laurence. (Western Washington State Coll.) **The effect of duration of item exposure on**

recall in a short-term memory paradigm. *Psychonomic Science*, 1970(Oct), Vol. 21(2), 123-124.—Tested 288 undergraduates for recall of 6 consonant trigrams at retention intervals of 0, 3, and 18 sec. with a 2000-, 500-, or 200-msec duration of item exposure. As duration was reduced, retention at 3- and 18-sec within- and between-exposure durations declined for all items, and the interaction between length of retention interval and number of items was significantly reduced for the initial and middle items. Results are interpreted in terms of increased proactive interference as item exposure is reduced.—*Journal abstract*.

338. Morganstein, Stanley. (U. Massachusetts) **The effect of encoding, retention interval and serial position on reconstruction accuracy and latency.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2320.

339. Norman, Carolyn P. & Hall, Alfred E. (Wooster Coll.) **Effect of learning on false recognitions.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 326-330.—Conducted 2 experiments to study the effects of laboratory-induced learning upon false recognition of words as repetitions, using the procedure of B. J. Underwood (see PA, Vol. 39:11459). In Exp. I and II with 40 undergraduates and 100 high school and college summer students, the effect of laboratory-induced learning on false recognitions was demonstrated when the stimulus words were presented at least 3 times. In Exp. II, false recognition of words as repetitions, based on a mediated chain, was not demonstrated.—*Journal abstract*.

340. Parkinson, Stanley R., Parks, Theodore E., & Kroll, Neal E. (U. California, Davis) **Visual and auditory short-term memory: The effects of phonemically similar auditory shadow material during the retention interval.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 274-280.—Investigated via a series of 3 experiments human ability to retain a single letter of the alphabet (presented either visually or aurally) while concurrently shadowing (repeating aloud) a series of aurally presented letters. 12 naive undergraduates were used in each experiment. The retention of auditory letters was adversely affected when the shadow list contained phonemically similar letters. However, retention of visually presented letters suffered when subsequent shadow letters all contained the root vowel, *e*, whether or not the memory letter itself had that root vowel. Thus, the hypothesis that visual presentation led to only an auditory form of storage is not supported. Alternatively, it is concluded that visual stimuli may lead to retention of the appearance of, rather than the name of, each letter and that these memories may persist for at least several sec.—*Journal abstract*.

341. Pollio, Howard R. & Foote, Russell. (U. Tennessee) **Memory as a reconstructive process.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 53-58.—Investigated the effects of S-defined structure on the free recall of verbal material. 4 groups of 15 undergraduates each sorted 4 different word lists into individually defined categories. Immediately after sorting, Ss were unexpectedly asked for a free recall of these words. All Ss' recall outputs were organized in concord with their sorting categories. Over all Ss a number of common categories emerged. In addition, recall categories were found to be temporally distinct in individual recall records. Results support the view that memory is a reconstructive rather than an associative

process when task constraints do not preclude the S from using S-defined organizational factors.—*Journal abstract*.

342. Reed, Henry J. (U. California, Los Angeles) **Studies of the interference process in short-term memory.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2965.

343. Scheirer, Clark J. (U. Pittsburgh) **The effect of modality and effective contiguous time upon response latency in short-term memory.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2326.

344. Schmidt, Richard A. & Ascoli, Kenneth M. (U. Michigan) **Intertrial intervals and motor short-term memory.** *Research Quarterly*, 1970(Oct), Vol. 41(3), 432-438.—Earlier work which showed no proactive inhibition (PI) effects in motor short-term memory (STM) may have failed to do so because the long ITIs used may have allowed the traces from previous positions to weaken and become ineffective in producing PI. The present investigation determined whether the ITI was a factor in PI. 7 female and 33 male right-handed undergraduates and graduates served as Ss. The task involved presentation and recall (after a 10-sec retention interval) of positions along a trackway, each S having 10 different positions on each of 10 trials. ITIs were either 10 or 90 sec. for 2 groups of 20 Ss each. No PI occurred and ITI was not a variable in PI, which failed to support the view that motor and verbal STM may be similar systems.—*Journal abstract*.

345. Schwarz, M. & Bryden, M. P. (St. Francis Xavier U., Antigonish, Nova Scotia, Canada) **Coding factors in the learning of repeated digit sequences.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 331-334.—Presented 9-number sequences aurally to 60 undergraduates in the guise of an experiment on practice effects on digit span. A single critical sequence was repeated on every 3rd trial. 1 or 2 numbers at the beginning or end of the repeating series were changed on each trial for 7 repetitions. Ss were then given 5 test trials in which the repeating series remained constant. Changing numbers at the end of the sequence, or 1 number at the beginning of the sequence, did not disrupt learning of the repeating sequence. Changing 2 numbers at the beginning of the repeating sequence reduced performance to the same level as that of Ss who had not heard the repeating series at all prior to the test trials. Results suggest that a number sequence is coded as familiar or unfamiliar largely on the basis of the 1st block of numbers.—*Journal abstract*.

346. Tell, Phillip M. (U. Virginia) **The influence of vocalization in short-term memory.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2268-2269.

347. Tell, Phillip M. & Voss, Brendan X. (Florida Technological U.) **The influence of vocalization activity on short-term recall.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 120-121.—Utilized the Peterson distractor technique to investigate the effect of vocalization activity on short-term recall. 60 undergraduates voiced or silently read to-be-remembered consonant trigrams and were tested for recall at retention intervals up to 12.6 sec. It was found that the auditory input resulting from vocalization activity was a facilitating source of information in short-term recall when compared with silent reading of trigrams. Findings further indicate that vocalization activity has its most beneficial effects at the shorter retention intervals.—*Journal abstract*.

348. Udolf, Roy. (Hofstra U.) **The verbal loop**

hypothesis as a predictor of individual differences in short-term recall of tachistoscopically presented binary numbers. *Psychonomic Science*, 1970(Nov), Vol. 21(4), 245-247. Investigated the theory of the verbal loop hypothesis to predict individual differences in the recall ability of 51 evening college students presented with 20 arrays of 8-digit binary numbers at exposure times of .5 sec. The independent variable was the binary array, and the 2 dependent variables to be correlated were verbalization length, measured in units of words, and stimulus difficulty, measured in units of number of errors. The finding by M. Glanzer and W. H. Clark (see PA, Vol. 38 7391) of a high negative correlation between stimulus accuracy and mean verbalization length was replicated here by obtaining a high positive correlation between stimulus difficulty and mean stimulus verbalization length. However, there was no relationship found between the characteristic verbalization length of an S and his ability on the experimental task as measured by his total number of errors. Results suggest that the verbal loop hypothesis may require modification and further testing. *Journal abstract.*

349. Wickey, John. (Wayne State U.) Cognitive factors in the immediate and delayed recall of attitudinal materials. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2270-2271.

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350. Beller, Henry K. (State University Coll. New York, Brockport) Priming Effects of advance information on matching. *Journal of Experimental Psychology*, 1971(Feb), Vol. 87, Pt. 1, 121-125. Used a modification of M. J. Posner and R. J. Mitchell's paradigm to clarify the role of advance information on matching. 6 Ss were shown, in advance, 1 of a pair of items to be matched. This advance information (priming) directed R1 to physical matches even when the cue of this prime was a linguistic Prime. Facilitated matches took less time than physical matches but only when prime-cue matching was consistent. Results are interpreted as suggesting that priming affects information processing at 2 levels, stimulus encoding and memory access. *Journal abstract.*

351. Bersted, Chris T., & Evans, Selby H. (Southwest Missouri State Coll.) Effects of adherence to generation rules on conceptual judgments. *Psychonomic Science*, 1970(Nov), Vol. 21(4), 211-212. Presented 20 trials on a simultaneous same-different similarity-discrimination task with hierarchical stimuli containing different amounts of difference in 2 processing points in 20 intercorrelations. Stimulus judgments and number of same-different responses were found to be a positive function of amount of difference in a generation rule. Conversely, the response was positive to a lower amount of higher similarity ratings as similarity increased in different control trials. It is suggested that Ss are not primarily concerned to detect primeness but that some attributes are not well learned, and are being separately encoded. *Journal abstract.*

352. Devlin, Dennis, & Deffenbacher, Kenneth A. (Nebraska, Omaha) Effects of proportion of positive instances and degree of restriction on the induction of a principle. *Psychonomic Science*, 1970(Dec), Vol. 21(5), 29-30. Assigned 30 undergraduates to 2 treatment groups. Ss attempted to discover a principle by which numbers and letters were paired. Ss varied on 2

dimensions: proportion of positive instances sampled and degree of restriction in selecting instances for test. Ss who sampled a higher proportion of positive instances were superior to those sampling a lower proportion. Ss who were unrestricted in their selection of instances because they sampled a higher proportion of positive instances performed better than Ss who were restricted and sampled a lower proportion. Finally when both restricted and unrestricted groups were equated for proportion of positive instances sampled, performance was similar. *Journal abstract.*

353. Holmgren, John F. (Stanford U.) Response latency as an indicant of information processing in visual search tasks. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3025.

354. Jansen, Jan P., & Wittmer, Rudolf. (Tübingen U. Inst. of Psychology, W. Germany) Der Einfluss verschiedener Vortätigkeiten und verschiedener Bearbeitungsreihenfolgen auf die Leistungen bei Konzentrationsproben. [The influence of various activities and of test-sequence on the achievement in concentration tests]. *Psychologische Beiträge*, 1970, Vol. 12(1), 44-49. Tested the hypothesis of a specific stimulation of the readiness to concentrate by means of a balanced variety of various experimental activities. Attempts were then to control the influences of different activities and sequences in which the tests were administered. Data indicate that both factors influenced achievement behavior in a statistically significant manner. Results point out the necessity for standardized testing situations. *English summary.*

355. Kalkstein, Hermann. (Inst. for Scientific Form, Göttingen, W. Germany) Change in degree of interference in a Stroop-like test (SWT) when the incongruent combinations are mixed with congruent ones: A reply to Prof. G. J. W. Smith. *Psychologische Beiträge*, 1970, Vol. 12(1), 51-56. The time time required for naming the color of clearly worded combinations in the Stroop-like test published by Smith and Rupp results in decrease as the number of congruent combinations increases. G. J. W. Smith (see PA, Vol. 45 Issue 6) argues that "the results cannot be interpreted to mean that the degree of interference between sound and image decreased in the incongruent combinations. Such an interpretation, however, was not given. It may be, as Smith likes to assume, that the more congruent combinations that are presented in a test the more interference interference in the incongruent combinations follows from it too. An adequate testing of this hypothesis of course would require RBT for the individual naming combinations in a changing task, both Kalkstein and professor Kalkstein does not concern the core of his dissertation. The essential result of this dissertation has to be understood as a critique "of the strongly increasing interest in problems of word-color interference." *Journal summary.*

356. Kuzilevsk, Jozef. (Warsaw Inst. of Psychology, Poland) Psychological characteristics of probabilistic inference. In *Psychological Foundations of Learning*, Vol. 34-1, 435-449. Compared the behavior of Ss during the solution of probabilistic inference tasks with Heuristics, which represent an optimal model for the change in joint probability of the outcomes under the influence of new information. Results of laboratory studies have shown that in solving probabilistic tasks Ss are less sensitive to a change in joint probability of events, hypothesis, i.e., they are conservative. In wide

inferential tasks there is a tendency to overestimate the probability of the system of modal hypotheses, i.e. Ss are radical. The conservatism and radicalism reflect a limitation on human ability to process and store information.—*Journal abstract.*

357. Moore, Samuel F., Gleser, Goldine C., & Warm, Joel S. (Community Mental Health Clinic, Lawrenceburg, Ind.) **Cognitive style in the organization and articulation of ambiguous stimuli.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 243-244.—Assessed the relation between the abilities to organize and articulate ambiguous stimuli and the global-analytic continuum of cognitive style postulated by H. A. Witkin in his theory of psychological differentiation. Thirty-five male undergraduates served in the study. Cognitive style was measured by the Rod and Frame Test; the Obscure Figures Test (OFT) measured organizing or structuring ability. Articulation was operationally defined in terms of memory for the OFT figures as indexed by recognition and identification measures. Consistent with predictions from Witkin's theory, significant correlations were obtained between cognitive style and the abilities of organization and articulation.—*Journal abstract.*

358. Oleson, D. S. & Zubek, John P. (U. Manitoba, Winnipeg, Canada) **Effect of one day of sensory deprivation on a battery of open-ended cognitive tests.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 919-923.—Tested the hypothesis that performance on unstructured or open-ended cognitive tests will be impaired by sensory deprivation (SD). The Guilford Battery of Creative Thinking, consisting of 10 subtests, was administered to a group of 18 male undergraduates before and after 1 day of SD. Results show that, relative to a group of 18 controls, only the performance on associational fluency was significantly impaired. 3 possible explanations are offered for these essentially negative results.—*Journal abstract.*

359. Perkins, David. (U. New Mexico) **Relevancy of exteroceptive and response produced cues as a determinant of mixed delayed matching to sample performance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2321-2322.

360. Pezzoli, Jean A. (U. Massachusetts) **Syllogistic inference: A problem-solving task.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2322.

361. Phillips, Victor K. & Torrance, E. Paul. (U. Georgia) **Divergent thinking, remote associations, and concept attainment strategies.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 223-228. Hypothesized that the less conservative concept attainment strategies (simultaneous scanning and focus gambling) will be associated with a higher level of figural divergent thinking than will the more conservative strategies (successive scanning and conservative focusing), and that ability to produce correct remote associations will not be associated with figural divergent thinking ability. Ss were 109 randomly assigned undergraduates. Divergent thinking was measured by Figural Form A of the Torrance Tests of Creative Thinking; concept attainment strategy by Bruner's Strategy Tasks; and ability to produce correct remote associations by Mednick and Mednick's Remote Associates Test. Hypotheses are supported by the findings.—*Author abstract.*

362. Schore, Allan N. (U. Pittsburgh) **The effect of various cognitive sets on cognitive tasks.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2968-2969.

363. Smedslund, Jan. (U. Oslo Inst. of Psychology, Norway) **Circular relation between understanding and logic.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 217-219.—Reports that procedures for determining logicality presuppose understanding and procedures for determining understanding presuppose logic. One can escape from this circle only by presupposing logicality, in agreement with common sense thinking. Understanding can then be studied as an empirical variable. Traditional research has been based on the opposite solution: logicality is treated as an empirical variable, understanding is implicitly presupposed; hence results are obtained which do not make sense.—*Journal abstract.*

364. Smith, Gudmund J. (Lund U., Sweden) **Change in degree of interference in a Stroop-like test (SWT) when the incongruent combinations are mixed with congruent ones.** *Psychologische Forschung*, 1970, Vol. 34(1), 95-96.—Results published by Kalkofen show, contrary to his own conclusions, that interference in a Stroop-like test increases when congruent combinations are added to the incongruent ones. Kalkofen's experiment seems to show that he succeeded in accentuating the S's experience of conflict when confronting the incongruent combinations. It is irrelevant in this context that the reduction in number of conflicting items causes a small decrease in overall reading times.—*Journal summary.*

365. Snapper, Kurt J. & Fryback, Dennis G. (U. Michigan, Inst. of Science & Technology) **Inferences based on unreliable reports.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 401-404.—Studied the inferences of 25 male undergraduates based on partially reliable reports. Inferences may be based on direct observation of events or on reports from indirect sources about the occurrence of events. Direct observation will be more diagnostic than a report if the source of the report is not completely reliable. It was found that Ss responded to reduced report reliability by using a formally inappropriate rule that led to overestimation of the diagnostic impact of a report.—*Journal abstract.*

366. Wise, James A. (U. Washington) **Origins of subjective probability.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2334.

367. Wortman, Paul M. (Duke U.) **Cognitive utilization of probabilistic cues.** *Behavioral Science*, 1970(Jul), Vol. 15(4), 329-336.—Describes a laboratory experiment on a classificatory process similar to medical diagnosis. 10 undergraduates learned the names and descriptions of 16 objects where the cues comprising these descriptions were probabilistic in nature. Ss then solved a number of object identification problems consisting of the presentation of a single cue, followed by a sequence of yes-no questions about the presence or absence of other cues, and terminating with the identification of the object. Results are interpreted as supporting a serial hypothesis-testing model and reveal how such hypotheses are generated and confirmed. The study is viewed as a necessary step toward the creation of a computer model of medical diagnosis. The model is briefly described.—*Journal abstract.*

Problem Solving

368. Duncan, Carl P. (Northwestern U.) **The effect of the shape of distribution of response strength on guessing errors in problem solving.** *American Journal*

of *Psychology*, 1970(Dec), Vol. 83(4), 535-543.—270 undergraduates were given problems each consisting of a stimulus word with its 5, 7, or 9 strongest word associates. Ss attempted to guess the middle-strength (target) associate. Since the hierarchy of strength between a stimulus and its associate responses is such that differences in strength among associates become progressively smaller as strength between stimulus and response decreases, associates weaker than the target associate are more similar in strength to the target than are associates stronger than the target. It was, therefore, expected that in trying to guess the target associate, more errors would be made to weaker than to stronger associates. This was found in all conditions. It appeared that the farther removed in strength—whether stronger or weaker—an associate was from the target associate, the less it was interfering. Giving the Ss a cue to associates stronger or weaker than the target word had some effect on, but in no way eliminated, the strong tendency to make more errors on weaker associates.—*Journal abstract*.

369. Seggie, J. L. (U. New England, Armidale, New South Wales, Australia) **Variables involved in confirming the consistency of a learned concept.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 225-235.—Examined the reluctance of Ss to use indirect procedures in problem solving. 125 National Service recruits with IQs over 110 were studied in a concept learning experiment with 2 different concepts, 2 methods of instruction, and 3 learning methods. It was found that the greater the Ss' knowledge of the relationship between individual stimuli and classification the greater was the tendency to utilize the logical inverse. It was also found that if the Ss were not familiar with the general type of concept to be learned there was a significantly greater tendency to confirm the learned concept through the inverse. There was also a tendency for Ss learning a conditional concept to utilize the inverse to a greater degree when compared to Ss learning a conjunctive concept. It is concluded that Ss will use complex reasoning processes and that this depends on experimental methods.—*Journal abstract*.

370. Stratton, Richard P. (Michigan State U.) **Response hierarchies in productive thinking.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3037.

Concepts

371. Berger, Dale E. (U. California, Los Angeles) **Direct measures of information processing in concept identification.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2297.

372. Chlebek, Judith & Dominowski, Roger L. (U. Illinois, Chicago) **The effect of practice on utilization of information from positive and negative instances in identifying disjunctive concepts.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 64-69.—Previous research by V. Freiberger and E. Tulving has shown that positive instances are used more efficiently than negative instances by naïve Ss attempting to solve conjunctive concept problems, and that this difference diminishes with practice. The present study examined practice effects on the identification of disjunctive concepts with either positive or negative instances presented to 60 undergraduates. Results are the opposite of those of Freiberger and Tulving, with Ss who were shown only

negative instances having systematically lower solution times than those shown only positive instances, and with the difference diminishing with practice. Data were interpreted in terms of the relative efficiency of strategies appropriate to the 2 types of presentation. (French summary)—*Journal abstract*.

373. Fishbein, Harold D., Haygood, Robert C., & Frieson, Dixie. (U. Cincinnati) **Relevant and irrelevant saliency in concept learning.** *American Journal of Psychology*, 1970(Dec), Vol. 83(4), 544-553.—Reports 2 concept-learning experiments. Exp. I, with 72 undergraduates, compared performance under 3 stimulus configurations: (a) with the 2 relevant dimensions highly salient, (b) with 2 irrelevant dimensions highly salient, and (c) with no highly salient dimensions. Performance was best under a, next best under b, and poorest under c. Exp. II, with 64 undergraduates, explored several possible explanations of these results, which are contrary to existing ideas of the effects of irrelevant saliency. Results suggest that the presence of highly salient irrelevant dimensions improved performance because Ss examined them in the early trials of the experiment and then could permanently eliminate them.—*Journal abstract*.

374. Hewett, Barbara L. (Duke U.) **Concept attainment and transfer as a function of stimulus structure.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2309.

375. Houser, Ronald L., Houser, Eileen J., & Van Mondfrans, Adrian P. (U. Miami) **Learning a motion and a nonmotion concept by motion picture versus slide presentation.** *AV Communication Review*, 1970(Win), Vol. 18(4), 425-430.—2 different media (slides and motion pictures) were used to present 2 concepts. 1 concept involved motion as a defining attribute and the other concept did not. From the analyses of the data it is clear that in the case where motion is a defining attribute of a concept it is better to present that concept using motion picture film than by a nonmotion medium such as slides. At least this is true when the motion concept being presented is of a simple and unfamiliar nature.—*Journal summary*.

376. Huang, Che-tsao. (Indiana U.) **The effects of post information feedback interval and stimulus display upon the selection and utilization of strategies in the identification of visually presented concepts.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3025-3026.

377. Peters, Kenneth G. & Denny, J. Peter. (U. Western Ontario, London, Canada) **Labeling and memory effects on categorizing and hypothesizing behavior for biconditional and conditional conceptual rules.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 229-233.—Differences in difficulty of learning conceptual rules have been explained within L. E. Bourne's truth-table strategy theory by the naturalness-unnaturalness of various assignments of instance classes to response categories. However, since this factor cannot explain why conditional rules are learned more easily than biconditional rules, 2 other factors were tested. 56 undergraduates were assigned to 1 of 8 treatment conditions. Results show that when Ss were encouraged by neutral labeling of response categories (a) to learn the rule for both positive and negative categories; and (b) to assign to the negative category only 1 instance class for the conditional rule compared to 2 for the biconditional, they learned the conditional rule more proficiently.

However, when Ss were constrained by positive-negative labeling (a) to learn the rule for the positive category; and (b) to assign to the positive category only 2 instance classes for the biconditional rule compared to 3 for the conditional, Ss learned the biconditional more proficiently.—*Journal abstract.*

378. Shor, Ronald E. (U. New Hampshire) Identifying color concepts from pure and compounded symbolic representations: A broad extrapolation from the logic of the Stroop Color-Word Test. *International Journal of Symbolic*, 1970(Aug), Vol. 2(1), 29-36.—An analysis was made in a sample of 30 Ss of compounded symbol color-word phenomena using a standardized method developed as a broad extrapolation from the logic of the Stroop test. Comparisons were made between different numbers and groups of response alternatives. The interference effect was dimensionalized to include conditions of no mismatching and semimismatching. Equal attention was given to the effect of colors on words as of words on colors. A set of hypotheses was confirmed and further investigations were indicated.—*Journal abstract.*

DECISION & CHOICE BEHAVIOR

379. Bríháček, Václav. (Charles U., Prague, Czechoslovakia) Use of subjective probability in decision making. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 241-253. Discusses general problems concerning theoretical models of decision making. The experimental situations (on the basis of the quantity of information or experience) are divided into 3 categories: (a) exactly known objective probability of individual events, (b) objective probability approximately estimated, and (c) completely uncertain situation without the possibility of determining objective probability. The main research problems are considered to be: (a) extrapolation of verified findings (from the viewpoints of experimental methods used, experimental Ss, and utility of alternatives); (b) criteria of correct decisions (e.g., adequacy of the decision made, latency time, and subjective confidence of correctness); (c) the role of personality characteristics in decision making; and (d) comparative research of various experimental conditions. (43 ref.)—*Journal abstract.*

380. Buriach, Matthias. (Hamburg, 2nd Medical Clinic, W. Germany) An attempt to demonstrate utility of gambling. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 367-374. Compared "male and female undergraduate students for gambles with predictions of these students based on Ss estimates for the prizes of the gambles, and the SEU-model, which does not allow for utility of gambling (UG). Since the gambles had only 2 possible outcomes expected utility, if there is no matter how Sa perceived the probabilities in the gambles. Under these conditions Ss showed higher criteria for gambles than could be explained by the classical SEU model. The concept of positive UG is not cogent, however, since it had been impossible to match the 2 prizes of each gamble sufficiently close to unity. Some possible refinements are discussed which could be used in future studies.—*Journal abstract.*

381. Cohen, John & Whinston, Tom. (Manchester, England) Information of uncertainty: Four aspects of subjects' information and uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, 1970(Jul), Vol. 6(3), 188-196. By

choosing a number on a 0-100 certainty scale, where 0 was completely uncertain and 100 was absolutely certain, 72 females were asked to indicate their degrees of certainty that: (a) they had picked a blue or yellow ball from an urn containing 1024 tickets, (b) 1 or more balls they had thrown added to a particular sum, (c) a roulette ball had fallen into a red or black space, and (d) their answers yes and no to a series of questions were correct. Actual probabilities of correct response were converted mathematically into information "bits." Mean subjective uncertainty judgments on all the tasks formed a straight line when plotted as a function of log₁₀ "bits," forming a relationship which follows Weber's law.—*R. E. Smith.*

382. Cruse, Donna; Gambino, Blaise, & Myers, Jennifer L. (U. Massachusetts) Two-choice discrimination with alternating trial types. *Psychonomic Science*, 1970(Sep), Vol. 20(6), 345-346. Required 120 Ss to predict what of 2 events would occur on each of 510 trials. 2 signals to respond were alternated, and different events probabilities were associated with each signal. Combinations of the 2 event probabilities were varied over groups. Contrary to A. I. Brody's (see PA, Vol. 33 9785) earlier finding, response probability to 1 signal was influenced by the event probability to the other signal, as well as by the immediately preceding response and event occurrence.—*Journal abstract.*

383. De Leede, E. & Koerts, J. (Interfaculty for Graduate Studies in Management, Rotterdam, Netherlands) Economics and the probability concept. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 265-272.—Discusses the attitude of economists towards several interpretations of the probability concept. In some cases the frequency approach can be used without difficulties. In other cases the personalistic theory is generally accepted. For the large class of problems where only a relatively limited amount of information is available the economists appear to be reluctant to bring personalistic ideas into the model.—*Journal abstract.*

384. Dugan, John P. (U. Pittsburgh) The role of social fears in risk taking. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2980.

385. Elshorn, Hillel J. (U. Chicago, Graduate School of Business) Use of nonlinear, noncompensatory models as a function of task and amount of information. *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 1-27.—Assessed the effect of 2 variables, as they affected the use of nonlinear noncompensatory models in decision making, in 2 tests with 30 graduate students and 30 faculty members and recent PhDs. Variables were type of decision task and amount of information. The former variable was found to have a marked effect on the kind of combination model used by Sa, while the latter had a significant effect on the accuracy with which the various models could adequately represent the decision process. Major findings show considerable use of the nonlinear noncompensatory models with differential use in the decision tasks used. Results for amount of information suggest that Sa use complex combinations of models (compound models) to simplify the situation cognitively. In addition, the claim that decision makers do not use additive models in their strategies is supported by the data. (28 ref.)—*Journal abstract.*

386. Emshoff, James R. A computer simulation model of the Prisoner's Dilemma. *Behavior Science*, 1970(Jul), Vol. 15(4), 304-317.—Presents a simulation model which describes in an interpretable way a player

behavior in the two-way choice game which was given a positive bias. It is suggested that a general theory of decision making in the two-way choice game can only be developed by considering the two-way choice game as a special case of a more general theory of decision making. The theory proposed in this paper is based on the assumption that the two-way choice game is a special case of a more general theory of decision making. The theory proposed in this paper is based on the assumption that the two-way choice game is a special case of a more general theory of decision making. The theory proposed in this paper is based on the assumption that the two-way choice game is a special case of a more general theory of decision making.

10. Edvard E. Smith (University of Michigan) Decision making in environmental design: The development and testing of a real-time multiple choice ability model. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 1-10.

11. Graham New & Steven Jerome L. (Miami) Simultaneous presentation of two event patterns in binary choice behavior. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 11-15.

12. Graham New & Steven Jerome L. (Miami) Simultaneous presentation of two event patterns in binary choice behavior. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 11-15. This paper reports on two experiments which examined the effects of simultaneous presentation of two event patterns on binary choice behavior. In Experiment 1, subjects were presented with two event patterns simultaneously and had to choose between them. In Experiment 2, subjects were presented with two event patterns simultaneously and had to choose between them. The results of the experiments showed that simultaneous presentation of two event patterns had a significant effect on binary choice behavior.

13. Graham New & Steven Jerome L. (Miami) Study decisions by individuals and groups. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 16-20.

14. Graham New & Steven Jerome L. (Miami) Study decisions by individuals and groups. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 16-20. This paper reports on two experiments which examined the effects of study decisions by individuals and groups. In Experiment 1, subjects were presented with a study decision and had to choose between two options. In Experiment 2, subjects were presented with a study decision and had to choose between two options. The results of the experiments showed that study decisions by individuals and groups had a significant effect on the outcome of the study.

15. Graham New & Steven Jerome L. (Miami) Decision making in complex tasks. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 21-25. This paper reports on two experiments which examined the effects of decision making in complex tasks. In Experiment 1, subjects were presented with a complex task and had to choose between two options. In Experiment 2, subjects were presented with a complex task and had to choose between two options. The results of the experiments showed that decision making in complex tasks had a significant effect on the outcome of the task.

16. Graham New & Steven Jerome L. (Miami) Decision making in complex tasks. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 21-25. This paper reports on two experiments which examined the effects of decision making in complex tasks. In Experiment 1, subjects were presented with a complex task and had to choose between two options. In Experiment 2, subjects were presented with a complex task and had to choose between two options. The results of the experiments showed that decision making in complex tasks had a significant effect on the outcome of the task.

17. Graham New & Steven Jerome L. (Miami) Decision making in complex tasks. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 21-25.

Effects of conceptual structure training methods and average uncertainty on decision making behavior. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 26-30.

18. Robert G. L. (University of Michigan) Trend control in a dynamic decision making task. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 31-35. This paper reports on an experiment which examined the effects of trend control in a dynamic decision making task. Subjects were presented with a dynamic decision making task and had to choose between two options. The results of the experiment showed that trend control had a significant effect on the outcome of the task.

19. Robert G. L. (University of Michigan) Subjective probability in experimental games. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 36-40.

20. Robert G. L. (University of Michigan) Subjective probability in experimental games. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 36-40. This paper reports on an experiment which examined the effects of subjective probability in experimental games. Subjects were presented with an experimental game and had to choose between two options. The results of the experiment showed that subjective probability had a significant effect on the outcome of the game.

21. Hans Wolfgang (University of Michigan) Information processing in decision making. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 41-45. This paper reports on an experiment which examined the effects of information processing in decision making. Subjects were presented with a decision making task and had to choose between two options. The results of the experiment showed that information processing had a significant effect on the outcome of the task.

22. Martin Douglas L. A. (University of Michigan) Effects of hypothesis on transfer performance after successive discrimination training by reversal. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 46-50. This paper reports on an experiment which examined the effects of hypothesis on transfer performance after successive discrimination training by reversal. Subjects were presented with a discrimination training task and had to choose between two options. The results of the experiment showed that hypothesis had a significant effect on the outcome of the task.

23. Martin Douglas L. A. (University of Michigan) Effects of hypothesis on transfer performance after successive discrimination training by reversal. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 46-50.

24. Martin Douglas L. A. (University of Michigan) Effects of hypothesis on transfer performance after successive discrimination training by reversal. *Journal of Experimental Psychology* 1976, Vol. 111, No. 1, 46-50.

decision making, originally developed for repetitive, nonsocial, choice situations, to behavior in the coalition game, which typically employs 3 players. A program of experiments testing the application of the theory is reported. Results indicate strong support for the model. An extension of the theory to 2-person games is also presented and the results of a preliminary test are reported.—*Journal abstract.*

398. Phillips, Lawrence D. (Brunel U., Uxbridge, England) **The "true probability" problem.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 254-264.—Recommends that the idea of a "true" or "objective" probability be discarded. Probability judgments are considered as the result of an individual's feelings of uncertainty, translated into a numerical response by internal decision processes. Many factors, both internal and external to the assessor, may influence the feelings of uncertainty, or the decision processes, or both. From this viewpoint, a probability cannot be wrong; it can, however, be more or less related to stimulus or task characteristics, and it can to varying degrees be affected by memory and cognitive processes, prior experience and information, social and cultural norms, personality, and cognitive styles. Effective training of assessors can be designed only when the influence of these factors on the naive person's judgments is determined. (15 ref.)—*Journal abstract.*

399. Pitz, Gordon F. (Southern Illinois U.) **On the processing of information: Probabilistic and otherwise.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 201-213.—Suggests that probability estimation is not a useful method for the study of probabilistic information processing (PIP) of naive Ss. Results from probability estimation studies are considered as providing more information about response processes than about PIP as such. A plea is made for a more serious consideration of descriptive models of decision making behavior. 2 models of opinion revision are described that use Bayes' theorem as a starting point, but include the consideration of human error. Finally, a more complex PIP model, which exists in the form of a computer program, is briefly described. (18 ref.)—*Journal abstract.*

400. Rapoport, Amnon. (U. North Carolina, Chapel Hill) **Minimization of risk and maximization of expected utility in multistage betting games.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 375-386.—Examines the multistage betting game (MBG) which resembles certain sequential investment processes that have been studied by economists, and generalizes static, 2-outcome, gambling experiments conducted by psychologists. 2 models for MBG are proposed, both of which have been studied by economists and psychologists in the areas of portfolio selection and decision making behavior under risk, respectively. The 1st is a minimization of risk model, assuming that the player fixes an expected value and then attempts to minimize the variance of the gamble. The 2nd is an expectation model, assuming maximization of expected utility. Proportional betting policies are presented for both models, assuming in the latter case linear, logarithmic, or power utility functions. Results obtained from 5 male Ss in a computer-controlled MBG experiment show systematic effects of capital size on betting decisions, which are incompatible with any proportional betting policy. (21 ref.)—*Journal abstract.*

401. Robertson, Gary N., Fernald, C. Geoffrey, & Myers, John G. **Computers in behavioral science:**

Decision making and learning: A simulated marketing manager. *Behavioral Science*, 1970(Jul), Vol. 15(4), 370-379.—Presents the results of a computerized adaptive learning model. The learner in this case is a hypothetical marketing manager competing with 2 competitors in a common market. The model is free of heuristic rules-of-thumb and relies instead on a search procedure which updates current decisions based on decisions made and experiences realized in the past. It is also adaptable to other learning environments.—*Journal abstract.*

402. Snapper, Kurt J. & Peterson, Cameron R. (U. Michigan) **Information seeking and data diagnosticity.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 429-433.—Presents the results of 2 experiments with 16 male undergraduates which examined the effects of differential diagnosticity upon how much information Ss purchase before making decisions. In an optional stopping task, the optimal strategy is to set a stopping criterion and then purchase information until that criterion is reached. The optimal criterion increases with the expected diagnostic value of a datum so that the expected number of data purchased 1st increases and then decreases as the diagnosticity increases. Ss showed a bias to purchase the most information at low rather than intermediate levels of diagnosticity. It is suggested that this bias may be attributed to a sluggishness in changing the stopping criterion with diagnosticity.—*Journal abstract.*

403. Stager, Paul & Muter, Paul. (York U., Toronto, Ontario, Canada) **Instructions and information processing in a complex task.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 292-295.—Designed 2 experiments involving a decision task with a static display analog of a radar display similar to that used in air traffic control. 50 male undergraduates were required to detect potential collision situations in a sequence of independent displays. Ss in both experiments either (a) were trained entirely with pictorial displays and provided with assumptions involved in constructing the air traffic situations, or (b) were initially trained with displays containing verbal descriptions of possible situations and not given underlying assumptions. In Exp. I, a secondary loading task was performed concurrently with the decision task. In Exp. II, Ss analyzed both redundant and nonredundant displays. Results indicate that the procedures acquired by pictorially trained Ss were less susceptible to processing overload and that an additional performance advantage derived from their use of redundancy in the displays.—*Journal abstract.*

404. Thornton, Jerry W. (Angelo State U.) **Avoidable and unavoidable shock transfer.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 940.—Examined the effects of transfer from 1 shock contingency to another. 20 undergraduates were randomly assigned to 9 transfer conditions of avoidable, unavoidable, and no-shock choice RT trials. Each S received 20 choice RT trials of 1 shock contingency followed by a transfer to 20 choice RT trials of a 2nd contingency. Evidence supports transfer of interference from unavoidable to avoidable shock trials. Implications are discussed in terms of stressor-task relationships.—*Author abstract.*

405. Wendt, Dirk. (U. Hamburg, Psychological Inst. W. Germany) **Utility and risk.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 214-228. Considers the normative theory of risky decision making which provides several rational criteria which may lead to

Sciences, Inst. of Neurology, Moscow) **O sovremennom sostoyanii problemy dominantnosti polusharii golovnogo mozga.** [On the contemporary state of the problem of hemispheric dominance.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 521-527.—Presents an analysis of the problem. The data of the literature provide convincing evidence for the joint functioning of the cerebral hemispheres in all forms of human activity. However, at the same time each hemisphere fulfills those functions specific to it, thereby exhibiting the presence of functional asymmetry. One can only speak of hemispheric dominance or specialization with reference to specific functions. In most people sinistral dominance exists for speech and a number of hand movements, whereas dextral dominance exists for: (a) most gnostic functions including gnosis of one's own body, space, and time; (b) several practical forms; and (c) the posturomotor apparatus. (English summary) (27 ref.)—*I. D. London.*

416. **Batuev, A. S.** (Leningrad State U., USSR) **Ob évolutsii lobnykh dolei mozga u mlekopitayushchikh i fiziologicheskikh osnovakh ikh patologii u cheloveka.** [On evolution of the cerebral frontal lobes in mammals and the physiological bases of their pathology in man.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 847-852.—Based on data, drawn from the literature and the author's own published and ongoing research, the integrative role of the frontal lobes in rats, rabbits, cats, dogs, simians, and man is discussed. It is concluded that injury to the frontal lobes leads to impairment of (a) the integrative participation of all the cerebral analyzers, (b) perception of the setting in which purposeful activity is to take place, and (c) the possibility of adequate performance of such activity. The frontal areas of the cerebral cortex in primates and especially in man emerge with all their complex and versatile functions as the most important, relatively independent apparatus of the cerebral integrative system. (English summary) (28 ref.)—*I. D. London.*

417. **Chase, M. H.** (U. California, Medical School, Los Angeles) **The digastric reflex in the kitten and adult cat: Paradoxical amplitude fluctuations during sleep and wakefulness.** *Archives Italiennes de Biologie*, 1970(Aug), Vol. 108(3), 403-422.—The digastric reflex (a jaw opening to buccal stimulation) in the adult cat was highest in mean amplitude during quiet sleep, smaller during the alert state, and smallest during active sleep. In the kitten, responses were more variable during active sleep, generally either suppressed or greater than those obtained during quiet sleep. The developmental changes are discussed in relation to the differences between brainstem and spinal polysynaptic reflexes.

418. **García Valdecasas, Francisco.** (U. Barcelona, Spain) **Bases fisiológicas del intelecto.** [Physiological bases of the intellect.] *Anuario de Psicología*, 1969, Vol. 1, 25-43.—Discusses the physiological processes by which external information is assimilated and integrated in the brain. Highlighted are (a) the concept of sensory receptor, (b) sensory information, (c) nerve impulses or stimuli, (d) the conduction of nervous impulses, (e) routes of conduction, (f) synapses, and (g) the integration of information. The biochemical basis of human memory and associative ability is stressed, noting that knowledge is acquired through the senses in the form of electro-biochemical signals which create an informative binary language, i.e., by the presence or absence of a signal.—*P. Herizberg.*

419. **Hirsch, Richard L.** (Stanford U.) **The role of the hippocampus in information retrieval.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2306-2310.

420. **Ingram, Charles R.** (Washington U.) **Some relationships between brain autoantibodies, visual and auditory short-term memory, and age.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B) 2312.

421. **Lim, Ramon; Davis, Gary A., & Agranoff, Bernard W.** (U. Michigan, Mental Health Research Inst.) **Electrophoretic studies on solubilized proteins of goldfish brain.** *Brain Research*, 1971, Vol. 25, 121-131.—Separated soluble proteins from homogenate of various regions of goldfish brain by gel electrophoretic techniques. Distribution of radioactive proteins formed following injection of a labeled amino acid was studied by direct autoradiography of gel slabs. While dye staining and labeling patterns of electrophoretically separated proteins did not vary among brain regions examined, there were marked differences in the position of stained bands and those detected autoradiographically, suggesting diverse rates of metabolism of these soluble proteins. Unlike the protein staining and labeling patterns, the distribution of multiple electrophoretic bands of solubilized acetylcholinesterase varied among the 5 brain regions examined. Protein bands detected either by dye staining, autoradiography, or by acetylcholinesterase activity did not vary measurably as a result of shock-avoidance training of the goldfish. Further studies with diisopropylfluorophosphate; apparent turnover rates for the multiple forms of acetylcholinesterase in a detergent extract of whole brain were determined. (28 ref.)—*Journal summary.*

422. **Makarov, V. A.** (1st Moscow Medical Inst., USSR) **Rol' mindalevidnogo kompleksa v mekhanizme konvergentsii vozbuzhdenii razlichno sensornoi modal'nosti na neuronakh kory bol'shikh polusharii.** [Role of the amygdaloid complex in the mechanism of convergence of modally different excitation in the neurons of the cerebral cortex.] *Doklady Akademii Nauk SSSR*, 1970(Oct), Vol. 194(6), 1454-1457.—Unanesthetized immobilized cats were used to study the relationship of the amygdaloid complex to the convergent interrelationships which develop in the cortical neuron as a result of the stimulation of different systems (the somato- and viscerosensory). Single stimulation of the sciatic and vagus nerves were employed in isolation from and in combination with stimulation of the amygdaloid complex. Extracellular microelectrode recordings were made of the impulse activity of 18 cortical neurons at the peak of maximal activity of the sciatic and vagus nerves (81 and 75 neurons associated with the sciatic and vagus nerves, respectively). 17 of the 81 neurons were polysensory; 14 of the latter. Prior stimulation of the amygdaloid complex exerted considerable influence on the distribution in the cortical neurons of convergent excitation resulting from stimulation of the sciatic and vagus nerves (increase in polysensory neurons, associated with the sciatic and vagus nerves, rising to 29 and 28, respectively). The amygdaloid complex is viewed as modulating the excitation of the subcortical structures and as influencing the processes of excitatory convergence at the cortical level. (15 ref.)—*D. London.*

423. **Schmidt, Robert F. & Weller, Erwin.** (Heidelberg, Inst. of Physiology, W. Germany) **Relief**

activity in the cervical and lumbar sympathetic trunk by unmyelinated somatic afferents. *Brain Research* 19 (1970 Vol. 24:2), 207-218.—Studied the characteristics of the sympathetically reflex responses recorded from the lumbar or cervical sympathetic trunk upon electrical stimulation of unmyelinated somatic fibres (C-fibers) in 10 decerebrate cats and in 10 cats anesthetized with chloralose. The vagus and splanchnic nerves were cut. At a repetition rate slower than $\frac{1}{2}$ sec. A + C afferent volleys usually induced reflex discharges that were related to the A-activity only (sympathetic A-reflex). However, if pairs or short trains of stimuli were given a late reflex component appeared (sympathetic C-reflex). The C-reflex was caused by the activity of the C-fibers and disappeared if the stimulus strength was lowered beyond the threshold of the unmyelinated fibres, but persisted if the A-fibre activity was blocked electrically. Large C-reflexes were induced by different stimulus at stimulus repetition rates faster than $\frac{1}{2}$ sec. The size of the reflexes increased with increasing repetition rates. 10-20 stimuli were necessary to obtain the maximal reflex effects (recruitment of sympathetic C-fibers). The C-reflexes were not appreciably affected by the central actions of preceding A-stimuli. The physiological significance and possible mechanisms of the reflexing response are outlined. (24 ref.)—*Journal summary.*

424 Van Twyver, Henry & Allison, Truett, Veterans Affairs Medical Center, West Haven, Conn. Sleep in the opossum *Didelphis marsupialis*. *Brain, Behavior, Sleep, & Clinical Neurophysiology*, 1970 Aug. Vol. 20(4), 181-189.—Studied polysomnographic waking and sleep in opossums. On the basis of many criteria slow wave sleep (SWS) and paradoxical sleep (PS) were judged to very similar to those states in placental mammals. Carotid and hypoglossal activity during waking and both states of sleep were topographically similar. During PS brain temperature increased and blood pressure decreased whereas heart and respiratory rates became irregular. Neck muscle tension was always relaxed during PS. The weak muscle tension during SWS. Using electrical shocks to the chest, thresholds for changing between arousal from sleep during waking and highest during PS. Based on 24-hr recordings, total sleep time averaged 80.8% of total recording time, and PS comprised 24.7% of total sleep time. It is concluded that the phylogenetic preservation of sleep are closely related to mammalian and placental mammals. The large amount of PS is probably due to the fact that this animal is a primarily nocturnal but active animal. Differences in behavioral characteristics of sleep. (25 ref.)—*Journal summary.*

Neuroanatomy

425 Ganchrow, Donald, Duke U. Thalamocortical gustatory projections in rat and marmoset. *Journal of Neurocytology and Neurochemistry*, 1970 Nov. Vol. 1(4):115-120.—

426 Harting, John A. & Schock, Charles R., Columbia U. Coll. of Physicians & Surgeons. Subcortical projections from the visual cortex in the tree shrew (*Tupaia glis*). *Brain Research*, 1971, Vol. 20(1), 21-33.—Purified labeled the visual cortex in 7 tree shrews. The visual cortex was found to project primarily to 4 subcortical areas: (1) the ventral nucleus of the lateral geniculate body; (2) the pretectal area; (3) the superficial layers of the superior colliculus. Results

indicate that the cortical projections to these areas are topographically organized: (a) the rostral visual cortex projects to the ventral portions of the ventral nucleus of the lateral geniculate body; to the rostral pretectal area; and to the lateral portions of the superior colliculus; (b) the caudal visual cortex projects to dorsal regions of the ventral nucleus of the lateral geniculate body, to the caudal pretectal area and to the medial portions of the superior colliculus; and (c) the medial visual cortex projects to the caudal superior colliculus, while the rostral superior colliculus receives fibers from the more lateral visual cortex. (59 ref.)—*Journal summary.*

LESIONS

427 Gildersleeve, Karl R. (U. Florida) The effects of preganglionic sympathectomy on iridic conditioning in cat. *Dissertation Abstracts International*, 1970(Nov) Vol. 31(5-B), 3021.

428 Whitsett, Johnson M. (U. Texas) A sex difference in the scent-marking behavior of the Mongolian gerbil (*Meriones unguiculatus*). The role of the gonadal hormones. *Dissertation Abstracts International*, 1970(Oct) Vol. 31(4-B), 1733.

Brain Lesions

429 Durkovic, Russell G., Case Western Reserve U. Effects of lesions of the mesencephalic tegmentum on conditioning of heart and respiratory rate responses in the pigeon. *Dissertation Abstracts International*, 1970(Nov) Vol. 31(10), 3067.

430 Dechelman, Hury S. (Seattle) Test of Medial Hypothalamus. M.H.S. Effect of subcortical lesions on shock induced aggression in the rat. *Journal of Comparative & Physiological Psychology*, 1970(May) Vol. 74(1), 69-79.—Studied 8 experimental groups of 10 pairs of female Long-Evans stock-bred rats for persistence of learned shock-induced fighting behavior. Subcortical lesions included bilateral and unilateral lesions. Adrenalectomy was also used. The groups included medial hypothalamus and 8 with lesions of the amygdala, anterior cingulate cortex, dorsomedial thalamus, medial hypothalamus, and ventromedial hypothalamus. Hippocampal cortical parietal and pyramidal neurons in shock-induced aggression were observed in the medial and ventromedial hypothalamus groups ($p < .05$). Significant decreases in aggression were observed following amygdala and hippocampal lesions ($p < .05$) and no decrease in aggression was observed in the ventromedial hypothalamus group. Shock-induced aggression (24 hr and 48 hr delay).

431 Flood, Nancy R. & Overmier, J. Bruce, Jr. Memory effects of telencephalic and olfactory lesions on appetitive learning in goldfish. *Behavior & Brain Research*, 1970 Nov. Vol. 2(3):207-212.—Studied the relationship between the fish forebrain and learning in groups of 10 normal, 10 telencephalic ablated, and 10 forebrain ablated goldfish which received either 10 or 20 shocks in a reward trial every 48 hr in a T-maze. Reward learning was best. Ablation of the forebrain also had effect on long-term performance, evidence that the forebrain is not essential in acquisition. However, forebrain ablation required subsequent water stimuli trials to maintain but not under massed trials suggesting that the forebrain may be involved in short-term

memory. Extinction was impaired by both ablation of the forebrain and of the olfactory tracts. (15 ref.)—*Journal abstract*

432. Fried, P. A. (Carleton U., Ottawa, Ontario, Canada) Limbic system lesions in rats: Differential effects in an approach-avoidance task. *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 349-353. Tested 28 male albino Wistar rats with bilateral septal, dorsal hippocampal, or ventral hippocampal lesions for their ability to change approach behavior into avoidance behavior and vice versa. Lesions of the septal region impaired the ability of Ss to change approach responding into avoidance, but the dysfunction attenuated as the experiment progressed. Dorsal hippocampal lesions resulted in rapid development of approach behavior following avoidance training whereas ventral hippocampal lesions caused a slight deficit in avoidance performance. (16 ref.)—*Journal abstract*

433. Grueninger, Walter E. (Stanford U.) The primate frontal cortex and alliesthesis. *Description Abstracts International*, 1970(Oct), Vol. 31(4-B), 2307-2308.

434. Killackey, Herbert P. (Duke U.) The function of striate and temporal visual cortex in the tree shrew. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2313.

435. Liehman, Jeffrey M., Mayer, David J., & Liebeskind, John C. (U. California, Los Angeles) Mesencephalic central gray lesions and fear-motivated behavior in rats. *Brain Research*, 1970, Vol. 23(4), 353-370. Examined the effects of mesencephalic central gray (CG) matter lesions on the behavior of Sprague-Dawley rats. In Exp. I, the performance of 11 Ss with CG lesions including complete destruction of the ventrolateral edge, 11 Ss with CG lesions but only partial ventrolateral damage, and 14 sham-operated controls was compared in an operant, shock-food conflict task. Ss with complete ventrolateral destruction accepted more shocks and at a higher intensity than controls, while the group with partial destruction showed intermediate results. In Exp. II, the performance of 11 Ss with complete ventrolateral destruction, 11 Ss with partial ventrolateral destruction, and 14 sham-operated controls was compared in an operant, shock-food conflict task. Ss with complete ventrolateral destruction accepted more shocks and at a higher intensity than controls, while the group with partial destruction showed intermediate results. In Exp. III, the performance of 11 Ss with complete ventrolateral destruction, 11 Ss with partial ventrolateral destruction, and 14 sham-operated controls was compared in an operant, shock-food conflict task. Ss with complete ventrolateral destruction accepted more shocks and at a higher intensity than controls, while the group with partial destruction showed intermediate results. (16 ref.)—*Journal abstract*

436. Land, Jennifer S., Driver, J. I., & Landry, J. G. (University Coll. London, England) Visual control of limb movement following section of optic chiasm and corpus callosum in the monkey. *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 374-383. Found aspiration of the olfactory bulbs to increase the lordosis-to-mount ratio in sexually naive and experienced spayed hormone-treated and 14 normally cycling female Long-Evans, whereas the controls (10 unilateral olfactory bulb removal, 15 sham-operated, and 10 nonoperated) played normal copulatory behavior. No difference was observed in the lordosis duration between the bulbectomized and controls. In regular cycling females, the vaginal estrous cycle was not altered by operation. It is suggested that although olfaction appears to have no effect on the regulation of ovarian activity, it does have a direct effect on the lordosis-to-mount ratio. (16 ref.)—*Journal abstract*

and monocular vision, no change was found in preference with changes in visual input following chiasm section. Marked preference for using the contralateral to the seeing eye was shown for an additional section of the corpus callosum with intact monocular vision, and abnormalities in the use of hand ipsilateral to the open eye were evident. A comparison of the speed of retrieval of a moving target was made between normal monkeys and those with chiasm sectioned and those with optic chiasm, corpus callosum, and anterior commissure sectioned. With binocular vision, only the "split-brain" Ss differed from normal, being slower and more erratic in their performance. These findings lead to a theory of gradualization of subcortical visuomotor linkages under the influence of lateralized vision in the absence of the corpus callosum. The repeated use of new visuomotor linkages does not unseat previously established linkages. The utilization of intrahemispheric visuomotor links can clearly disrupt the simultaneous formation of the apparently weaker interhemispheric linkages in the "split-brain" animal. —R. Gunter

437. Manning, F. J., Gross, C. G., & Cowey, A. (Walter Reed Army Inst. of Research, Washington, D.C.) Partial reinforcement: Effects on visual learning after foveal prestriate and inferotemporal lesions. *Physiology & Behavior*, 1971(Jan), Vol. 6, 61-64. Trained 10 immature monkeys (*Macaca mulatta*) with bilateral ablations of inferotemporal, foveal prestriate cortex and 6 normal monkeys in a series of 5 visual discrimination tasks. On each problem, 1/2 the Ss in each group were reinforced for all correct responses and 1/2 were reinforced for 25% of their correct responses. Both normal Ss and those with inferotemporal lesions found the partial reinforcement condition significantly more difficult, but Ss with foveal prestriate lesions did not. Results were related to 2-stage model of discrimination learning. —*Journal abstract*

438. Maser, Jack D. (Temple U.) A deficit in response initiation and suppression on an operant discrimination task by septally damaged rats. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2317-2318.

439. Moss, Robert L. (Bristol U., Medical School, England) Modification of copulatory behavior in the female rat following olfactory bulb removal. *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 374-383. Found aspiration of the olfactory bulbs to increase the lordosis-to-mount ratio in sexually naive and experienced spayed hormone-treated and 14 normally cycling female Long-Evans, whereas the controls (10 unilateral olfactory bulb removal, 15 sham-operated, and 10 nonoperated) played normal copulatory behavior. No difference was observed in the lordosis duration between the bulbectomized and controls. In regular cycling females, the vaginal estrous cycle was not altered by operation. It is suggested that although olfaction appears to have no effect on the regulation of ovarian activity, it does have a direct effect on the lordosis-to-mount ratio. (16 ref.)—*Journal abstract*

440. Parker, Thomas D. (Kent State U.) The influence of restricted posterior decortication on the brightness discrimination performance of rats. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(4-B), 2317-2318.

441. Puhl, Walter G. (George Washington U.)

450. **Beideman, Larry R. & Goldstein, Robert.** (Malcolm Bliss Mental Health Center, Behavior Research St. Louis, Mo.) **Specificity of carbachol in the elicitation of drinking.** *Psychonomic Science* 1970(Sep), Vol. 20(5), 261-262.—Reports 2 studies in which 9 male albino rats with hypothalamic cannulae were injected with carbachol. All Ss exhibited drinking following injection. In the 1st study this was demonstrated both prior to and following a series of test sessions, and in the 2nd study, at the end only. During the test sessions themselves, only food was available. Ss displayed no tendency to increase their food intake upon carbachol administration during the 16 test sessions. This was contrasted with the ease with which such shifts have been demonstrated with electrical stimulation and suggests a specificity of function that can be detected with chemical but not electrical stimulation.—*Journal abstract.*

451. **Codish, Stephen D.** (Albany Medical Coll., N.Y.) **Actinomycin D injected into the hippocampus of chicks: Effects upon imprinting.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 95-96.—Reports an experimental method to test the effect of actinomycin D on a permanent form of memory. Injections of actinomycin D in the hippocampus of chicks 30 min after imprinting blocked the formation of memory of the imprinting response when tested at 4 days of age, whereas injections 1 day after imprinting did not. Since the imprinting response is known to persist for months after its establishment at an early age, and because the lethal effects of the drug have prevented examination of memory retention over extended periods of time, this experimental design is advantageous in demonstrating that actinomycin D, an inhibitor of RNA synthesis, impairs formation of long-term memory.—*Journal abstract.*

452. **Duncan, Perry M.** (U. Washington) **Effect of temporary septal dysfunction on conditioning and performance of fear responses in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 340-348.—Determined the effect of septal dysfunction on fear conditioning apart from performance effects such as response perseveration and decrement in freezing. 9 male Long-Evans rats were subjected to tone-shock pairings while in a state of temporary septal dysfunction resulting from injection of procaine into the septum via chronically implanted cannulae. 10 non-operated, 6 cannula-only, 8 saline-injected, and 6 delayed procaine-injected Ss were controls. When tested for conditioned suppression in the normal state, Ss that had been conditioned immediately following procaine injection suppressed significantly less than did controls, indicating that septal dysfunction impaired conditioning. The deficit could be partially responsible for previously reported effects of septal damage on passive avoidance. Procaine injection also temporarily reduced freezing elicited by the CS, whereas electrolytic septal damage caused a permanent deficit in freezing behavior.—*Journal abstract.*

453. **Holman, Richard B.** (Purdue U.) **Behavioral responses elicited by chemical stimulation of the primate thalamus.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2310.

454. **Komissarov, I. V. & Talalaenko, A. N.** (Donetsk Medical Inst., USSR) **K analizu retseptivnykh struktur, uchastvuyushchikh v izmeneniyakh povedencheskikh reaktsii koshek, vyzvannykh katekholaminami i serotoninom.** [On the analysis of

receptive structures participating in changes in cat behavioral reactions caused by catecholamines and serotonin.] *Biulleten' Ispytatel'noi Biologii i Meditsiny*, 1970(Sep), Vol. 70(9), 42-45.—31 cats were used to study the receptive structures through which is mediated the action of catecholamines, serotonin, and their antagonists, injected into the lateral ventricle, upon the motor and autonomic components of behavioral reactions. Noradrenaline, adrenaline, mesatone, and serotonin depressed motor activity. Isadrine did not exert a similar effect. Propranolol (β -adrenolytic) and morphine did not alter, whereas d-ergotamine (DET)—an antagonist of catecholamine effects and serotonin D-effects) and phentolamine (α -adrenolytic) did shorten the duration of the depressive effect of noradrenaline, but not of serotonin. Morphine distorted the serotonin-induced reaction, as seen not by any inhibition of motor activity, but by its excitation, which was depressible by DET and LSD. It appears that motor inhibition, due to bioamines, is associated with action of the α -adreno- or M-serotoninsensitive receptors. The inversion of serotonin action is connected with aminergic action on the D-serotoninsensitive structures of the brain. (English summary)—*I. D. London.*

455. **Lovett, D. & Singer, G.** (Macquarie U., North Ryde, New South Wales, Australia) **Ventricular modulation of drinking and eating behavior.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 23-26.—In an experiment with 11 male Wistar rats injections of carbachol into the lateral cerebral ventricles of Ss increased water intake in both satiated and deprived Ss and injections of norepinephrine elicited eating. This is in contrast to earlier studies which have failed to elicit drinking under similar conditions and indicates that the ventricle may at least be partially involved in some of the behavioral changes observed after chemical stimulation of specific neuroanatomical structures. In support of previous work, high doses of atropine reduced drinking, as did norepinephrine. The latency to drink to carbachol was also investigated. (24 ref.)—*Journal abstract.*

456. **Reinis, Stanislav.** (York U., Downsview, Ontario, Canada) **Further study of the learning deficit produced by hydroxylamine.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 31-34.—Trained 168 male Swiss albino mice in alimentary conditioning, light associated with food pellet. Hydroxylamine injected intracranially from 4 hr to 3 wk after the end of training series interfered with the retention of the learned task. Hydroxylamine injected 4 wk after the end of training and later, was ineffective. In the 6th and 8th wk after the end of training, the forgetting appeared in all groups of Ss. Retraining was possible in all groups. Learning of another task, 1-trial learning situation, parallel with the testing series of sessions, was not affected by previous injection of hydroxylamine.—*Journal abstract.*

457. **Reinis, Stanislav.** (Ghana Medical School, Accra) **Time-dependent learning deficit caused by hydroxylamine.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 179-180.—In an experiment with 840 Swiss albino mice, the effect of .5-M hydroxylamine injected intracranially was studied on a passive-avoidance task. Hydroxylamine administered 24 hr before the acquisition trial or earlier had no effect on performance. Hydroxylamine injected 2 hr before the acquisition trial impaired the performance of Ss tested 24, 48, 72 hr., or 1 wk later. Hydroxylamine injected 1, 2, or 24 hr. later interfered with the performance of Ss. The later

hydroxylamine was injected, the later the impairment of performance appeared. It is concluded that the effect of hydroxylamine is probably associated with the "mutagenic" action of the drug on activated DNA.—*Journal abstract.*

Electrical Stimulation

458. Beltt, Bruce M. (U. Wisconsin) **Specificity of inhibitory mechanism controlling food intake during hypothalamic stimulation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2296-2297.

459. Clarke, Samuel & Trowill, Jay A. (U. Massachusetts) **Sniffing and motivated behavior in the rat.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 49-52.—Investigated the effect, in 2 experiments, of rewarding brain stimulation on inspiration rate in 4 male Charles River rats, using a temporal conditioning and a fixed-interval lever-pressing procedure. In early temporal conditioning trials, inspiration frequency was most pronounced following brain stimulation. With conditioning, inspiration frequency became most pronounced preceding brain stimulation. Inspiration frequency in the sniffing range remained part of the unconditional response to rewarding brain stimulation throughout both experiments. In the fixed-interval procedure, inspiration frequency increased just prior to the 1st lever-press of an interval, and continued to increase until reinforcement was delivered. Results suggest that measurement of respiration/sniffing frequency may have relevance to classical conditioning interpretations of motivated behavior. (18 ref.)—*Journal abstract.*

460. Colavita, Francis B. & Szeligo, Frank. (U. Pittsburgh) **Classical conditioning with brain stimulation at one site serving as both CS and US.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 41-44.—3 adult healthy cats with chronic electrodes in the inferior colliculus received paired presentations of a weak (CS) and a strong (UCS) electrical stimulus delivered through the same electrode. After 140-200 such pairings, the weaker stimulus was able to elicit a close approximation to the unconditioned motor response elicited by the stronger stimulus. The response eventually elicited by the weaker stimulus was seen to extinguish following a series of presentations of the weaker stimulus alone. 2 additional Ss receiving the same number of unpaired presentations of the weak and strong electrical stimuli, failed to acquire the tendency to make a motor movement in the presence of the weak stimulus. The weak electrical stimulus coming to evoke a response originally elicited only by a stronger stimulus is explained on the basis of classical conditioning rather than pseudoconditioning or sensitization.—*Journal abstract.*

461. DeVietti, Terry L. & Larson, Raymond C. (Central Washington State Coll.) **ECS effects: Evidence supporting state-dependent learning in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 407-415.—Conducted 2 experiments to test specific predictions of the state-dependency hypothesis concerning the effects of ECS on learning. 145 male Long-Evans rats received a single fear-conditioning trial followed 24 hr. later by 1 of the following treatments: noncontingent footshock (NCFS), NCFS and ECS, or just ECS. Modification of fear conditioning by the various treatments was assessed by a

drink-latency measure 24 and 96 hr. posttreatment. Exp. I demonstrated "amnesia" during the 24-hr test and recovery of memory during the 96-hr test by NCFS-ECS Ss. Exp. II showed that extinction training presented 24 hr. after NCFS-ECS treatment was not retained when testing occurred 96 hr. after this treatment. Results of both experiments clearly indicated that the combination of footshock and ECS can produce state-dependent learning. These data indicate that experiments that have used procedures involving footshock followed closely by ECS to demonstrate the disruption of memory formation as a consequence of ECS are also subject to a state-dependency interpretation. (31 ref.)—*Journal abstract.*

462. Gibson, William E. (U. Utah) **Effects of intracranial stimulation on the conditioned emotional response.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3021.

463. Goldrich, Stanley G. & Stamm, John S. (Ohio State U., Lab. of Comparative & Physiological Psychology) **Electrical stimulation of inferotemporal and occipital cortex in monkeys: Effects on visual discrimination and spatial reversal performance.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 448-458.—Trained 4 stump-tail monkeys with bilaterally implanted occipital and inferotemporal electrodes on pairs of pattern discriminations. Acquisition rates were compared on blocks of testing trials preceded by EEG disturbances set off by electrical brain stimulation. Inferotemporal stimulation had little effect on performance. Slight transient deficits were found during overtraining with inferotemporal stimulation. In Exp. II Ss were trained on a series of spatial reversal tasks after inferotemporal stimulation and without stimulation. No significant behavioral deficits occurred under the former condition. The stimulation technique used was found to be an efficient method of studying the effect of electrocortical impairment on behavior.—*Journal abstract.*

464. Haworth, John T. (U. Manchester, England) **Conditioned emotional response phenomena and brain stimulation.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 97-103.—Implanted electrodes into the septal region of 8 male albino rats and into the hypothalamic region in 8 other rats. After stabilizing for lever-pressing rates on a variable interval (VI) schedule for brain stimulation, 4 septal and 4 hypothalamic Ss were given the conditioning procedure for a CER while they could not obtain brain stimulation, and the other Ss were given the conditioning procedure while they were lever-pressing for brain stimulation. Manifestation of the CER was tested while Ss were bar-pressing for brain stimulation and it was found possible to condition a CER in all Ss. Exp. II using 4 hypothalamic Ss showed that the CER was still manifest on a faster VI schedule, the same as that used for the septal Ss. Exp. III using 4 hypothalamic Ss showed that when the group was on a CRF schedule the CER was significantly attenuated even though it was later manifest on a VI schedule. Findings indicate that (a) the CER technique using brain stimulation reinforcement should prove useful for the study of the interaction between motivation and CERs, and (b) comparisons between different brain loci for CER phenomena should be based on parametric studies of schedule reinforcement and current intensity.—*Journal abstract.*

465. Huston, Joseph P. (Tufts U.) **Psychophysics of energizing and reinforcing stimulation of the brain.**

Dissertation Abstracts International, 1970(Oct), Vol. 31(4-B), 2312.

466. Kesner, Raymond P. (U. Utah) **ECS as a punishing stimulus: Dependency on retrograde amnesia, duration of anterograde amnesia, and intensity of pain.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 398-406.—Tested 257 hooded rats in a step-down apparatus for the development of fear as a result of repeated ECS treatments. Familiarization with the step-down apparatus prior to administration of ECS treatments or presentation of ECS treatments at an optimal step-down response-ECS delay interval facilitated development of fear. On the other hand, morphine, injected immediately after an ECS treatment or increasing the duration of the postictal depression phase which follows each ECS treatment, delayed the establishment of fear. Furthermore, fear did not develop if an aversive experience (footshock) was administered during the postictal depression phase. Results are interpreted as supporting a previously formulated model by R. P. Kesner, W. E. Gibson, and M. J. LeClair (see PA, Vol. 44:20197) which describes the mechanisms accounting for the development of ECS-induced fear.—*Journal abstract*.

467. Kestenbaum, Richard S., Deutsch, J. A., & Coons, Edgar E. (State U. New York, Stony Brook) **Behavioral measurement of neural poststimulation excitability cycle: Pain cells in the brain of the rat.** *Science*, 1970(Jan), Vol. 167(3917), 393-396.—A new technique in which elicited behavior of the freely moving rat is used to measure the poststimulation excitability cycle of the central neurons mediating that behavior has been adapted from accepted methods of neurophysiology. A continuous train of pairs of brief pulses was delivered to pain systems in the midbrain of 18 male Sprague-Dawley rats. Rate of lever pressing to achieve 3-sec rests from this stimulation was measured as a function of the interval separating the pulses within pairs. Evidence for latent addition, absolute refractory period, temporal summation, and adaptation was demonstrated. Obtained relationships suggest that 3 sets of fibers may carry the aversive signal and that synaptic integration of pain in the brain may be related to Stevens' power law functions. (23 ref.)—*Journal abstract*.

468. King, Melvyn B. (Princeton U.) **Some factors in the control of killing in the rat.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3027.

469. Lidsky, Arnold. (Columbia U.) **Retrograde amnesic effects of electrical stimulation of mouse brain in one trial passive avoidance learning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2316.

470. McIntyre, Dan C. (U. Waterloo, Ontario, Canada) **Amnesia for CER following amygdaloid elicited behavioural convulsions in intact and split-brain rats.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2260.

471. Mogenson, Gordon & Kaplinsky, Marilyn. (U. Western Ontario, London, Canada) **Brain self-stimulation and mechanisms of reinforcement.** *Learning & Motivation*, 1970(May), Vol. 1(2), 186-198.—Rats receiving electrical stimulation of the brain frequently display some form of species-typical behavior, such as drinking or feeding, as well as self-stimulation. The role of this response-elicitation effect in response-reinforcement during self-stimulation was investigated in an experiment with 11 male Wistar rats. Results indicate

that although response-reinforcement accompanies self-stimulation, it is not essential for response-reinforcement. Rather, the sensory feedback from elicited behavior may be another source of afferent input which interacts with an integrative-control system for physiological regulation to influence response reinforcement (34 ref.)—*Journal abstract*.

472. Newman, John D. (U. Rochester) **Midbrain regions relevant to auditory communication in the redwinged blackbird.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 1733.

473. Pearl, Lynn M. (U. Miami) **Generalization and discrimination: Relationship to differences in CS intensities delivered to the rabbit's lateral geniculate.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2321.

474. Rose, James D. (Indiana U.) **Changes in evoked potentials and behavioral responses to trigeminal nerve shock due to septal lesions and stimulation in the rat.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2325-2326.

475. Rosenthal, Myron. (Duke U.) **The metabolic response to direct stimulation of the intact cerebral cortex and its modification by barbiturates.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2945.

476. Siegel, Allan & Skog, Donald. (New Jersey Coll. of Medicine & Dentistry, Newark, N.J.) **Effects of electrical stimulation of the septum upon attack behavior elicited from the hypothalamus in the cat.** *Brain Research*, 1970, Vol. 23(3), 371-380.—Performed an experiment to determine the role of the septal area in hypothalamically-produced attack, hissing, and escape. The principal effect of electrical stimulation of various regions of the septum in 28 cats that did not spontaneously attack rats was to increase attack latencies. In contrast, electrical stimulation of the septal area produced a tendency toward facilitation of hissing and escape response. Results are interpreted in terms of a specific inhibitory modulation by the septum upon the lateral hypothalamus. (20 ref.)—*Journal summary*.

477. Swadlow, Harvey A. (U. Miami) **Intergeniculate transfer and intrageniculate frequency generalization of the classically conditioned eyeblink response in the rabbit to electrical brain stimulation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2268.

478. Van Dis, Huib & Larsson, Knut. (Netherlands Central Inst. for Brain Research, Amsterdam) **Induction of sexual arousal in the castrated male rat by intracranial stimulation.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 85-86.—Reports that electrical ICS in the medial preoptic area in 2 male Wistar rats caused a drastic increase in sexual activity. Stimulation of a castrated S induced vigorous mounting behavior and even a few intromissions, but no ejaculations.—*Journal abstract*.

479. Van Dis, Huib & Larsson, Knut. (Netherlands Central Inst. for Brain Research, Amsterdam) **Seminal discharge following intracranial electrical stimulation.** *Brain Research*, 1970, Vol. 23(3), 381-386.—Explored various regions of the rat brain for the possible occurrence of seminal discharges produced by various pulse frequencies of electrical stimulation. Electrode placements in 102 Wistar rats were aimed at the medial and lateral preoptic areas, lateral hypothalamus, central gray, mammillary bodies, caudate nucleus, globus

pallidus, and occipital cortex. Seminal discharge was observed in 81% of all Ss in at least 1 of 6 tests following electrical stimulation. Frequencies of 60-100 cps were most effective in producing the response. Findings are compared to those from studies with the squirrel monkey and baboon.—*Journal summary.*

480. Wyrwicka, Wanda & Chase, Michael H. (U. California, Medical School Los Angeles) **Projections from the buccal cavity to brain stem sites involved in feeding behavior.** *Experimental Neurology*, 1970(Jun), Vol. 27(3), 512-519.—Explored the possibility that afferent information from orogastric receptors plays a key role in the regulation of the activity of brainstem feeding centers. Electrical stimulation was applied to the inferior alveolar nerve of 15 immobilized adult cats. Short-latency evoked responses were recorded from the specific thalamic projection nucleus, ventralis posteromedialis. Potentials of longer latency were observed in mesencephalic and diencephalic regions which are involved in the regulation of feeding behavior. The extent to which afferent information from buccal receptors may influence brainstem sites involved in feeding behavior is discussed. (30 ref.)—*Journal abstract.*

481. Young, A. Grant & Day, H. D. (Louisiana State U.) **ECS effects following continuous and partial reinforcement training.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 131-132.—Trained 32 naive male albino rats to leverpress for sucrose using a free-operant procedure. $\frac{1}{2}$ the Ss were trained on a CRF schedule, and the other $\frac{1}{2}$ were trained on a variable-ratio schedule (VR 2). Following acquisition, for $\frac{1}{2}$ of Ss in each group, a leverpress produced footshock followed by ECS. For the remaining Ss, a leverpress produced footshock only. Results show that (a) suppression of the leverpress response due to footshock was reduced by the ECS, regardless of the acquisition reinforcement schedule; and (b) the VR-trained Ss that received ECS failed to show the partial reinforcement effect in extinction noted in previous studies.—*Journal abstract.*

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482. Barek, J. David. (Windham Coll.) **Hippocampal afterdischarges and conditioned emotional response.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 297-299.—When footshock in a conditioned suppression task is followed by either local or generalized seizure, no suppression develops. The production of a localized seizure produces the same performance decrement as does electroconvulsive shock. Results suggest that the hippocampus is involved in memory processing. 26 chronically implanted male Wistar rats used previously in passive avoidance served as Ss. (19 ref.)—*Journal abstract.*

483. Bennett, Thomas L. & Gottfried, Jeffry. (Colorado State U.) **Hippocampal theta activity and response inhibition.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 196-200.—To examine T. L. Bennett's hypothesis that theta activity may reflect the role of the hippocampus in response inhibition, hippocampal activity was monitored while 6 adult cats with chronically implanted electrodes learned and were shifted from a CRF to a DRL schedule in an operant conditioning apparatus. If the hypothesis was true, it was predicted that theta activity would occur between correct responses as the S mastered the DRL task and hence improved in his ability to inhibit his

previously CRF response task. Results did not support the hypothesis. It was found that small amplitude, fast desynchronized activity dominated the hippocampal records throughout training. When theta activity occurred, it was always associated with orienting responses. The results cast doubt on W. R. Adey's hypothesis that the appearance of theta activity during learning reflects the role of the hippocampus in decision making and memory consolidation. Also, the findings support E. Grastyán's contention that the main behavioral correlate of hippocampal theta activity during learning is the orienting response. (French summary)—*Journal summary.*

484. Borda, Robert P. (Baylor Coll. of Medicine, Houston, Tex.) **The effect of altered drive states on the contingent negative variation (CNV) in rhesus monkeys.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 173-180.—Studied contingent negative variation (CNV) in 4 female rhesus monkeys using epidural and subcortical platinum-platinum electrodes and long-time constant, capacitor-coupled amplifiers. The study was designed to determine the effects of different levels of drive, as determined by normal diet or total deprivation of food, on the amplitude of the CNV in Ss trained to respond for a food reward. Recordings made over several mo. led to the following conclusions: (a) At least 2 independent negative slow potentials are present during the course of conditioning a task of this type; 1 is present over the frontal regions and the other over more central areas. The 2 potentials may sum to produce the CNV typically recorded at the scalp. (b) The central-dominant potential decreases in amplitude with overtraining, appearing most commonly after periods of food deprivation. The frontal-dominant potential reaches its maximal amplitude early in training and continues to be present as long as the S maintains a high level of performance. (c) The CNV is not related in any simple manner to drive. It is suggested that food deprivation acts to increase the probability of S's detecting the cues and subsequently making a correct response, and that the frontal-dominant potential may, therefore, be the electrical sign of activation of a basic mechanism of selective attention subserved by nonspecific thalamocortical pathways. (French summary) (27 ref.)—*Journal summary.*

485. Carson, Virginia G., Kado, Raymond T., & Wenzel, Bernice M. (U. California Medical School Los Angeles) **Method for recording foot pad impedance in freely moving mice.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 77-80.—Measured the foot pad impedance of a freely moving mouse in a shock runway. Foot pad impedance measurement consisted of a constant current circuit for measuring impedance when the current was subthreshold and a constant voltage circuit for measuring impedance when the current was at an aversive level. Both of these circuits are diagrammed and discussed. Foot pad impedance records obtained by this method are shown.—*Journal abstract.*

486. Coquery, Jean M. & Conlmann, Michele. (National Center of Scientific Research, Dept. of General Psychophysiology, Marseille, France) **Variations d'amplitude des réflexes monosynaptiques avant un mouvement volontaire.** [Variations of the amplitude of monosynaptic reflexes before a voluntary movement.] *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 65-69.—Changes in monosynaptic reflexes of triceps surae were tested in 7 male Ss during a voluntary

contraction of either the muscle involved in the test (extension of foot), or the antagonistic muscle (flexion of the foot), or a muscle not involved in the test (clenching the fist). When the foot was extended, the amplitude of the reflexes of triceps surae 1st showed a slight decrease between 500 and 100 msec. before the EMG of the contraction, followed by an increase which built up during the extension phase. A flexion of the foot, however, was preceded by a sustained diminution of the reflexes amplitude. Clenching the fist was accompanied by a rise in the excitability of the motoneurons of triceps surae. In every case, the changes in spinal excitability brought about by the voluntary motor command could be detected at least 100 msec. before the beginning of the EMG of the movement. (17 ref.)—*English abstract.*

487. Delse, Frederick C. (Duke U.) **Human vertex slow potential shifts during auditory judgments: Electrical signs of changes in set.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3018-3019.

488. Duda, John J. (U. Rochester) **Electrotoposcopy of auditory cortex responses to acoustic stimulation in the lightly anesthetized squirrel monkey.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 1752.

489. Fields, H. L., Partridge, L. D., & Winter, D. L. (Walter Reed Army Inst. of Research, Washington, D.C.) **Somatic and visceral receptive field properties of fibers in ventral quadrant white matter of the cat spinal cord.** *Journal of Neurophysiology*, 1970(Nov), Vol. 33(6), 827-837.—Single fibers were recorded from in the ventral quadrant white matter of the spinal cord of the spinal cat. Widespread excitatory and inhibitory visceral and somatic input was found. Small amounts of barbiturate greatly reduced the size of the excitatory somatic receptive fields but did not eliminate the response to visceral stimulation. No significant differences were found in the properties of those fibers which ascended to supraspinal structures and those that were classified as propriospinal.—*G. Westheimer.*

490. Fowles, Don C. & Venables, P. H. (U. Iowa) **The reduction of palmar skin potential by epidermal hydration.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 254-261.—Simultaneous measurements of palmar skin potential (SP) at 4 levels of epidermal hydration in 10 male staff members and students yielded a difference of 35 mV between the mean values for the least hydrated site (pretreated with polyethylene glycol) and the most hydrated site (pretreated with distilled water) during sweat gland activity. It was also demonstrated that there was a decline in SP during the 1st 15 min. of recording with aqueous electrolyte which can be attributed to the application of an electrolyte to the skin. Thus the hydration effect appears to be a large, uncontrolled source of variance which must be brought under control if physiologically meaningful results are to be obtained with SP measurements. The hydration effect may offer an alternative interpretation of data previously cited as supporting the hypothesis that an epidermal membrane contributes to SP.—*Journal abstract.*

491. Frost, James D. (Baylor Coll. of Medicine, Houston, Tex.) **An automatic sleep analyzer.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 88-92.—Describes a small, portable, special-purpose device which accomplishes automatic on-line evaluation and graphing of an S's sleep status. The instrument performs EEG analysis as an amplitude-

weighted, dominant-frequency meter to define stages awake through Stage 4 sleep, and also considers electrooculogram information to permit detection of the REM state.—*Journal summary.*

492. Gassel, M. Michael & Ott, Kenneth H. (U. California, Medical School, San Francisco) **Motoneuron excitability in man: A novel method of evaluation by modulation of tonic muscle activity.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 190-195.—Describes a technique based on the observation that during tonic activity, motor unit discharge increased with facilitation of the reflex and decreased with inhibition of the reflex. A system was developed for graphic recording of the modulation of EMG activity following a conditioning stimulus. The EMG is passed through an absolute-value rectifier circuit and then summed by computer whose sweeps are triggered by the conditioning stimulus. An X-Y plot is then made of the summed potentials ("modulation curve") representing the graph of activity changes following the conditioning stimulus. The modulation curve resembled but did not reflect precisely changes in central excitability recorded by the classical recovery curve. The modulation curve is rapidly and easily performed. It can be elicited from any muscle, flexor or extensor, and is not restricted to the few large muscles with prominent stretch reflexes as is true in the classical technique. The method is especially adapted to the study of the response characteristics of spontaneous activity in clinical EMG. (French summary)—*Journal summary.*

493. Gavrilskii, V. St. (Higher Inst. of Physical Culture, Sofia, Bulgaria) **Vliyaniye zvukovoi stimulatsii na elektroretinogrammu cheloveka.** [Influence of acoustic stimulation on the electroretinogram in man] *Fiziologicheskii Zhurnal SSSR*, 1970(Sep), Vol. 56(9), 1215-1218.—28 19-25 yr. old Ss participated in a study of the electroretinogram (ERG) changes which occur upon excitation of the optic nerve, simultaneously with excitation of other cortical centers, particularly the auditory cortical center, evoked by the action of an acoustic stimulus. It is shown that acoustic stimulation influences several ERG parameters, probably through inductive interaction between the auditory and visual cortical centers. Data are treated in such a way that the mechanisms in ERG changes are viewed as involving the functional state of 1 or another cortical center. (41 ref.)—*J. D. London.*

494. Goblick, Thomas J. & Pfeiffer, Russell R. (Massachusetts Inst. of Technology, Lincoln Lab., Lexington) **Time-domain measurements of cochlear nonlinearities using combination click stimuli.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4, Pt. 2), 924-938.—The interleaving peak structure of poststimulus time (PST) histograms of low-frequency cochlear-nerve-fiber responses to acoustic clicks of both polarities implies that a cochlear neuron is excited by a damped oscillatory waveform, referred to as a click excitation function (CEF) that is $\frac{1}{2}$ -wave rectified. For a stimulus consisting of 2 closely spaced clicks, the amplitude and delay of the 2nd click relative to the 1st click can be adjusted so that $\frac{1}{2}$ cycle of the CEF due to the 1st click nulls or cancels a particular $\frac{1}{2}$ -cycle of the other CEF. A null produced in this manner can be detected from the PST histograms of responses of a particular fiber to both polarities of the click-pair stimulus. This nulling technique has been used to study the responses of cochlear nerve fibers to combination click stimuli. Details of these measurements are given.

and the interpretation of the results leads to the consideration of 2 apparently different nonlinear phenomena. Results and the techniques used to obtain them provide a means by which certain constraints on the mechanisms of the peripheral auditory system can be evaluated.—*Journal abstract.*

495. Goldstein, Sanders. (NASA, Electronics Research Center, Cambridge, Mass.) **Phase coherence of the alpha rhythm during photic blocking.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 127-136.—Examined the pre- to postblocked phase angle relationship of the photically blocked alpha rhythm in light of a pacemaker model. The question is asked whether this pacemaker is in continuous operation during photic blocking even though, within this period, the detected alpha oscillation may vanish. Analysis of data shows 1st, a postblocked alpha rhythm coherence, and 2nd, a mean 0 phase angle between the postblocked and preblocked wave trains. 3 normal human Ss were used. Results are consistent with the idea of a basic pacemaking system, but because of conservation of phase information during the photic block, they are at variance with the concept that photically induced desynchronization must take place at the pacemaker level. The results are discussed further in terms of a visual information intake model used by K. Gaarder, R. Koresko, and W. Kropfl. (French summary)—*Journal summary.*

496. Kirk, William E. (Ohio U.) **Unconditioned response magnitude of the galvanic skin response in temporal conditioning and in habituation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2960-2961.

497. Lentz, William E. (U. Utah) **Augmentation of the averaged electro-encephalic auditory response in passive adults.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3054-3055.

498. Lykken, David T. (U. Minnesota, Psychiatric Research Unit) **Square-wave analysis of skin impedance.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 262-275.—Describes a method for studying skin impedance phenomena, based on analysis of waveforms of current through the skin produced by square voltage pulses. In several experiments, the method was used to provide data relevant to the choice of an appropriate equivalent circuit for skin. Removal of the stratum corneum eliminated the parallel resistive and capacitive elements, and slightly reduced the series or "ohmic" resistance. During healing the source of skin potential recovered before the other electrodermal parameters had returned to normal. The relationship of these parameters to electrode area, current density, and site temperature is discussed. It is argued that the capacitance of skin may not vary with the frequency of the measuring current, in contrast to traditional views. (15 ref.)—*Journal abstract.*

499. Maltzman, Irving; Harris, Lance; Ingram, Eben, & Wolff, Craig. (U. California, Los Angeles) **A primacy effect in the orienting reflex to stimulus change.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 202-206.—Recorded the GSR from 96 undergraduates, $\frac{1}{2}$ of whom entered a dimly lit experimental room and $\frac{1}{2}$ who entered a relatively brightly lit room. The room illumination then changed and changed back repeatedly every 5, 10, or 30 sec., for different groups of Ss. The GSR measure of the orienting reflex evoked by the 1st kind of change was significantly larger than the orienting reflex evoked by the change back to the original level. The significant effect was obtained even in

the 30-sec group. The primacy effect in magnitude of the orienting reflex evoked by different stimulus changes occurred regardless of whether the initial change was an increase or a decrease in illumination, although the increase in illumination induced significantly larger GSRs than the decrease. It is suggested that this primacy effect may reflect the inhibitory influence of orienting reflex may have upon another induced by a subsequent stimulus change.—*Journal abstract.*

500. Mandl, George. (McGill U., Montreal, Quebec, Canada) **Localization of visual patterns by neurons in cerebral cortex of the cat.** *Journal of Neurophysiology*, 1970(Nov), Vol. 33(6), 812-826.—Microelectrode recording from single cells in the visual cortex of the cat was carried out with targets containing straight dark-light borders which were rapidly "flicked" back and forth. Unit discharges were either increased or decreased, and responses could be obtained when the visual border was in several areas.—G. Westheimer.

501. Martin, Randall B. & Dean, Sanford J. (Northern Illinois U.) **Instrumental modification of the GSR.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 178-185.—Investigated the effects of instructions, response-contingent shock, and the latency of the critical response on the GSR in 4 experiments with 109 undergraduates. Using a discrimination procedure, in which responding in the presence of 1 stimulus avoided shock while responding in the presence of another led to shock, it was found that relative to noninstructed, yoked-noncontingent conditions, instructed Ss responded at higher levels to the respond stimuli and at lower levels to inhibit stimuli. The effects of instructions appeared stronger than the effects of the shock contingencies. Only when the "contingent" GSR was of the "anticipatory" latency were differential effects obtained. No effects were observed in the absence of cognitive mediation.—*Journal abstract.*

502. Peregrin, J. & Světlík, J. (Charles U., Inst. of Physiology & Ophthalmological Clinic, Hradec Králové, Czechoslovakia) **Relationship between the intensity of a light stimulus and the amplitude of the reaction in the electroretinogram in man.** *Physiologia Bohemoslovaca*, 1968, Vol. 17(4), 337-342.—Studied the dependence of the potential values of the negative and positive components of the electroretinogram (ERG) in man on the intensity of photostimulation in the range of 5 log u. The relationship between the intensity of light stimuli and the potential value of the ERG—intensity-reaction (I-R) curve—can be expressed mathematically by a logistic function. Mathematical calculations and a comparison with the I-R curve of congenital hemeralopia indicate that the positive component of the ERG consists of a superposition of photopic and scotopic wave at higher intensities. The time values of implicit times of both the negative and positive components of the ERG within the range of light stimuli used are given. (Russian summary)—*Journal summary.*

503. Pfeiffer, Russell R. & Molnar, Charles E. (Washington U.) **Cochlear nerve fiber discharge patterns: Relationship to the cochlear microphonic.** *Science*, 1970(Mar), Vol. 167(3925), 1614-1616.—In an experiment with adult cats, Fourier analysis of discharge patterns in response to sinusoidal acoustic stimulation provided a consistent and repeatable measure of response phase and amplitude. The variation of the fundamental and harmonic components of the patterns as stimulus parameters were changed was strikingly similar to that of cochlear microphonics. Results were significantly different for single fibers with different

characteristic frequencies: variations paralleled those of microphonics recorded from different cochlear turns.—*Journal abstract.*

504. Saunders, James C. & Rhyne, Robert L. (Princeton U., Auditory Research Lab.) **Cochlear nucleus activity and temporary threshold shift in cat.** *Brain Research*, 1970, Vol. 24(2), 339-342.—Investigated the neurophysiological correlates of temporary threshold shift (TTS) in 5 cats. Arbitrarily chosen levels of the frequency following response (FFR) were considered "at a variety of pure tone frequencies before and after exposure to intense noise." Each S was tested twice under sodium pentobarbital. Results show (a) "an inverse relationship between pre-exposure sensitivity and post-exposure TTS changes," and (b) "recovery functions all tended to be somewhat linear in the logarithm of time." It is concluded that FFR was effected by the exposure to intense noise, and that the noise effects were temporary in nature and exhibited a recovery course similar to that previously reported in the cat and man. It is suggested that simultaneous recordings from the CN and other sites in the peripheral auditory system could be used to develop techniques for establishing neural correlates.—*S. Knapp.*

505. Simon, Eleanor B. (U. California, Los Angeles) **Learning and recall of paired-associates and the orienting reflex.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2328-2329.

506. Snider, Irving J. & Bregman, Albert S. (U. Chicago) **The effect of GSR confirmed perception of bisensory input on immediate verbal memory.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 169-177.—Following adaptation, 18 undergraduates learned visually presented paired associate (PA) word lists, while distracting verbal material was read aloud to them. Skin resistance was recorded. Ss who received auditory interference, containing words present in the PA task, made fewer errors than controls. An objective scoring method showed that GSR peaks following the onset of relevant words in the interference were more frequent than those following control words, confirming Ss' verbal reports of perception of and attention to relevant stimuli. The improved learning seemed to be a direct result of the bimodal input.—*Journal abstract.*

507. Sumitomo, I., Iwama, K., & Arikuni, T. (Osaka U., Medical School, Japan) **A relation between visual field representation of rat lateral geniculate cells and conduction velocities of optic nerve fibers innervating them.** *Brain Research*, 1970, Vol. 24(2), 333-335.—Conducted experiments to (a) locate "the receptive fields of cells of the rat's lateral geniculate body (LGB)," and (b) determine "the conduction velocities of optic nerve fibers innervating these cells (peripheral conduction velocities of LGB cells) . . . from the response latencies to electrical stimulation of the optic nerve." Results indicate that "the more centrally situated the receptive fields in the visual field, the slower the peripheral conduction velocities."—*S. Knapp.*

508. Umemoto, Mamoru; Mural, Yukiko; Kodama, Misako, & Kido, Ryonosuke. (Shionogi Research Lab., Osaka, Japan) **Neuronal discharge patterns in conditioned emotional response.** *Brain Research*, 1970, Vol. 24(2), 347-351.—Conditioned 35 cats in auditory discrimination using a differential stimulus tone and a CS tone followed by a shock. Stable recordings of single spike potentials during overt behavior were obtained from chronically implanted electrodes in various areas of the brain. Results indicate that in a CER, "single

neurons in the brain react to the conditioned stimulus consistently and with specific firing patterns." (16 ref.)—*S. Knapp.*

509. Waterland, Joan C. (U. Wisconsin) **The harmonies of movement recorded electromyographically.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 1001-1002.—Emphasizes the "rhythm" of movement by using musical notations that highlight the differences between a skilled performer and a novice doing the same activity. EMGs are presented for 3 gymnasts.—*Journal abstract.*

510. Wilson, Glenn F. & Lindsley, Donald B. (U. California, Los Angeles) **Detachable lead holder for human subjects.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 281-282.—Describes a simple electrode lead holder or junction box which can remain attached to an S when he leaves the experimental room for rest periods during long recording sessions. The holder connects by 1 multipin plug to the terminal board or lead-in cable. It can be secured to the S by "a paper clamp attached to clothing and connected to the holder by a short length of heavy jeweler's chain Electrode lead wires with their plug-in tips remain connected to the jacks of the holder throughout the experiment; only the multipin plug is disconnected when the S is removed from the recording situation."—*P. McMillan.*

511. Woody, Charles D., Vassilevsky, Nikolai N., & Engel, Jerome. (National Inst. of Health, Lab. of Neural Control, Bethesda, Md.) **Conditioned eye blink: Unit activity at coronal precruciate cortex of the cat.** *Journal of Neurophysiology*, 1970(Nov), Vol. 33(6), 851-864.—Unit activity was recorded in single cells of the coronal-precrucciate cortex of cats who were either naive, conditioned to blink, or whose conditioning to blink had been extinguished. The cells were grouped according to whether stimulation by means of the microelectrode produced a detectable EMG response in the orbicularis oculi muscle or not. Cells in the former category had higher thresholds to stimulation in the naive group than in the conditioned and extinguished groups. The unit activity preceded the conditioned blink by the appropriate interval.—*G. Westheimer.*

512. Yaremko, R. M., Blair, Marjorie W., & Leckart, Bruce T. (San Diego State Coll.) **The orienting reflex to changes in a conceptual stimulus dimension.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 115-116.—Recorded the GSR component of the orienting reflex for 4 groups of 12 undergraduates each. Ss were given 10 habituation trials to black on white numeric stimuli presented in seriatum. On Trial 11 an out-of-sequence test stimulus (TS) was delivered and was followed by 1 additional in-sequence number. The TS was either ± 1 or ± 11 places out of sequence. It was found that GSR magnitude to the TS was primarily a function of the amount of disparity provided by the TS, irrespective of the direction of that disparity. Dishabituation to the subsequent in-sequence stimulus was not, however, clearly present. Results are related to E. N. Sokolov's neuronal model of habituation and to previous research.—*Journal abstract.*

Electroencephalography & Evoked Potentials

513. Andreeva, V. N., Kratkin, Yu. G., & Kurbanova, Sh. (Pavlov Inst. of Physiology, Leningrad, USSR) **Vliyaniye dlitel'nosti zvukovykh signalov na analizatornyuyu deyatel'nost' mozga.** [Influence of duration of acoustic signals on cerebral analyzing

activity.] *Fiziologicheskii Zhurnal SSSR*, 1970(Sep), Vol. 56(9), 1193-1207.—Used 5 cats, with electrodes implanted in the auditory and sensorimotor cortex, the mesencephalic reticular formation at the superior collicular level, and a number of the thalamic nuclei, in a study of changes in the EEG and behavioral reactions resulting from progressive shortening of time of signal action from 3–.015 sec. Diminution of acoustic duration to .5–1 sec. had no effect on behavior, but raised the degree of tonic activation in the spontaneous EEG and prolonged cerebral electrical reactions to positive and finely differentiated stimuli. Signals of the order of .1–.2 sec. intensified EEG changes. Disturbances appeared in the effector responses: (a) prolonged afterinhibition; and (b) individual disruptions of fine differentiations, restorable by training. Duration of the order of .015–.030 sec. was extremal, resulting in (a) attainment of the highest level of tonic activation in the spontaneous EEG; (b) persistent desynchronization in response to all acoustic stimuli, even the grossly differentiated; and (c) disorganization of CR activity. Some animals maintained fine differentiation of signals of such duration, but only for the beginning of the experimental session; most retained the ability to respond only to gross differentiation; and all exhibited deep afterinhibition and incorrect reactions to negative stimuli. Continuation of experiments with sounds of extremal duration led to signs of neurosis along with trophic disturbances (bald spots, eczema). (English summary) (34 ref.).—*I. D. London*.

514. Bostock, H. & Jarvis, M. J. (University Coll., London, England) **Changes in the form of the cerebral evoked response related to the speed of simple reaction time.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 137–145.—Studied the relationship between simple auditory RT and form of the cerebral evoked potential in an experiment with 18 normal 19–28 yr. old Ss. Stimuli were presented in a fixed relationship to the S's cardiac cycle, and data were analyzed separately in terms of (a) phase of cardiac cycle at which the stimulus was presented, (b) speed of RT, and (c) time in the experiment. The amplitude and latency of a wave of around 250-msec latency (N_2) were found to relate very strongly, both within and across Ss, to the speed of RT. Amplitudes of earlier components, while also related to RT, were equally or more associated with time in the experiment. The N_2 component was interpreted as an index of the moment-to-moment level of arousal. Neither the form of the evoked response nor the speed of RT was related to the phase of the cardiac cycle at which the stimulus was presented. (French summary)—*Journal summary*.

515. Childers, Donald G. & Perry, Nathan W. (U. Florida, Visual Sciences Lab.) **Alpha-like activity in vision.** *Brain Research*, 1971, Vol. 25(1), 1–20.—Attempts to relate and integrate the diverse findings from experiments covering the spectrum of psychophysical, EEG, visual evoked response, electroretinogram, ganglion cell response, and lateral geniculate body response, focusing upon responses evoked by visual stimuli. The relationship of the resonance and after-discharge phenomena to classical alpha rhythm and alpha-like activity is discussed. Various models and theoretical considerations advanced in the literature to explain these findings are considered. (101 ref.).—*Journal summary*.

516. Denisova, Z. V. & Logunova, G. I. (Inst. of Evolutionary Physiology & Biochemistry, Moscow, USSR) **Ob EEG-komponente igrovogo povedeniya**

rebenka. [On the EEG component of play behavior in the child.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 195(1), 246–248.—Parieto-occipital EEG recordings were obtained from 3–7 yr. old Ss while Ss were engaged in the manipulation of toys. Changes occurred in the mean asymmetry level of EEG phases when Ss were presented with a new toy or as they discovered novel aspects of the toy (as evidenced by verbalizations). In the younger Ss, EEG changes typically took the form of "peaking" in the average asymmetry curve. With increasing age, peaking was replaced by a relative flattening on the EEG curve when novel aspects of the environment were discovered. Such flattening is also found in the adult. Behavioral data indicate that EEG changes occur not as a result of manipulatory activity as such but as a result of sensory processes, and may be present in completely immobile Ss.—*L. Zusne*.

517. Donchin, E. & Smith, D. B. (U. Illinois) **The contingent negative variation and the late positive wave of the average evoked potential.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 201–203.—Stimuli that are task relevant elicit an averaged evoked potential (AEP) that shows an enhanced positive component (P300) with a peak latency between 200–300 msec. The contingent negative variation (CNV) usually terminates with a positive wave with a latency of approximately 300 msec. The possibility that these 2 phenomena are related was investigated. The data indicate that when conditions are appropriate, both the CNV and P300 can be obtained in the same experimental situation, and their relationship should be further elucidated. 10 Ss were used. (French summary)—*Journal summary*.

518. Eason, Robert G., White, Carroll T., & Bartlett, Neil. (U. North Carolina, Greensboro) **Effects of checkerboard pattern stimulation on evoked cortical responses in relation to check size and visual field.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 113–115.—Studied cortical evoked responses to checkerboard stimulation as a function of check size and visual field. Stimuli were presented to the upper, central, and lower parts of the retina of 5 Ss. Regardless of check size, largest potentials were obtained to lower-field stimulation; central-field stimulation yielded intermediate responses; and upper-field stimulation produced the smallest responses. Maximal responses were obtained to intermediate check sizes during lower-field stimulation and to the smallest checks during upper-field stimulation. Results suggest that the cortical visual system is more responsive to patterned stimuli appearing in the lower viewing field than in the upper, but that the system may be relatively more sensitive to smaller objects appearing in the upper field.—*Journal abstract*.

519. Feeney, Dennis M. (U. New Mexico) **Evoked responses and background unit activity during appetitive conditioning in dogs.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 9–15.—In experiments with 9 mongrel dogs, the late components of both the auditory cortex response to stimulation of the medial geniculate and the visual cortex responses to stimulation of the optic radiations were enhanced at the onset of a CS for food reward and depressed later in the trial, just prior to food delivery. Tonic multiple unit activity from the optic radiations was also enhanced following CS onset and declined to a level below control prior to food delivery. The multiple unit activity from the medial geniculate showed a similar enhancement following CS onset. CS onset evoked a behavioral orienting reflex (OR) as does

stimulation of the mesencephalic reticular formation or presentation of novel stimuli. Since these procedures as well as avoidance conditioning produce similar effects on these evoked responses, it is concluded that processes not specific to a single motivational state, e.g., arousal or attention, are operating during the conditioning trial to bring about modulation of the excitability of the central auditory and visual pathways. (25 ref.)—*Journal abstract.*

520. Gerbrandt, L. K., Spinelli, D. N., & Pribram, K. H. (Stanford U., Medical School, Lab. of Neuropsychology) **The interaction of visual attention and temporal cortex stimulation on electrical activity evoked in the striate cortex.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 146-155.—Describes 4 experiments with 6 adolescent rhesus monkeys, 2 of them naive, directed at finding an index of the activity of the inferotemporal (IT) cortex on the visual system. In Exp. I, electrical stimulation of the IT cortex failed to alter recovery functions in the striate cortex of 4 Ss. This result was different from that reported in an earlier experiment, but comparison of the initial recovery functions obtained in the 2 experiments allowed the discrepancy to be attributed to differences in the attentional state of the Ss. This suggestion was tested by developing, in Exp. II, a reliable measure of state in the visual system, a measure responsive to environmental variables inducing attention. This measure was used in Exp. III to select and classify recovery cycles on the basis of the state of the visual system. Only when the attentive state was present were the recovery cycles similar to those recorded in Exp. I. Finally, the measure, a potential evoked in the striate cortex by geniculate stimulation, was shown to be sensitive to IT stimulation only when Ss were in an inattentive state. (French summary) (15 ref.)—*Journal summary.*

521. Globus, Gordon G. (U. California, Irvine) **Quantification of the REM sleep cycle as a rhythm.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 248-253.—Attempted to develop an objective quantitative method for representing the temporal organization of sleep in terms of the period and rhythmicity of REM sleep occurrences. Data on normative human sleep, already scored for stage REM and not stage REM, were subjected to a "binary autocorrelation." The mean period over 92 nights of sleep for 10 young adult Ss was 101.5 min. and quite stable. Data is also presented on variability of the rhythm in terms of an index of rhythmicity. Measures of temporal organization may prove to be as significant for sleep research as amount of the various sleep stages.—*Journal abstract.*

522. Lenhardt, Martin L. (Florida State U.) **Effects of frequency transitions on auditory averaged evoked response.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2780.

523. Maffei, L. & Campbell, F. W. (National Research Council, Lab. of Neurophysiology, Pisa, Italy) **Neurophysiological localization of the vertical and horizontal visual coordinates in man.** *Science*, 1970(Jan), Vol. 167(3917), 386-387.—Reports that the amplitude of the potential evoked by a moving grating, recorded from the occipital scalp, is less when it is oblique compared with vertical and horizontal. This inequality is not found by recording the electroretinogram (ERG). Thus, orientational effects must arise between the site of origin of the ERG and the evoked cortical response.—*Journal abstract.*

524. Numoto, Mitsuo. (U. Vermont, Medical School) **Evoked potential averager made up from laboratory instruments.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 276-278.—Describes an analog averager which accumulates the signals as density changes on photographic film since the signals modulate the brightness of multiple oscilloscopic tracings. The final averaged response is graphically reproduced by a simple photoelectric densitometer made up from 2 oscilloscopes and a phototube.—*Journal abstract.*

525. Roeser, Ross J. & Price, Lloyd L. (Florida State U.) **Effects of habituation on the auditory evoked response.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 306-313.—The effects of habituation were determined by recording auditory evoked potentials from the intact scalp of 6 normal-hearing Ss for 3 experimental conditions, 1 requiring S to attend to the stimuli by counting each presentation. The 2 remaining conditions did not control vigilance, but signal presentation was varied. Each test session lasted a minimum of 2 hr. Complete habituation was not observed for any of the 3 conditions. There was, however, an observable decrease in response amplitude during the initial 30 min. of testing for all 3 conditions. Following the initial decrease, amplitude measures remained relatively constant. A significant difference in evoked response parameters was noted as a result of S state.—*Journal summary.*

526. Rose, Darrell E., Teter, Darre, & Curtiss, Eskel. (Mayo Clinic, ENT Section, Rochester, Minn.) **Effects of stimulus duration on the averaged acoustically evoked human cortical response.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 335-337.—10 young adults at 0 sensation level (SL) above voluntary threshold, and 12 more at 20- and 40-db SL, were used to examine the effects of stimulus duration (30-300 msec.) on the amplitude and latency of the component voltages of the averaged acoustically evoked response (AER) from the vertex. Duration did not affect the amplitude or latency at 20- and 40-db SL. However, energy integration existed at or near 0-db SL. Thus, it is suggested that AERs could perhaps best be elicited with a stimulus duration of not less than 200 msec.—*Journal summary.*

527. Roth, Walton T., Kopell, Bert S., & Bertozzi, Peter E. (St. Elizabeth's Hosp., Div. of Special Mental Health Research, Washington, D.C.) **The effect of attention on the average evoked response to speech sounds.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 38-46.—Studied the average evoked response to prerecorded sentences and monosyllables in 10 undergraduates. EEG recordings with electrodes at the vertex and left ear were averaged with the use of trigger pulses generated synchronously at the onset of each syllable. 2 tasks were presented. In the 1st, Ss were asked to listen to or to ignore certain sentences on which they were later tested for recall. In the 2nd, they heard a list of monosyllables from which they were to distinguish nonsense from meaningful words. A crucial factor in the size of the response may have been the duration of the silence between stimuli, since the 1st syllable of each sentence was separated from the end of the previous sentence by a 3.5-sec pause, whereas the rest of the syllables were separated only by the much shorter pauses of continuous speech. Attention and nonattention conditions produced differences in the wave forms that were shown by a discrimination index based on multiple cross-correlations between wave forms to be significant.

at the .01 level. These differences were idiosyncratic to the individual S, usually appearing in the N_1 - P_2 region. Sense and nonsense words could not be distinguished by this discrimination index. (French summary)—*Journal summary*.

528. Schenkenberg, Thomas. (U. Utah) **Visual, auditory, and somatosensory evoked responses of normal subjects from childhood to senescence.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3007.

529. Shucard, David W., Horn, John L., & Metcalf, David. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **An objective procedure for the hand scoring of scalp average evoked potentials.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 5-7.—Describes a method for identifying and scoring average evoked response (AER) components. The method uses background EEG activity as a guide for visual identification of AER components. This procedure provides an advantage in objectivity and precision over most other methods, thus producing an increase in reliability and greater likelihood for interlaboratory agreement in experiments employing measures based upon the AER components.—*Journal abstract*.

530. Soliman, Salah M. (Jefferson Medical Coll.) **The auditory evoked response of mice with different brain weights.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 338-351.—Studied the auditory frequency sensitivity of 3 strains of laboratory mice with different brain weights using the auditory evoked response (AER) from the scalp. This method agreed with previous findings using the unconditioned GSR to map the range of frequency sensitivity of the 3 strains of mice, but disagreed as to the most sensitive frequency for 2 strains: the BALB/cj and MA/j. The AER from unanesthetized Ss consisted of a quick negative peak at a latency of 13-17 msec., followed by a positive peak at 30-40 msec., which sometimes was separable into 2 peaks only in the BALB/cj and MA/j strains, followed in turn by a negative peak at 65-95 msec. These 3 peaks were consistent in the 3 strains. Most of the BALB/cj and MA/j showed 2 further peaks at around 166 and 310 msec., respectively. Latencies of the various components were basically the same in the 3 strains, but were 3 times longer than those obtained by Ralls from mice with electrodes in the posterior colliculus. The amplitudes of the AERs from the BALB/cj and MA/j strains were larger than those from the C57BR/cdj. (15 ref.)—*Journal summary*.

531. Storm, William F. (U. Missouri, Columbia) **Vigilance, habituation, and the cortical evoked response.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3036-3037.

532. Woody, Charles D. (National Inst. of Health, Lab. of Neural Control, Bethesda, Md.) **Conditioned eye blink: Gross potential activity at coronal-precruciate cortex of the cat.** *Journal of Neurophysiology*, 1970(Nov), Vol. 33(6), 838-850.—Evoked potentials were recorded from the coronal-precruciate cortex of cats and the averages were compared in various states involving conditioning of blinks to a click. By comparing naive, conditioned, and extinguished states it was demonstrated that the evoked potentials in this area reflect activity related to production of the conditioned blink. Responses had a 13-msec latency, were of distinctive waveshape, and were in locations at which

motor representation of the eye blink was found by electrical stimulation.—G. Westheimer.

SENSORY PHYSIOLOGY

533. Battersby, William S. & Sturr, Joseph F. (Queens Coll., City U. New York) (Journal abstract) **Neural limitations of visual excitability: IX. Monocular and interocular changes of sensitivity during flicker stimulation.** *Journal of the Optical Society of America*, 1970(Jan), Vol. 60(1), 121-126.—Studied changes of threshold luminance for a test flash (F) as a function of temporal displacement between 2 conditioning flashes (F_1 and F_2), viewed with either the tested eye (monocular stimulation) or the homologous retinal location in the opposite eye (interocular stimulation) of 2 Os. Under both conditions, the threshold was elevated most near the beginning of F_1 , fell to a minimum between flashes, and rose again to a secondary maximum near the beginning of F_2 . The form of this function changed dramatically as the F_1 - F_2 interval decreased, the greatest effect being obtained with interocular stimulation. When a train of conditioning flashes (F_1 - F_5) at or near fusion frequency was utilized, temporal oscillations of threshold luminance were detectable with monocular but not with interocular stimulation.

534. Cervetto, L., Fiorentini, A., & Maffei, L. (Lab. di Neurofisiologia del C.N.R., Pisa, Italy) **Dynamic interactions in the retinal receptive fields and perceptual correlates.** *Archives Italiennes de Biologie*, 1970(Aug), Vol. 108(3), 485-497.—In electrophysiological studies with cats, ganglion cell response was measured when the center and periphery of the receptive field were illuminated by lights which were sinusoidally modulated either separately or simultaneously. The phase of the response depended upon the relative amplitude of the 2 lights. These results were duplicated in psychophysical studies with 2 human Ss, suggesting that "the dynamics of spatial interactions at all levels of the visual system are similar to those observed in the retinal ganglion cells."—W. A. Wilson.

535. Dill, John C. (California Inst. of Technology) **A computer-aided investigation of motion detection units in the fly.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2239.

536. Franzén, Ove. (U. Stockholm, Sweden) **Interrelations of psychophysics and neurophysiology in the study of the somatosensory system.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2500-2501.

537. Galosy, Richard A. & Lippman, Louis G. (Hostos Community Coll., Bronx, N.Y.) **Gerbil's pinnae movement as related to stimulus frequency and intensity.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 309-310.—Reports pinnae responses to onset of tones, which ranged in frequency from 5-10 kHz. and in intensity from 51-101 db. The quality and frequency of these responses varied directly with intensity, but were not systematically related to frequency. The extent to which these responses index auditory sensitivity or serve a protective function is considered.—*Journal abstract*.

538. Metz, Joseph W. (Kansas State U.) **Integration of responses between different types of cones and between rods and cones.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2319.

539. Pfaffmann, Carl. ((Ed.)) **Olfaction and taste:**

Proceedings of the Third International Symposium. New York, N.Y.: Rockefeller U. Press, 1969. xvi, 648 p.

540. Ross, Strange. (U. Copenhagen, Psychological Lab., Denmark) **Neural excitation and sustained sinusoidal acoustic stimulation.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 220-236.—On the basis of equal-loudness contours expressed in terms of volume velocity of cochlear fluid, a theory is developed for equal loudness at high levels of stimulation. At these levels the theory assumes number of active nerve fibers to be proportional to volume velocity of cochlear fluid, and firing rate of fibers to be limited by the refractory period. Analysis of a set of threshold data seems to confirm these assumptions, and is in disagreement with the theory of power summation at the absolute threshold. (15 ref.)—*Journal abstract*.

541. Shostak, V. I. (Kirov War-Medical Academy, Leningrad, USSR) **K voprosu o funktsional'noi podvizhnosti zritel'nogo analizatora.** [On the functional lability of the visual analyzer.] *Fiziologicheskii Zhurnal SSSR*, 1970(Sep), Vol. 56(9), 1310-1312.—Employed 7 20-27 yr. old males in a comparative study of the various indices of functional lability of the visual analyzer as a function of duration and intensity of the electrical impulse employed. The indices fall in value with prolongation of the stimulus and diminution of its intensity. The properties of critical frequency and critical interval of discreteness are presented and discussed. Representative data are given in graphic form. (English summary)—*J. D. London*.

542. Treviño, Daniel L. (U. Texas) **Visual responses to color in crustaceans.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2249.

BIOCHEMISTRY

543. Curtis, George & Fogel, Max. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Creatinine excretion: Diurnal variation and variability of whole and part-day measures: A methodologic issue in psychoendocrine research.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 337-350.—The variability of creatinine excretion in 4-, 8-, and 24-hr urine samples was determined in 12 Ss. The evidence accumulated shows that creatinine excretion was much less stable than is often assumed. Some Ss were stable excretors as assessed by sequential 24-hr excretion rates, but very few were stable as assessed by sequential rates over periods of less than 24 hr. Not all within-day variability was random. Significant or highly significant diurnal variations were found in 7 of 12 Ss in the present study. (31 ref.)—*W. G. Shipman*.

544. Deguchi, Takeo. (Kyoto U., Faculty of Medicine, Japan) [On the biochemical theory of learning.] *Japanese Psychological Review*, 1969(May), Vol. 12(1), 18-29.—Reviewed recent progress in biochemical research on learning. Hydén and Egyházi reported that when a rat was trained to climb wire, the unclear RNA in Deiter's neuron cell increased and its base composition changed. Similar results were obtained in cortical neuron cell when the dexterity of the left and right side of an S was transferred. From these findings, it is suggested that specific RNA might be produced in the brain during learning. Jacobson attempted to transfer learning through injection of RNA which was extracted from the brain of a trained rat, the untrained S could perform the Skinner box experiment without prior training. Several research groups tried to observe the effects of metabolic

inhibitors on learning. According to Agranoff, intracranial injection of puromycin could erase the CR of goldfish, while Flexner reported that the direct injection of puromycin into the temporal cortex of trained rats could erase the short-term memory.—*Journal abstract*.

545. DiCara, Leo V. & Stone, Eric A. (Rockefeller U., New York, N.Y.) **Effect of instrumental heart-rate training on rat cardiac and brain catecholamines.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 359-368.—To test the hypothesis that there is a difference in endogeneous levels or utilization of cardiac catecholamines between rats trained to increase and rats trained to decrease heart rate for the reward of brain stimulation, and to determine if sympathetic excitability manipulated by heart-rate training in rats has any effect on brain norepinephrine, 44 male albino Sprague-Dawley rats were rewarded by direct electric stimulation of the medial forebrain bundle in the hypothalamus for either increases or decreases in heart rate. Results showed that rats with learned increases in heart rate had higher endogeneous cardiac and brainstem catecholamine levels than rats trained to decrease heart rate, and the analysis of retention of cardiac H³-norepinephrine suggests that rats trained to decrease heart rate under curare were subjected to greater stress than rats trained to increase heart rate. (25 ref.)—*W. G. Shipman*.

546. Frankenhauser, Marianne; Myrsten, Anna L. & Post, Birgitta. (U. Stockholm, Psychological Lab., Sweden) **Psychophysiological reactions to cigarette smoking.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 237-245. Studied dosage and time effects of cigarette smoking in 9 male undergraduate moderate smokers, who participated in a control condition without smoking, and in 2 experimental conditions in which they smoked either 2 weak or 2 strong cigarettes (nicotine content 1.3 and 2.3 mg cigarette, respectively) at the beginning of a 90-min period. The main effects of smoking were to increase adrenaline output, blood pressure, and heart rate, and to decrease skin temperature and hand steadiness, the changes being consistently more pronounced after the larger dose. Peak effects were recorded at the 1st trial after smoking, followed by a gradual return toward base-line levels which, however, were not reached within the 90-min period.—*Journal abstract*.

547. Gaskin, L. Z., Minsker, E. I., Orlovskaya, D. D. & Faïshchevskii, V. A. (Inst. of Psychiatry, Moscow, USSR) **K izucheniyu tsentral'nykh mekhanizmov stressovogo deistviya syvorotki krovi bol'nykh shizofreniei.** [On the study of the central mechanisms of stress-action of schizophrenic blood serum.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Apr), Vol. 70(4), 576-581. 77 rabbits were used to study. (a) the influence of the blood serum of nuclear schizophrenics on endocrine changes brought on by a standard stressor (electric current), and (b) the action of injected nuclear schizophrenic blood serum on the bioelectrical activity of the posterior hypothalamus and sensorimotor cortex. The data indicate that nuclear schizophrenic blood serum, in contrast to normal serum whose injection failed to trigger the development of a number of adaptational reactions, was capable of inhibiting the development of the stress-syndrome in the afteraction of the standard stressor. Of importance is the fact that, under these conditions, changes, accompanying the stress-state, did not occur in the functional activity of the appropriate structures of the hypothalamus, and the capacity of the

sensory regions of the brain to react to the stimulus remained intact. The facts demonstrate that nuclear schizophrenic blood serum is capable of changing hypothalamic function, thereby accounting for its inhibitory effect on endocrine adaptational reactions. (English summary)—*I. D. London.*

548. Iwahara, Shinkro & Iwasaki, Tsuneo. (Tokyo U. of Education, Japan) [Chemistry of learning.] *Japanese Psychological Review*, 1969(May), Vol. 12(1), 1-17.—Studies on major chemical substances which are assumed to be related to learning and memory, are reviewed under 3 headings: RNA; acetylcholine; and other chemicals substances, e.g., atropine, pentobarbital, serotonin, and phenylalanine. It is noted that some chemical which are believed to affect learning, are potent upon nonassociative factors, e.g., sensitivity, motivation, and activity. (5 p. ref.)—*Journal abstract.*

549. Kolpakov, V. G. & Galaktionov, O. K. (Inst. of Cytology & Genetics, Novosibirsk, USSR) *Genetiko-biohimicheskoe issledovanie audigennoi epilepsii: III. Sravnitel'noe issledovanie biohimicheskikh mekhanizmov audigennoi epilepsii u krysi linii Krushinskogo-Molodkinoi i u myshei linii DBA*. [Genetico-biochemical study of audiogenic epilepsy: III. Comparative study of the biochemical mechanisms of audiogenic epilepsy in rats of the Krushinskii-Molodkina strain and in mice of the DBA strain.] *Genetika*, 1970(Dec), Vol. 6(12), 63-71.—Oxidative phosphorylation and glutamylsynthetase (GS) in the brain were comparatively investigated in sound-sensitive Krushinskii-Molodkina (K-M) rats and Wistar rats and also in convulsive DBA mice and sound-resistant C57BL mice. Adenosine triphosphate level in K-M rats was lower, while adenosine monophosphate level was higher, in comparison with respective levels in Wistar rats. A decrease in GS activity and a statistically insignificant decrease in Na-K-activated adenosine triphosphatase activity were noted. GS activity was lower in both the brain and liver of DBA mice as compared to that in C57BL mice at both epileptic and nonepileptic ages. Despite a difference in the primary hereditary mechanisms involved, the immediate biochemical changes, which result in predisposition to audiogenic seizure in rats, were similar to those in mice. (English summary) (35 ref.)—*I. D. London.*

550. Ley, K. F. & Corson, J. A. (McGill U., Montreal, Quebec, Canada) *Effects of ACTH and zinc phosphate vehicle on shuttlebox CAR*. *Psychonomic Science*, 1970(Sep), Vol. 20(5), 307-309.—Conditioned avoidance responding of Ss receiving subcutaneous injections of ACTH, zinc phosphate vehicle, and physiological saline was studied in the 2-way shuttlebox at 3 UCS intensity levels. In no case did ACTH Ss differ significantly from saline control Ss, but the zinc phosphate vehicle was found to alter performance both during acquisition and extinction. 48 and 20 male Wistar rats were used in 2 experiments, respectively. (22 ref.)—*Journal abstract.*

Hormones

551. Blum, Stephen L. (U. Texas) *The androgen control of scent marking in the Mongolian gerbil (Meriones unguiculatus)*. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2297-2298.

552. Brain, Paul F., Nowell, Norman W., & Wouters, Angela. (U. Sheffield, England) *Some relationships between adrenal function and the effectiveness of a*

period of isolation in inducing intermale aggression in albino mice. *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 27-29.—Because an inverse relationship has often been demonstrated between aggressiveness and adrenal function in rodents, a series of experiments, in which manipulations of the pituitary/adrenal axis were carried out, was undertaken to determine whether this had any modulating influence on fighting behavior. The effects are described of adrenalectomy, dexamethasone blocking of the pituitary, and of ACTH injection on isolation-induced aggression in 60 immature, naive or mature, sexually experienced male Tuck albino TT strain mice. It was found that while adrenalectomy reduced aggression, dexamethasone blocking enhanced it, and ACTH injection reduced it, although the differences were not always significant. The possible mode of action of ACTH in reducing aggression and the consequences to natural populations of rodents is discussed. (17 ref.)—*Journal abstract.*

553. Glick, Zvi; Thomas, Donald W., & Mayer, Jean. (Harvard U., School of Public Health, Boston) *Absence of effect of injections of the intestinal hormones secretin and cholecystokinin-pancreozymin upon feeding behavior*. *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 5-8.—Describes 2 experiments with 29 female Charles River CD rats. In a search for gastrointestinal hormones involved in the regulation of food intake, the intestinal hormones secretin and cholecystokinin-pancreozymin were injected via chronic ip and intra-aortal catheters prior to meals taken by fasted Ss, and at the initiation of each spontaneous meal of Ss fed ad lib. In no case did these injections have an effect upon feeding behavior. (17 ref.)—*Journal abstract.*

554. Poe, Richard O., Rose, Robert M., & Mason, John W. (45 Trenton Place, San Mateo, Calif.) *Multiple determinants of 17-hydroxycorticosteroid excretion in recruits during basic training*. *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 369-378.—To test the hypothesis that the pituitary adrenal system responds to environmental stimuli other than psychologic ones by defining the effect of psychologic and other variables on 17-hydroxycorticosteroid (17-OHCS) excretion, a mean 17-OHCS level was obtained for 46 Ss, plus a rating of how effectively each was coping with psychologic stress. Individual interviews, observations, and the MMPI were used as ratings. Results suggest that an individual's 17-OHCS level is influenced by psychologic, biologic, historic, and environmental variables. (27 ref.)—*W. G. Shipman.*

555. Rodier, William I. (U. Virginia) *Progesterone-estrogen interactions in the control of activity-wheel running in the female rat*. *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 365-373.—Progesterone injections (8 mg/kg/day or larger) resulted in decreased wheel-running activity and an increased rate of body weight gain in 7 female Sherman albino rats. These changes were evident from comparison to previous base-line determinations and to controls. Injections of progesterone (40 mg/kg/day) into 11 ovariectomized Ss had no effect on these measures. Progesterone injections (16 mg/kg/day or larger) were effective in causing decreased activity and increased body weight when administered to 7 ovariectomized Ss receiving estradiol cyclopentylpropionate. Results indicate that progesterone can influence wheel running and body weight through a direct interaction with estrogen, possibly by interfering with the effects of

estrogen on these measures. (21 ref.)—*Journal abstract.*

556. Sandman, Curt A., Kastin, Abba J., & Schally, Andrew V. (Louisiana State U., Medical School, Baton Rouge) **Behavioral inhibition as modified by melanocyte-stimulating hormone (MSH) and light-dark conditions.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 45-48.—Administered melanocyte-stimulating hormone (MSH) or a control solution to 50 male albino rats tested with a passive avoidance response (PAR) at the peak (1 hr. after dark) and lowest (in the middle of the light period) level of activity. MSH treatment significantly inhibited the PAR in the dark period. For all Ss, inhibition of response was intricately related to phase of activity. This implies an effect on memory and/or the expression of fear. (27 ref.)—*Journal abstract.*

557. Strutt, George F. & Stewart, Charles N. (Franklin & Marshall Coll.) **The effect of ACTH administration upon activity-related self-starvation.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 301-302.—32 male Sprague-Dawley rats lived on a 23-hr food-deprivation schedule. 2 experimental groups lived in activity wheels while 2 control groups lived in laboratory cages. 1 experimental and 1 control group received subcutaneous injections of ACTH, while the other 2 groups received injections of physiological saline. The ACTH injection had no effect on the self-starvation phenomenon, and the results are in opposition to the hypothesis of adrenocortical involvement in the phenomenon.—*Journal abstract.*

Drug Effects—Human

558. Cleghorn, J. M., Peterfy, G., Pinter, E. J., & Pattee, C. J. (McMaster U., Hamilton, Ontario, Canada) **Verbal anxiety and the beta adrenergic receptors: A facilitating mechanism?** *Journal of Nervous & Mental Disease*, 1970(Oct), Vol. 151(4), 266-272.—Subjected 6 healthy female Ss to mildly stressful hypnotic suggestions on 6 occasions. During 3 of the trials on each S the beta adrenergic blocking agent propranolol (nderal) was administered. Anxiety levels in recorded speech were measured during each experiment, and changes in plasma free fatty acids were estimated as an indication of beta receptor activation. Results indicate that beta adrenergic blockade with propranolol had no inhibiting effect on psychological anxiety in healthy Ss when an operational measure of anxiety was used, and where bodily symptoms were absent. There is little evidence that the beta receptors participate in a subliminal feedback system which facilitates anxiety, but bodily sensations of anxiety states are believed to intensify psychological anxiety. (32 ref.)—*Journal abstract.*

559. Gupta, B. S. (Government Coll., Kurukshetra, India) **The effect of extraversion and stimulant and depressant drugs on verbal conditioning.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 505-510.—Examined the effect of extroversion, dextedrine, and phenobarbitone on verbal conditioning. 90 graduate and postgraduate students served as Ss. Ss were randomly assigned to 3 treatments (stimulant, depressant, and placebo) and 3 extroversion groups (high, average, and low). A 3 × 3 factorial design was replicated 10 times. The technique of sentence completion was used. Results support the following conclusions: (a) introverted Ss are more conditioned than extroverted Ss; (b) dextedrine facilitates and phenobarbitone retards the conditioning process; (c) dextedrine does not improve the

conditioning level of introverted Ss; and (d) variability tends to increase under the influence of drugs. (25 ref.)—*Journal abstract.*

560. Huntley, Merrill S. (U. Vermont) **Effects of alcohol and fixation-task demands upon human reaction time to achromatic targets in the horizontal meridian of the visual field.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3026.

561. Jacobson, Edward J., Downs, Marion P., & Fletcher, John L. (U. Colorado, Denver) **Clinical findings in high-frequency thresholds during known ototoxic drug usage.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 379-385.—7 patients were tested weekly to determine the effect of ototoxic drugs on high-frequency hearing. High-frequency audiometry to 18 keps revealed marked hearing level changes which were detected 41-76 days before their detection with conventional audiometry for 4 patients; 2 patients showed minimal changes, and 1 patient evidenced no change in hearing. The changes in high-frequency hearing preceded reports of tinnitus by 56 days in 2, 14 days in a 3rd, and 7 days in a 4th patient. 2 patients reported no episodes of tinnitus.—*Journal summary.*

562. James, Cynthia L. (U. Oklahoma) **Effects of alcohol on paired associate learning and memory.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3026.

563. Laps, Robert J. (New York U., Research Center for Mental Health) **Altered states of consciousness: An experimental case study.** *Psychanalytic Quarterly*, 1971(Jan), Vol. 40(1), 40-58.—Describes "a study of earliest childhood memories reported in the waking state and in the altered state by an S selected because of the archaic state of consciousness he experienced under LSD and because of the series of regressive shifts observed in his earliest memory recall under LSD, which included the revelation of a screened memory." 1 conclusion reached is that "the failure of our S to spontaneously recall 5 yr. later the recollections reported in the altered state indicates that without working through and synthesis by the ego, such material fails to be integrated into the waking cognitive organization." References to the author's earlier experimental studies in LSD are made.—J. Z. Elias.

564. Ramirez del Villar, Eduardo. **Relaciones somato-psiquicas en medicina: Enfoque farmacológico.** [Somatic-psychic relations in medicine: Pharmacological approach.] *Revista de Neuro-Psiquiatria*, 1970(Mar), Vol. 33(1), 10-16. Discusses CNS physiology with reference to a cybernetic model to explain how pharmacology is able to influence its functioning. Differentiation is made between the cybernetic concept as applied to a computer and a human brain. Benefits of pharmacological influences on the CNS are elaborated with implications of improving the human machine through genetic modifications.—P. Hertzberg.

565. Ryback, Ralph S., Weinert, Jane, & Fozard, James L. (McLean Hosp., Belmont, Mass.) **Disruption of short-term memory in man following consumption of ethanol.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 353-354.—Over a 45-min period, accuracy of recognition of previously presented pictures systematically decreased in 10 nonalcoholic undergraduates and medical students after a moderate amount of alcohol was consumed. The decline in performance was relatively greater when the number of pictures between the old picture and its question was larger, suggesting that alcohol affected

retrieval as well as attention mechanisms.—*Journal abstract.*

566. Smith, James M. (Fordham U.) **The temporal effects of two barbiturates on critical flicker frequency (CFF) and other selected measures.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3036.

567. Tarter, Ralph E. (U. Oklahoma, Medical Center, Oklahoma City) **Dissociate effects of ethyl alcohol.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 342-343. —Demonstrated that alcohol has dissociative properties in a negative transfer task but not in a relearning task. 40 male undergraduates were Ss. In addition, alcohol was shown to retard the rate of acquisition of new learning.—*Journal abstract.*

568. Weingartner, Herbert; Snyder, Solomon H., Failace, Louis A., & Markley, Herbert. (Johns Hopkins U.) **Altered free associations: Some cognitive effects of DOET (2,5-dimethoxy-4-ethylamphetamine).** *Behavioral Science*, 1970(Jul), Vol. 15(4), 297-303. —Administered DOET (2,5-dimethoxy-4-ethylamphetamine) and d-amphetamine to 10 21-35 yr. old normal males at 2 separate times in a double-blind experimental design. DOET in low doses (1.5 mg/70 kg) produced no gross behavioral or perceptual changes. DOET did, however, alter Ss' free associations at the time of maximal drug uptake. Ss produced lower frequency, less common, free associations with DOET. Although these associations occur less frequently in association norms, they were neither bizarre nor idiosyncratic responses. Also, these associations were at least as reproducible as the associations produced under no drug or amphetamine conditions. This new psychotropic agent, in low doses, appears to be particularly effective in altering normal cognition without producing disorganization in thinking or perception.—*Journal abstract.*

Drug Effects—Animal

569. Baru, A. M. & Bozhko, G. Kh. (Research Inst. of Neurology & Psychiatry, Kharkov, USSR) **Vliyanie nekotorykh inhibitorov i metabolitov obmena katekholaminov na protsessy zakrepleniya i vosproizvedeniya "sledov pamyati."** [*Influence of some inhibitors and metabolites of catecholamine metabolism on the processes of reinforcement and reproduction of "memory traces."*] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970(Sep), Vol. 70(9), 45-48.—80 white rats were used to study the synthesis and transformation of catecholamines (CAs) in the formation and reproduction of the conditioned avoidance response (CAR; an electrodeless reaction in response to an auditory signal as CS), where the CAR is viewed as an experimental model for elucidation of the "biomechanisms of memory." CA synthesis was blocked by 50 mg/kg ip injected disulfiram, which blocked dopamine- β -oxidase. 100 mg/kg subcutaneously injected iprazid blocked CA transformation through deamination. 50 mg/kg subcutaneously injected 3,4-dimethoxyphenylethylamine (DMPEA) was competitive with respect to the CAs. Reproduction of the CAR was attempted 10 min. and 1-72 hr. after injections. Formation of the CAR was attempted following iprazid and DMPEA administration. Disulfiram blocked the synthesis of noradrenaline and sharply inhibited the CAR—an effect which may be prevented by the prior administration of the MAO inhibitor, iprazid, which also exerted a stimulatory effect on formation of the CAR in

animals resistant to learning. Chronic administration of DMPEA impeded the formation of the CAR and inhibited previously developed and stabilized CARs; with single administration it was capable of inhibiting only the initial stages of CAR formation. The data point to a possible role of the CAs in the neurochemical organization of "memory traces." (English summary)—*J. D. London.*

570. Besson, J. M. & Abdelmoumene, M. (Physiological Lab. of Nervous Centers, Faculty of Sciences, Paris, France) **Modifications of dorsal root potentials during cortical seizures.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 166-172.—Studied variations, during epileptic seizures, of presynaptic inhibition, as indicated by the dorsal root potential (DRP) in 14 adult cats. Findings were that (a) metrazol administration causes a series of spontaneous DRPs in addition to the classical electrocortical paroxysm. These DRPs are abolished by spinal section at C1, showing that they are of supraspinal origin. (b) When the paroxysmal effects of metrazol are over, there is a reduction in segmental phenomena but a large increase in those of heterosegmental, heterosensory, and cortical origins. (c) Spinal section at C1 confirms that metrazol has a dual effect on the presynaptic control of transmission in afferent pathways; presynaptic inhibition of local origin is depressed while that of central origin is augmented. (d) The above series of effects is also found during epileptic seizures induced by means other than metrazol administration. The origin of heterosegmental DRPs is discussed. A mechanism for metrazol action is proposed involving a possible duality, functional or structural, in the mechanisms generating peripheral and central presynaptic inhibition. (French summary) (28 ref.)—*Journal summary.*

571. Bliss, Eugene L. & Aillon, Janie. (U. Utah, Medical School) **The effect of lithium upon brain neuroamines.** *Brain Research*, 1970, Vol. 24(2), 305-310.—Fed male Sprague-Dawley rats 175-250 mg. lithium carbonate in their chow for 14 days. Plasma levels of lithium of .5-1 meq/l were attained. Under these conditions, no alterations from controls could be demonstrated in either the absolute levels of brain norepinephrine, serotonin, and dopamine; or in the rate of metabolism of these neuromediators. Results suggest that lithium may produce its therapeutic effects through means other than the general modulation of these systems in brain.—*Journal summary.*

572. Borodkin, Yu. S. (Inst. of Experimental Medicine, Leningrad, USSR) **Neirofizilogicheskie osnovy sudorozhnogo deistviya nikotina.** [*Neurophysiological bases for the convulsant action of nicotine.*] *Farmakologiya i Toksikologiya*, 1970(Jul), Vol. 33(4), 400-404.—50 rabbits under conditions of acute experiment (whole brain, cerveau isolé, premenencephalic section) were used to study the role of the limbic structures and other formations involved in intracranial regulation of the convulsant action of nicotine. It was established that .26-.5 mg/kg nicotine, while exciting the cholinergic system of the reticular formation, enhanced the activity of the caudate nucleus, the cortex of the cerebral hemispheres and septal region, along with simultaneous blockade of the hippocampus, the nuclei of the amygdaloid complex and of the thalamocortical projection system. In large doses (1-2 mg/kg) nicotine exerted a direct exciting effect on the structures of the diencephalon and forebrain. The hippocampus is the

locale for the formation of epileptiform discharges when nicotine is injected in convulsant dosage. Generalization of the convulsant reaction, induced by nicotine, took place only when the connections between the mesencephalic reticular formation and the limbic structures were intact. The convulsant effect of nicotine appeared only when the functional activity of the cerebral cortex was preserved. (English summary)—*I. D. London.*

573. Bukharova, I. K., Syrkin, A. B., & Bodyagin, D. A. (Inst. of Experimental & Clinical Oncology, Moscow, USSR) *Nekotorye farmakologicheskie svoistva fluorodopana.* [Some pharmacological properties of fluorodopane.] *Farmakologiya i Toksikologiya*, 1970(Sep), Vol. 33(5), 602-606.—Mice, rats, and rabbits were used to study the action of a new antitumor preparation, fluorodopane: 4-methyl-5-(2-fluorethyl-2'-chloroethyl) aminouracil, in doses somewhat higher than the therapeutic. Administration of hypnotics and convulsants after maximally tolerated doses of fluorodopane revealed no essential changes in the functional level of the nervous system.—*I. D. London.*

574. Cabibbe, F. (U. Milan, Inst. of Clinical Psychiatry, Italy) *Alcuni aspetti del metabolismo del triptofano in ratti trattati con carbonato di litio.* [Some aspects of the metabolism of tryptophan, in rats treated with lithium carbonate.] *Acta Neurologica*, 1969(Jul), Vol. 24(4), 557-560.—Compared the metabolism of tryptophan with antidepressant and neuroleptic drugs and with lithium carbonate. White rats were given lithium for 4 wk. The maximum level of lithium was reached $\frac{1}{2}$ hr. after the injection, while after 3 hr. lithium was no longer measurable in the blood. Lithium appears to have the same action as neuroleptic and antidepressants. However, lithium accelerates the metabolism of tryptophan in the serotonin and nicotinic pathways. Opposite results occur with neuroleptic and antidepressive type drugs. (English summary)—*A. M. Faraglia.*

575. Calhoun, William H., Smith, Allan A., & Bauer, Robert. (U. Tennessee) *Scopolamine's effect on passive avoidance.* *Psychonomic Science*, 1970(Nov), Vol. 21(3), 165-166.—Compared performance on active and passive retention tests of mice. 19 out of 58 male ICR mice received scopolamine prior to a single passive-avoidance training trial. Controls performed well with either retention test procedure, while the scopolamine group performed well for the active test but poorly for the passive test. Drug effects on memory and behavior are discussed. *Journal abstract.*

576. Capaldi, E. J. & Sparling, Daniel L. (Purdue U.) *Amobarbital and the partial reinforcement effect in rats: Isolating frustrative control over instrumental responding.* *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 467-477. Each of 3 runway investigations contained 2 partial reinforcement (PRF) groups of female albino Holtzman rats. Extinction was preceded by injections of either amobarbital or saline. In acquisition injections of amobarbital preceded nonrewarded trials followed by rewarded trials in 1 PRF group and rewarded trials followed by nonrewarded trials in the other PRF group. Only the latter group showed a PRE in saline extinction. Both PRF groups showed a PRE in amobarbital extinction. Saline extinction was little affected by prior amobarbital extinction. Results isolate and identify the PRE trials on which frustration acquires control over the instrumental

reaction and suggest that nonreward occasions conditionally neutral stimuli which can sustain a PRE. (2 ref.)—*Journal abstract.*

577. Chang, Su-Yu. (U. California, Berkeley) *Changes produced in the rat brain by environmental complexity and drug injection.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2253.

578. De Ruiter, L. & Wiepkema, P. R. (State U. Groningen, Netherlands) *The goldthiogluucose (GTG) syndrome in mice.* *Psychiatry, Neurologia, Neurochirurgia*, 1969(Sep), Vol. 72(5), 455-480.—Ethological analysis of behavior results in classification of its elements of behavior into relatively distinct, but interacting behavior systems. The physiological mechanisms of mammalian feeding behavior are briefly discussed. This discussion exemplifies that to explain normal occurring fluctuations in the tendency of an individual to perform a given behavior, account must be taken of changes in the state of the machinery for that behavior and the mechanism of systems with which it interact. Similarly, disturbance of a given behavior may stem from either or both of these causes. The potentialities of this approach are illustrated by a discussion of behavioral abnormalities induced in male mice by injection of GTG. Evidence is presented that the GTG-syndrome may be due to combined effects of injury to the mechanisms of several different behavior systems. In addition the behavioral instability of the GTG syndrome is tentatively ascribed to disturbed interaction between systems. The relative stability of normal behavior is probably due to combined action of within-system positive feedback and reciprocal inhibitory relations between behavior systems. (38 ref.)—*Journal summary.*

579. Drew, William G. (U. Tennessee, Medical U. Memphis) *Neuropharmacological analysis of agonistic actions of cyclazocine in rabbits.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2111.

580. Evans, Hugh J. (U. Pittsburgh) *Methamphetamine effects on schedule-controlled behavior of the rat: Interactions with alpha-methyl-tyrosine and diurnal cycle.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 1752-1753.

581. Goff, W. R., Allison, T., & Matsumiya, A. (Veterans Administration Hosp., West Haven, Conn.) *Effects of convulsive doses of 1,1-dimethylhydrazine on somatic evoked responses in the cat.* *Experimental Neurology*, 1970(May), Vol. 27(2), 211-226. Studied the effects of convulsive doses of 1,1-dimethylhydrazine (UDMH) on somatosensory evoked responses (ERs) in 11 cats with chronically implanted electrodes in n. ventralis posterolateralis, in primary somatic cortex (SI), and cerebellar cortex. Stimulation was either to ulnar nerve or to thalamocortical afferent fibers. EEG recordings were made from cerebral cortex and hippocampus. IP administration of UDMH resulted in a small, inconstant increase of the primary positive ER. The enhancement of cortical ERs prior to a seizure was due to increased excitability of superficial cortical layers. The 1st 2 waves of the cerebellar ER were unaffected by UDMH, while the 3rd wave was depressed prior to seizures. Results are consistent with previous suggestions that UDMH and other hydrazines block production of gamma-aminobutyric acid. The large, consistent increase of SI negative response amplitude prior to seizures is discussed for possible applications. *Neurochemical studies of convulsive agents and epilepsies.* (38 ref.)—*Journal abstract.*

difference in the neuropharmacological study on behavior was emphasized. The hypothesis concerning the dreaming mechanism—"dreaming as a CR in sleep"—was introduced. (3 p. ref.)—*Journal abstract.*

590. Matveev, V. F. (Moscow Medical Stomatological Inst., USSR) *Patomorfologicheskie izmeneniya v golovnom mozge eksperimental'nykh zhivotnykh pri khronicheskoi intoksikatsii lizergamidom.* [Pathomorphological changes in the brain of experimental animals in chronic intoxication with lysergamide.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Dec), Vol. 70(12), 1856-1862.—Ss were 100 3-mo-old white rats. Daily im dosage of lysergamide was 40 µg/kg for 1 mo., with decapitation in lots of 20 at intervals of 1, 2, 3, and 4 wk. (20 controls) for purposes of histological examination. Within 5-10 min. after the administration of lysergamide, a sharp increase occurred in motor activity, reactions to external stimuli, and muscular tonus. With continuing intoxication, a developing apathy, somnolence, and motor inhibition started to take over by the 7th-8th day, intensifying until the end of the experiment. It was established that in the course of intoxication a toxico-organic process developed in the brain as a result of which the death of both individual cells and also whole cellular groups took place. Most changes were observed in the neurons of the cortex, thalamus, and hypothalamus (acute swelling of the cytoplasm and nuclei, followed by chromatolysis, cytoplasmic vacuolization, and cytolysis). Electron microscopic examination provided evidence of the suppression of interneuronal activity, disturbance of intracellular metabolism of DNA and RNA, inhibition of astrocytic and microglial reactions, and changes in the vessels of the brain. (English summary) (17 ref.)—*J. D. London.*

591. McKim, W. A. (U. Western Ontario, London, Canada) *The effects of scopolamine on the extinction of a continuously reinforced response.* *Psychonomic Science*, 1970(Sep), Vol. 20(5), 281-282.—Injected 35 male Long-Evans hooded rats with varying doses of scopolamine, methyl scopolamine, and saline before extinction of a continuously reinforced response. Methyl scopolamine and low doses of scopolamine speeded extinction, whereas higher doses of scopolamine led to responding similar to that of saline controls. It is suggested that the relatively weak tendency to respond after CRF training and the drastic switch to extinction from CRF maximized the disruptive peripheral effects of scopolamine, and as a result higher doses were required to show prolongation of extinction.—*Journal abstract.*

592. Nelsen, Judith M. (Boston U., Graduate School) *Single dose tolerance to morphine sulfate: Electroencephalographic correlates in central motivational systems.* *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2869.

593. Norkina, L. N. & Strelkov, R. B. (Inst. of Experimental Pathology & Therapy, Sukhumi, USSR) *Vliyanie meksamina na vysshuyu nervnyu deyatel'nost' obez'yan.* [Influence of mexamine on higher nervous activity in simians.] *Farmakologiya i Toksikologiya*, 1970(Sep), Vol. 33(5), 521-523.—4 adult baboons, with stable alimentary and defensive CRs involving the handling of experimental tools, were used to study the action of mexamine, previously shown to have a central component. 7.5 mg/kg mexamine quickly exerted a deep inhibitory action on the alimentary CRs and UCRs for 2-3 hr. The defensive CRs either were

hardly altered or were much more weakly depressed and only for a short time (1/2-1 hr.). 1 mg/kg is considered threshold dosage for mexamine action on higher nervous activity.—*J. D. London.*

594. Palfai, Tibor. (U. Waterloo, Ontario, Canada) *Some parameters determining the degree of retrograde amnesia produced by pentylene-tetrazol.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2262.

595. Scheel-Krüger, J. (Royal Veterinary & Agricultural Coll., Copenhagen, Denmark) *Central effects of anticholinergic drugs measured by the apomorphine gnawing test in mice.* *Acta Pharmacologica et Toxicologica*, 1970, Vol. 28(1), 1-16.—Induced weak gnawing behavior in female albino mice with a subcutaneous injection of 10-60 mg/kg of apomorphine. 10 mg/kg was without effect. The addition of anticholinergic drugs given 15 min before 10 mg/kg apomorphine potentiated the gnawing behavior. 9 tertiary and 3 quaternary drugs were tested. Among these some quinuclidinylesters, scopolamine, and benzotropine were found to be very active compared with atropine. The quaternary compounds showed much weaker activity than the corresponding tertiary analogs. The gnawing activity produced by atropine plus apomorphine was only weakly antagonized by the apomorphine antagonistic drug spiramide, physostigmine showed a better inhibitory effect, and combined treatment with spiramide and physostigmine gave a pronounced antagonistic effect. Since the apomorphine gnawing behavior is most probably related to an interaction with central dopamine receptors, findings suggest there is a central counter balancing dopaminergic-cholinergic system. (3 p. ref.)—*Journal abstract.*

596. Schneider, Carl W. & Chenoweth, Maynard B. (Dow Chemical Co., Biochemical Research Lab., Midland, Mich.) *Effects of cycloheximide on unrestricted behavioral patterns of mice.* *Brain Research*, 1971, Vol. 25(3), 625-631.—Investigated the immediate and long-term effects of cycloheximide on general behavior patterns in mice of the C57 B1/6J strain. 89 Ss were observed in a nest building test and 168 in an exploratory activity test. The effect of the drug on both behaviors was immediate and, in the case of nest building, quite prolonged. Extreme activity, followed by extreme depression of activity, characterized exploratory behavior, and nest building was disrupted. The significance of the finding that an important component of nest building, the location of the nest site, was permanently altered in many Ss at higher doses is discussed. (19 ref.)—*Journal summary.*

597. Shemberg, K., Green, P. C., & Gliner, J. (Bowling Green State U.) *A note on the effects of chlorpromazine upon ulceration in the rat.* *Psychonomic Science*, 1970(Sep), Vol. 20(5), 272-273.—Exposed 109 male Long-Evans hooded rats in 4 groups to a highly ulcerogenic procedure. 3 groups were given programed injections of 3 different concentrations of chlorpromazine and a control group received physiological saline. All drug concentrations significantly reduced ulceration relative to controls. The lowest concentration proved least effective in this regard, but no simple linear relationship was found between drug concentration and frequency of ulceration. A tentative hypothesis regarding an all-or-none protective function of the drug was suggested.—*Journal abstract.*

598. Thornton, Larry W. (Michigan State U.) **Effects of repeated infusions of hypertonic saline solutions on the electrical activity of hypothalamic neural units of goats.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3037-3038.

599. Umemoto, Mamoru. (Shionogi & Co., Research Lab., Osaka, Japan) [Depressing effects of amphetamine on the self-stimulation of the lateral hypothalamus.] *Japanese Psychological Review*, 1969(May), Vol. 12(1), 30-44.—Reported that, under the continuous reinforcement schedule, methamphetamine in doses which depresses normal feeding responses also depresses the self-stimulation of the lateral hypothalamus. It is concluded that the amphetamines have depressing effects on the mechanism which is involved in the feeding and rewarding reaction in the lateral hypothalamus, and inferred that the facilitating effects observed in earlier studies could have been the result of depression by the experimental schedules (i.e., amphetamine merely released the animal from the inhibition which was imposed by the reinforcement schedule). (4 p. ref.)—*Journal abstract*.

600. Vikhlyayev, Yu. I., Dzhagatspanyan, I. A., & Klygul', T. A. (Inst. of Pharmacology, Moscow, USSR) **Eksperimental'naya kharakteristika osobennosti razvitiya tolerantosti k diazepamu i khloridiazepoksidu.** [Experimental characteristics of the features specific to the development of tolerance to diazepam and chlordiazepoxide.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Dec), Vol. 70(12), 1867-1872.—White mice and rats were used to study the development of tolerance to diazepam (seduxen, valium) and chlordiazepoxide (elenium, librium, napoton) with a view toward evaluation of the different forms of their action (tranquilizing, sedative, anticonvulsive, activating, myorelaxant, and lethal effects), resulting from prolonged administration of these drugs. Tolerance developed markedly with respect to the myorelaxant, sedative, and anticonvulsive action of the drugs. The uneven development of tolerance, as a result of prolonged usage, with respect to the different forms of action may be connected with the fact that several mechanisms may be basically involved in the action of these tranquilizers. (English summary) (18 ref.)—*I. D. London*.

601. Watts, M. E. & Mark, R. F. (Monash U., Clayton, Victoria, Australia) **Separate actions of ouabain and cycloheximide on memory.** *Brain Research*, 1971, Vol. 25(2), 420-423.—Compared the effects of ouabain (sodium pump inhibitor) and cycloheximide (protein synthesis inhibitor) on short-term memory in 1-day-old cockerels. Memory was tested 10, 30, 60, and 90 min. after a learning trial. Both drugs caused memory decay. The rate of memory loss with ouabain became faster with increasing doses of the drug, while with cycloheximide a maximum rate was reached which could not be increased by increasing the dosage. It is suggested that the drugs interfere with memory at successive stages, "that memory begins with a membrane store of limited time-span involving ionic metabolism and that this is soon supplemented by a process dependent on synthesis of proteins which perhaps alter synaptic properties."—*S. Knapp*.

602. Wike, Edward L. & Chen, Jaw-Sy. (U. Kansas) **Runway performance and reward magnitude.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 139-140.—Investigated the training, extinction, and retraining

performance of 3 groups of 10 naive female Holtzman albino rats with large (11 45-mg) rewards, small (45-mg) rewards, and small (45-mg) rewards with intertrial feedings (10 45-mg) in a runway. Results are in accord with the generalization that asymptotic performance is directly related to the magnitude of reward and differed from results recently reported by G. McCain (see PA, Vol. 44:16241).—*Journal abstract*.

603. Witters, Weldon L. & Foley, C. W. (Ohio U.) **Effects of agroclavine on wheel-turning activity in mice.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 175-176.—Injected 25 male Swiss Webster mice with 0, 30, 90, 270, or 810 mg/kg body weight of agroclavine, a drug chemically similar to LSD. Over 5 consecutive days smaller dosage levels either enhanced or produced little change in wheel-running activity, while higher dosages produced a decrement.—*Journal abstract*.

604. Ziff, D. R. & Capaldi, E. J. (Purdue U.) **Amytal and the small trial partial reinforcement effect: Stimulus properties of early trial nonrewards.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 263-269.—Gave following limited acquisition training in the runway (3 or 6 trials), 5 groups of 12 naive male albino Holtzman rats each 12 extinction trials. 4 of the groups received large reward (.81 gm.) and comprised a 2 × 2 factorial combining amytal or saline in acquisition with partial or continuous reinforcement. A 5th group received small partial reinforcement (.09 gm.) under saline. All groups were extinguished without amytal or saline. Amytal trained groups ran faster in acquisition but slower in extinction. A PRE was obtained following amytal which was as large as that obtained following saline (absence of a Drug × Schedule interaction). Large partial reward (saline) produced greater resistance to extinction than small partial reward. It is suggested that the present results are more consistent with a conditioning than with a nonconditioning model of small trial phenomena. (21 ref.)—*Journal abstract*.

605. Zoryan, E. V. (Moscow Medical Stomatological Inst., USSR) **Osobennosti deistviya izoprotana v kombinatsii s amidopirinom.** [Features characterizing the action of isoprotane in combination with amidopyrine.] *Farmakologiya i Toksikologiya*, 1970(Sep), Vol. 33(5), 518-521.—White rats and rabbits were used to study the joint pharmacological action of 25-100 mg/kg isoprotane (carisoprodol) and 100 mg/kg amidopyrine, the former chemically close to meprobamate but possessing, in contradistinction to its relative, analgesic properties. The following were investigated: (a) sensitivity to pain, as determined by mechanical and electrical stimulation of the tail in white rats and electrical stimulation of the tooth in rabbits; (b) myorelaxant action, gauged by response to rotation; and (c) influence on higher nervous activity, utilizing defensive CRs in rats. When used together, analgesic action was higher than when used separately. Amidopyrine diminished the myorelaxant properties of isoprotane and its influence on sleep, induced by hexenal (hexobarbital) and chloral hydrate.—*I. D. London*.

CARDIOVASCULAR PROCESSES

606. Buck, Ross W., Miller, Robert E., & Caul, William F. (U. Pittsburgh, Medical School) **Heart rate and skin conductance responding during three attention-direction tasks under distraction conditions.** *Psychonomic Science*, 1970(Sep), Vol. 20(6),

355-357. Investigated the possibility that a failure to find cardiac acceleration to an environmental rejection task in a study by R. Buck, R. E. Miller, and W. F. Caul (see PA, Vol. 43, 7467) was due to insufficient distraction in the experimental situation. The study was replicated, with distracting events added. An environmental intake task was associated with heart-rate deceleration during the 1st 60 sec. Ss were 18 paid male undergraduates. The rejection task and a 3rd task involving attention to bodily events were not associated with significant heart-rate change. There were no differences in skin-conductance responding to the 3 tasks.—*Journal abstract*.

607. Dronsejko, Krystyna. (U. Waterloo, Ontario, Canada) Effects of CS-UCS interval and instructional set on cardiac anticipatory responses to stress in field dependent and independent subjects. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2276-2277.

608. Goessling, Wendell J. (U. Tennessee) The effects of prior skeletal conditioning on the conditioning of heart rate changes in curarized subjects. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2306-2307.

609. Higgins, J. David. (Pennsylvania State U.) Psychophysiological correlates of attentional processes in humans. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2309.

610. Jennings, J. Richard; Averill, James R.; Opton, Edward M., & Lazarus, Richard S. (U. California, Berkeley) Some parameters of heart rate change: Perceptual versus motor task requirements, noxiousness, and uncertainty. *Psychophysiology*, 1970(Sep), Vol. 7(2), 194-212.—Investigated sensorimotor integration and physiological patterns in a modified RT task with 30 male 18-28 yr. old students. Following a ready signal, 1 of 2 discriminative signals indicated that a right or left reaction was to be made to a go signal. For 1 group, the discriminative and go signals occurred simultaneously; for another group, the go signal was delayed 10 sec. In different sessions, shock occurred with the discriminative signal on 0, 33, or 100% of the trials. The basic pattern of heart rate response was the same in all conditions, i.e., acceleration followed by deceleration immediately prior to the discriminative and go signals. All experimental manipulations appeared to contribute to cardiac deceleration; e.g., the greatest decrease occurred prior to the simultaneous discriminative-go signal with 33% shock probability. The least deceleration (and fastest RTs) occurred to the delayed go signal. Anticipation of a motor response and/or shock also accentuated the accelerative limb of the heart rate curve, as well as producing increased skin conductance. Muscle action potentials from the chin showed an equivocal relationship to cardiac acceleration (or less deceleration) and to faster RTs. Results are discussed in terms of an attentional hypothesis, and their relevance to speculations by J. I. Lacey and P. A. Obrist is examined. (21 ref.)—*Journal abstract*.

611. Matsievskii, D. D. (Inst. of Normal & Pathological Physiology, Moscow, USSR) Telemetricheskii izmerenie krovotoka ul'trazvukom. [Telemetric measurement of blood circulation by ultrasound.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970(Sep), Vol. 70(9), 119-121.—Describes the design and function of a radiotelemetric system based on the Doppler effect. The system is suitable for measurement of blood circulation

in freely moving dogs. Preliminary studies indicate that Doppler frequency is a linear function of the volume of liquid passing through the blood vessels with deviations not exceeding 6%. Representative tracings are reproduced. (English summary)—*I. D. London*.

612. Nelson, Judith S. (State U. New York, Buffalo) The effects of respiration-control procedures on the cardiac response to a repetitive high intensity non-signal auditory stimulus. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2289-2290.

613. Nowlin, John B., Eisdorfer, Carl; Whalen, Robert, & Troyer, William G. (Duke U., Medical Center) The effect of exogenous changes in heart rate and rhythm upon reaction time performance. *Psychophysiology*, 1970(Sep), Vol. 7(2), 186-193.—Examined the influence of different heart rates (HRs) and rhythm on RT performance in 2 groups of experimental Ss, HR in 1 group being varied by atrial pacing and in the other by ventricular pacing. A mixed preparatory interval series of visual RT trials was employed, with preparatory interval durations of 3, 4, and 5 sec. Study I Ss (10 male 37-46 yr. old patients), exposed to atrial pacing in a cardiac catheterization laboratory immediately before coronary artery cineangiography, demonstrated no change in RT response with the pacing situation when HR was 115 bpm. Response speed was most rapid with the 5-sec preparatory interval, slowest with the exposure to an exogenously-induced tachycardia. Presentation 1st of a variable paced tachycardia following a regular tachycardia was associated with slightly prolonged times in both situations, as compared to RT produced with the reverse order of pacing presentation. These differences were not statistically significant. Presence or absence of cineangiographic evidence or coronary arteriosclerosis within Study I exerted no effect on RT performance. Study II Ss (4 58-64 yr. old patients), paced with an external (Chardack) pacemaker in a quiet laboratory environment, confirmed results obtained from Study I. Data suggest that the level of background HR is unimportant as a determinant of RT response.—*Journal abstract*.

614. Ray, Roger D. (U. Tennessee) Classical conditioning of heart rate in restrained and curarized rats. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2324.

615. Shapiro, David; Tursky, Bernard, & Schwartz, Gary E. (Harvard Medical School, Boston, Mass.) Differentiation of heart rate and systolic blood pressure in man by operant conditioning. *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 417-423.—To test the extent of decoupling between heart rate and blood pressure by operant conditioning in man, 20 normal males were given feedbacks of their heart rate, $\frac{1}{2}$ operantly reinforced for increasing and $\frac{1}{2}$ for decreasing their heart rate, while systolic blood pressure was continuously monitored. Significant heart rate conditioning was obtained in a single session without concomitant effects on blood pressure. Results suggest that heart rate and blood pressure can be differentiated by operant conditioning.—*W. G. Shipman*.

616. Stern, Robert M., & Bush, Trudy L. (Pennsylvania State U.) The relationship between self-reported pulse rates and exam scores. *Psychonomic Science*, 1970(Oct), Vol. 21(2), 73-99 male and 80 female introductory psychology students took their own pulses during a normal lecture class and during 4 exams. There was no systematic relationship between absolute

pulse rate and exam scores. However, consistently high correlations were found, especially for males, between pulse-rate change scores and test performance: The greater the increase in pulse rate, the lower the exam score. It is suggested that this finding may result from test anxiety interfering with maximal test performance.—*Journal abstract.*

617. Tolova, S. V., Bozh'ev, A. A., & Sidora, A. K. (USSR Academy of Medical Sciences, Moscow) **Sroki vosstanovleniya funktsii dykhatel'nogo tsentra u sobak posle vnezapnoi ostanovki serdtsa pri ozhivlenii polnym iskusstvennym krovoobrashcheniem.** [Terms of restoration of respiratory center function in dogs after sudden heart arrest in reanimation by means of complete artificial circulation.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970(Sep), Vol. 70(9), 13-16.—15 dogs were used to study the electrical activity of the respiratory muscles as a measure of the effectiveness of extracorporeal circulation in reanimation after 10-min heart arrest brought on by electroshock. The activity of the respiratory center was restored within 3-4 min., and stable normalization of respiration occurred without the use of artificial pulmonary ventilation. (English summary)—*I. D. London.*

618. Willers, Karl R. (Florida State U.) **Vascular concomitants of direct, displaced, and vicarious aggression.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3013.

ENVIRONMENT & STRESS

619. Eason, Robert G. & Dudley, Linda M. (U. North Carolina, Greensboro) **Physiological and behavioral indicants of activation.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 223-232.—Demonstrated that various central and peripheral physiological variables are similarly altered by experimentally induced changes in activation while being dissimilarly altered during the course of a trial by unknown factors, i.e., both general and specific physiological changes are demonstrated in a single experiment. Activation level was experimentally altered by having 6 male graduate students (a) react to light flashes under threat of shock, (b) react to flashes without any such threat, and (c) passively observe light flashes. Evoked cortical potentials, heart rate, skin conductance, and muscular tension were similarly affected by these conditions, but the variables showed differential changes over time. It is concluded that these physiological processes simultaneously reflect both generalized arousal and directionally fractionated activity. (21 ref.)—*Journal abstract.*

620. Elliott, Ruth A. (U. Maine) **Some anatomical and behavioral effects of environmental enrichment on genetically heterogeneous mice selectively bred for high and low brain weight.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2302-2303.

621. Leshner, Alan L., Collier, George H., & Squibb, Robert L. (Bucknell U.) **Dietary self-selection at cold temperatures.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 1-3.—24 male albino Sprague-Dawley rats, housed in the cold (2°C), were given the opportunity to select the components of their diets from protein and carbohydrate fractions. Housing in the cold was accompanied by depressed growth, which was not affected by giving Ss the opportunity to select their diets. Ss in the cold increased total caloric intake relative to controls at room temperature (22°C). Selecting Ss housed in the cold

chose a lower percentage of the diet as protein (and, therefore, a higher percentage as carbohydrate) than did controls. Since protein intake levels did not differ as a function of environmental temperature, the altered dietary selection pattern was due to an increase in the absolute amount of carbohydrates consumed. Data suggest that the level of protein selected is determined by age factors and the level of carbohydrate selected is determined by energy requirements.—*Journal abstract.*

622. Lewis, Barbara A. (Temple U.) **The effects of gamma-radiation on behavior maintained by intracranial stimulation and food.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2316.

623. Maltzman, Irving; Smith, Manual J., Kantor, William, & Mandell, Mary P. (U. California, Los Angeles) **Effects of stress on habituation of the orienting reflex.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 207-214.—Gave 10 Ss a series of different innocuous visual and auditory stimuli in a session at the beginning and again at the end of the academic quarter. For 1/2 of the Ss, graduate students, the 2nd session preceded a final oral examination for a seminar in which they were enrolled. For the remaining Ss, undergraduate students, the 2nd session was simply a repetition of the 1st. Measures of the GSR and cephalic vasomotor activity obtained during the habituation and oral examination sessions were taken as indices of phasic and tonic orienting and defense reflexes. Undergraduates showed slower habituation of the GSR and smaller pulse widths than graduates during the 1st habituation session. In the 2nd habituation session, graduates showed slower habituation of the GSR and smaller pulse widths than the undergraduates. These Group \times Sessions interactions suggest that habituation of the orienting reflex is influenced by the arousal state of the individual and by parameters of the physical stimulus.—*Journal abstract.*

624. Paré, William P. (Veterans Administration Hosp., Perry Point, Md.) **Six-hour escape-avoidance work shift and production of stomach ulcers.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 459-466.—Studied 16 male Long-Evans rats in each of 6 experiments in which they could make either an escape or an avoidance response to grid shock which was presented every 20 sec. Escape-avoidance sessions lasted 6 hr. and alternated with a 6-hr rest period for 21 days. Response rate, body weight, food and water intake, and diurnal consummatory pattern were recorded daily. Adrenal weight and ulcer incidence were noted at the termination of each experiment. Experimental Ss did not differ significantly from yoked controls on the dependent variables recorded. Only a small percentage (7.2%) of experimental "executive" Ss developed ulcers. (25 ref.)—*Journal abstract.*

625. Spear, Norman E., Klein, Stephen B., & Riley, Edward P. (Rutgers State U.) **The Kamin effect as "state-dependent learning": Memory-retrieval failure in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 416-425.—Observed state-dependent learning in 185 naive albino Sprague-Dawley rats when learning followed stress by the intermediate-length interval presumed to involve greatest stimulus change, but only if the source of the stress was avoidance learning and not if it was inescapable shocks. Results support a memory-retrieval interpretation of the Kamin effect. (37 ref.)—*Journal abstract.*

626. Weiss, Jay M. (Rockefeller U., New York, N.Y.) **Somatic effects of predictable and unpredictable**

shock. *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 397-408.—12 male albino Sprague-Dawley rats were used in 4 experiments to examine the effects of stressor predictability on a variety of stress responses, such as stomach ulceration, plasma corticosterone concentration, and body weight changes. Ss that received electric shocks unpredictably showed greater somatic stress reactions and more stress-induced pathology than Ss that received the same shocks but could predict their occurrence by a signal. Ss in the unpredictable and predictable shock conditions received shock simultaneously through fixed body electrodes wired in series, so that shock was always of exactly the same intensity and duration for the 2 groups.—*W. G. Shipman.*

627. Yakovlev, N. N. (Leningrad Research Inst. of Physical Culture, USSR) *Fiziologicheskie aspekty vyносливности pri myshechnoi deyatel'nosti.* [Physiological aspects of endurance in muscular activity.] *Fiziologicheskii Zhurnal SSSR*, 1970(Sep), Vol. 56(9), 1263-1275.—Based on the analysis of data of biochemical, cytological, physiological, and pharmacological research, (a) the physiology and biochemistry of endurance in muscular activity (MA), and (b) the specific forms which it takes are discussed. The development of endurance is viewed as an adaptational process, dependent on biochemical and functional changes which occur in the organism during MA. Data are presented on (a) the phases of adaptational development in MA, and (b) the influence of biologically active agents on this process. Along with the states of quiet and activity, a 3rd state—rest—is distinguished. (English summary) (63 ref.)—*I. D. London.*

GENETICS

628. Duncan, Nancy C., Grossen, Neal E., & Hunt, Earl B. (U. Washington) **Apparent memory differences in inbred mice produced by differential reaction to stress.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 383-389.—Tested 51 DBA/2J and 53 C3H/HeJ inbred male mice on a variety of aversively motivated tasks, including passive avoidance, shuttle box, 1-way active avoidance, and a T maze. Open-field activity was also investigated. Between-strain differences were found to exist in the majority of the tasks, and were shown to be the result of different strain-specific responses to stress and stimulus conditions. The observed behavioral differences could not be adequately accounted for by a hypothesis of different memory capabilities in each strain.—*Journal abstract.*

629. Nachman, Marvin; Larue, Christiane, & Le Magnen, Jacques. (U. California, Riverside) **The role of olfactory and orosensory factors in the alcohol preference of inbred strains of mice.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 53-59.—Describes 3 experiments with 134 male & BALB/c and C57BL mice. Removal of the olfactory bulbs in 15 Ss of each strain eliminated the aversion to alcohol which is seen in normal BALB/c mice but did not abolish the preference for alcohol seen in normal C57BL mice. This result, along with the fact that BALB/c mice appear to avoid alcohol immediately, without prior experience, led to the hypothesis that BALB/c mice are more responsive than are C57BL mice to alcohol as a sensory stimulus. To test this hypothesis, a conditioning procedure was used in which 20 normal Ss of each strain drank alcohol in a

single bottle test and were then injected with toxic lithium chloride. It was found that BALB/c Ss learned aversions to alcohol, saccharin, and sucrose, whereas C57BL Ss learned aversions to saccharin and sucrose but were deficient in learning an alcohol aversion. It was concluded that BALB/c mice normally avoid alcohol because of its odor but that for C57BL mice, other sensory cues or postingestional factors play an important role in their preference for alcohol. (19 ref.)—*Journal abstract.*

630. Oliverio, Alberto. (Lab. of Psychobiology & Psychopharmacology, Rome, Italy) **Genetic variations and heritability in a measure of avoidance learning in mice.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 390-397.—Studied individual variability and heritability in 360 CD1 random-bred mice and 360 SEC/1ReJ inbred mice in a measure of avoidance learning (shuttle box). Analysis of variance indicated that a random-bred population of mice is characterized by extremely variable-learning performances while intrasire mating or inbreeding results in a clear reduction of the individual differences. 2 different estimates of heritability were obtained by using full-sib and $\frac{1}{2}$ -sib correlations, and intrasire regressions of offspring on dams. Both estimates of heritability showed that nearly 50% of the variance among intrasire offspring was attributable to additively genetic causes. (27 ref.)—*Journal abstract.*

631. Thiessen, Delbert D. (U. Texas) **The genetic determination of behavior.** *Science Teacher*, 1970(Apr), Vol. 37(4), 53-54.—Discusses physiological pathways and environmental adaptations of a genetically determined response termed negative geotaxis in A/J and C57BL/6J strains of mice. Monotonic relations between angle of incline and response orientation attributed to genotype in each strain are compared. A description and diagram of the tilting incline plane apparatus is presented.—*P. Zell.*

PERSONALITY CORRELATES

632. Edelman, Robert I. (Florida Technological U., Orlando) **Desensitization and physiological arousal.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 259-266.—Obtained fear hierarchies from 40 male undergraduates selected for 1 or more standard deviations on the MA scale. Fear scenes were determined representing either 100 (high fear) or 25 (low fear) on the subjective anxiety scale. Ss then received 3 training sessions in progressive relaxation or a control relaxation procedure. Both techniques resulted in decreased autonomic, EMG, and behavioral tension, with no differences due to type of training. After termination of the relaxation training, the fear scene determined in the initial session was read to each S, and he was asked to imagine himself in that situation across 5 vicarious presentations of the scene. The major finding was habituation in skin conductance as a function of successive presentations. Central vs. peripheral control of anxiety is discussed. (22 ref.)—*Journal abstract.*

633. Forrest, Marvin & Kroth, Jerome A. (U. Southern California, Medical Center) **Psychometric and physiological indices of anxiety.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 40-42.—Groups of 105 Ss each, selected on the basis of high, medium, and low scores on psychometric indices of anxiety, were subjected to a continuous matching task

upon which was superimposed a shock avoidance contingency. Ss with high state anxiety scores exhibited higher systolic blood pressure readings than did the other 2 groups and the findings were consistent with the state-trait theory of anxiety and the emotional reactivity hypothesis. A significant relationship was found between the Trait Anxiety Index and diastolic blood pressure and between the MA scale and diastolic blood pressure.—E. J. Kronenberger.

634. Fredericks, Richard S. (Illinois Inst. of Technology) **Repression-sensitization and pupillary response to pleasant and unpleasant stimuli.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2982.

635. Gellhorn, E. (2 Fellowship Circle, Santa Barbara, Calif.) **The emotions and the ergotropic and trophotropic systems: I. The physiological control of the emotions.** *Psychologische Forschung*, 1970, Vol. 34(1), 48–66.—Describes the characteristics of the ergotropic and trophotropic systems on the basis of stimulation and lesion experiments. The integration of autonomic and somatic processes is stressed. Muscle tone, hypothalamic and emotional excitability are positively correlated. Willed changes in muscle tone may therefore be used to control emotions. The trophotropic rebound following strong ergotropic excitation represents a physiological mechanism for effectively terminating emotional excitement. It is difficult, however, to utilize this mechanism in social situations arousing emotions.—*Journal summary*.

636. Gellhorn, E. (2 Fellowship Circle, Santa Barbara, Calif.) **The emotions and the ergotropic and trophotropic systems: II. The tuning of the central nervous system and its psychological implication.** *Psychologische Forschung*, 1970, Vol. 34(1), 67–94.

637. Lambert, W. W., Frankenhaeuser, M., Johansson, G., & Klackenborg-Larsson, I. (U. Stockholm, Sweden) **Catecholamine excretion in young boys and their parents as related to behavior.** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 35–42.—Examined catecholamine excretion during night rests in 50 boys, aged 8–9 yr., and their parents. The families were sampled from a longitudinal study on growth and mental development, and the catecholamine measures were related to various measures of behavior that had been gathered during the boys' lives as well as to data on the disciplinary procedures employed by the parents. It was shown that: (a) the Ss' noradrenaline excretion rate was positively correlated with that of their mothers, (b) the Ss' adrenaline excretion was positively related to their intellectual level and to some indicators of emotionality, and (c) the fathers' noradrenaline excretion rate was negatively correlated with the frequency at which they "smacked" their children as well as with their social status. Other possible relationships between catecholamine excretion levels of sons, mothers, and fathers and disciplinary procedures are discussed. (24 ref.)—*Journal abstract*.

638. Mead, Philip G. (Tufts U.) **The effect of orientation passages on patient stress prior to dentistry.** *Psychological Record*, 1970(Fal), Vol. 20(4), 479–488.—18 clinic patients underwent 2 dental operations, 1 normal and 1 preceded by orientation passages which emphasized either the disturbing or beneficial aspects of the procedure. Physiological and subjective measures of stress were recorded, and all Ss completed the Denial (Dn) scale of the MMPI. Results demonstrate

that (a) Ss showed marked elevations in stress prior to treatment when read a passage concerning disturbing aspects of dentistry, but indicated significantly less stress following a passage that pointed out the beneficial aspects, and (b) Ss who scored high on the Dn scale of the MMPI indicated less overall stress while anticipating treatment than those scoring low. Findings are discussed in relationship to studies of vicarious stress and to stress research as a whole. (16 ref.)—*Journal abstract*.

639. Paige, Karen E. (U. Michigan) **The effects of oral contraceptives on affective fluctuations associated with the menstrual cycle.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2963.

640. Passingham, R. E. (Inst. of Psychiatry, London, England) **The neurological basis of introversion-extraversion: Gray's theory.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 353–366.—Reviews evidence relevant to the theory put forward by Gray of the neurological basis of introversion-extraversion. It is argued that a crucial prediction from the theory is that prefrontal cortical lesions should produce an increase in extroverted behavior. The literature is reviewed on the effects of such lesions in temperamental traits related to this personality dimension in both man and nonhuman primates. It is argued that it would be premature to conclude that the prediction is, as yet, adequately tested or verified.—A. Barclay.

NUTRITION & GASTROINTESTINAL PROCESSES

641. Liggio, Fernando. (U. Palermo, Clinic for Disorders of the Nervous System, Italy) **Interferenza nella realizzazione delle attività mentali secondaria ad errata alimentazione carente dell'apporto proteico di origine animale e turbe nervose oligosintomatiche complementari reversibili.** [Interference in the performance of the mental activities due to the wrong diet which lacks the protein factor of animal origin and nervous disorders which are complementary and reversible.] *Acta Neurologica*, 1969(Jul), Vol. 24(4), 548–556.—Observed for 1 yr. minors with IQs from 70–90. Ss were sent by their teachers for neuro-psychiatric help because of their notable distractibility in school. The most disturbed Ss had no animal protein in their diets, not even in the form of dairy products. Their diet consisted of bread, potatoes, and pasta. As a result, they were restless, often demonstrating an impulsive tendency to touch everything; their attention span was very low, and they demonstrated an inefficiency in memory test. A modest perimaleolar edema was present. In those Ss whose family followed the dietary advice of 100 gm. of meat daily (in poor families horse meat was used), motor disorders, attention span, and memory improved considerably. (English summary) (45 ref.)—A. M. Farfaglia.

642. Schapiro, H., Wruble, L. D., Britt, L. G., & Bell, T. A. (U. Tennessee, Medical Units, Memphis) **Sensory deprivation on visceral activity: I. The effect of visual deprivation on canine gastric secretion.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 379–396.—"In 13 dogs with gastric cannulas, a range for gastric acid output and pepsin concentration was established. The vision of each dog was then compromised. A marked inhibition of the gastric secretory output occurred in all dogs over a 4-mo period." (56 ref.)—W. G. Shipman.

643. Shumake, Rose A. (Florida State U.) **Schedule-induced polydipsia: An analysis of licking patterns**

on VR, FR, and FFI food-reinforcement schedules. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3034-3035.

ANIMAL PSYCHOLOGY

644. Bertrand, Mireille. The behavioral repertoire of the stump-tail macaque: A descriptive and comparative study. Basel, Switzerland: S. Karger, 1969. xi, 233 p.

645. Firsov, L. A. (Pavlov Inst. of Physiology, Leningrad, USSR) Rol' faktora izbiratel'nosti v organizatsii sledovykh protsessov (pamyati) u antropoidov. [Role of the selective factor in organization of trace processes (memory) in apes.] *Voprosy Antropologii*, 1969, No. 33, 159-167.—5-12 yr. old chimpanzees were used to study the "property of selectivity" (viewed as the external manifestation of definite organic states) in order to determine the length of time that visual traces, resulting from conditioned stimulation, are retained. To accomplish this delayed reactions involving choice were investigated as a function of "functional attunement ('set') to definite forms of reinforcement (variety of alimentary and play items). It is shown that there is a close tie between level of correct choice and the form of UC reinforcement. It is suggested that the signal significance of artificial and natural CSs is determined in each concrete instance through organized sets readying the animal for alimentary or play. A dynamic influence on the mechanisms of memory is exerted by the "systems of the 'alimentary center' and of orienting-investigatory activity" which elicit appropriate behavior when items are presented for choice. In the process of forming "trace behavior," this specialized character of "nervous set" makes it possible for the animal, on perception of the conditioned signal, to make the necessary correctives so as to bring behavior into correspondence with both the "history" of this signal and the current needs of the animal. (26 ref.)—J. D. London.

COMPARATIVE PSYCHOLOGY

646. Beach, Frank. (U. California, Berkeley) It's all in your mind. *Psychology Today*, 1969(Jul), Vol. 3(2), 33-35, 60.—While sex hormones are similar across species, sexual behavior differs so widely from species to species that something other than hormones is at work. Evidence suggests "that the cortex is essential for mating in males of lower species but dispensable for females." Differences in the sexual behaviors of men and women suggest that this relationship also may hold to a degree in humans, e.g., men are aroused by visual stimuli but women are not. There is also a trend for higher animals (those with a more fully developed neocortex) to be more selective in their choice of partners.—E. J. Pasavac.

647. Behrend, Erika R., Powers, Alice S., & Bitterman, M. E. (Bryn Mawr Coll.) Interference and forgetting in bird and fish. *Science*, 1970(Jan), Vol. 167(3917), 389-390.—Measured retention in 24 white Carneaux pigeons and in 24 goldfish 1 day or 2 wk. after the mastery of each of a series of color discriminations. The amount of forgetting in the pigeon increased with the number of prior problems and increased more rapidly at the longer than at the shorter interval. The amount of forgetting in the goldfish was independent, at both

intervals, of the number of prior problems. Results point to the operation of different memory mechanisms in the 2 animals.—*Journal abstract.*

648. Bermant, Gordon. (U. California, Davis) Never mind the birds and bees: Regard the praying mantis. *Psychology Today*, 1969(Jan), Vol. 3(2), 28-32.—Considered the varieties of sexual behavior exhibited by various species of insects, fish, and mammals. It is concluded that: (a) "there is no biological necessity that every animal have 2 parents," (b) there are apparently biological advantages if 2 organisms contribute to the genetic make-up of the new individual, and (c) biological necessities often can account for unique social behavioral patterns. The division of humans into males and females should not, therefore, be taken for granted. On the contrary, the biological meaning of this division and the social milieu in which interaction occurs must be understood.—E. J. Pasavac.

649. Heninger, Owen P. (Utah State Hosp., Provo) Features of "motivation." *Provo Papers*, 1968(Win), No. 4, 1-11.—Discusses 2 aspects of motivation: (a) the stimulation of an individual to make a desired response, and (b) the kinds of patterns already accumulated within an individual which motivate him to act in certain ways. Similarities between the actions and motivations of man and animals are noted and illustrated.

NATURAL OBSERVATION

650. Conrad, Kelley A. & Fidura, Frederick G. (State University Coll. New York, Geneseo) An ethological study of diurnal behavior in woodchucks (*Marmota monax monax*) during the vernal period. *Psychological Record*, 1970(Fal), Vol. 20(4), 509-512.—Studied the diurnal behavior of woodchucks in a selected area within a niche of habitat between April 8 and May 17. Activity in each of 5 behavior categories was found to differ significantly from values predicted from earlier studies. Vernal behavior was predominantly foraging in nature. Daily patterns of activity which changed with the seasonal warming were interpreted as supporting earlier observations that woodchuck activity was tied to temperature changes. Early in the vernal period, activity was characteristically unimodal with a peak at midday. Later, as temperatures were warmer and hours of daylight longer, activity was bimodal, peaking early in the morning and late in the afternoon.—*Journal abstract.*

EARLY EXPERIENCE

651. Bradley, Elspeth A. (Queen's U., Belfast, Ireland) Some effects of rearing young mice in the presence of adult male and female mice of the same strain. *Papers in Psychology*, 1969(Oct), Vol. 3(2), 61-62.—Studied the effects of the odor of male and female mice on (a) the growth, development, and adult behavior of young mice, and (b) on maternal behavior. 18 pregnant mice were exposed to the odor of a male mouse, a female mouse, or no other mice. No significant differences were found between the mice from all litters. There was a tendency, however, for male mice exposed to male odor to gain weight more rapidly and to groom more in the open field. Female mice exposed to male odor tended to mature earlier sexually. Female odors tended to be more disturbing to the mothers. Possible reasons for differences between this study and previous studies are discussed.—S. Knapp.

652. Prescott, James W. (National Inst. of Health, Bethesda, Md.) **Sensory deprivation vs. sensory stimulation during early development: A comment on Berkowitz's study.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 189-191.—Contrasts 2 theoretical formulations that are derived from sensory deprivation and sensory stimulation studies during early development to account for the results obtained by E. L. Berkowitz. Evidence is cited that a sensory deprivation model had greater predictive validity of later behavior than a sensory stimulation model in accounting for the findings of Berkowitz. Theoretical formulations based upon Cannon's Law of Denervation Supersensitivity was considered more heuristic than an optimal-arousal theory. (18 ref.)—*Author abstract*.

INSTINCTS

653. Christopher, Steven B. (Pennsylvania State U.) **Effects of age and social experience in imprinting in domestic turkeys and chickens.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2362-2363.

654. Fongemie, Victor X. (U. Maine) **Stimulus intensity and imprinting behavior: A test of the Schneirla-Moltz hypothesis.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2304.

655. Slater, P. J. (U. Edinburgh, Scotland) **Nest building in the Bengalese finch: I. External factors affecting it and its relation to other behaviour early in the breeding cycle.** *Behaviour*, 1970, Vol. 36(4), 300-319.—Studied the nesting behavior of the male and female Bengalese finch during various stages of the nesting cycle. Incubation duration, carry of nest material, and visits to the nest box were among the dependent variables recorded. The major findings were that males tend to carry nest materials more than females though the female spent more time building within the nest box. While some form of visual contact with a conspecific appeared necessary to stimulate nesting in most males, about 25% were able to build in isolation. The commencement of egg-laying was associated with a decline in male carrying, though carrying persisted throughout incubation if completed nests were removed during the day. By providing "foster eggs" incubation could also be induced in both males and females before the pair produced their own eggs. While reproductive behavior appears to be under the ultimate control of external events it is possible that "external stimuli rely more on hormonally induced permissive states to exert their influence on behavior early in the cycle than they do later on." (German summary)—*S. R. Goldstein*.

MOTIVATION & EMOTION

656. Bauer, Ellen R. (Coll. of William & Mary) **Schedule and quinine induced deprivation in feeding and refeeding.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 87-90.—Adapted 20 female albino DUB/SDD rats to either 0 or 23 hr. of food deprivation. 1/2 of each group was then fed .125% quinine sulfate adulterated diet for 7 days. Following the quinine feeding, ad lib feeding (refeeding) was instituted for 14 days. Results indicate that: (a) Ss on a deprivation schedule failed to show a predicted change to regulation on the basis of taste rather than calories; (b) Ss on food deprivation actually increased their relative intake of water; and (c) refeeding after a deprivation schedule did not lead to depression of

initial intake below normal, but otherwise the process of recovery, followed the same course as after total starvation.—*Journal abstract*.

657. Bauer, F. Samuel. (Coll. of William & Mary) **Glucose preference in the guinea pig.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 75-76.—Determined the glucose preference profile for 9 guinea pigs (*Cavia porcellus*) of the English variety, by both single and 2 stimulus methods. A concentration of .2 molar was shown to be most highly preferred by both methods. These behavioral results agree with previous electrophysiological measures.—*Journal abstract*.

658. Bertsch, Gregory J. & Leitenberg, Harold. (U. Vermont) **A "frustration effect" following electric shock.** *Learning & Motivation*, 1970(May), Vol. 1(2), 150-156.—Compared the effects of nonreward, punishment by mild electric shock, and their combination in an Amsel double-alleyway situation. 32 male albino rats ran faster following either nonreward, punishment with shock, or both combined than they did following reward alone. There were no differences in the magnitude of these effects. Results extend the empirical evidence for the assertion that mild aversive stimuli, e.g., electric shock and nonreward, often yield equivalent behavioral effects. They also suggest that increased vigor in the performance of behavior following nonreward, heretofore termed a "frustration effect," might be best considered a subset of a more general phenomenon: either escape behavior superimposed upon food motivated behavior, or an "excitatory effect" resulting from mild aversive stimulation. (15 ref.)—*Journal abstract*.

659. Boice, Robert & Witter, Janet A. (U. Missouri) **Motivating prairie dogs.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 287-289.—Appetitive responding (double alternation and DRL) in 4 tamed prairie dogs (*Cynomys ludovicianus*) was effected with food and water reinforcement. The result was generally inconsistent performance and/or death by starvation or dehydration. While wild prairie dogs did not need drinking water, tamed captives became vitally dependent. This need was met by operant responding only when terms of work were easy; when the terms of work were moderately difficult, some Ss stopped responding and died of dehydration.—*Journal abstract*.

660. Bolles, Robert C. (U. Washington) **The cue value of illumination change in anticipatory general activity.** *Learning & Motivation*, 1970(May), Vol. 1(2), 177-185.—Discusses (a) how the cue value of an environmental stimulus change varies with its proximity to feeding, and (b) how an environmental cue, e.g., a change in illumination, compares in importance with other, presumably internal cues to the time of feeding. 36 male Wistar rats in activity wheels were fed regularly once a day. All Ss were maintained under 12-hr light, and 12-hr dark environmental conditions, but different groups were fed 20, 60, or 180 min. after a change from light to dark or from dark to light. Results indicate that prevailing illumination conditions had a marked effect upon activity level, but that there was no cue effect of changing illumination. Most Ss demonstrated an anticipation of feeding which was quite independent of the environmental cue.—*Journal abstract*.

661. Budgell, Philip. (Inst. of Experimental Psychology, Oxford, England) **The effect of changes in ambient temperature on water intake and evaporative water loss.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 275-276.—Revealed in 2 experiments, with 6

female albino rats in each, that Ss deprived of water at the same temperature and tested at different temperatures drink different amounts. The conclusion that ambient temperature has a direct effect on drinking is supported by the finding that evaporative water loss at the different temperatures could not account for the differential water intake.—*Journal abstract.*

662. Capretta, Patrick J. (Miami U.) **Saccharin and saccharin-glucose ingestion in two inbred strains of *Mus musculus*.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 133-135.—In Exp. I, 10 C57BL/6J and 10 DBA/2 J mice received saccharin in daily 1-hr sessions for 19 days while hungry or satiated. Exp. II involved giving the same Ss saccharin or glucose and saccharin plus glucose for 24-hr periods with or without solid food. It was found in Exp. I that saccharin consumption is related to drive; hungry Ss at 1st drank more than nonhungry Ss until the 11th day, after which the former group dropped off and was equaled by the latter. The effect was more pronounced for C57 than for DBA Ss—apparently related to strain differences in natural preferences for saccharin. Both strains drank large amounts of saccharin plus glucose in Exp. II especially when hungry. Results are discussed within the context of research on food habits.—*Journal abstract.*

663. Church, Russell M., Wooten, Carol L., & Matthews, T. James. (Brown U.) **Discriminative punishment and the conditioned emotional response.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 1-17.—Designed 3 experiments with 108 naive albino Norway rats to evaluate the effect of the addition of a response contingency to signal contingency, i.e., to compare discriminative punishment with the CER procedure. Exp. I showed discriminative punishment of a particular response is more effective than the CER procedure for suppression of that response. In tests with a response-shift procedure (Exp. II) and a concurrent-schedule procedure (Exp. III), however, the magnitude of suppression of an unpunished response of Ss in a discriminative punishment procedure was indistinguishable from that of CER Ss. Thus, the suppression produced by the CER treatment is related to the signal but independent of any particular response, while the suppression produced by discriminative punishment is related both to the signal and to the specific response.—*Journal abstract.*

664. Colotta, V. A., Keehn, J. D., & Gardner, Leslie L. (York U., Toronto, Ontario, Canada) **Control of schedule-induced drink durations by interpellet intervals.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 137-139.—Reinforced 2 food-deprived naive male albino rats with 45-mg Noyes pellets after simple fixed intervals of 15, 30, 60, and 120 sec. and after alternating 15- and 120-sec intervals. "Postpellet" drink duration varied directly with interpellet intervals in the simple fixed-interval case. In the alternating-interval case, postpellet drink durations (or tube contacts) were greater in 120-sec than in 15-sec intervals. Schedule-induced drink durations appear to be controlled by the probability of availability of food.—*Journal abstract.*

665. Cox, Verne C. (Fels Research Inst., Yellow Springs, O.) **Consumption of a combined glucose-NaCl solution during normal and food deprivation conditions.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 300-301.—A solution containing glucose and sodium chloride proved highly palatable to 10 female Holtzman albino rats and in the majority of cases was preferred

during food deprivation over a calorically equivalent solution containing saccharin and glucose.—*Journal abstract.*

666. Di Lollo, Vincent & Meyer, Peter N. (U. Western Australia, Nedlands) **Pattern of daily water consumption in relation to intake of saccharin solution.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 265-266.—Presented 12 nondeprived rats with a bottle (B2) containing .25% saccharin solution for 1 hr/day in addition to the maintenance water bottle (B1). After 14 days (preshift), the contents of B2 were changed to plain tap water for 6 days (postshift). Intake from B1 in the 1 hr. preceding the time of B2 presentation increased during preshift while overnight intake decreased, suggesting the emergence of a B1 drinking schedule as intake from B2 increased. However, detailed aspects of the results were not consonant with this possibility. During postshift, intake from B1 returned to the initial preshift level while intake from B2 rose to a much higher level, suggesting the operation of secondary reinforcement.—*Journal abstract.*

667. Fantino, Edmund; Kason, David, & Stringer, Neil. (U. California, San Diego) **The Yerkes-Dodson law and alimentary motivation.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 111-124.—Studied 45 male naive white Carneaux pigeons in a detour problem. S was facing food reward but was behind a wire screen. A 3 × 3 design was employed in which degree of hunger and problem difficulty were varied. Increased deprivation improved problem-solving monotonically and for each level of problem difficulty studied. No evidence was found for the Yerkes-Dodson law, which states that the optimal level of motivation should vary with problem difficulty. The Yerkes-Dodson law has been confirmed often with aversive motivation; the present experiment was the 1st attempt to test this law by varying task difficulty in a problem involving alimentary motivation. (French summary) (16 ref.)—*Journal abstract.*

668. Frazier, James R. (U. North Carolina, Child Development Inst., Chapel Hill) **Rat activity as a function of water deprivation and age.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 299.—4 rats were water deprived for 24, 48, 72, 96, and 120 hr., beginning at ages 37, 59, and 81 days. Naive (37 days) Ss increased activity over base line after 24 hr.; deprivation-experienced Ss showed activity decrements after 24 hr. All Ss sharply decreased activity at 120 hr. at each age interval.—*Journal abstract.*

669. Ginsburg, Harvey J. & Braud, William G. (U. Houston) **Changes in preference for cage environments following habituation and shock in the Mongolian gerbil.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 183-184.—Tested daily 12 Mongolian gerbils on their preference for their own familiar vs. other novel litter environments. Ss showed a striking preference for the home environment which gradually declined over 6 days of testing. The home litter preference was reinstated following aversive stimulation. Data are discussed in terms of habituation, dishabituation, and fear. Some incidental observations on depth perception in this species are also reported.—*Journal abstract.*

670. Loop, Michael S. (Florida State U.) **The effects of feeding experience on the response to prey-object extracts in rat snakes.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 189-190.—Measured the responses of 8 young rat snakes (*Elaphe*) to different prey-object extracts after 8 mo of eating mice. Mean

attack/tongue-flick scores at birth revealed no reliable difference in the stimulating value of the prey-object extracts. Mean attack-orientation scores after the mice feedings revealed a clear preference for mice. The scores for other stimuli dropped, while that for mice remained almost identical for initial and postfeeding tests. It is suggested that the initial scores revealed an undifferentiated attack tendency. It is concluded that the "preference for what is available coupled with a retained preference, as compared to water, for what might be more available in the future has clear survival value."
—S. Knapp.

671. Marwine, Alan G. & Collier, George. (Rutgers State U.) **Instrumental and consummatory behavior as a function of rate of weight loss and weight maintenance schedule.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 441-447.—Examined the functions relating instrumental behavior to percentage body weight loss (%BWL) in 4 groups of 7 male albino Sprague-Dawley rats which lost weight at different rates. Log bar-press rate was a linear function of log %BWL. Rate of BWL had no effect on either the form of the function or the level of behavior. Bar-press rate decreased in Ss maintained at a constant percentage of their expected weights but increased when Ss were held at a constant weight. Results are interpreted as showing that the BWL = behavior function was path-independent, and that BWL should be measured from the value at initial deprivation. The rate increase in constant weight Ss was due to physiological adaptation to water restriction.—*Journal abstract.*

672. Myer, James S. & Kowell, Arthur P. (Johns Hopkins U.) **Eating patterns and body weight change of snakes when eating and when food deprived.** *Physiology & Behavior*, 1971(Jan), Vol. 6(1), 71-74.—Maintained 4 Florida king snakes in a warm (27° C) room with continuous access to water and presented mice to them daily for 17 wk., after which they were not fed for 6 wk. When fed daily, Ss ate large meals at intervals of 4-5 days and increased their body weights an average of 61% during the 17-wk period. During the 1st few days of food deprivation they lost a substantial amount of weight as they digested the last meal, but their weights fell very slowly thereafter. After 6 wk. of food deprivation the average body weight loss relative to weight immediately before the last predeprivation meal was only 6.3%. When feeding was resumed after deprivation, none of the Ss displayed an increase in food intake, and 2 failed to eat for extended periods.—*Journal abstract.*

673. Nash, Richard F., Gallup, Gordon G., & McClure, Michael K. (Tulane U.) **The immobility reaction in leopard frogs (*Rana pipiens*) as a function of noise-induced fear.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 155-156.—Hypothesized that a loud pre-induction noise should prolong the duration of the immobility reaction by increasing the level of fear or arousal prior to manual restraint. 34 frogs served as Ss, with 1/2 receiving a loud noise just prior to being immobilized, while the remainder served as a control group. Ss exposed to preinduction noise remained immobile significantly longer than controls. Results are discussed as providing additional support for the idea that the immobility response represents an innate fear reaction.—*Journal abstract.*

674. Oldham, Jeffrey & Morlock, Henry. (State University Coll. New York, Plattsburgh) **The effects of**

open-field size on activity in the Mongolian gerbil. *Psychonomic Science*, 1970(Sep), Vol. 20(5), 290.—Recorded locomotor activity of 15 Mongolian gerbils in 5 open fields of different sizes. Consistent with previous findings for rats and other rodents, activity increased with field size and decreased with time in the field. Amount of defecation was not related to field size or activity.—*Journal abstract.*

675. Timberlake, William D. (U. Michigan) **Continuous coding of general activity in the rat during repeated exposure to a constant environment and to stimulus change.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3038-3039.

676. Van Hemel, Paul E. & Myer, James S. (U. Maine, Portland) **Satiation of mouse killing by rats in an operant situation.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 129-130.—Allowed 20 adult male Long-Evans mouse-killing rats to pace their killing behavior by use of an operant response reinforced with mouse presentation. When tested after intervals of 1, 2, and 4 days without exposure to mice, Ss averaged more than 30 responses and kills before reaching a satiation criterion of 15 min. without a response. In a 10-hr session, during which responding was continuously reinforced, 4 Ss killed 32-57 mice early in the session, then emitted occasional bursts of response during the remainder of the session, obtaining and killing an average of 41 additional mice. Findings contradict a previous report that mouse killing by rats is easily satiated.—*Journal abstract.*

677. Wilson, Arthur S. & Barboriak, Joseph J. (Veterans Administration Center, Wood, Wis.) **Lick volume determined by food schedules in rats.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 271-272.—The number of licks and fluid consumed were recorded separately for 10 male Sprague-Dawley rats during a 7-day adjustment period followed by a 33-day period during which the Ss were fed for only 2 hr. each day. Significant differences in the number of licks/ml of water consumed between food and no-food periods appeared after the 1st experimental wk. There was a significant decrease in lick rate from the 1st-2nd hr. of each feeding period and also from the feeding to the nonfeeding period. Use of a lick count to determine volumes of fluids ingested on different feeding schedules could be misleading.—*Journal abstract.*

678. Zöld, Gyula. **Az aktivitás szint és az időjárási jellemzők változása közötti kapcsolatok madaraknál.** [Correlation between arousal level and variation of meteorological factors in birds.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 17-24.—Changes in 4 meteorological indices were found to significantly affect birds' arousal level. (English & Russian summaries)—M. Moore.

LEARNING

679. Gramling, George E. (U. Wisconsin) **A study of learning ability in young pigs and dairy calves.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2385-2386.

680. Mansfield, R. J. & Rachlin, Howard C. (Harvard U.) **The effect of punishment, extinction, and satiation on response chains.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 27-35.—Performed a series of experiments to examine the effect of various decremental processes on chains of responding where the response chain may be broken before completion, and the

... male White Carneaux ... reinforcement by ... the left key of a ... chamber. A peck on the right key not followed by ... was defined as an ... During punishment, extinction, and satiation, the percentage of sequences ... remained constant or decreased. *Journal abstract*

681. Miller, Samuel L. (Carnegie-Mellon U.) Short-term memory in the nonhuman primate: Retention following interpolated activity during a delayed matching from sample task. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2319

682. Pitt, Agn & Hutterman, M. E. (Bryn Mawr Coll.) Reward and learning in the turtle. *Learning & Motivation*, 1970(Oct), Vol. 1(1), 121-128. Studied the effect of reduction in amount of reward on runway performance of turtles. Amount of reward and probability of reward were varied. Turtles used to extinction, 31.5 percent probability, 18 = 50 percent. Turtles widely spaced from home base showed no effect. A direct effect of reward amount on extinction and resistance to extinction and a reversed PKI. Results are compared to those of analogous experiments with rats and fish. (17 ref.) *Journal abstract*

683. Premack, David. (U. California, Santa Barbara) The education of Sarah: A chimpanzee learns the language. *Psychological Review*, 1970(Sep), Vol. 4(4), 54-73. A chimpanzee was taught to use pictures of colored plastic as words. After ... mastered 120 words including names, verbs, adjectives, adverbs, and concepts (e.g., use sentences, answer questions, and ... when the language was used to teach her new words. She ... constructed a sentence comprising two ... with multiple choice answers which she used to "test" ...

684. Thompson, Donald M. (Georgetown U., Medical School) Repeated acquisition as a behavioral baseline. *Psychonomic Science*, 1970(Nov), Vol. 21(3), 156-157. Modified the ... for studying ... effecting acquisition with an individual's ... with pigeons. The sensitivity and re- ...

... the different stimuli correlated with the different members of the chain. This "tandem" ... a substantial increase in the number of ... errors. It is concluded that repeated acquisition ... the study of a wide variety of variables that influence ...

... Schrier, Allan M. (Br- ... reinforcement on learning set formation by three marmosets. *Journal of Experimental Psychology*, Vol. 71(1), 79-85. Compared the use of ...

... of primary reinforcement. 1 group was ... discrimination learning-set training with the ... the experimental ... group ... the reward

separated from that of the stimulus and the response is concluded that the use of the remote locus reinforcement impedes learning-set formation.

Conditioning

686. Alvord, Jack; Cheney, Carl, & Daley, Marvin. (Brundon Psychology Group, Kansas City, Mo.) Development and control of licking in the guinea pig (*Cavia porcellus*). *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 14-15.—Familiar female albino guinea pigs to lick an electronic lickometer by successive approximations brought about by gradually receding lickendum-liquid feeder modules in their home cage. All Ss learned to lick and obtain total liquid intake by tongue licking. An optimal deprivation schedule was determined, and the response was brought under schedule control comparable to that of the rat. *Journal abstract*

687. Ayres, John J. (U. Kentucky) Conditioned suppression and the Egger-Miller information hypothesis. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2950.

688. Booth, James H. & Hammond, L. J. (Temple) Configural conditioning: Greater fear in rats to compound than component through overtraining of the compound. *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 255-262.—When 2 stimuli reinforced in compound, their elements typically act as a CR. It has been hypothesized that overtraining will remove these elemental CRs and produce configural. Tone and light were used as a compound. Conditioned suppression experiment where 3 groups of 10 male Sprague-Dawley rats were underconditioned, asymptotically conditioned, and overconditioned to the compound stimulus. Tests with both elements as compounds revealed that overtraining markedly attenuated suppression to the elements, whereas asymptotic conditioning did not. In Exp. II the results of overtraining group were replicated; and this group then compared to several control groups in order to assess the role of orienting responses in this overall effect and to explore some special properties of elements in a configural. *Journal abstract*

689. Brunner, R. L., Roth, Thomas G., & Ronald R. (U. Cincinnati) Age differences in the development of the conditioned emotional response. *Psychonomic Science*, 1970(Nov), Vol. 21(3), 135-136.—Tested 36 naive Long-Evans rats aged 10 or 120 days for suppression of drinking behavior by the presentation of a fear-producing CS. The young group did not show any evidence of drinking suppression compared to more mature Ss or to a pseudoconditioned and control group of the same age. Results are discussed in terms of fear conditioning and the ability of rats to inhibit consummatory responses. (17 ref.) *Journal abstract*

690. Bell, John A. (George Washington U.) Interaction between appetitive Pavlovian CSs and instrumental avoidance responding. *Learning & Motivation*, 1970(Jan), Vol. 1(1), 18-26.—Trained 3 groups of 5 mongrel dogs 1st to avoid shock by responding to a visual signal. 2nd, these groups underwent appetitive Pavlovian conditioning operations in a different environment. Later when compounded with cue for avoidance in transfer tests, a CS+ which reliably signaled food presentations during Pavlovian

motivation, rather than a limitation of the amount of food that can be consumed.—*Journal abstract.*

Discrimination

700. Farthing, G. William & Hearst, Eliot. (U. Maine) **Attention in the pigeon: Testing with compounds or elements.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 65-78.—Experimentally naive female pigeons served as Ss in 2 experiments (Ns = 12 and 18). Ss received free-operant go/no-go discrimination training in which the positive stimulus for all Ss was a visual compound, a vertical white line on a blue background. After discrimination training, 2 types of test trials ("elements": blue, green, vertical, horizontal; "compounds": blue-vertical, blue-horizontal, green-vertical, green-horizontal) were presented to each S during extinction. Under most conditions both kinds of trials revealed that responding was more strongly controlled by wavelength than by line-tilt. However, only compound trials proved sensitive enough to consistently reveal differential control within the weaker (line-tilt) dimension; the near-0 response output to vertical or horizontal lines presented alone on the "elements" trials made it very difficult to detect any differential line-tilt control and could have led to the erroneous conclusion that some Ss had not attended at all to the line-tilt dimension. Other comparisons from the present experiments provide information on "blocking" effects and on the influence of different negative stimuli in the development of stimulus control along the wavelength and line-tilt dimensions. (19 ref.)—*Journal abstract.*

701. Galbraith, Karen J. (U. Toronto, Ontario, Canada) **Mediation in animal discrimination learning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2304-2305.

702. Gaurin, D. & Ettlinger, G. (Inst. of Psychiatry, London, England) **Lateral preferences in the monkey.** *Cortex*, 1970(Sep), Vol. 6(3), 287-292.—The hand preferences of 28 monkeys were recorded on 2 visual discrimination tasks. A higher incidence of left than right preferences were expected throughout visual training (whereas this ratio decreases and approaches unity during tactile training). As expected, there was less decrease during visual training than tactile training of the proportion of left preferences within tasks; but across tasks, in conflict with the expectation, changes from left to right preferences occurred more frequently with visual than tactile training.—*R. Gunter.*

703. Gossette, Robert L., Birnbaum, Steve, & Ramsey, Philip. (Hofstra U.) **The role of motivational and incentive levels in the determination of successive discrimination reversal (SDR) performance of Chukar partridge.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 291-292.—Studied the performances of 14 Chukar partridges on a spatial successive discrimination reversal task at 2 levels of drive (D) and at 2 levels of incentive (K). Variation in both D and K led to variation in errors across reversal problems. High D tends to increase errors, while high K yields a decrement in errors.—*Journal abstract.*

704. Hughes, R. N. & Swanberg, Karen M. (U. Canterbury, New Zealand) **Forcing, stimulus-change and alternation.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 902.—Observed that 12 male hooded rats approached and entered the previously blocked arm of a

grey T maze more often following forcing to the opposite arm by a black or white barrier than by a grey barrier. Intertrial removal of the former barrier constituted a greater stimulus change than removal of the latter. Ss responded more often to the previously blocked arm following this greater stimulus change.—*Author abstract.*

705. Krames, Lester. (U. Toronto, Erindale Coll., Ontario, Canada) **Responses of female rats to the individual body odors of male rats.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 274-275.—16 receptive Long-Evans female rats were 1st observed during a 10-min habituation period that consisted of presenting them with 2 empty cardboard tubes housing the odors from the same male. After the habituation period, 1 tube was removed and replaced with a tube housing the odors from a novel male. During the 2nd 10-min testing period, the females spent a significantly greater amount of time with the novel males' odor, after both 5 min. ($p < .02$), and 10 min. ($p < .01$) of testing. The females' response to the novel males' odor indicates that female rats can use olfactory cues to discriminate between individual male rats.—*Journal abstract.*

706. Lynch, Kathleen A. & Sheridan, Charles L. (U. Missouri, Kansas City) **Interocular transfer of a brightness and of a pattern discrimination in albino and pigmented guinea pigs.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 277-279.—Measured interocular transfer of a brightness and of a pattern discrimination in 20 albino and 20 pigmented guinea pigs. Substantial amounts of transfer occurred regardless of problem type or pigmentation, and neither problem type nor pigmentation had a reliable influence on interocular transfer. Transfer, though considerable, was incomplete (19 ref.)—*Journal abstract.*

707. Richman, Charles L., Gardner, John T., Montgomery, Mark D., & Benewicz, Karol L. (Wake Forest U.) **Effects of body weight loss on position and brightness discrimination tasks.** *Learning & Motivation*, 1970(May), Vol. 1(2), 218-225.—36 male, albino rats were given discrimination training in a T maze. The design consisted of a 3×2 factorial combining 3 levels of drive (95, 85, and 75% mean ad lib body weight loss) and 2 types of discrimination tasks (position and brightness). It was found that discrimination learning was facilitated by increased drive and that Ss reduced to 85 and 75% of their mean ad lib body weights learned the position problem in less days and with fewer errors to criterion than Ss trained on the brightness task. However, as a function of an initially strong tendency for Ss trained under low drive to demonstrate spontaneous alternation behavior, task differences, as measured by errors to criterion, were not found. (18 ref.)—*Journal abstract.*

708. Schrier, Allan M. (Brown U.) **Effect of location of the conditional cue on conditional discrimination learning by monkeys (Macaca mulatta).** *Learning & Motivation*, 1970(May), Vol. 1(2), 207-217.—In 2 experiments with 20 wild-born rhesus monkeys, Ss were trained on conditional discrimination problems consisting of a pair of objects differing in form, or, depending on the problem, in size. The conditional cue was the color of the test tray for $\frac{1}{2}$ the Ss and color of the pair of objects for the other $\frac{1}{2}$. The discriminative response was displacement of 1 of the objects. Original and reversal learning were generally better when the conditional cue was color of the objects. This agrees with the previous findings that monkeys are more likely to

attend to stimuli that they touch when responding than those they do not touch.—*Journal abstract.*

709. Somerville, John W. & Sharratt, Sara. (Southern Illinois U.) **Retinal size in the visual cliff situation.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 903-911.—Used 300 1-day-old Kimber Leghorn chicks in 2 experiments. Exp. I tested the hypothesis that unequal retinal size is an insufficient cue for depth discrimination in a visual cliff situation. 1 group of Ss was exposed to mirrors on deep and shallow sides which reflected only their image and a white ceiling. A 2nd group was exposed to white patterns, and a 3rd to stripe patterns equated for retinal size. No significant preferences were found. In Exp. II motion parallax was maximized by the use of 3-dimensional patterns. 1 group was exposed to 3-D patterns equated for retinal size, a 2nd to 2-D patterns unequated, and a 3rd to 3-D patterns unequated. A significant preference for the shallow side was found only for the 1st group. Results of both experiments suggest that the total size of the pattern areas was too small to permit consistent depth discrimination. Implications for studies attempting to define thresholds are discussed.—*Journal abstract.*

710. Sugimura, Takeshi. (Nara U. of Education, Japan) [Discrimination shift learning in animals.] *Japanese Psychological Review*, 1969(May), Vol. 12(1), 62-88.—Reviewed recent studies on the discrimination shift learning in animals under the headings: non-mediational and mediational theories, forced and extinction trials between discrimination and the shift, motivational factors, the role of irrelevant dimensions or stimuli, intradimensional and extradimensional shifts, and training procedures. It is concluded that: (a) effects of the reward magnitude are in line with the Theios' incentive model of discrimination reversal; (b) the presence of irrelevant dimensions is not necessarily related to obtaining the overtraining reversal effect; (c) as long as mediational theories distinguish clearly choice responses from mediating responses, the separate effects of the 2 responses must be specified for various types of shift; (d) in order to assess the relative strength of choice responses and mediating responses, the ease of various types of shift must be compared as a function of degree of original discrimination, and (e) developmental differences in reversal-nonreversal comparison are dependent upon types of shift and stimulus arrangements. (7 p. ref.)—*Journal abstract.*

711. Vom Saal, Walter & Jenkins, Herbert M. (Princeton U.) **Blocking the development of stimulus control.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 52-64. —2 experiments with 24 male White King pigeons in each, evaluated the possibility that prior discrimination training on red vs. green would block the development of stimulus control by tone vs. noise when both stimulus dimensions simultaneously predicted reinforcement. The key pecking response of pigeons was used in a discriminated trial procedure. In Phase 1 of Exp. I, Group D learned a go/no-go discrimination based on red vs. green, Group N was not run, Group R received reinforced trials only, and Group P received partial reinforcement. In Phase 2, all groups learned a go/no-go discrimination based on tone+red vs. noise+green. When tested after Phase 2, Group D showed less auditory control than any other group. The difference between Groups D and P was confirmed in Exp. II. Results show that blocking occurred, while ruling out a number of other factors that may have

caused apparent blocking in previous experiments. (15 ref.)—*Journal abstract.*

712. Weber, Roseann & Kamback, Marvin. (U. Pacific) **Two-cue discrimination learning by pigtail monkeys.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 269-270.—12 monkeys were given a discrimination between black vertical and white horizontal rectangles, and then given preference tests with original positive and negative stimuli paired with white vertical, black horizontal, white and black diagonal rectangles, and white and black circles. Ss responded more to circles than to other preference stimuli early in preference testing but less later, suggesting a novelty effect. Preference for the reinforced brightness was significantly higher than for the reinforced orientation.—*Journal abstract.*

713. Weinberg, Stephanie J. (Boston U., Graduate School) **Some determinants of the peak shift in stimulus generalization.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3039.

714. Wickens, Delos D., Nield, Anthony F., Tuber, David S., & Wickens, Carol. (Ohio State U., Research Center, Experimental Psychological Lab.) **Classically conditioned compound-element discrimination as a function of length of training, amount of testing and CS-UCS interval.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 95-109.—Investigated in 3 experiments the development of a classically conditioned compound-element differentiation as reflected in the paw withdrawal response of the cat. Adult male and spayed female cats served as Ss. In Exp. I and II, the effects of length of training, the CS-UCS interval, and the presence or absence of test trials during acquisition were studied. Differentiation between compound (a light and a tone with simultaneous onset and termination) and its elements developed only if tests to the elements were given during the 12-wk acquisition period. There was some evidence that differentiation was better with 2000-msec interstimulus interval than with 1 of 500 msec. Exp. III investigated the effects of CS-UCS interval in a within-Ss design. The 8 different CS-UCS intervals used ranged from 150-3000 msec. In general, the longer the interstimulus interval, the better was the discrimination. At a given interval, extinction procedures clearly demonstrated better discrimination than the acquisition measures. Some theoretical implications of the results for compounding and for the effects of ITI are presented. A configural rather than a summation theory of compounding is favored.—*Journal abstract.*

Avoidance & Escape

715. Bintz, John; Braud, William G., & Brown, Judson S. (U. California, Davis) **An analysis of the role of fear in the Kamin effect.** *Learning & Motivation*, 1970(May), Vol. 1(2), 170-176.—Determined whether the retention of fear, indexed in a manner in which the effects of competing responses such as freezing are minimized, is a U shaped or an inverted U shaped function of time. In Exp. I, 36 male hooded Long-Evans rats were given 20 food-rewarded trials in a straight alley runway and then 2 trials in which Ss were given shock in the goalbox. The amount of approach was measured on the 21st trial which was conducted 5 min., 3 hr., or 48 hr. after the fear-conditioning trials. It was found that the amount of approach was greatest at the 3-hr interval. Exp. II, with 18 Ss, was identical except that no fear-conditioning trials were given. It was found that the amount of

approach was the same at all 3 intervals. (18 ref.)
—*Journal abstract.*

716. Davenport, D. Gene. (St. Louis U.) **The secondary positive reinforcing properties of the cue in "automated" discriminated escape conditioning.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 149-151.
—Gave 2 albino rats extensive escape training where a leverpress on a variable ratio 5 schedule produced an auditory cue (S^D), in the presence of which a pigeon key response terminated a light and brief shock. Following leverpress extinction, Ss received either the S^D or a neutral auditory stimulus (S^N) on a variable interval 5 schedule, but no escapes. Each of the 4 tests involving S^D for each S showed greater response reacquisition than for S^N tests, demonstrating that the S^D functioned as a secondary positive reinforcer.—*Journal abstract.*

717. Davenport, D. Gene & Eschenbrenner, A. John. (St. Louis U.) **Double-intermittent reward scheduling and secondary-reinforcer strength: Discriminated escape.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 151-153.—Employed a discriminated escape procedure to train 2 groups of 18 naive male Sprague-Dawley rats to activate a nose press in the presence of a tone to escape a 1-ma shock. Escape was allowed on a continuous or an intermittent schedule. Each group was then divided into 3 subgroups, 2 of which were required to learn a leverpress response where the only reward was the tone, presented on a continuous or an intermittent reinforcement schedule. The 3rd subgroup served as a no-tone control. A durable secondary reinforcer was established which was a function of the secondary reinforcement schedule during testing.—*Journal abstract.*

718. Delprato, Dennis J. & Denny, M. Ray. (Eastern Michigan U.) **Passive avoidance as a function of the duration of nonshock confinement.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 44-51.—Trained 3 groups of female albino Sprague-Dawley rats ($N = 42$) in a step-down passive avoidance situation in which Ss terminated shock when they failed to inhibit for 60 sec. by escaping into a distinctive postshock compartment. The groups spent 5, 15, or 90 sec. in the safe compartment but all had the same 50-min ITI. As predicted, inhibition was inversely related to time spent in the safe area. A 2nd experiment was a $2 \times 2 \times 2$ factorial with sex, postshock confinement (5 vs. 90 sec.) and similarity of the postshock and platform areas as variables. Again the longer postshock period retarded passive avoidance, this time when the ITI approximated the confinement interval. Similarity of the 2 regions was not a relevant variable, casting doubt on an extinction of fear hypothesis and supporting the interpretation that long postshock confinements produce poor performance in passive avoidance because they increase the approach value of the safe region (relaxation, or relief, theory).—*Journal abstract.*

719. Dua, J. K. (U. New England, Armidale, New South Wales, Australia) **Temporal gradients of CS- and UCS-offset in avoidance conditioning.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 219-224.—Tested 9 groups of 8 male albino rats each in a hurdle-jumping avoidance situation in a 3×3 factorial experiment. The variables tested were 0-, 1-, and 5-sec delays in the termination of CS and UCS after the S had made the hurdle-jumping response. Both the CS and UCS delays were found to have an adverse effect on the learning of avoidance with the longer intervals having more effect. It is concluded that both CS and UCS offset

provide reinforcement for the learning of avoidance.
—*Journal abstract.*

720. Egger, G. J. & Livesey, P. J. (U. Western Australia, Nedlands) **Acquisition measures in avoidance learning.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 285-286.—Trained 10 male albino rats to different criteria on a 1-way avoidance task in order to examine the comparability of these various measures of acquisition. On 2 measures of relearning, it was found that Ss trained to a criterion of 10 consecutive avoidances performed better and were significantly less variable than yoked Ss that had either been given the same number of trials or trained to the same number of avoidances. No differences were found in extinction.—*Journal abstract.*

721. Franchina, Joseph J. & Snyder, C. R. (Virginia Polytechnic Inst.) **Effect of patterns of shock and nonshock training trials on response alternation and extinction in escape training.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 177-179.—In an experiment with 48 female Holtzman albino rats, escape behavior was trained under 100% shock schedules or 50% schedules of shock and nonshock presented in single-alternation, random, or counterbalanced sequences. Terminal acquisition was highest for 100% shock. For 50% schedules, nonshock trial performance was reliably slower for alternation than for random or counterbalanced sequences; shock trial performance showed no reliable pattern effects. In extinction, performance on early trials decreased reliably for all groups except the 50% alternation group.—*Journal abstract.*

722. Garcia, John; Kovner, Richard, & Green, Kenneth F. (State U. New York, Stony Brook) **Cue properties vs palatability of flavors in avoidance learning.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 313-314.—When a flavor was immediately followed by peripheral shock, Ss learned to use the flavor cue to avoid shock, but ingestion of that flavor was not reduced outside the shock apparatus. Young adult male rats served as Ss in 2 experiments. In contrast, when a flavor was followed by internal illness, Ss rejected that fluid in or out of the situation where illness occurred. However, motor approach to visual cues previously associated with that flavor is not immediately affected. Thus flavor, used as a cue, acquires generalization properties depending upon the subsequent reinforcer and reflecting differential specialization in mechanisms controlling palatability and locomotor responses.—*Journal abstract.*

723. Kamano, Dennis K. (Galesburg State Research Hosp., Ill.) **Effects of a Pavlovian conditioned fear stimulus on avoidance performance attenuated by experimental extinction.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 187-188.—Studied the effects on avoidance responding of superimposing a fear stimulus (CS+) after the avoidance response had been inhibited by experimental extinction. 3 male Wistar albino rats served as Ss. The CS+, established by coterminous delay conditioning, enhanced the response rate when presented either early in the extinction process or after completion of it. The same result was obtained for enhancement of response rate following CS+ offset.—*Journal abstract.*

724. Keehn, J. D. & Walsh, Maxine. (Addiction Research Foundation, Toronto, Ontario, Canada) **Bar-holding with negative reinforcement as a function of pre- and release-shock intervals.** *Learning & Motivation*, 1970(Feb), Vol. 1(1), 36-43.—Compared the bar-holding behavior of 8 naive male albino rats on a

procedure which allowed only shock escape with their bar-holding behavior on a procedure which allowed both shock escape and shock avoidance at several response-shock intervals. With the escape procedure, shocks were scheduled to recur a number of sec. after a bar-press; with the avoidance procedure, shocks were scheduled to recur a number of sec. after a bar-release. At equal intervals more bar-holding occurred under the avoidance procedure, and amount of bar-holding was inversely proportional to both the bar-press-shock and bar-release-shock intervals.—*Journal abstract.*

725. Maier, Steven F. (U. Illinois) **Failure to escape traumatic electric shock: Incompatible skeletal-motor responses or learned helplessness?** *Learning & Motivation*, 1970(May), Vol. 1(2), 157-169.—Trained 10 experimentally naive mongrel dogs, the passive differential reinforcement of other behavior (DRO) group, to escape electric shock in a Pavlov harness by inhibiting the head movements normally elicited by that electric shock. 10 other Ss, the yoked group, received in the harness inescapable electric shock equivalent to those taken by the passive DRO group. A 3rd group of 10 Ss, the naive control group, received no experience in the harness. All Ss subsequently received escape-avoidance training in a shuttlebox. The passive DRO group learned to escape-avoid in the shuttlebox more slowly than did controls, but eventually learned. In contrast, $\frac{1}{2}$ of the yoked Ss did not learn to escape. The relevance of these results for a theory of learned helplessness is discussed.—*Journal abstract.*

726. McAllister, Wallace R., McAllister, Dorothy E., & Douglass, W. Keith. (Northern Illinois U.) **The inverse relationship between shock intensity and shuttle-box avoidance learning in rats: A reinforcement explanation.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 426-433.—Shock intensity (.3 or 1.6 ma.) was combined factorially with ITI (15, 30, or 45 sec.) in a shuttle-box avoidance task using 120 female hooded naive rats ($n = 20$ /group). Following 65 avoidance trials, Ss were allowed, in the absence of both shock and the CS, to jump from 1 compartment of the shuttle box to an adjacent safe box. The 1.6-ma groups made significantly fewer avoidance responses than the .3-ma groups but jumped into the safe box with significantly shorter latencies. The latter finding is contrary to an interpretation of the inverse relationship between shuttle-box avoidance learning and shock intensity which is based on freezing responses but supports a reinforcement interpretation which emphasizes the role of fear of situational cues. (22 ref.)—*Journal abstract.*

727. Messing, Rita B. (Princeton U.) **Experiments in animal psychophysics: I. Equal-aversion contours for shock, noise and light: II. Aversion thresholds and aversion difference limens for light of different wavelengths.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2318-2319.

728. Padilla, A. M., Padilla, Christine; Ketterer, Terry, & Giacalone, Diane. (State University Coll. New York, Potsdam) **Inescapable shocks and subsequent escape/avoidance conditioning in goldfish, *Carassius auratus*.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 295-296.—Conducted 2 experiments with 20 and 50 naive goldfish, *Carassius auratus*, respectively, to assess the effects of inescapable shocks on subsequent escape/avoidance conditioning. Results indicate that inescapable shock presentations interfere with later

avoidance training when Ss are tested 0, 24, and 48 hr. following inescapable shocks. However, the interference effect dissipates with time so that in 72 hr. Ss are capable of avoiding shock. Findings confirm the cross-species generality of the interference effect.—*Journal abstract.*

729. Powell, Robert W. & Mantor, Harry. (U. South Florida) **Shaping of free-operant avoidance in the wood rat, (*Neotoma floridana*).** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 263-265.—Uses a shaping procedure with 5 wild wood rats to initiate leverpressing under a free-operant avoidance procedure. Ss eventually developed very effective avoidance, but much higher shock intensities were required than have been employed with domesticated rats to produce similar behavior. Ss did not display warm-up during avoidance, with shocks being rather evenly distributed over time.—*Journal abstract.*

730. Pryor, Gordon T. (Stanford Research Inst., Menlo Park, Calif.) **Escape thresholds to electric shock using a conditioned pole-displacement response in rats.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 305-306.—72 naive male Long-Evans rats were 1st taught to displace a pole in order to escape a 1-ma shock to the feet. During a subsequent test session, 60 random presentations of several intensities of shock were used to generate psychophysical response curves and estimate escape thresholds. The median escape threshold for 48 Ss was .18 ma. using this procedure. Results are compared to other threshold procedures designed to assess the aversiveness of electric shock.—*Journal abstract.*

731. Rahwan, Ralf G. & Kulkarni, A. S. (Dow Chemical Co., Human Health Research & Development Lab., Zionsville, Ind.) **Age- and sex-related differences in acquisition of a long-term active avoidance response in mice.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 170-171.—Studied 498 1-12 mo. old albino NCR Swiss mice. A significantly higher level of acquisition of an active jump-out avoidance response was achieved by 3-, 6-, and 12-mo-old male Ss as compared to 1-mo-old Ss. No such age-related differences in performance could be demonstrated in female Ss. 1-mo-old female Ss, however, achieved significantly higher avoidance levels than did males of the same age. The possible role of sex hormones in brain maturation and the tendency of male mice to "freeze" in such a training paradigm are discussed.—*Journal abstract.*

732. Rless, Dave. (Galesburg State Research Hosp., Ill.) **The buzzer as a primary aversive stimulus: I. Unconditioned acceleration and summation of conditioned and unconditioned acceleration.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 167-169.—Presented 7 male Wistar rats with 1-min buzzer presentations during Sidman avoidance sessions. 4 Ss with a classical conditioning history (light-shock pairings) were also given light presentations alone and light-buzzer presentations during avoidance. The buzzer presentations increased avoidance rates (unconditioned acceleration) and the light-buzzer compound increased rates even further than either stimulus alone (summation effect).—*Journal abstract.*

733. Roberts, A. E., Greenway, L., & Hurwitz, H. M. (Catawba Coll.) **Extinction of free-operant avoidance with and without feedback.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 283-285.—Studied extinction of free-operant avoidance behavior of 6 adult female hooded rats under conditions in which a response either resulted in a response-contingent event (feedback) or had

no scheduled consequence. Probes and the original conditions of training were alternated. The time to reach the criterion of extinction and the number of responses in extinction were greater when a feedback stimulus was available. Cyclic patterns of responding were observed during both free-operant avoidance and extinction. (18 ref.)—*Journal abstract*.

734. Seligman, Martin E. (Cornell U.) **For helplessness: Can we immunize the weak?** *Psychology Today*, 1969(Jun), Vol. 3(1), 42-44.—Dogs that receive inescapable electric shock do not later learn to escape shock even when it is possible. However, dogs that learn to escape shock who then experience inescapable shock, continue to escape the shock whenever possible. The pretraining with escapable shock seemed similar to an inoculation, giving animals immunity from becoming helpless. Parallels to human behavior suggest that it may be possible to prepare people so that they do not react to failure with total helplessness.—*E. J. Posavac*.

735. Spelt, Philip F. (Wabash Coll.) **Facilitation of shuttle avoidance by handling.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 164-165.—3 groups of 6 male Holtzman albino rats received shuttle, shuttle + handling, or 1-way shock avoidance training with a tone CS. Results show that the 2-way handled group reached a performance level significantly superior to that of the nonhandled shuttle group. These results, and those of other studies, suggest that the use of a warning stimulus, prior to and distinct from the CS, might serve to enhance performance in the standard shuttle-avoidance task.—*Journal abstract*.

Reinforcement

736. Brimer, C. J. (Dalhousie U., Halifax, Nova Scotia, Canada) **Inhibition and disinhibition of an operant response as a function of the amount and type of prior training.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 191-192.—Employed a total of 132 male hooded rats in 2 experiments designed to investigate the effect of an extraneous stimulus (light) presented at different stages of extinction. Ss were initially trained with either a CRF or variable interval (VI) food-reinforcement schedule. Presenting the light early in extinction led to inhibition in the CRF Ss and disinhibition in the VI Ss. Later in extinction both groups showed the disinhibition effect. Results suggest that the low response rate necessary to demonstrate disinhibition is a function of both the amount and type of original reinforced training.—*Journal abstract*.

737. Campbell, Edward M. & Meyer, Philip A. (U. South Dakota) **Effects of daily reward sequence on simultaneous and successive negative contrast in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 434-440.—Investigated the role of sequence in simultaneous negative contrast effects (NCEs). 2 groups of naive albino Sprague-Dawley rats ($n = 10$) were differentially conditioned for 84 trials in a black-white runway for large (L) and small (S) reward. Group SL received no daily L-S transitions; Group LS received no daily S-L transitions. Subsequently, Ss received 15 S trials in their former L runway. Only Group LS evidenced both simultaneous and successive NCEs relative to a small-reward control group (Group SS). Results are interpreted as suggesting the importance of sequential variables in NCEs involving differential conditioning. The implications for both the sequential

hypothesis and frustration theory are discussed.—*Journal abstract*.

738. Di Lollo, Vincent & Allison, James. (U. Western Australia, Nedlands) **Relative magnitude of end-box reward: Effects upon performance throughout the double runway.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 248-254.—Gave 2 groups of 24 male albino Holtzman rats 52 acquisition trials and 32 shift trials in a homogeneous black double runway to test the hypothesized similarity between double runway and differential conditioning situations. During acquisition, the control group received 2 45-mg pellets in each goal box; the experimental group received 2 pellets in the 1st box and 10 pellets in the 2nd. During shift, all Ss received 2 pellets in each box. Both groups ran faster in the 1st than in the 2nd runway. In acquisition, both groups ran at the same speed in the 1st runway, but experimentals ran faster than controls in the 2nd runway. A negative contrast effect, confined to performance in the 2nd runway, was obtained during shift. A 2nd experiment, using a black 1st runway and a white 2nd runway, obtained similar results, except that during acquisition the experimental group ran faster than controls in both runways. The relevant results uniformly contradicted the hypothesis. (19 ref.)—*Journal abstract*.

739. Keehn, J. D., Colotta, Victor A., & Beaton, John M. (York U., Downsview, Ontario, Canada) **Palatability as a factor in the duration and pattern of schedule-induced drinking.** *Psychological Record*, 1970(Fal), Vol. 20(4), 433-442.—When bar-pressing was reinforced with 45-mg Noyes pellets scheduled once/min on the average 3 male Wistar albino rats drank more when .4% saccharin was freely available than when the fluid was plain water. They consumed more saccharin than water under extinction (EXT) conditions also, but not under a CRF schedule. Saccharin consumption was less under CRF than under EXT, in accord with the observation that water-drinking occurs only immediately after eating (postpellet), but that saccharin-drinking occurs on other occasions in addition (interpellet). Postpellet drink durations of saccharin and of water were relatively stable within sessions, but interpellet drinking was erratic. Apparently palatability is not a factor in the postpellet drinking responsible for schedule-induced polydipsia, but is a stimulus for drinking in addition to that which is schedule-induced.—*Journal abstract*.

740. Schoel, W. Michael; Davis, Jennifer, & Bitterman, M. E. (U. South Florida) **Adventitious reinforcement in free-operant discrimination.** *Behavior Research Methods & Instrumentation*, 1971(Jan), Vol. 3(1), 8-9.—Found that the discriminative performance of rats trained under conditions in which their responses to S- postponed the appearance of S+, both for themselves and for yoked-control Ss, was superior to the performance of the controls in 2 rather different experiments with 8 albino and 10 hooded rats, respectively. Results demonstrate the pervasiveness of adventitious reinforcement in free-operant discrimination.—*Journal abstract*.

Reinforcement Schedule

741. Cammin, William B. (U. South Carolina) **An investigation of contrast effects in reward magnitude employing sucrose solution as reward in instrumental conditioning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2298-2299.

742. Capaldi, E. J., Capaldi, Elizabeth D., & Kassover,

Kenneth. (Purdue U.) **An instrumental partial reinforcement effect in the absence of any overt instrumental acquisition training.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 145-147.—Placed 70 naive male Holtzman rats directly over a food cup or in ordinary runway trials under either partial or consistent food reward, no other acquisition training having been given. Also included was a group that was nonrewarded on all running trials. A gradient occurred in extinction such that type of acquisition training (placed vs. run) exercised less influence over performance, and schedule of reward (partial vs. continuous) exercised more influence over performance both as extinction training progressed and as the goal section was approached. Results suggest that rats make small terminal instrumental reactions on placement trials, reactions which, if strongly conditioned, can support a PRE in the full instrumental reaction, particularly in the goal area. *Journal abstract.*

743. Harris, Alan H. (Columbia U.) **The effects of delayed reinforcements upon spaced responding in the albino rat.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2308.

744. Hug, James J. (U. Toronto, Ontario, Canada) **The overlearning extinction effect after partially reinforced acquisition: A quantitative analysis of frustration theory.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2311.

745. Keehn, J. D. & Colotta, V. A. (York U., Toronto, Ontario, Canada) **Prediction and control of schedule-induced drink durations.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 147-148.—Reinforced 6 white rats continuously for 1, 3, 6, or 9 successive barpresses at the end of fixed intervals of 1 min. Schedule-induced drinking became controlled by the onset of the fixed interval in that drinking rarely occurred when food was available on CRF. Drink durations were predictable but were not related to meal size over the range of 1-9 45-mg Noyes pellets.—*Journal abstract.*

746. Keller, John V. (U. Maryland, Lab. of Psychopharmacology) **Behavioral contrast under multiple delays of reinforcement.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 257-258.—Exposed 3 pigeons to a procedure in which a delay was imposed between the occurrence of a response and the presentation of reinforcement. With the delay associated with 1 key color held constant at 3 sec., the delay associated with a 2nd color was increased 1st to 7 sec. and then to 12 sec. As the delay was lengthened, long response latencies to the stimulus associated with this increase became more frequent, but modal response latency was affected little. Response latencies to the stimulus associated with the unchanged delay decreased as the delay in the other component was lengthened. (17 ref.) *Journal abstract.*

747. Lachter, Gerald D. (City Coll., City U. New York) **Some temporal parameters of non-contingent reinforcement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2315.

748. Sgro, Joseph A., Showalter, John R., & Cohn, Neil H. (Virginia Polytechnic Inst.) **Frustration effect following training with continuous and partial delay of reward.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3), 320-325.—Trained 4 groups of 12 male albino rats for 54 trials with either continuous delay, partial delay, continuous reward, or partial reward in the 1st goalbox of a double alleyway. All Ss were then shifted to partial reward in Goalbox 1 for an additional

42 trials. During preshift delay exerted an inhibitory effect on both Alley 1 and Alley 2 speeds. During the postshift session, a significant Preshift Groups \times Goalbox 1 Reward condition interaction for Alley 2 running speeds indicated that speeds following non-rewarded Goalbox 1 trials were depressed for the previously delayed groups. Data are discussed within a frustration-competing response interpretation. *Journal abstract.*

749. Stretch, R., Orloff, E. R., & Gerber, G. J. (U. Western Ontario, London, Ontario, Canada) **Multiple interruptions of responding maintained by a fixed-interval schedule of electric-shock presentation in squirrel monkeys.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 117-126.—Recent experiments have demonstrated that the characteristic pattern of responding engendered by a fixed-interval (FI) schedule of food reinforcement can also be established and maintained by response-contingent electric shocks. Under an FI schedule of food presentation, the characteristic pattern of responding survives repeated interruption by stimulus conditions absent at the time of reinforcement. The present experiment, with 3 male squirrel monkeys, demonstrates a similar phenomenon under circumstances in which the sole consequence of FI responding was the delivery of response-contingent shocks. Several possible interpretations of FI performance maintained by electric-shock presentation are discussed. (15 ref.) (French summary.) *Journal abstract.*

750. Walker, S. F., Schnelle, J., & Hurwitz, H. M. (U. Tennessee) **Rates of concurrent responses and reinforcer duration.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 173-175.—Rewarded 6 male Long-Evans rats concurrently, at equal frequencies, for pushes at the doors in front of 2 reinforcement magazines. The duration of the reinforcer given at 1 magazine was constant, while the reinforcer duration at the other magazine was changed every 6 sessions. For 3 Ss the constant reinforcer was 3 sec. and for 3 other Ss the constant reinforcer was 1 sec. For all Ss the duration of the alternative reinforcer was varied between 1 and 5 sec. Rate of response at the magazine that delivered the constant reinforcer duration was found to vary inversely with the duration of the reinforcer obtained at the alternative magazine. The matching of relative response rate to relative reinforcer duration was poor. Results are attributed partly to the general rate-suppressing effects of long reinforcer durations. *Journal abstract.*

751. Walls, Russell F. (U. North Carolina, Chapel Hill) **The effects of partial reinforcement on reversal learning in the pigeon.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3039.

752. Wolach, Allen H., Counts, Maureen, & Adelman, Morris. (Illinois Inst. of Technology) **Sequenced reinforcement in a two-way runway situation.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 267-269.—Tested E. J. Capaldi's sequential response hypothesis (see PA, Vol. 37:6381 and 39:4421) with a within-S experimental design. A 2-way runway situation made it possible for Ss to experience 1 sequence of reinforcements and non-reinforcements while running in 1 direction and another sequence while running in the opposite direction. The direction in which Ss ran alternated from trial to trial. The sequences Ss experienced in the 2 directions were an N-length of 3 (always 3 nonreinforced trials before a reinforced trial) or N-lengths of 1, 2, and 3 (either 1, 2, or 3 nonreinforcements before a reinforced trial). Greater

resistance to extinction occurred in the direction that was associated with N-lengths of 1, 2, and 3. 14 naive Sprague-Dawley rats were Ss.—*Journal abstract.*

Punishment & Extinction

753. Brown, Judson S. (U. Iowa) **Self-punitive behavior with a distinctively marked punishment zone.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 161-163.—Investigated self-punitive locomotor behavior in rats in which the distinctiveness of the punishment zone was manipulated in 2 studies with 16 male hooded rats. Contrary to a discrimination hypothesis, conditions designed to enhance the discriminability of the punishment region failed to produce a decrement in vicious-circle behavior. It is suggested that increasing the distinctiveness of the punishment region may either weaken self-punitive behavior, leave it unaltered, or strengthen it. Which results occur is believed to depend upon the general efficacy of other variables e.g. shock intensity, shock location, and training.—*Journal abstract.*

754. Dickson, James F. (U. Maryland) **Some effects of S' component duration on multiple schedule performance.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3019.

755. Haha, Martin E., Morrison, Bruce J., Simmel, Edward C., & Harris, Connie J. (State U. New York, Binghamton) **Atypical effects of electroshock on emotionality in rats.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 159-160.—Examined a unique property of shock, i.e., the absence of a clearly perceivable source of the stimulus. 24 male and female Sprague-Dawley rats were divided into 3 groups: object alone, shock alone, and shock + object. Using 3 open-field measures of emotionality, it was found that the group shocked without an object present was significantly more emotional than the group shocked with an object present or the group presented with the object only. It is concluded that Ss who employ shock should control for its means of delivery if the effects of that shock on behavior are being investigated.—*Journal abstract.*

756. Lambert, Joseph V. (Temple U.) **The effect of disconfirming an expectancy of time-out from shock in the double runway.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 153-154.—Describes a previous experiment in a double-runway apparatus using shock escape as the reinforcement by J. V. Lambert and B. J. Hammond. Results show that the Amsehan frustration effect (FE) manifests itself as a marked slowing down in the 2nd runway, when an expected relief from shock is not forthcoming. The present experiment with 16 male Sprague-Dawley rats was performed to determine if S builds up a particular expectancy of timeout from shock and what the effect might be of disconfirming this expectancy by giving a substantially shorter period of shock relief. The reversed FE again appeared when a particular expectancy of timeout from shock was disconfirmed. Also, Runway 1 speeds were seen to decrease when this frustration treatment was introduced.—*Journal abstract.*

757. Matos, Maria A. (Columbia U.) **Acquisition and extinction of conditioned suppression in the rhesus monkey as a function of probability of unavoidable shock.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2318.

758. Nyström, Mats. (Lund U., Psychological Lab., Sweden) **The development of stimulus preferences in**

the pecking behaviour of young herring gulls (*Larus argentatus*): VI. The effects of extinction. *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(10), 3 p.—Studied extinction of the pecking response to different colored stimuli in 40 neonatal herring gulls. Results verified previous findings of psychophysiological investigations of habituation or disinhibition, stimulus generalization, and spontaneous recovery. Divergent findings were (a) stable level in the middle of the extinction series, (b) flat regression to red stimulus, and (c) lack of differences between massed and spaced trial distributions. The motivation models based on the principle of continuous loading of some kind of reaction specific energy are not supported. The adaptive value of the responses are discussed. (20 ref.)—*Journal abstract.*

759. Reiss, Dave. (Galesburg State Research Hosp., Ill.) **Secondary self-punitive behavior: Effects of periodic punishment of Sidman avoidance by Pavlovian CS+.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 185-187.—Trained 7 naive Wistar albino rats on Sidman avoidance. Following adaptation to 3-sec response-contingent light presentations, Ss received alternate days of variable interval 3-sec classical conditioning in which the light was paired with shock. During testing, the unreinforced light CS was response produced during short periods of the avoidance sessions. Acceleration of avoidance (secondary self-punitive behavior) resulted during these periods. Pavlovian extinction resulted in its rapid attenuation, and Pavlovian reconditioning produced immediate recovery. Mean interresponse times increased linearly as a function of the number of previously punished responses suggesting that the phenomenon is sufficiently delicate that response suppression would probably result if the punishment periods were prolonged. (19 ref.)—*Journal abstract.*

760. Stein, Norman H. (Pennsylvania State U.) **Behavior of the pigeon during conditioned suppression.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2329.

761. Terhune, James G. & Premack, David. (U. California, Santa Barbara) **On the proportionality between the probability of not-running and the punishment effect of being forced to run.** *Learning & Motivation*, 1970(May), Vol. 1(2), 141-149.—Punished drinking in 4 thirsty female Sprague-Dawley rats by forcing each S to run in a motor-driven wheel for a fixed duration upon completion of Slicks. Durations of forced running were converted into a probability of not-running on the basis of a prior and independent measure of the conditional probability that S would not be running at t + n sec. given that it had started at t. Drinking was suppressed when licking forced the thirsty S to run for a short duration. Furthermore, the degree to which the initiation of a drink was suppressed was seen to be a linear function of S's probability of not being in a state of forced running.—*Journal abstract.*

762. Thompson, David W. & Adelman, Morris. (Illinois Inst. of Technology, Chicago) **Extinction following the differential control of a conditioned positive reinforcer.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 158-159.—Administered CRF to 60 male Sprague-Dawley rats in a lever chamber with water as a primary reinforcer and a water-dipper click as a secondary reinforcer. Ss were then given extinction with no primary or secondary reinforcement. The lever was then removed. Ss were divided into 5 groups which

experienced the following contingencies: (a) placement in the chamber without shock, (b) dipper-click presentations, (c) shock presentations, (d) click and shock presentations that were not contingent on each other, and (e) forward conditioning click-shock pairings. All groups were then given extinction with the click following each response. The groups aligned themselves in extinction from a-e, with e Ss showing the least resistance to extinction. Significant differences in extinction were found between the shock and no-shock groups.—*Journal abstract.*

763. Thompson, Richard W. & Higbee, Mark. (Western Washington State Coll.) **Shock intensity and unconditioned responding in the gerbil.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 292-293.—Tested 6 male gerbils for their UCR to shock (.0-.9 ma. in .1-mA steps) before and after shaving the tail, feet, and scrotum. Results indicate that Ss were more sensitive after shaving than before. Ss under both conditions made flinch responses at low intensities of shock, reaching a maximum of .1 ma. and then declining. Ss under both conditions showed an increase in locomotor responses from .0-.9 ma. The response topographies for both the flinch and locomotor responses were similar to those of the rat, but were displaced toward low shock intensities.—*Journal abstract.*

764. Tombaugh, J. W. & Tombaugh, T. N. (Carleton U., Ottawa, Ontario, Canada) **Effects on performance of placing a visual cue at different temporal locations within a constant delay interval.** *Journal of Experimental Psychology*, 1971(Feb), Vol. 87(2), 220-224.—Studied the effects of presenting cues at different times within a 7.5-sec delay of reinforcement interval during the acquisition and extinction of a bar-press response by 72 naive female albino Sprague-Dawley rats. In acquisition, the 3 following types of temporal placements were used: (a) a cue presented only at the beginning of the delay interval, (b) a cue occurring throughout the duration of the delay interval, and (c) a cue which was presented only at the end of the interval. In extinction, each group was divided so that $\frac{1}{2}$ of the group received the cue condition and $\frac{1}{2}$ did not. In addition, a no-cue control group was employed in both acquisition and extinction. In acquisition and extinction, the cue conditions tended to produce shorter latencies than did the no-cue conditions. Extinction data further indicate that the greatest resistance to extinction was produced when the offset of the cue was associated with the end of the delay interval. A secondary reinforcement interpretation is advanced to explain these results.—*Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

765. Alexander, B. K. (U. Oregon, Portland) **Parental behavior of adult male Japanese monkeys.** *Behaviour*, 1970, Vol. 36(4), 270-285.—Analyzed seasonal variations in the parental behavior of male Japanese monkeys with respect to stimulus and physiological factors and with respect to the role of male play in the socialization of the young. The troop was housed on a 2-acre corral in Oregon. Records were kept of affiliative, agonistic, and play behavior during the lactation, breeding, pregnancy, and birth "seasons." Play and affiliative interactions between adult males and juveniles peaked during the pregnancy and birth seasons. Such interactions, however, may be viewed as a manifestation

of a general incremental trend, since play and affiliative increments also occurred toward other adults. During the 1st 3 mo. of life, adult males provided virtually all the agonistic experience for the young. It is suggested that seasonal withdrawal of androgen may increase affiliative behavior and that, the early punitive relationship, though mild, may be important in establishing the authority of dominant males among the young. (German summary)—S. R. Goldstein.

766. Barclay, John S. (Ohio State U.) **Ecological aspects of defensive behavior in breeding mallards and black ducks.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 1897.

767. Boice, Carol & Boice, Robert. (U. Missouri) **Precedence in feeding and mounting in captive toads.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 259-260.—Forced 4 groups of captive toads (*Bufo americanus*) (total N=40) in a sexually active state to compete for mealworms as food. Development of resultant feeding hierarchies appeared retarded relative to prior research. Males remained in amplexus for several days during which they did not eat. Systematic preferences for females were not apparent, although males who mounted frequently also ranked high in frequency of aggressive behavior.—*Journal abstract.*

768. Cairns, Robert B. & Nakelski, Joseph S. (Indiana U.) **On fighting in mice: Ontogenetic and experiential determinants.** *Journal of Comparative & Physiological Psychology*, 1971(Mar), Vol. 74(3), 354-364.—Isolated 64 C57BL/10 male mice at 30 days of age or reared them in small groups. Isolated Ss initiated more social-investigation behaviors, were more reactive to dyadic stimulation, and were more likely to attack another mouse than were group-reared mice. These differences were eliminated in adulthood by placing isolate-reared Ss into small groups for an additional 5-10 wk. Observations of test and home-cage interactions indicate that (a) continued exposure to the physical-cutaneous stimulation of others serves to decrease reactivity to such stimulation, (b) heightened reactivity increases the likelihood that dyadic investigatory activity will escalate into fighting, and (c) the effects of early social experiences associated with fighting can be reversed.—*Journal abstract.*

769. Krames, Lester. (Temple U.) **The Coolidge effect in male and female rats.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2314.

770. Legrand, Ross. (St. Olaf Coll.) **Successful aggression as the reinforcer for runway behavior of mice.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 303-305.—48 male mice graded for aggressiveness ran in a runway for the opportunity to defeat submissive mice as a reinforcer on 0, 50, and 100% reinforcement schedules. $\frac{1}{2}$ the Ss were given a brief fight immediately before each trial. Reinforcement schedules produced effects analogous to those found with traditional reinforcers. Both the preflight manipulation and high ratings on aggressiveness were found to facilitate running behavior in general, but they did not interact with the schedules of reinforcement.—*Journal abstract.*

771. Leland, Louis S. (U. Tennessee) **Observational learning in conflict with social approach for Pekin ducklings.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2315.

772. Lynch, James J. (U. Maryland, Medical School, Baltimore) **Psychophysiology and development of social attachment.** *Journal of Nervous & Mental*

Disease, 1970(Oct), Vol. 151(4), 231-244.—Reviews some of the genetic, developmental, and conditional origins of canine social attachment to the human, prompted by research reporting large magnitude physiological responses in dogs during social interaction with humans, and by studies demonstrating that the human, especially through tactual contact, can markedly reduce and even eliminate a dog's behavioral and physiological responses elicited by conditioned fear and painful stimuli. The usefulness of this research paradigm in clarifying the physiological substrata of socialization and social interactions are discussed. The understanding of this socio-physiological need system is considered vital in light of the growth of technology, which may be distorting basic sociophysiological processes. To evaluate the effects of TV, teaching machines, medical technology, etc., the physiological correlates of social attachments must be understood. (60 ref.)—*Journal abstract*.

773. Morris, Robert L. (Duke U.) **Factors affecting the maintenance of the pair bond in the blond ring dove.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2320.

774. Mosig, Dirk W. & Dewsbury, Donald A. (U. Florida) **Plug fate in the copulatory behavior of rats.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 315-316.—Collected normative data on the fate of ejaculatory plugs following a total of 162 ejaculations attained by 18 male Long-Evans rats each given 3 tests. 69% of the plugs were dislodged, 82% of these after 3 or fewer intromissions. Males ate a total of 65% of the plugs, whereas females ate none. More than 1/2 of the plugs consumed were consumed between the time of dislodging and the next intromission. Plug consumption is a behavioral pattern appropriate for further study.—*Journal abstract*.

775. Mosig, Dirk W. & Dewsbury, Donald A. (U. Florida) **The behavior of rats during copulation as a function of prior copulatory experience.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 141-143.—Compared the behavioral patterns accompanying the copulatory behavior of 9 male Long-Evans rats with no prior adult copulatory experience with those of 9 Ss that had experienced 4 prior tests. Age was controlled. Effects of experience on standard measures of copulatory behavior were similar to those in earlier work. There were no significant differences in other behavioral patterns as a function of experience. The tendency to display various behavioral patterns during copulatory activity appears to be completely formed prior to the 1st such activity and generally unaffected by adult copulatory experience.—*Journal abstract*.

776. Payne, A. P. & Swanson, H. H. (U. Birmingham, England) **Agonistic behavior between pairs of hamsters of the same and opposite sex in a neutral observation area.** *Behaviour*, 1970, Vol. 36(4), 259-269.—Investigated the agonistic behavior of adult hamsters to identify physical and behavioral factors correlated with dominance and submissiveness in pair encounters. In addition, female dominance over the male was studied in relation to both the estrous cycle and ongoing male behavior. Using a round-robin comparison technique it was found that when agonistic behavior occurred the majority of cases were decided by ritualized sparring displays. In addition, a high positive correlation was found between weight and aggressive success for both sexes, even in the absence of actual fighting. During male-female encounters, in which the pair were equated

for weight, agonistic behavior, which was primarily female-initiated, occurred on nonestrous days during which time there was an increase in male cage marking. It is suggested that during the estrous cycle the females' unreceptive state may be communicated to the male by aggressive behavior rather than by olfactory stimuli. (German summary) (16 ref.)—S. R. Goldstein.

777. Pearce, Burnard L. (U. Oklahoma) **The effects of space, estrus, and coalitions upon the dominance hierarchy of mature, long-term associate, captive chimpanzees.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2963-2964.

778. Stern, Jeffrey J. & Bronner, Gayle. (U. Michigan, Dearborn) **Effects of litter size on nursing time and weight of the young in guinea pigs.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 171-172.—Observed 15 female guinea pigs with their offspring for 28 days postpartum. The larger the litter (1-4 animals), the greater the percentage of nursing time. With the exception of the 4 animal litters, the smaller the litter, the greater the weight of the young. There was no relationship between litter size and the number of positive or negative nursing responses directed toward each pup.—*Journal abstract*.

779. Tarantino, S. J. (Florida Atlantic U.) **Effect of cage confinement on social behavior in squirrel monkeys.** *Psychonomic Science*, 1970(Sep), Vol. 20(5), 294-295.—Obtained data on the effects of cage confinement in 6 squirrel monkeys as part of a larger study on social perception. Approach-withdrawal behavior was studied at 3 intervals over a 6-mo period, during which the Ss were confined in individual cages. At the 6th mo. a noticeable change in behavior occurred. During 20-min test intervals the Ss displayed very strong attachment behavior. This was in marked contrast to their earlier behavior.—*Journal abstract*.

780. Westby, G. W. & Box, Hilary O. (U. Reading, England) **Prediction of dominance in social groups of the electric fish, *Gymnotus carapo*.** *Psychonomic Science*, 1970(Nov), Vol. 21(3), 181-183.—Examined the electrical and other behavioral interactions within 22 different pairs of 8 adult *Gymnotus carapo*. High scores on aggressive behavior were inversely related to the time spent in electrical silence. Approach and threat movement scores were positively correlated. There was a perfect positive correlation between electrical pulse frequency and subsequent display of threat movements in social encounters. Results confirm a suggestion that dominance in this type of social grouping can be reliably predicted from the electrical characteristics of the interacting individuals. (16 ref.)—*Journal abstract*.

SENSORY PROCESSES

781. Barmack, Neal H. (U. Rochester) **Dynamic visual acuity and the control of eye-movements in primates.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2296.

782. Berlin, Charles L., Majeau, Deborah A., & Steiner, Sylvia. (Louisiana State U., Medical School, Kresge Hearing Research Lab. of the South) **Hearing and vocal output in normal, deaf and infant mice.** *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 318-331.—The peak frequency of the distress call of normal-hearing CBA/J mice and feral mice lies in the 5-20 kcps range, quite consistent with what is believed to be the best hearing sensitivity of these animals. Variant

Waddler and Shaker-1 mice showed less complex and fewer distress calls than normal-hearing mice. The Df/Df mouse, despite its congenital deafness, occasionally emitted a "normal" distress call. The ultrasonic cries of infant mice are not by themselves sufficient to elicit retrieval behavior from either naive or parous females. A separate experiment showed little evoked EEG auditory response to 50-100 kcps tone bursts at 70-db SPL in the CBA/J. (22 ref.)—*Journal summary*.

783. Fish, Stephen E. & Robinson, John S. (Brain-Behavior Research Center, Eldridge, Calif.) **A new coordination test of visual-motor deprived visually experienced cats.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 223-224.—Describes a barrier apparatus for measuring visual-motor coordination. Tests of 3 cats with extensive binocular visual experience but with only monocular visual-motor experience revealed visual-motor deficits in both deprived and experienced eyes.—*Journal abstract*.

784. Gruber, Samuel H. (U. Miami) **The physiology of vision in the lemon shark, *Negaprion brevirostris* (poey): A behavioral analysis.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2101.

785. Hansson, S. Birger. (Lund U., Psychological Lab., Sweden) **Visual depth discrimination in young eiders (*Somateria mollissima*).** *Psychological Research Bulletin*, Lund U., 1970, Vol. 10(13), 16 p.—Investigated visual depth discrimination in young eiders by means of a "visual cliff." All Ss were visually deprived from birth. Choice trials examined the reactions of 7 naive Ss, 20 Ss with exposure to the shallow side, and 21 Ss exposed to the deep side of the cliff. Choices, latency-times, and behavioral manifestations were noted. Naive Ss preferred the shallow side, while the other Ss tended to choose in accordance with the type of exposure they had experienced. Results are discussed in terms of inborn tendencies and rival learning signals.—*Journal abstract*.

786. Mitchell, Curt; Gillette, Richard; Vernon, Jack, & Herman, Paul. (U. Oregon, Medical School, Portland) **Pure-tone auditory behavioral thresholds in three species of lemurs.** *Journal of the Acoustical Society of America*, 1970(Aug), Vol. 48(2, Pt. 2), 531-535.—Determined absolute thresholds for pure tones of frequencies 100 Hz. to 40 kHz. by the method of constant stimuli using a 2-bar operant technique. 6 lemurs of 3 subspecies were trained to press a white bar to turn on a tone lasting 5 sec. During the tone, a single press on a 2nd (black) bar resulted in food reward. Failure to respond simply terminated the trial. Response in the absence of tone was scored as a false positive response and resulted in a 1/2-sec shock of from .6-1.3 mA. Thresholds, based on a response probability of .5, indicate a lesser sensitivity in the low and middle frequencies than found in the anthropoid primates, but an apparent extension of sensitivity into the higher frequencies beyond the upper-frequency cutoff points found for the anthropoids. (16 ref.)—*Journal abstract*.

787. Small, Wiley C. (U. Missouri, Columbia) **A comparison of some measures of auditory frequency discrimination and stimulus generalization in the pigeon: A test of the inverse hypothesis.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3035.

788. Taub, Harvey B. & Raab, David H. (Brooklyn Coll., City U. New York) **Fluctuations of N_1 amplitude in relation to click-intensity discrimination.** *Journal of the Acoustical Society of America*, 1969(Oct), Vol. 46(4,

Pt. 2), 969-978.—Recorded round-window potentials evoked by clicks from 11 female Hartley anesthetized guinea pigs. By comparing N_1 amplitudes on line, it was possible to compute physiological DLs for click intensity. The method requires no assumptions about the underlying distributions of neural effect. Weber functions were generated with and without a continuous masking noise. The effects of click intensity and of background noise paralleled those previously reported for human listeners. A neural model is described in which variability of N_1 amplitude turned out to be the principal parameter. (16 ref.)—*Journal abstract*.

DEVELOPMENTAL PSYCHOLOGY

789. Albott, William L. & Bruning, James L. (Ohio U.) **Given names: A neglected social variable.** *Psychological Record*, 1970(Fal), Vol. 20(4), 527-533.—Reviews the literature regarding guidelines used in the assignment of names and the eventual impact which particular names have on the bearers. Connotative meanings were concluded to affect not only name choice but also self-perceptions, personality development, and behavior patterns in both children and adults. The failure to consider names as independent variables may account for the present lack of empirical research. (27 ref.)—*Journal abstract*.

790. Anandalakshmy, S. & Grinder, Robert E. (U. Wisconsin) **Conceptual emphases in the history of developmental psychology: Evolutionary theory, teleology, and the nature-nurture issue.** *Child Development*, 1970(Dec), Vol. 41(4), 1113-1123.—Discusses the history of developmental psychology in this century within the framework of 3 major trends—evolutionary theory, teleology, and the nature-nurture issue. Perspectives of early theorists, Hall, Thorndike, Gesell, and Watson, are considered in their historical context; and shifts in emphases of later writers are examined. While teleology and evolutionary theory are shown to be significant mainly in being the source of early theoretical concepts, the nature-nurture issue is discussed as a continuing controversy. (37 ref.)—*Journal abstract*.

791. Bailey, Kent G. & Gibby, Robert G. (Virginia Commonwealth U., Richmond) **Developmental differences in self-ratings on intelligence.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 51-54.—112 6th graders and 124 12th graders were administered an intelligence test and the Gibby Intelligence Rating Schedule. The results supported the contention that significant developmental differences exist between 6th and 12th graders. 6th graders were more discrepant in their self-ratings and less realistic in estimating their intelligence than 12th graders. Self-ratings of the 12th graders on the Self Test correlated significantly with their IQ but this was not the case for 6th graders. It is concluded that 6th and 12th graders do differ in their self-evaluations on intelligence.—E. J. Kronenberger.

792. Bradley, Paul A., Hoepfner, Ralph, & Guilford, J. Paul. (U. Southern California, Psychological Lab.) **A factor analysis of figural-memory abilities.** *Reports from the Psychological Laboratory, University of Southern California*, 1969(Jun), No. 43, 32 p.—Attempted to demonstrate that 6 visual-figural-memory abilities, hypothesized from structure-of-intellect theory, were distinct from one another and from 10 other abilities by means of 26 new tests designed for the figural-memory

abilities, and 24 marker tests for the reference factors for the other abilities. The test battery was administered to 202 high school students. From the test intercorrelations, 18 principal factors were extracted and rotated to psychological meaningfulness. The 6 hypothesized factors for the 6 figural-memory abilities were well determined, each with 2 or more univocal tests from those designed for the respective abilities. Discriminations from 4 memory factors in the symbolic and semantic categories, 3 figural-cognition factors, 3 production factors, and factors for verbal IQ and sex were fairly good. Thus, the picture of a distinct memory category, constituted as in structure-of-intellect theory, is more firmly established.—*Journal abstract.*

793. Hoving, Kenneth L., Morin, Robert E., & Konick, Dorothy S. (Kent State U.) **Recognition reaction time and size of the memory set: A developmental study.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 247-248. —Tested 9 male and 9 female kindergartners, 4th graders, and undergraduates on a recognition RT task with memory sets of 2, 3, and 4 items. Though overall RT varied with age, the slopes of the functions relating RT to size of the memory set did not differ significantly as a function of age. Within the context of a theory of recognition memory developed by S. Sternberg (see PA, Vol. 40 10810), results suggest that young children scan memory for familiar pictures as quickly as do adults.—*Journal abstract.*

794. Matulová, Nina & Švancara, Josef. (Purkyne U., Brno, Czechoslovakia) **Zvláštnosti "sociální percepce" v předškolním věku a ve starší.** [Features of "social perception" in preschool and old age.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(3), 209-216.—Studied the development of the ability to interpret facial expression and to differentiate basic characterologic concepts. Methods used were S. G. Vandenberg's Multiple Choice Vocabulary Test and Experimental Test of Social Perception as measured by the interpretation of facial expressions. The 1st stage of the study was represented by 40 preschoolchildren with a mean age of 5.7 yr. and 41 Ss with a mean age of 78.7 yr. While the children did not significantly differ from the adults in recognizing the portraits, there was a marked superiority of the adults in the test of characterologic concepts and in the interpretation of emotional expressions. High intercorrelation between the 2 methods was present in the adults but not in the children. Some indicators showed statistically significant sexual differences. Both Vandenberg's methods appear to be practicable for use with preschoolchildren. The irregular dispersion of the findings, however, suggest a regroupment of the items. (Russian summary)—*English summary.*

795. Miller, Edgar. (U. Hull, England) **Handedness and the pattern of human ability.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 111-112.—Examined the visuo-spatial and verbal functions of right- and mixed-handed Ss in order to clarify the opposite findings of J. Levy and M. Annett. 29 right-handed and 23 mixed-handed undergraduates were administered the National Institute of Industrial Psychology (NIIP) Group Test 33 (verbal intelligence) and NIIP Form Relations Test (visual manipulation of shapes in 2 and 3 dimensions). Ss had almost identical mean scores on the verbal test, while right-handed Ss scored significantly higher on the spatial test. The findings of J. Levy are supported. It is concluded that "real differences in ability

between right- and mixed-handers do exist and probably reflect underlying differences in the asymmetrical organization of functions within the brain."—S. Knapp.

796. Nance, R. Dale. (U. Wisconsin, Milwaukee) G. Stanley Hall and John B. Watson as child psychologists. *Journal of the History of the Behavioral Sciences*, 1970(Oct), Vol. 6(4), 303-316.—Compares and contrasts Hall's and Watson's views with respect to child psychology. If Watson's personal "hang-ups" colored his suggestions about child rearing, Hall's wordiness and naive optimism about man's future may be equally taken to task.—C. M. Franks.

797. Siddiqui, Jawaid & Keil, Wolfgang. (U. Mainz Inst of Psychology W. Germany) **Neugierverhalten in der Sprache.** [Exploratory behavior aroused by language stimuli.] *Psychologica Berolita*, 1970(Oct), Vol. 21(4), 270-278.—As Berlyne has demonstrated, 6 characteristics of visual material arouse exploratory behavior: amount of material, irregularity of distribution, heterogeneity of elements, irregularity of forms, discrepancies, and incompatible composition. These characteristics were transferred to language material which was then used as stimuli in test series of preference selection with 193 male adults, 193 female adults, and 193 7-13 yr. old children as Ss. The responses were factor analyzed. More adults preferred irregular variants than children. Children's selections were mainly determined by 3 factors: believability, difference of elements, and orderliness. For adults only 2 factors carried weight: amount of material and heterogeneity.—W. J. Koppi.

798. Švancara, Josef. (Purkyne U., Brno, Czechoslovakia) **Aktuální problémy vývojové psychologie v teorii a praktické aplikaci.** [Current problems of developmental psychology in theory and practical application.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(3), 195-200.—Outlines the problems and range of developmental psychology. A future trend resulting from the employment of a vertical approach is predicted. Emphasis is placed on the necessity to assimilate information of boundary scientific disciplines—genetics, 1st—and on the inevitability of an integration of partial theoretical conceptions. (Russian summary) (27 ref.)—*English summary.*

799. Thomas, Georgelle & Osgood, W. Shirley. (Georgia Southern Coll.) **College students' performance on the "fruit-tree experiment" under varied conditions of color availability.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 253-256.—Tested 178 college students on the "fruit-tree experiment" under varied conditions of color availability. Apple trees outranked all other trees in each condition except where orange but no red was available. In this condition, orange trees were most often drawn. It was found that college students depict apple trees significantly more often than do children when all colors and when red, green, and yellow only are available. No significant difference was found in frequency of drawing an apple tree, all colors available, and naming an apple tree in response to the word stimulus, "fruit tree."—*Author abstract.*

INFANCY

800. Caldwell, Henry S. (Purdue U.) **The infant cry.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2274.

801. Coates, David B. (U. Minnesota) **Interrelations in the attachment behavior of 10- and 14-month-old**

human infants. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2955.

802. Desmedt, John E. & Manil, J. (U. Brussels, Brain Research Unit, Belgium) **Somatosensory evoked potentials of the normal human neonate in REM sleep, in slow wave sleep and in waking.** *Electroencephalography & Clinical Neurophysiology*, 1970(Aug), Vol. 29(2), 113-126.—Investigated averaged cerebral potentials evoked by electrical stimulation of the fingers in 34 full-term normal human newborns. The stimuli were delivered at intervals of at least 3 sec. and generally 5-12 sec. to avoid sequential interactions between responses. They were of adequate intensity to evoke consistent responses both at the contralateral parietal projection and at the vertex, but did not interfere with the normal cycles of slow wave sleep (SWS) and of REM sleep (REMS). Sleep stages were identified by pattern of respiration, eye, face, and limb movements, spontaneous EEG, submental EMG, and also by the histogram of heart beat intervals. The somatosensory evoked potentials presented genuine and consistent features in typical REMS and SWS runs. The mean latency and voltage of the initial surface negative component, N_1 , which is characteristic of the newborn response but is no longer developed in the adult, did not differ significantly in the 2 sleep stages. The latency to the peak and the duration of N_1 were significantly increased in SWS. The positive component P_1 which followed N_1 was recorded in both sleep stages. However, a 2nd component, P_2 , was present only in SWS and provided the most typical feature of that stage. As a result, the total duration of the positive deflection was much longer in SWS than in REMS. Late negative N_2 and positive P_2 components were also influenced by the sleep stages. Interesting correlations appeared between the evoked potentials recorded at the hand projection and at the vertex. In waking the evoked potentials appeared rather similar to those in activated REMS. (French summary) (48 ref.)—*Journal summary*.

803. Ellingson, Robert J. (U. Nebraska, Medical Center, Omaha) **Variability of visual evoked responses in the human newborn.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 10-19.—Summed visual evoked responses (VERs) were recorded repeatedly during the various phases of the wakefulness-sleep cycle on the 1st day of life and again 24 hr. later in 6 full-term human newborns. VERs were analyzed in terms of wave form changes and amplitudes and latencies of the various wave components. 1 S showed an invariant wave form throughout a recording session. Only the P_2 wave component was always present in all Ss, and it was the only component of relatively invariant latency within Ss. Amplitudes of all components were extremely variable. Conclusions are: (a) The VER of the human newborn is extremely variable. (b) Only the latency of the P_2 component is consistent enough to be used to characterize a S, but even it does not correlate with its own value a few wk. later. (c) Unless the factors related to its variability can be specified and controlled, the neonatal VER will be of limited value as a tool in clinical measurement or in other individual applications as compared with VERs recorded in older Ss. The principal exceptions would seem to be total absence, extreme distortion, and marked and persistent asymmetry of responses. (French summary) (26 ref.)—*Journal summary*.

804. Emde, Robert N. & Metcalf, David R. (U. Colorado, Medical School) **An electroencephalo-**

graphic study of behavioral rapid eye movement states in the human newborn. *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 376-386.—In an EEG-polygraphic study of behavioral states (sleeping, drowsing, sucking, fussing, and crying) in 10 full-term newborns, it was found that they are all associated with stage-REM physiology. Independent behavioral and EEG-polygraphic assessments show high agreement in distinguishing these states as a group from other sleep and nonsleep states. The term "undifferentiated" is applied to drowsy-REM, sucking-REM, fussy-REM, and crying-REM because their behavioral and physiological indices are relatively unpatterned and, from the viewpoint of infant development, these states disappear during the 1st 3 mo. of postnatal life. Neonatal REM sleep is also conceptualized as undifferentiated as it shows an initial high variability of physiological patterning which tends toward stability over the 1st 3 mo. This change is concomitant with another major change: at 3 mo., sleep begins with NREM instead of REM sleep. (17 ref.)—*Journal abstract*.

805. Freeman, Emmy K. (U. Florida) **The effects of interpersonal stimulation on growth and development of premature infants.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2982.

806. Gardner, Judith & Gardner, Howard. (Harvard U.) **A note on selective imitation by a six-week-old infant.** *Child Development*, 1970(Dec), Vol. 41(4), 1209-1213.—To determine whether a 6-wk-old infant is capable of imitation, regular observations were made of 1 child's reactions to 4 kinds of parental behavior. Although there was little evidence of direct imitation, data suggest that the child might have been sensitive to the modal properties of the behaviors.—*Journal abstract*.

807. Greenberg, David J. (U. Illinois, Urbana-Champaign) **Accelerating visual complexity levels in the human infant.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3022.

808. Ingram, Mary M. (Boston U., Graduate School) **Exploratory behavior in infants in relation to levels of visual stimulation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2988-2989.

809. Koch, Jaroslav. (Inst. for the Care of Mother & Child, Prague, Czechoslovakia) **Vliv rané pohybové a sociální stimulace na pohybový a psychický vývoj kojence v prvních 6 měsících života.** [The influence of early motor and social stimulation on motor and mental development in the first six months of an infant's life.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(3), 201-208. Studied the effect of early stimulation on human development. Based upon previous experiences with motor development and retardation in 6-8 mo. old infants, the question was raised as to how motor and mental development proceeds in children who, from the 1st wk of their lives, are stimulated to movement more intensely than those brought up traditionally. Preliminary findings are based on an experiment with 10 infants who were exercised and observed from birth to 6 or 7 mo. of age, and with 20 3-10 mo. old infants who were brought up at home and whose mothers received instructions twice/mo. The most striking result was the good motor development of all the Ss who were physically exercised. (Russian summary)—*English summary*.

810. Melson, William H. & McCall, Robert B. (U. North Carolina) **Attentional responses of five-month girls to discrepant auditory stimuli.** *Child Develop-*

ment, 1970(Dec), Vol. 41(4), 1159-1171. Presented an 8-note standard tonal sequence 8 times to 48 5-mo-old girls. Following this familiarization phase, a series of small or large discrepancies from that standard were presented. Attention in terms of cardiac deceleration to the discrepancies was greater if Ss habituated during the familiarization phase than if they did not, and attention was greater if the discrepancy was large than if it was small in magnitude. The response to auditory stimuli could also be predicted by the looking pattern displayed by Ss to a set of visual stimuli given prior to the auditory episode.—*Journal abstract.*

811. Sameroff, Arnold J. (U. Rochester) **Respiration and sucking as components of the orienting reaction in newborns.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 213-222.—Studied respiratory and nonnutritive sucking responses to auditory stimulation in 12 1-5 day old human newborns. Each S was presented 5 stimuli, each 4 times, during 4 sessions at 24-hr intervals. The stimuli varied in intensity and intermittency. Stimulus onset and offset shortened sucking bursts during Sessions I-III, but in Session IV, stimulus offset lengthened sucking bursts. In general, respiration was accelerated by stimulus onset and decelerated by stimulus offset. However, in Session IV respiratory deceleration occurred to both stimulus onset and offset. Respiratory deceleration also occurred to low intensity stimuli in Sessions I-III. Respiratory acceleration and sucking inhibition are discussed as components of the newborn's defense reaction (DR) to most stimulation. Respiratory deceleration was related to appearance of orienting reaction after habituation of DR. Ss' respiratory and sucking responsivity were highly correlated.—*Journal abstract.*

812. Schwartz, Andrew; Rosenberg, Dana, & Brackhill, Yvonne. (U. Denver) **Analysis of the components of social reinforcement of infant vocalization.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 323-325. Results of 2 studies with 22 normal, full-term infants indicate that infant vocalizations can be conditioned by using only 1 or 2 elements of the traditionally employed composite social reinforcer, consisting of auditory, tactile, and visual stimuli. It was also found that the components, both singly and in pairs, were of relatively equal effectiveness in increasing response rate. *Journal abstract.*

813. Shultz, Thomas R. & Zigler, Edward. (Yale U.) **Emotional concomitants of visual mastery in infants: The effects of stimulus movement on smiling and vocalizing.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 390-402. Investigated the view that positive emotional responses accompany the gratification of the motive for cognitive effectiveness. Piaget's concepts of assimilation and accommodation were employed to predict the timing of emotional concomitants of visual mastery in 8-18 wk. old infants. The hypothesis that smiling and vocalizing would occur earlier to a stimulus that was assumed to be relatively easy to assimilate than to a stimulus that was assumed to be more difficult was confirmed. A mechanism of cognitive satiation was invoked to account for decrements in the amount of smiling, vocalizing, and visual fixation of the stimulus from 1 session to the next. (23 ref.)—*Journal abstract.*

814. Turkewitz, Gerald; Moreau, Tina; Birch, Herbert G., & Davis, Linda. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Relationships among responses in the human newborn: The non-association and non-**

equivalence among different indicators of responsiveness. *Psychophysiology*, 1970(Sep), Vol. 7(2), 235-247.—To determine whether different responses are equivalent indicators of stimulus effectiveness and whether a single mechanism can account for responsiveness in different systems, cardiac acceleration, ipsilateral eye movements, and finger movements were simultaneously recorded when lateralized auditory stimuli of graded intensity were presented to 21 healthy female 2-day-old infants. Responses were not equivalent indicators of stimulus effectiveness as evidenced by the finding of different thresholds for different responses. It was also found that S's relative responsiveness as defined by 1 response did not predict his relative responsiveness on other responses. Finally the simultaneously measured responses to a stimulus did not co-occur more frequently than would be expected if the responses were independently determined. Results raise serious questions as to the adequacy of concepts of conditioned arousal and unitary orienting response in accounting for behavior organization in the human newborn. (19 ref.)—*Journal abstract.*

815. Vincze, Mária. **Társas kapcsolatok alakulása egy csecsemő-csoportban 3-16 hónapos korig** [Formation of social contact in a group of infants age 3-16 months.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 25-30.—7 institutionalized infants were observed while playing in a common playpen. At 2-3 mo. attempts were made to establish contact with the O; from the 3rd mo. touching each other became more frequent, at 7 mo. and on toys became functional in social intercourse. (English & Russian summaries)—*M. Moore.*

816. Waller, Manfred. (U. Mannheim) **W. German: Die Beurteilung des "sozialen Alters" durch Vorschulkinder: Ein Beitrag zur Analyse der Genese der Rollenwahrnehmung.** [The judgment of the "social age" by infants: A contribution to the analysis of the genesis of the perception of roles.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(8-B), 2971-2972.

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817. Balástiková, Blanka & Švancara, Josef. (Inst. for Pediatrics, Brno, Czechoslovakia) **Předběžná zkoušenost a metodou sémantického diferenciatu školních dětí.** [Preliminary experiences with the semantic differential in school children.] *Psychologická Paedagogická Dieťa*, 1970, Vol. 5(3), 217-226.—Presented 50 words with presumed positive, negative, or reversible emotional coloring to schoolchildren to be rated on a 5-point scale of pleasantness-unpleasantness. The words, written very clearly on small cards, were to be placed by the Ss into 1 of 5 boxes labelled very pleasant, indifferent, unpleasant, and very unpleasant. 2 basic hypotheses, developmental and environmental, were followed in 50 healthy school children (twins), 20 surgical Ss, and 20 of the same age in an orthodontia department. Findings confirm the hypothesis about there being changes in emotional evaluation of words depending on age (changes of word order, significantly more frequent use of the neutral rating category in older Ss, and significantly higher frequency of maximum positive ratings in younger Ss. Different experiences with various medical institutions were found to be statistically significant only in a smaller number of concepts. (Russian summary)—*English summary.*

818. Cairns, Nancy U. & Steward, Margaret S. (Emory U.) **Young children's orientation of letters as a function of axis of symmetry and stimulus alignment.** *Child Development*, 1970(Dec), Vol. 41(4), 993-1002.—Examined the effects of axis of symmetry and relative position of stimuli by means of a letter-orientation task administered to 60 male 4-6 yr. old children. S variables examined were age and eye-hand dominance (mixed vs. unilateral established). Left-right awareness and knowledge of names of stimulus letters were found to correlate with error scores. Significant effects were found for age, axis, axis \times age, axis \times position, and age \times axis \times position. Results are discussed in terms of implications for reading. (31 ref.)—*Journal abstract.*

819. Cairns, Robert B. (Indiana U.) **Meaning and attention as determinants of social reinforcer effectiveness.** *Child Development*, 1970(Dec), Vol. 41(4), 1067-1082.—Conducted 3 experiments with 140 primary-grade children to determine whether the effectiveness of a verbal event ("right") as an outcome could be influenced by experimentally manipulating its signal function. Each experiment had a parallel condition in which a neutral nonverbal event (light-bell combination) was submitted to identical experimental operations. In accord with earlier studies, both "right" and the nonverbal event were found to be ineffective as outcomes when they occurred without a prior instructional set or as discriminative signals. Results were largely consistent with an interpretation of social reinforcer effectiveness which emphasizes the contextual signal properties of these events. Certain implications of the research for the problem of "social satiation" and the nonefficacy of social reinforcement events are discussed. (23 ref.)—*Journal abstract.*

820. Cantor, Gordon N. & Moeller, Thomas G. (U. Iowa, Inst. of Child Behavior & Development) **Negative evidence regarding energization effects of simple, unchanging stimulation.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 351-353.—46 7th and 8th grade boys viewed picture exposures that alternated with a lever-pulling response. Group SUN (simple, unchanging, nonmeaningful) viewed 12 60-sec presentations of a constant simple geometric form. Group CCM (complex, changing, meaningful) viewed 6 10-sec exposures of nonrepeated meaningful pictures on each of 12 trials. Group SUN responded with nonsignificantly smaller amplitudes, with nonsignificantly longer latencies, and with significantly longer durations. It is concluded that no clear evidence was obtained for energization effects of simple unchanging stimulation. The duration finding was interpreted as indicating that Group SUN Ss were responding so as to provide themselves with additional (kinesthetic) stimulation.—*Journal abstract.*

821. D'Angelo, R., Walsh, J., & Lomangino, L. (Catholic Charities Guidance Inst., New York, N.Y.) **IQs of Negro Head Start children on the Vane Kindergarten Test.** *Journal of Clinical Psychology*, 1971(Jan), vol. 27(1), 82-83.—The Vane Kindergarten Test (VKT) was administered to 255 48-71 mo. old Negro children enrolled in a Head Start program. Negro girls tended to score higher than boys on all measures in the 2 youngest age groups. Other sex and age findings were noted. Use of the VKT with children below the age of 54 mo. is questioned. "Further study is suggested to determine whether absence of expected findings is due to limitations in the Vane's discriminatory value or to general

change in the mode of Negro functioning."—E. J. Kronenberger.

822. Davis, S. Elizabeth. (Temple U.) **Reading disability: Perception and reading.** *Proceedings of the Annual Reading Institute*, 1968(Mar), Vol. 7, 33-37.—The senses most involved in reading are sight and hearing. Unless seriously impaired through prenatal, natal, or postnatal injury, individuals are born with the potential for development of adequate use of all the modalities. Within each modality there are 3 factors which must be working together if the modality is to be strong and well-developed—discrimination, patterning, and memory. As a child grows from infancy, he seems to grow through several levels of perceptual development. These levels are (a) the input-output stage, (b) the level at which the child does make associations and understands what he wants to say, and (c) a level which includes not only understanding and making associations but organization as well. Learning to read is affected by knowledge of and exposure and attention to the symbolic language used in writing.—S. Diamond.

823. Einhorn, Jane. (Newark State Coll.) **A test of Piaget's theory of moral judgment.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 102-113.—Tested Piaget's theory that children's moral development is a function of their peer group experiences and age. 48 8-yr-old children, in 16 cohesive and 16 low-cohesive groups of 3, competed for prizes on 4 paper-and-pencil tasks, unaware that their cheating could be detected. The procedure was repeated with 48 5 yr. olds. Prior social experience was inferred from sociometric data. Findings are: (a) 5 yr. olds cheated significantly more than 8 yr. olds, supporting Piaget's belief that moral autonomy increases between ages 5 and 8; (b) at age 8, but not at age 5, cheating was an inverse function of the degree of cohesiveness, supporting Piaget's theory that group ties produce moral autonomy at age 8, but not at age 5; and (c) prior social experience bore a significant inverse relationship to cheating at age 8, but not at age 5, supporting Piaget's theory that such experience is the principal factor responsible for moral autonomy at age 8, but not at age 5. (French summary)—*Journal abstract.*

824. Fast, Irene. (U. Michigan) **A function of action in the early development of identity.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 471-478.—The child's purposeful activity is important in his development of self and identity. Initial self-boundaries are established when pleasurable events are incorporated into the self and painful events are excluded. Imposters—the "as-if" personalities—have identity through impersonations not based on actual accomplishments or purposeful activity. They learn the embellishments not the activity of their new roles. Therapy is difficult where reality cannot be tested as in the case of the "as-if" patients.—J. Chyatte.

825. Glushkova, Ye. **Deti u televizora.** [Children at the television set.] *Doshkol'noe Vospitanie*, 1970(Nov), Vol. 43(11), 66-69.—Describes the possible maleficent effects of the misuse of TV watching on children. Investigations and measurements made by an institute of health in the Soviet Union with 2-9 yr. olds were studied. Factors involved were: (a) the physical capacity of the child at the beginning and at the end of TV watching; (b) maximum watching duration; and (c) proper physical surrounding conditions. It was shown that maximum watching time should be 30 min. for preschoolchildren

and 1 hr. for a lower grade child, and only 2-3 times wk. Proper light, distance from screen, and sitting position must be observed. Private physicians' available reports indicate the appearance of symptoms, e.g., irritability, fatigue, psychic disturbances, and convulsions ("television epilepsy") after 2-3 hr. spent watching TV.—*J. Hulse*.

826. Green, Regina M. (U. Maryland) The relationship of nutritional states, performance I.Q. and self concept in 4-6 year old inner city children. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2085.

827. Gullickson, Gary R. (Illinois Inst. of Technology) The contingent negative variation in the preschool child. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3022.

828. Harbison, J. J. (Queen's U., Belfast, Ireland) The behaviour of normal adolescents on a group form of the Bannister Fransella Test of Thought Disorder. *Papers in Psychology*, 1969(Oct), Vol. 3(2), 52-56.

Administered a group form of the Bannister-Fransella Test of Thought Disorder to 184 normal 11.11-16.11 yr. old Ss. Sex and intelligence were not important determinants of test behavior. Age was an important factor up to 13 yr. Ss over this age show similar results to the standardization sample. Different cutoff points are suggested for the 12-yr-old group.—*Journal abstract*.

829. Hollenberg, Clementina K. (U. California, Berkeley) Functions of visual imagery in the learning and concept formation of children. *Child Development*, 1970(Dec), Vol. 41(4), 1003-1015.—Tested individually 64 elementary school children scoring in the upper and lower quartiles of their grades on tests of visual imagery in an experimental situation simulating the learning of verbal labels. High imagery Ss were significantly superior to low-imagery Ss (matched for sex, age, and IQ) in the initial learning of the names of objects; but low-imagery Ss were significantly superior to high-imagery Ss in grasping the concepts underlying a series of objects with the identical name. The low-imagery group also had a superior recall of objects with a given name, apparently as a function of their superior concept formation. Increasing age obliterated the discrepancy between the 2 imagery groups in concept formation but not in name learning. (17 ref.)—*Journal abstract*.

830. Insel, Paul & Wilson, Glenn D. (Inst. of Psychiatry, London, England) Measuring social attitudes in children. *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 84-86.—Describes the 50-item Children's Conservatism (C) Scale, modeled after the Wilson and Patterson C Scale. The Children's C Scale was administered, along with the original scale, to 185 12-16 yr. old girls (100 from a Catholic convent school and 85 from a state school) in the same area. Hypotheses that (a) the 2 scales should be highly correlated, and (b) both should display internal consistency and the ability to discriminate between the schools are supported. Results indicate the promise of a scale modeled on the original C Scale for measuring social attitudes in children.—*P. Hertzberg*.

831. Ireton, Harold; Thwing, Edward, & Gravem, Howard. (U. Minnesota, Health Sciences Center) Infant mental development and neurological status, family socioeconomic status, and intelligence at age four. *Child Development*, 1970(Dec), Vol. 41(4), 937-945.—Explored the relationship of infant mental development (Bayley Mental Scale, 8 mo.) to 4-yr Stanford-

Binet, L-M, Short Form IQ in the context of the study sample's neurological and socioeconomic characteristics for a sample of 536 full-term children. The sample was approximately normal or average in terms of infant mental scores, infant neurological status, socioeconomic status (SES), and 4-yr IQ. The SES showed the highest relationship to 4-yr IQ but infant mental score also showed meaningful correlation with 4-yr IQ. The SES showed no correlation with infant mental scores. Categorical analysis showed that low mental score was a better predictor of low 4-yr IQ ($IQ < 85$) than was low SES. High SES was a better predictor of high 4-yr IQ ($IQ > 115$) than was high mental score.—*Journal abstract*.

832. Jennings, John R. (U. California, Berkeley) Cardiac reactions associated with different developmental levels of cognitive functioning. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2257.

833. Keasey, Charles B. (U. California, Berkeley) The modification of moral opinions and reasoning in preadolescents. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2257-2258.

834. Királyné-Déval, Margit. (Hungarian Academy of Sciences, Psychological Inst., Budapest) A társadalmi környezet szerepe a 3-6 évesek verbális erkölcsi ítéleteinek kialakulásában és fejlődésében. [The role of social environment in the formation and evolution of verbal moral judgments at 3-6 years of age.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 43-57.—10 empirical categories of moral conduct were established. Family and nursery-school influence on moral development was found to increase with age. (English & Russian summaries)—*M. Moore*.

835. Kirkendall, Don R. & Ismail, A. H. (U. Kentucky) The ability of personality variables in discriminating among three intellectual groups of preadolescent boys and girls. *Child Development*, 1970(Dec), Vol. 41(4), 1113-1118.—Studied 205 10-12 yr. old children to evaluate the ability of personality variables, as measured by the Children's Personality Questionnaire (Form A) to discriminate among three intellectual groups of preadolescent children, to determine (a) the relative importance of these variables in the discrimination, and (b) the ability of the personality variables in classifying Ss into intellectual groups. In addition, some discussion of the multivariate approach used (discriminant-function analysis) is provided. It is concluded that children of different intellectual levels differ in their personalities, and that children with high intellectual ability tend to be more emotionally well-adjusted.—*Journal abstract*.

836. Kunz, Jean & Moyer, Joan E. (Scripps Coll.) A comparison of economically disadvantaged and economically advantaged kindergarten children. *Journal of Educational Research*, 1969(May), Vol. 62(3), 392-395.—Conducted 2 studies concurrently to determine whether there are significant differences in selected characteristics between 25 economically disadvantaged and 18 economically advantaged 5 yr. olds. The areas investigated included physical, social, and language skills, intelligence, emotional disturbance, creativity in the use of materials, curiosity, attention to and interest in stories, preference for rewards, sensory discrimination ability, problem solving ability, and ability to conserve. 1 null hypothesis was supported, 3 null hypotheses were not supported, and 3 null hypotheses were partially supported.—*Journal abstract*.

837. Lee, Lee C. (Cornell U.) The concomitant

development of cognitive and moral modes of thought: A test of selected deductions from Piaget's theory. *Genetic Psychology Monographs*, 1971(Feb), Vol. 83(1), 93-146.—195 boys, equally represented at 5-17 yr. of age, were given a series of 6 Piagetian cognitive tasks. Each boy's performance on these cognitive tasks was used to predict his response to 9 different morally conflicting story situations. Children's cognitive and moral development (with social class, sibling position, and IQ held constant) was hypothesized to progress sequentially, and concomitantly (a) from a beginning period of preoperational thought where moral judgments are based mainly on an authority oriented approach, (b) to the next stage of concrete operational thought where cooperation and reciprocity are used as a base for moral judgments, and (c) finally to the formal operational stage of thought where moral judgments involve idealistic ideological orientation. The findings support Piaget's thesis of concomitant "growth" of the 2 modes of thought. (41 ref.)—*Author abstract*.

838. Lurçat, Liliane. (National Center of Scientific Research, Paris, France) **La reproduction du dessin du cube chez le jeune enfant.** [The reproduction of a cube design by young children.] *Bulletin de Psychologie*, 1969/1970, Vol. 23(4-5), 239-253. Preschool children and those in the 1st primary grades were tested for their capability to reproduce a 3-faced cube juxtaposed and a 6-faced cube superimposed. Preschoolers showed various developmental stages. The easiest task for them was a simple quadrilateral. Difficulties appeared in juxtaposition and superimposition of orthogonal polygons. Obliqueness presented an additional difficulty. Archaic reproduction forms disappeared between the 1st and 3rd grades when parallels and obliques could be reproduced. Various developmental approaches for successful reproduction are discussed.—*R. E. Smith*.

839. Morin, Robert E., Hoving, Kenneth L., & Konick, Dorothy S. (Kent State U.) **Are these two stimuli from the same set? Response times of children and adults with familiar and arbitrary sets.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 308-318.—Describes an experiment in which 20 4th grade children and adults decided whether 2 stimuli were from the same or different sets. RT data suggest that the Ss used an encoding strategy if the sets had familiar names and a search strategy if the sets were arbitrarily grouped elements. 20 kindergarten Ss showed some signs of encoding, but also exhibited behavior suggestive of deficiencies in mediation and rehearsal, and a dependence on visual cues.—*Journal abstract*.

840. Muralidharan, Rajalakshmi. (National Inst. of Education, New Delhi, India) **Developmental norms of children aged 2½-5 years: A pilot study.** *Indian Educational Review*, 1969(Jan), Vol. 4(1), 67-91.—Studied a sample of 38 2½-5 yr. old children drawn from 10 nursery schools of New Delhi, to trace the pattern of child development during these yr. Other objects were (a) to develop, modify, and adapt to Indian condition the testing equipment in Gesell's Developmental Schedule in the fields of motor, adaptive, language, and personal-social development; (b) to develop observational record blanks for all the tests included in this study; and (c) to develop standard procedures for administering the different tests. How the above objectives were pursued is described.—*Journal abstract*.

841. Ricciuti, Henry N. (Cornell U.) **Malnutrition, learning, and intellectual development: Research**

and remediation. In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society" (See PA, Vol. 46:Issue 1) 237-253.

842. Samuels, S. Jay. (U. Minnesota) **Recognition of flashed words by children.** *Child Development*, 1970(Dec), Vol. 41(4), 1089-1094.—Investigated the effect of associative connections between words on speed of word recognition. The hypotheses were: recognition speed would be faster when an anticipated word was presented; recognition would be faster when the target word was preceded by an associate; and recognition would be slower when the target word was preceded by a nonassociate. 20 4th graders recognized words under 5 treatment conditions in a counterbalanced design. Data support the hypotheses. Results indicate many similarities between adults and children in word recognition. However, 2 important differences were found. Ss responded more quickly than adults when anticipated target words were presented in isolation, and less quickly than adults when nonanticipated associatively connected words were shown. These differences suggest somewhat different strategies in word recognition. Explanations of these differences are discussed.—*Journal abstract*.

843. Shimrat, Nilsa. (Columbia U.) **Lateral dominance and directional orientation in the writing of American and Israeli children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2267.

844. White, Francis P. (Duquesne U.) **The God of childhood.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2973.

845. Williams, Phillip; Davies, Pat; Evans, Roy, & Ferguson, Neil. (Open U., Bletchley, England) **Season of birth and cognitive development.** *Nature*, 1970(Dec), Vol. 228(5276), 1033-1036.—Discusses the evidence concerning a relationship between level of intelligence and month of birth, which suggests a greater incidence of handicapped children among the summer born. A study of British school children showed "no evidence of a 'season of birth' effect among 5-yr-old children entering the British school system." It is suggested that "the 'season of birth' effect in handicapped children is likely to be a product of the educational system itself." Ways of modifying the school system to reduce the incidence of handicapped children among the summer born are considered. (22 ref.)—*S. Appelle*.

Learning

846. Bradshaw, Jo A. (U. Oklahoma) **Situational variables in verbal conditioning with children using a paired-associate paradigm.** *Dissertation Abstracts International*, 1970(Nov), Vol. 3(5-B), 2952.

847. Brown, Ann L., & Lloyd, Barbara B. (U. Illinois) **Criteria of success in a developmental study of oddity learning.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 21-26.—Tested 80 3-7 yr. old boys and girls in 5 equal groups of restricted CA and IQ on a standard 3-position planimetric oddity problem. The relationship of CA and oddity learning was examined for instrumental and verbal criteria. 4 experimental conditions assessing the effects of form (both geometric and life-like) and color as the vehicle dimension for oddity were employed. The instrumental criterion was 1st met by a majority of Ss in the 5-yr-old group. Majority achievement of the verbal criterion 1st occurred in the 6-yr-old group. Verbal justification shifted from "same" to "difference" explanations with age. Initial training on

either form stimuli set led to greater success than initial color training.—*Journal abstract.*

848. Bryant, P. E. (U. Oxford, England) **Discrimination learning and the study of transfer in young children.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 1-11.—Investigated the possibility that what has been described as dimensional transfer may be transfer of a response to a specific location within the visual display in discrimination learning experiments. In Exp. I, with 40 5-yr-old children. Ss were able to transfer on the basis of the location of the relevant cues within the visual display. In Exp. II, with 160 5-7 yr. old children, the strengths of dimensional and locational transfer were directly compared. 5-yr-old Ss showed stronger locational than dimensional transfer, while 7-yr-old Ss showed only dimensional transfer. Implications for the use of discrimination learning techniques, the study of perceptual development, and the study of pattern recognition are discussed. (17 ref.)—*Journal abstract.*

849. Cantor, Joan H. (U. Iowa, Inst. of Child Behavior & Development) **Facilitating and interfering effects of stimulus naming on children's motor paired-associate learning.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 374-389.—Investigated the effects of stimulus naming on the concurrent acquisition of motor responses to the stimuli. In Exp. I, with 120 8th and 9th graders, similar names were either familiar or unfamiliar; in Exp. II, with 172 12-14 yr. old Ss, names were either dissimilar and familiar, or similar and unfamiliar. In both experiments, conditional probabilities provided strong evidence that verbal and motor responses are learned in pairs, with resultant facilitating and interfering effects on motor performance. These effects were attributed to the development of name-button associations that tended to produce mediated correct responses and errors. Comparison of naming conditions suggested that name-button associations develop faster when the names are familiar and dissimilar. Results are also discussed in terms of their implications for an alternative interpretation of stimulus pretraining effects in more traditional transfer experiments.—*Journal abstract.*

850. Collins, W. Andrew. (Stanford U.) **Learning of media content: A developmental study.** *Child Development*, 1970(Dec), Vol. 41(4), 1133-1142.—Tested 168 3rd, 6th, 7th, and 9th grade middleclass children for learning of essential and nonessential content from a media presentation for which they received no instructions to learn. It was expected that, even when Ss were unaware they would be tested on the media content, they would consider some information relatively more important than other information. Predictions were based on a hypothesized increase in learning ability with age and the ability of adolescents to attend selectively to information inputs. Results show that learning of essential content increased as a linear function of age. Nonessential content was found to be a curvilinear function of age. A post hoc analysis using a score based on Ss' evaluations of the film (i.e., whether it was entertaining, whether they were similar to characters or to their roles, aspired social class, etc.) showed that Ss who gave the film a high evaluation learned more nonessential content than Ss who gave the film a low evaluation. (16 ref.)—*Journal abstract.*

851. Croll, William L., Knauss, Mary J., & Duke, Ann W. (U. Iowa) **Sequential contiguity and short-term memory in children's discrimination learning.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 337-343.—Describes 2 experiments in which preschoolchildren's performance on a successive discrimination was an increasing function of sequential contiguity (the probability that presentation of a given stimulus is followed by another presentation of that same stimulus rather than by presentation of a different stimulus). An explanation of this sequential contiguity effect is supported in terms of short-term memory processes.—*Journal abstract.*

852. Deichmann, John W. (St. Louis U.) **Developmental trends in the effects of item pronunciation on verbal discrimination learning and associative recall.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2957.

853. Dick, Stuart & Landau, Jeffrey S. (Adelphi U.) **Attribute learning in preschoolchildren: Mediation and selection mechanisms.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 105-107.—Taught 30 3.5-4.5 yr old children to respond to a black vertical line (S+) and tested for orientation, form, and color generalization under 2 test procedures. Results indicate that (a) procedure which approximated successive generalization testing (N) provided little evidence that any of the tested-for attributes were learned, whereas a procedure which contained dimensional "orienting" properties (O) indicated that each tested-for S+ attribute was learned, and (b) group analyses of the O procedure suggested a hierarchical arrangement of learned attributes. However, additional analyses failed to reveal hierarchies for individual Ss. Results suggest that during training the S+ complex activates for different individuals either 2, or 3 attribute mediators and that during testing properties of the test operate to select activated mediators to control test behavior.—*Journal abstract.*

854. Dornbush, Rhea L. & Basow, Susan. (New York Medical Coll.) **The relationship between auditory and visual short-term memory and reading achievement.** *Child Development*, 1970(Dec), Vol. 41(4), 1033-1044.—Presented bisensory memory spans, in which rate of presentation, modality of presentation, and order of report were varied, to 72 1st, 3rd, 5th, and 9th grade Ss. Intelligence was held constant; Ss in each grade were subdivided according to reading ability—good and poor—as measured by the Gates-MacGinitie Reading Test. It was found that performance on memory tasks was not affected by reading level and that young Ss do not operate in terms of storage; they ignore what they cannot immediately handle. (24 ref.)—*Journal abstract.*

855. Goulet, L. R. & Williams, Kerry G. (U. Illinois) **Children's shift performance in the absence of dimensionality and a learned representational response.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 287-294.—Compared the transfer performance of 6- and 8-yr-old children on reversal (R) and $\frac{1}{2}$ -reversal (HR) shifts under treatments where the same or a new set of responses were used on the shift lists. Performance on the R shift was superior to that on the HR shift only for treatments where the responses were identical (I) on the 2 lists. Additional comparisons with performance under a control treatment (involving new stimuli and responses on Lists 1 and 2) indicate strong positive transfer on the R-I treatment and negative transfer on the R-C treatment (where the responses were changed on Lists 1 and 2). The pattern of results was functionally identical for both groups of Ss. The performance on the R-I treatment was attributable to Ss

use of a nonmediational "response-switching" strategy.—*Journal abstract.*

856. Hyman, Stephen I. (Columbia U.) **The influence of generalized drive, incentive oriented drive and IQ on intentional and incidental learning in children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2256-2257.

857. Locke, John L. & Fehr, Fred S. (U. Illinois, Champaign) **Young children's use of the speech code in a recall task.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 367-373.—EMG and sound recordings were taken from 12 4- and 5-yr-old males and females during a recall task in which they saw pictures whose names contained or did not contain labial phonemes. Subvocalization, suggested primarily by labial-nonlabial tracing discrepancies, occurred during picture presentation but not during a subsequent rehearsal period which preceded Ss' oral recall. The relevance of these findings to mediational- and production-deficiency hypotheses in young children, the implications of implicit speech for short-term memory coding, and the use of EMG as a technique in the study of verbal mediation, are discussed. (18 ref.)—*Journal abstract.*

858. Manske, Mary E. (U. Wisconsin) **The relationship of individual differences in the orienting response and arousal during paired-associate learning to short- and long-term retention in children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2259.

859. Marx, Melvin H. & Marx, Kathleen. (U. Missouri) **Observation vs. performance in learning over the fourth to sixth grades.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 199-200.—Trained and tested a total of 140 4th, 5th, and 6th grade children in a multiple-choice learning situation under both performance (guessing with knowledge of results) and observation (watching the performer) conditions. Although the O superiority previously found for college students and grade-school children did not occur, there was a reliable trend in that direction from grades 4-6. *Journal abstract.*

860. Morris, Larry A. (U. Arizona) **Relational responding to a transposition task as a function of relevant verbalizations and feedback.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2998.

861. Paclisanu, Marianne I. (Temple U.) **Interacting effects of stimulus deprivation, field dependence and two types of reinforcement upon problem-solving in elementary school children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2290-2291.

862. Pimm, June B. (Carleton U., Ottawa, Ontario, Canada) **The children's motor skill and the partial reinforcement acquisition effect.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2262-2263.

863. Ralph, Julie L. (U. Utah) **Signal detection of fixed ratio schedules with children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3004.

864. Smiley, Sandra S. (U. Illinois, Urbana-Champaign) **The effects of cue transiency and positive and negative outcomes on performance in a modified learning-set task.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3035.

and the development of inhibitory control. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2296.

866. Brown, Dennis L. (U. California, Los Angeles) **The comprehension of certain noun-adjectives and their alternative constructions by young children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2298.

867. Corbet, Hildegard. (Carleton U., Ottawa, Ontario, Canada) **Two effects of verbal stimulus familiarization on an associative test task in children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2299.

868. Dale, L. G. (Australian Council for Educational Research, Hawthorn, Victoria, Australia) **The growth of systematic thinking: Replication and analysis of Piaget's first chemical experiment.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 277-286. Replicated B. Inhelder and Piaget's 1st chemical experiment and analyzed the structure of the problem, using 200 6-16 yr. old children. When responses to questions were listed and the frequency of each response for each age group was calculated, a significant difference was found between the sexes. Combinatorial thinking was found to develop linearly from 6-16 yr. Findings reveal many differences from those described by Inhelder and Piaget. Implications for those who wish to apply Piaget's findings to children generally and for those who would use success in solving the 1st chemical problem as a criterion for the attainment of formal thinking are discussed.—*Journal abstract.*

869. Davine, M., Tucker, G. R., & Lambert, W. E. (Queen's U., Kingston, Ontario, Canada) **The perception of phoneme sequences by monolingual and bilingual elementary school children.** *Canadian Journal of Behavioural Sciences*, 1971(Jan), Vol. 3(1), 72-76.—Compared 121 3rd and 4th grade students, some schooled monolingually in either French or English, and some schooled bilingually in both English and French, for their ability to differentially discriminate initial phoneme sequences. This ability was tested with an ABCX discrimination procedure. A significant interaction between method of instruction and category of stimulus sound indicates that the bilingually taught Ss had developed a sensitivity for the sound system of their 2nd language, but that this training had not resulted in a generalized facility in discriminating sound systems by the 4th grade. (French summary)—*Journal abstract.*

870. Elmas, Peter D. (Brown U.) **Effects of memory aids on hypothesis behavior and focusing in young children and adults.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 319-336.—In Exp. I, 128 2nd graders in 5 groups were administered a series of blank-trials problems under the following testing conditions: (a) with standard procedures, (b) with a reduced set of potentially correct hypotheses (Hs), (c) with a memory aid, (d) with memory plus recoding aids, and (e) with memory and recoding aids in addition to having the Ss' attention closely directed to the potentially positive Hs. In Exp. II, 80 undergraduates in 4 groups were given a similar series of blank-trials problems with 16 rather than 8 potentially correct Hs. Condition b was omitted. In both experiments, all groups reliably used H-defining response sequences on the blank trials. Also, the focusing functions for all groups receiving training aids closely approximated an ideal focusing function and were reliably different from the functions for the groups

Concepts & Language

865. Auerbach, Judith A. (Purdue U.) **Verbalization**

trained under standard conditions. The improvements in focusing were closely matched by higher levels of performance on the component process of coding, recording, and retention of remote outcome information, supporting the assumption that a complex process, e.g., focusing, can be analyzed into measurable components. It is further concluded that deficiencies in focusing may be a function of the unavailability of the relevant information rather than an absence of the necessary rules, as has often been assumed with young children. —*Journal abstract.*

871. Gorelov, I. O nekotorykh osobennostyakh rechi i myshleniya mladshikh doshkol'nikov. [On some of the specific features of speech and thinking in young preschoolchildren.] *Doshkol'noe Vospitaniye*, 1970(May), Vol. 43(5), 34-37.—Reports results of an analysis of 100 words actively utilized by 20 kindergarten children indicating (a) the existence of a serious divergence between the speech and thinking capabilities of young preschoolchildren, and (b) the importance of a qualitative study of their vocabulary, in order to enhance the effectiveness of the rearing process. While speech plays a great role in the development of the child, the identification of speech with thinking should be avoided along with too simplified an understanding of the connections between them.—*I. D. London.*

872. Greer, G. Brian. (Queen's U., Belfast, Ireland) A preliminary investigation of the learning of the mathematical concepts of set union and intersection by primary school children. *Papers in Psychology*, 1969(Oct), Vol. 3(2), 63-65.—Conducted 2 experiments and a pilot study with 7-14 yr. old boys. Exp. I involved the learning of union and intersection by inductive theory. Instances were predetermined by the E and the tests given as group tests. Exp. II used concrete apparatus manipulated by the S, and tests were presented individually as chosen by the Ss. Results were (a) Ss as young as 8 yr. old could learn both rules by induction, (b) the union rule was generally easier than the intersection rule, (c) Ss were able to perform generalization from color to numbers, (d) learning curves followed predictable patterns, (e) Ss in Exp. II were able to infer the logical structure of the apparatus and express it in general terms, and (f) some form of guided discovery seems to be more effective than pure discovery. It is concluded that the results support the "belief that children of this age can learn quite sophisticated Mathematics if it is presented in an appropriate way."—*S. Knapp.*

873. Hansen, Mary E. (U. Utah) Classification of stimuli as "same" by children as function of nominal versus visual code. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3024.

874. Houston, Susan H. (Northwestern U.) A re-examination of some assumptions about the language of the disadvantaged child. *Child Development*, 1970(Dec), Vol. 41(4), 947-963.—Although research on the language of the disadvantaged child is now receiving much impetus, few extant studies have been helpful to the teacher. A body of misconception and mythology has developed, centering around the notion of linguistic deprivation, and from this incorrect concept no useful correction programs can stem. Widely held misconceptions about disadvantaged-child language are reexamined in the light of modern linguistic and psycholinguistic advances, including ideas that (a) the language of the disadvantaged child is deficient, does not provide

him with an adequate basis for abstract thinking, and should not be changed since it represents his culture; (b) the disadvantaged child does not use words properly; and (c) to the disadvantaged child, language is dispensable, since such children tend to communicate non-verbally in preference to verbally. (39 ref.)—*Journal abstract.*

875. Jennings, J. Richard. (Walter Reed Army Inst. of Research, Washington, D.C.) The effect of verbal and pictorial presentation on class-inclusion competence and performance. *Psychonomic Science*, 1970(Sep), Vol. 20(6), 357-358.—J. F. Wohlwill (see PA, Vol. 42:13496) reported that young children correctly answer more class-inclusion questions when these items are presented entirely verbally as compared to when verbal presentation is supplemented by pictures. Wohlwill interpreted these results as showing that perceptual factors influence the ability to apply class-inclusion operations. Wohlwill, however, did not explore adequately the cognitive basis of the children's answers. In the present study of 78 kindergarten to 3rd grade boys, cognitively justified class-inclusion answers were facilitated by pictorial rather than verbal presentation, particularly among older boys. Verbal items produced some facilitation in kindergarten boys, but only for unjustified correct answers.—*Journal abstract.*

876. Kress, Roy A. (Temple U.) Reading disability: Cognitive factors. *Proceedings of the Annual Reading Institute*, 1968(Mar), Vol. 7, 47-52.—Asserts that it is the way a child is able to process the raw materials for learning that determines the degree of ability or disability in reading which he develops. The child 1st learns to discriminate the various stimuli, sort out those which are relevant to his activity of the moment, and focus his attention on them. Once having achieved this focus, he is ready to begin the 2nd stage of his activity in moving from the presence of stimulation to cognitive manipulation of the results of the stimulation. During the early stages of his life, the child is going through this sort of process with mainly nonlanguage stimuli. As his cognitive structures and his physical abilities develop, he begins to join the language world as an expressor instead of being merely a receptor. Factors interfering in the word perception facet of reading are discussed.—*S. Diamond.*

877. Larsen, Gary Y. & Flavell, John H. (U. Minnesota) Verbal factors in compensation performance and the relation between conservation and compensation. *Child Development*, 1970(Dec), Vol. 41(4), 965-977. Tested 80 kindergarten and 32 2nd grade children for their understanding of (a) compensation of height-width relations (anticipation of water level in a container), under 3 methods of verbal presentation and for containers both wider and narrower than the standard; (b) compensation of length displacements; and (c) conservation of length. Anticipation of levels for wider containers proved to be the more difficult (and probably the more valid) test of compensation skill, and a less abstract method of presentation significantly facilitated compensation performance only when Ss' anticipations bore on these containers. Results do not provide clear evidence that compensation is a developmental mediator of conservation in the case of length.—*Journal abstract.*

878. Modigliani, Vito. (Wesleyan U.) On the conservation of simple concepts: Generality of the affirmation rule. *Journal of Experimental Psychology*,

1971(Feb), Vol. 87(2), 234-240.—Tested the generality of the affirmation rule as a function of transformations (T), boundedness (B), and age (A) with 32 Ss including undergraduates and children in each of the age groups —6-7, 8-9, and 11-12. Transformations produced test stimuli by substituting, adding, or deleting values from training stimuli. Bounded, but not unbounded, stimuli could be considered as overall integrated meaningful units. Concept conservation occurred if a test stimulus containing the defining value was classified as an instance of the concept. It was found the T, B, as well as the $T \times B$ and $T \times A$ interactions were significant at the .001 level. It is concluded that contrary to the usual meaning of the affirmation rule, the presence of the defining value is necessary but not sufficient for a stimulus to be identified as an instance of the concept. The boundedness effect is attributed mainly to a coding process. The single age effect accounting for the $T \times A$ interaction is attributed to sampling fluctuations.—*Journal abstract.*

879. Murray, John P. (Catholic U. of America) **Social learning and cognitive development: Modeling effects on children's understanding of conservation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3030.

880. Needleman, Joan R. (Boston U., School of Education) **Scalogram analysis of certain area concepts proposed by Piaget.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3030-3031.

881. Neimark, Edith D. (Douglass Coll., Rutgers State U.) **Development of comprehension of logical connectives: Understanding of "or."** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 217-219.—Administered a 16-item test for comprehension of set inclusion and exclusion, set intersect, and set union to 162 high school students in Grades 9-12 to assess the development of comprehension of "or" in this age range. Following completion of the 1st test, an alternate form was administered to provide additional information on sources of error in dealing with set union. Analysis of number of correct responses revealed that comprehension of "or" develops during the high school age range. Analysis of errors on set union questions suggests that (a) dealing correctly with set union requires formal operations, and (b) most errors result from inadequate applications of concrete operations.—*Journal abstract.*

882. Robertson, Anne D. (Catholic U. of America) **The relationship of visual imagery to operational thinking in children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2966.

883. Salamon, Jenőné. (Hungarian Academy of Sciences, Psychological Inst., Budapest) **Szín, forma és jelek közötti összefüggések általánosítása az óvodáskorban.** [Generalization of the interrelations between color, form and verbal cues in nursery school children.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 31-42.—Under the age of 4 verbal cues provided by E were of minor importance for problem solving. (English & Russian summaries)—*M. Moore.*

884. Sebastian, Lois P. (Temple U.) **Language learning: The cognitive domain.** *Proceedings of the Annual Reading Institute*, 1968(Mar), Vol. 7, 39-46.—Meaning is not inherent in the word or organism, but learned as a result of personal experiences. In all the theories of language learning there is the commonality of the same formula—experience and behaving. Piaget's theory of cognitive development is reviewed and applied

to language learning. There is a sequence to learning meaning. Disregarding this, there has been too much emphasis on reading too early. Teachers do too much telling and not enough facilitating. Intelligence can be developed through interaction with the environment, and language must be viewed as a facilitator of intellectual development and thought. Educators must have the patience to permit a child to develop an adequate foundation for the subsequent complex tasks he faces in the areas of reading and thinking.—*S. Diamond.*

885. Sjöberg, Lennart; Höijer, Birgitta, & Olsson, Ingegerd. (U. Uppsala, Sweden) **Teaching conservation of weight by means of verbal instructions.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 266-273.—Assigned 49 boys and 49 girls, aged 5.6-6.8 yr., to 1 of 4 experimental groups. 3 groups were given verbal instructions as to the invariance of weight in spite of transformations of shape. Instructions were phrased according to the principles of reversibility, decentering, and addition-subtraction, respectively. A 4th group received no verbal information but only external reinforcement. Verbally instructed groups were superior to control and nonverbal groups on a posttest. On transfer and counter-suggestion items the addition-subtraction group had a tendency towards superior performance. (31 ref.)—*Journal abstract.*

886. Worrall, Anita D. (Cornell U.) **Bilingualism and cognitive development.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2334-2335.

887. Young, Maureen M. (Queen's U., Belfast, Ireland) **Children's ability to define words as a function of (a) intelligence and (b) social class.** *Papers in Psychology*, 1969(Oct), Vol. 3(2), 71-72.—Matched 30 middle-class children in P6 classes in 3 schools with 30 working-class children for sex and intelligence. On a task requiring Ss to give as many meanings as possible for each of 30 words (10 had 1 meaning, 15 2, and 5 had 3 meanings), it was found that intelligence level, as measured by the Primary Mental Abilities Test, was a much more important factor than social class.—*S. L. Warren.*

Abilities

888. Arnold, Richard D. & Wist, Anne H. (Purdue U.) **Auditory discrimination abilities of disadvantaged Anglo- and Mexican-American children.** *Elementary School Journal*, 1970(Mar), Vol. 70(6), 295-299.—Developed an auditory discrimination test with a Mexican-American scale of 20 items, an Anglo-American scale of 10 items, and a control scale of 10 items. All items were presented in word pairs requiring aural discrimination of 1st, middle, or last position. 90 disadvantaged 6-9 yr. old Anglo-Americans and 93 Mexican-Americans were selected and assigned to 3 age groups. Results of the test indicate that Anglo-American Ss scored significantly ($p < .01$) better than the Mexican-Americans. The only nonsignificant result was between the youngest Ss on the Anglo-American scale. Implications for education of disadvantaged Mexican-Americans are discussed.—*S. Knapp.*

889. Dewing, K. (U. Western Australia, Nedlands) **Some correlates of creativity test performance in seventh grade children.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 269-276.—Correlated scores on selected tests of divergent thinking ("creativity"), intelligence, academic achievement, and socio-

economic status in 394 Grade 7 West Australian children from 10 metropolitan schools. The relationship with intelligence was small, positive and significant, and greater for verbal than nonverbal creativity. In most schools the relationship with academic achievement was almost 0. A significant negative correlation was found between creativity and popularity in 3 schools; correlations were not significant in the other 7. There was a highly significant relationship between mean creativity scores for each school and rated socioeconomic level of the district. (28 ref.)—*Journal abstract.*

890. Mónus, András & Kokas, Klára. Ének-zenél hatások tanulmányozása 3-8 éves gyermekeknél mozgásvizsgálatok alapján. [An investigation of singing and musical influences of 3-8 year olds on the basis of motor activity.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 58-71.—Daily singing classes were held for institutionalized children. During an 8-mo observation period, intensive participation increased to the point where it dominated motor activity. (English & Russian summaries)—*M. Moore.*

891. Sabo, Ruth A. (U. Michigan) **A developmental study of perceptual and cognitive factors affecting selective attention.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2966-2967.

892. Shropshire, Patricia S. (Emory U.) **The development of visual and motor sequencing ability.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3007-3008.

893. Spector, Donald E. (U. Southern California) **The influence of the achievement motive, the affiliation motive, and incentive conditions on roleplaying ability in children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2292.

Perception

894. Becker, John T. (John Carroll U.) **Spatial orientation and visual discrimination.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 943-946.—Administered an experimental Visual Discrimination Test of Words to 2 groups of 32 kindergartners, matched for CA, IQ, and sex. 1 group was identified as having visual perceptual problems in spatial orientation on the Bender Visual Motor Gestalt Test for children; the other group displayed adequate spatial orientation on the Bender. Data indicate that the experimental task discriminated between Ss with adequate spatial orientation and Ss with poor spatial orientation on the Bender. Ss with developmental lag or deficits in spatial orientation tended to do poorly on both the word-related and non-word-related tasks.—*Journal abstract.*

895. Becker, John T. & Sabatino, David A. (John Carroll U.) **Reliability of individual tests of perception administered utilizing group techniques.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 86-88.—4 individual tests of visual and auditory perception and auditory-visual perceptual integration were administered to 169 kindergarten and primary grade children to investigate the reliability of the instruments when administered by group testing techniques. Results indicate that the tests could be administered through group administration techniques with a substantial savings in administration and scoring time. It is suggested that group screening programs could provide reliable and systematic perceptual-motor behavioral data as early as the 1st grade.—*E. J. Kronenberger.*

896. Costa Molinari, José M. & Corominas Busqueta, José. (U. Barcelona, Spain) **Teoría de la información y percepción taquistoscópica.** [Theory of tachistoscopic information and perception.] *Anuario de Psicología*, 1969, Vol. 1, 137-144.—100 14-16 yr. old children were tachistoscopically tested with 10 series of diapositives (in the out-of-context form of numbers, letters and numbers, and geometric figures), presented at a constant velocity of 1/250 sec. It was found that (a) letters had high recognition rates; (b) when letters and numbers were randomly shown, correct responses favored the numbers; (c) the more complicated the test material became, the more indecision increased; (d) when each number contained the same amount of information, the set was recognized in approximately the same proportion; (e) Ss would better recognize materials situated on the left due to previous test experience; and (f) certain geometric figures (e.g., the cross and the circle) elicited higher recognition rates than others. Results are discussed in relation to information theory.—*P. Hertzberg.*

897. Crowder, Aletha M. & Hohle, Raymond H. (U. Iowa, Inst. of Child Behavior & Development) **Time estimation by young children with and without informational feedback.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 295-307.—Investigated accuracy of time estimation by 112 preschool and elementary schoolchildren, using a reproduction method in which Ss attempted to reproduce the time required for a hidden toy to travel along a path to a designated point. In Exp. I, 1/2 the Ss were given feedback information after each reproduction trial, providing both the direction and magnitude of error, whereas a 2nd group simply made reproductions of the time interval after each presentation of the standard interval. All age groups in both feedback and no-feedback conditions showed initial tendencies to underestimate the standard, but all groups except the preschool Ss in the no-feedback condition showed increasingly accurate estimations over trials. Average relative estimation errors on the last trial block (Trials 13-15) were 5 and 1% of the standard for the preschool and elementary-school Ss in the feedback conditions, and 34 and 1% for these age groups in the no-feedback condition. Results of Exp. II, carried out with preschool Ss only, indicate that these Ss were unable to learn accurate time estimations without informational feedback between test trials; motivating praise in the absence of error-correcting information resulted in decreasing accuracy over trials.—*Journal abstract.*

898. Gaines, Rosslyn. (U. California, Berkeley) **Children's selective attention to stimuli: Stage or set?** *Child Development*, 1970(Dec), Vol. 41(4), 979-991.—Measured the reliability of young children's selective attention to color and form dimensions among 2 S types: 158 color and form selector Ss were assigned either to experimental training (on a dimension different than their dominant selection), to same training on their dominant choice dimension, or a no-training control group. Trained Ss had either hard or easy discrimination training over a 5-wk period. Results indicate significant changes in selective attention among both color and form selectors given hard training and among color selectors given easy training. Form selectors given easy training showed change trends in the appropriate direction. Control color and form Ss showed no significant changes in selection. Results show selective attention to color or form can be experimentally changed

and is not developmentally determined for all Ss. Other sources of attention to color and form dimensions are discussed. (29 ref.)—*Journal abstract.*

899. Girgus, Joan S. & Hochberg, Julian. (City Coll., City U. New York) **Age differences in sequential form recognition.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 211-212.—Prepared 3 stimuli, an outline square, cross, and block E for whole and sequential form presentation. 12 3-10 yr. old children viewed each stimulus under the 2 presentation schemes and identified the shapes by reference to a confusion matrix. All Ss demonstrated 100% accuracy under the whole form presentation. Significant differences were found in the sequential presentation with the older children showing much better recognition. Recognition errors among the 3 stimuli were only marginally significant.—S. Knapp.

900. Hermelin, B. M. & O'Connor, N. (Medical Research Council, Developmental Psychology Unit, London, England) **Children's judgements of duration.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 13-20.—Investigated the ability of 120 5-yr-old children to distinguish a short from a long duration signal. Findings indicate that: (a) though Ss do not tend to orientate spontaneously towards a temporal stimulus dimension, such orientation increases with specific instructions; (b) the difference between the ability to make nontemporal as compared with temporal judgments is more marked when visual than when auditory stimuli are given; and (c) duration of lights and sounds is judged more efficiently when the stimuli are presented simultaneously rather than successively. This is in contrast to the results from nontemporal judgments, particularly where tones are concerned. Pitch discrimination is easiest when the 2 tones to be discriminated are heard 1 after the other.—*Journal abstract.*

901. Horka, Susan T. & Farrow, Bobby J. (U. Notre Dame) **A methodological note on intersubject communication as a contaminating factor in psychological experiments.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 363-366.—Investigated "the confounding effects that may stem from communication among Ss employed in the same research project." 95 5th and 6th graders were given a test involving the identification of embedded figures in a perception task. $\frac{1}{2}$ of the Ss were tested in the morning and $\frac{1}{2}$ in the afternoon. Results show that although morning Ss were asked not to repeat what had happened in the experiment, both partial and complete communication between the 2 groups was evidenced by the response patterns of the afternoon Ss. It is concluded that stronger control methods are needed to prevent inter-S communication, especially in an institutional setting.—P. McMillan.

902. Kugelmass, Sol & Liebllich, Amia. (Hebrew U., Jerusalem, Israel) **Perceptual exploration in Israeli children.** *Child Development*, 1970(Dec), Vol. 41(4), 1125-1131.—Tested 100 4-9 yr. old Israeli children and 22 undergraduates in an attempt to replicate and extend D. Elkind and J. Weiss's (see PA, Vol. 41:10213) study of Perceptual exploration. In general, results support the view that patterns of exploration may be described by the principles derived from psychomotor development. The influence of school experience was marked in all indices examined and could most specifically be seen in the right-left directionality expected to result from learning to read Hebrew.—*Journal abstract.*

903. Lewis, Michael & Baumel, Marcia H. (Educa-

tional Testing Service, Princeton, N.J.) **A study in the ordering of attention.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 979-990.—Hypothesized that there is an ordering in which environmental changes elicit differential degrees of attention. Data were gathered concerning the effect of various stimulus changes after stimulus repetition on 24 3-4 yr. olds. Results indicate an order of attending, with color, size, number, and rotation changes, in that order, showing the greatest orienting responses. Other data consistent with these results are reported and the argument is made that orienting reflex orders reflect important differences in cognitive function. (19 ref.)—*Journal abstract.*

904. Locke, John L. (Children's Research Center, Champaign, Ill.) **Acoustic vigilance behavior in four-year-old children.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 111-112.—Tested 40 male and 40 female 4-yr-old children on an acoustic vigilance task in which they were to signal the presence of pure tones which appeared irregularly, infrequently, and at faint supra-threshold levels. In several significant aspects these young Ss behaved similarly to adults. Acoustic vigilance testing is discussed as a potentially useful framework in which to assess and observe children's attentional behavior.—*Journal abstract.*

905. Olmsted, Patricia P. & Sigel, Irving E. (U. Florida) **The generality of color-form preference as a function of materials and task requirements among lower-class Negro children.** *Child Development*, 1970(Dec), Vol. 41(4), 1025-1032.—Investigated the generality of color-form preferences by administering several color-form tasks to the same group of Ss. These tasks employed geometrics, familiar objects, and pictures of these objects as stimuli; and sorting, categorizing, and matching-to-standard as procedures. It was hypothesized that preferences for individual Ss would be task specific. 41 lower-class black boys and 34 girls 61-76 mo. old served as Ss. Results indicate that the predominant mode of response varied with the tasks employed. Color-form preferences by age, sex, and school yielded no significant difference. Results also demonstrate the substantial role played by particular tasks in eliciting responses. It is concluded that generalizations regarding color-form dominance cannot be made for this population since preferences are task specific.—*Journal abstract.*

906. O'Reilly, Edmond & Steger, Joseph A. (Bard Coll.) **Children's use of context in judgment of weight.** *Child Development*, 1970(Dec), Vol. 41(4), 1095-1101.—Using the standard psychophysical experimental paradigm employing the anchor as a frame of reference, 25 children, ages 5, 6, 7, 9, and 11, judged a series of 5 weights. Results show that all Ss over 6 yr. old could both order the series (seriate) and shift their judgment of the whole series when presented with an anchor (transitivity). 5-yr-old Ss could not do either. Results suggest that seriation and the use of a relative frame of reference are cognitively confounded. The age at which these Ss performed these tasks is younger than has been previously noted. (20 ref.)—*Journal abstract.*

907. Ruuth, Egil. (Lund U., Psychological Lab., Sweden) **Afterimage perception and size-distance judgement in preschool children.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(14), 19 p.—Investigated perceptual development in 22 5-7 yr. old children. Color and size dimensions of projected visual afterimages and size-distance judgments were evaluated. Ss with a positive afterimage color made the least

size-constant judgments. When the 2 afterimage dimensions were used in a combined criterion, findings indicate an ontogenetic pattern of successive low-, high-, and intermediate-size constancy. Results are discussed in relation to the phenomena of overconstancy found in adults and extra- and intracognitive factors in perception.—*Journal abstract.*

908. Smith, Gudmund J. & Sjöholm, Lena. (Lund U., Psychological Lab., Sweden) **Afterimage change in children following reversal of the experimenter's theoretical message.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(9), 10 p.—Cross-validated a previous finding by G. J. Smith and L. Sjöholm (see PA, Vol. 44:20671) that children's afterimages (AI) may be affected by the AI theory presented to them. 29 9-10 yr. old children were given 3 measures of cognitive maturity. 14 Ss were then informed that AIs were a physical reality largely independent of the O, and the remaining Ss were informed that AIs were projected by the S himself. After 5 AI productions, the E pretended to have given the wrong instructions and gave the other set followed by 5 additional AI productions. It was found that instruction effects were facilitated both by S's ability to comprehend the instruction and the degree of correspondence between the "theoretical" message and the S's level of maturity.—*Journal abstract.*

909. Smith, Gudmund J. & Sjöholm, Lena. (Lund U., Psychological Lab., Sweden) **Projected afterimages after manipulation of cognitive schemes in children.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 274-279.—Predicted that telling 1 group of Ss that afterimages are a physical reality largely independent of the O and another group that afterimages are projected by the S himself, would result in differing reports of afterimages. In all 10 pairs of 9-yr-old boys and girls, matched with respect to cognitive maturity, the S getting the former instruction reported more size-constant and/or positive afterimages than the S getting the latter instruction.—*Journal abstract.*

910. Snyder, Robert T. & Pope, Peggy. (Prince George's County Board of Education, Upper Marlboro, Md.) **New norms for and an item analysis of the Wepman test at the first grade, six-year-level.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 1007-1010.—Conducted an item analysis and normative study of the Wepman Test of Auditory Discrimination with 204 6-yr-old 1st graders selected to be representative of the population at large. Serious discrepancies with the published norms were found not only with the criterion for identifying a child having problems of auditory discrimination but with the utility of the validity checks of excessive error counts (X errors) and the missing of same-sound phonemes (Y errors). For these Ss the mean error was 7 (standard deviation = 3.5) which would identify 67% as having auditory discrimination problems. Further, only 1 S would have been eliminated by the use of Y errors, and none of the 6 Ss who made excessive X errors missed 2 or more Y validity items. Those items which are hard for the 1st grader (sheaf-sheath, 76% miss) and which are easy (gum-dumb, 1/2% miss) are identified. Pearsonian correlations with other learning modalities, socioeconomic level, and a measure of reading readiness are offered.—*Journal abstract.*

911. Williams, Tannis M. (Purdue U.) **Some determinants of young children's responses to random forms.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2334.

912. Wolff, Peter. (U. Michigan) **The effect of nonocular stimulus-correlated motor activity on the visual recognition performance of children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3040-3041.

Personality

913. Bergmann, Erzsébet. (Child Mental Health Care Center, Budapest, Hungary) **Pubertás korú tanulók személyiségképe Lakóhely-Konstruktív-Próba és Rorschach-jegyzőkönyv összehasonlítása alapján.** [Personality description of puberty-age schoolchildren based on comparing "Dwelling-Place Construction Test" data and Rorschach records.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 72-77.—Presents case studies.—*M. Moore.*

914. Clack, Gerald S. (Washington U.) **Effects of social class, age, and sex on tests of perception, affect discrimination, and deferred gratification in children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2275.

915. Clifford, Thomas & Cross, Michael S. (Kenya Coll.) **Response enhancement in children as a function of blocking at different distances from start and goal.** *Psychonomic Science*, 1970(Sep), Vol. 20(3), 327-329.—14 2nd and 3rd grade boys played a game in which they attempted to fill a tube to various levels with marbles. E blocked their progress at numerous points in an attempt to assess the contributions of distance from the start, distance from the goal, and total game length on S's response of hitting a dowel following blocking. Results suggest that distance from the start is a more potent variable affecting response strength following blocking than either distance from the goal or total game length.—*Journal abstract.*

916. Gochman, David S. (U. Michigan) **Some steps towards a psychological matrix for health behavior.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 88-101.—Predictions related perceived internal control inversely to health problem expectancies and directly to probabilism, or uncertainty, within these expectancies. Questionnaire responses from 134 7-17 yr. old boys and girls revealed a significant relationship between probabilism and perceived internal control, but questioned the measurement and generality of internal control constructs. Perceived internal control and probabilism were directly related to age. Significant correlations suggest that (a) perceived vulnerability to health problems is a personality characteristic, and is the degree of probabilism within health problem expectancies exhibits the same organizational qualities shown in other perceptual-cognitive phenomena. Perceived internal control was not related to health problem expectancies. (French summary) (18 ref.)—*Journal abstract.*

917. Kent, James T. (U. Michigan) **Behavioral style and adjustment: A study of sibling differences.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2990.

918. Kolaříková, Olga. (Czechoslovak Academy of Sciences, Brno, Czechoslovakia) **Zájmové odpovědi na věku 10-13 let a jejich difference v závislosti na pohlaví a některých druzích abnormalnosti.** [Interest responses at the age of ten to thirteen years and their differences depending on sex and some other abnormalities.] *Psychológia a Patopsychológia Dieťaťa*, 1970

Vol. 5(3), 227-247.—Studies differences in interest responses in 10-13 yr. old children, with regard to sex and 2 kinds of abnormalities, i.e., institutional education and psychiatric morbidity. 2 normal groups of Ss and 4 abnormal ones were investigated. Interest responses were assessed by a reduced form of the original inventory, consisting of items relating to 16 fields of special interests. The normal group, differing in sex, showed dissimilarities which, as a whole, are in agreement with other findings. Furthermore, signs were found distinguishing the normal and abnormal groups with respect to interest responses. High scores in the interest fields, "adventure-exceptionality," appeared to be a sign of the normal groups, whereas the abnormal groups scored high in fields concerning "interpersonal relationships" and "art." When comparing the normal groups, some of the scores seemed to be masculine and others feminine signs. However, when comparing the normal and abnormal groups, some appeared simultaneously as a sign of abnormality. This is supported by other findings. (Russian summary) (20 ref.)—*English summary*.

919. Schmidt, Lothar R. (U. Saarland, W. Germany) *Einstellungen Gegenüber Autoritätspersonen und selektives Gedächtnis bei Kindern.* [Mental attitude towards persons of authority and selective memory of children.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2968.

920. Trunova, N. Ob izuchenii émoitsii u detei. [On the study of emotions in children.] *Doshkol'noe Vospitanie*, 1970(May), Vol. 43(5), 28-34.—10 3-3½ yr. old children were used to study the possibility of utilizing certain physiological indices in order to detect the emergence of "complex emotions" resulting from exposure to slides depicting scenes from fairy tales. Indices utilized were (a) pulse rate, (b) respiratory rate and ratio of inspiration to expiration time, and (c) GSR. The findings show that very young children are not non-participatory Os of events without direct relation to the latter. They actively experience the complex situations in which the characters of the fairy tales find themselves. Changes in automatic functions are shown to agree with observed behavior during the viewing of the slides. However, the former give a more complete and exact picture of the changes in emotional states.—*J. D. London*.

921. Wellen, Paul M. (Illinois Inst. of Technology) *Erikson's "Industry" and perceived parental behavior in preadolescent boys.* *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3050.

Social Behavior

922. Alden, Steven E., Pettigrew, L. Eudora, & Skiba, Edward A. (U. Bridgeport) *The effect of individual-contingent group reinforcement on popularity.* (*Child Development*, 1970(Dec), Vol. 41(4), 1191-1196. Investigated whether individual-contingent group reinforcement, when used in conjunction with verbal reinforcement, is an effective technique for increasing popularity in the classroom. Ss were 45 12-14 yr. old students, who were the 9 "least chosen" from 5 7th grade classes, as measured by a sociometric test. Results indicate that individual-contingent group reinforcement plus verbal reinforcement can increase popularity as measured through sociometric test scores. —*Journal abstract*

923. Baker, Jean M. (U. Arizona) *Children's im-*

tative responses as a function of socioeconomic class, incentive-oriented set and reinforcement. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2252.

924. Honig, Alice S., Caldwell, Bettye M., & Tannenbaum, Jordan. (Syracuse U.) *Patterns of information processing used by and with young children in a nursery school setting.* (*Child Development*, 1970(Dec), Vol. 41(4), 1045-1065. —Presents data using an observational technique, APPROACH, which describes the behaviors of young children in naturalistic social situations. Emitted behaviors are recorded on a tape recorder, transcribed, and then coded numerically for computer analysis. Results of assessments of information processing for 1.3-4.6 yr. old children show substantial changes in the way age groups handle information. The technique is structured to provide data on the incidence of growth-fostering or growth-inhibiting behaviors. (15 ref.)—*Journal abstract*.

925. Macrae, Julie A. (Queen's U., Belfast, Ireland) *Interpersonal perception: Some determinants and variables.* (*Papers in Psychology*, 1969(Oct), Vol. 3(2), 69-70.—Found significant positive and negative relationships when 32 6th form grammar school Ss were tested with respect to "cognitive complexity," "role-taking ability," "accuracy of prediction," "assumed similarity," and "personality congruence." The independent variables of sex, friendship, and sibling status were not found to be significant factors.—*S. L. Warren*.

926. Mumbauer, Corinne C. & Gray, Susan W. (George Peabody Coll. for Teachers) *Resistance to temptation in young Negro children.* (*Child Development*, 1970(Dec), Vol. 41(4), 1203-1207. —Employed a game-like situation to investigate the resistance to temptation of 48 female and 48 male disadvantaged 5-yr-old Negro children. Sex of I, sex of S, and father absence or presence were varied. Expectations based on potential influences of father absence were not confirmed. Boys and girls from father-absent homes did not differ significantly in their resistance to temptation. Boys from father-present homes resisted temptation more with a female I while girls resisted temptation more with a male rule giver. Findings are discussed in light of previous research by other investigators. A satiation-deprivation of social reinforcement explanation is suggested to account for the findings. —*Journal abstract*.

927. Phillis, Judith A. (U. Florida) *Children's judgments of personality on the basis of voice quality.* *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3002.

928. Riard, F. H. & Winnykamen, F. (U. Paris at the Sorbonne Genetic Psychology Lab., France) *Nature et évolution des loisirs en fonction de l'âge et du milieu familial chez les garçons d'âge scolaire.* [The nature and development of spare-time activities of school-age boys as a function of age and family environment.] (*Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 221-229. —Questionnaires and interviews were used to investigate the influence of age (7-13 yr.), social environment, and birth order on the leisure time activities of boys. The socioprofessional level of the parents was the most important factor in determining the boys' activities, but these activities were modified at the older age levels in the direction of greater participation in organized groups and an increased interest in music. Birth order did not prove to be a significant determinant.—*R. E. Smith*.

929. Schroeder, Ruediger S. & Flapan, Dorothy. (Child Development Center, Jewish Board of Guardians, New York, N.Y.) **Assessing aggressive and friendly behaviors in young children.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 193-202.—Developed a technique for assessing overt aggressive and friendly behavior of preschoolchildren, using narratives of the children's behavior within nursery-school settings. 11 boys and 11 girls were studied at 3 different age levels (approximately 4, 5, and 6 yr. of age). Developmental trends as well as sex differences appeared, including the finding that there was a greater number of developmental changes in the boys' behaviors than in the girls'. (18 ref.)—*Author abstract*.

930. Silverman, Stephan M. (Emory U.) **Insult and infringement on property as instigators to aggression in third grade boys.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3008.

931. Stuart, Kenneth & Haaland, Gordon A. (U. New Hampshire) **The high cost of reward in task productivity.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 93-95.—Manipulated rewards and costs in a 2×2 factorial design in an examination of social exchange propositions. 24 groups of 3 9-11 yr. old boys played a game under conditions of high or low cost, and high or low reward. Reward interacted with cost in affecting productive behavior, a finding inconsistent with social exchange theory. The concept of equivalence is proposed as a theoretical modification where equivalence describes behavioral outcomes as a function of the interaction of rewards and costs.—*Journal abstract*.

932. West, Joel D., Fretz, Bruce R., & MacDonald, Matthew J. (Northern Michigan U.) **Modifying risk-taking behavior.** *Child Development*, 1970(Dec), Vol. 41(4), 1083-1088.—Measured the risk-taking behavior of 49 5-13 yr. old boys referred to a physical developmental clinic and 23 boys in a control group on a 10-toggle-switch apparatus. Ss were tested prior to a 6-wk clinic program and immediately after. As hypothesized, initially clinic Ss were more frequently low risk takers than were nonreferred controls. Clinic Ss showed significant change toward optimal risk taking in post-clinic evaluation; control Ss' changes were nonsignificant.—*Journal abstract*.

Parent-Child & Family Relations

933. Ball, Maurice G. (U. Oklahoma) **An investigation of defense mechanisms and recalled parent-child relations.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2950-2951.

934. Borstein, Irving J. (Illinois Inst. of Technology) **Perceived maternal childrearing patterns and schizoid behavior in "normal" males.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2273.

935. Bugental, Daphne E., Love, Leonore R., & Gianetto, Robert M. (U. California, Los Angeles) **Perfidious feminine faces.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 314-318.—Rated videotaped verbal and nonverbal (smiling) behavior of parents in interaction with their children. The socioeconomically matched sample included 20 families containing a disturbed child and 20 normal control families. An interaction was predicted and confirmed ($p = .05$) between parent sex and facial

expression; i.e., when a father smiled, he was making a friendlier or more approving statement than when he was not smiling; for mothers, there was no difference in the evaluative content of verbal messages when she was smiling vs. when she was not smiling. This pattern was found to be unrelated to child disturbance. Findings were, however, limited to middle-class families because the majority of lower-class mothers in this sample did not smile at all. (16 ref.)—*Journal abstract*

936. Makarenko, A. O. **roditel'skom avtoritete.** [On parental authority.] *Doshkol'noe Vospitanie*, 1970(May), Vol. 43(5), 51-55. Presents an analysis of the different forms of parental authority directed toward preschool-children: "suppression, distraction, swagger, pedantry ["bureaucratic perfectionism"], reason, love, kindness, friendship, and bribery." Their characteristics and effects are described and evaluated. It is necessary to distinguish genuine from false authority, based on arbitrary principles and striving to obtain obedience by any means whatsoever.—*J. D. London*.

937. Osofsky, Joy D. (Cornell U.) **Children's influences upon parental behavior: An attempt to define the relationship with the use of laboratory tasks.** *Genetic Psychology Monographs*, 1971(Feb), Vol. 83(1), 147-169.—Studied the socialization process in terms of the effects of children upon parents. Parents ($N = 65$ white, middle-class mothers) were observed interacting with role-playing children (age range, 10-12 yr.), who were not their own, in 3 structured laboratory situations using the Object Assembly Picture Arrangement, Block Design tasks. Results indicate that differences in children's behavior in the situations resulted in 1 consistency and several task specific differences in parental responses. The findings lent support to the proposal that children influence parental behaviors, just as parents influence children's behaviors in the socialization process. (37 ref.)—*Author abstract*.

938. Panepinto, Joseph V. (West Virginia U.) **The interpersonal style of parents and their children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3001.

939. Rice, Dale L. (U. Michigan) **Maternal control and cognitive development: A replication.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3034.

940. Thoman, Evelyn B., Turner, Ann M., Leiderman, P. Herbert, & Barnett, Clifford R. (Stanford U., Medical School) **Neonate-mother interaction: Effects of parity on feeding behavior.** *Child Development*, 1970(Dec), Vol. 41(4), 1103-1111.—Developed a procedure for the study of feeding patterns of mothers with their newborn infants. By means of an automated recording system, time measures of components of bottle feedings were obtained without the presence of an O. The measures clearly discriminated the feeding behaviors of 22 18 38 yr. old primiparous and 22 multiparous mothers with their 2-day-old infants. Total observation times, including feeding and nonfeeding activities, were significantly longer for the primiparous pairs. The feeding portion of the observations was also longer for the primiparas. Although these mothers were more persistent in their feeding endeavors, they were also less effective in their efforts, as indicated by a lower total consumption of formula by their infants and by a lower rate of formula intake. Findings are related to studies of parity effects on the newborn and research on birth-order effects on older children.—*Journal abstract*.

ADOLESCENCE

941. Azcarate, Eduardo. (Catholic U. of America) **Identity formation as a function of physical maturation and physique in early adolescent boys.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2974.

942. Bridgette, Richard E. (U. North Carolina, Chapel Hill) **Self-esteem in Negro and white Southern adolescents.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2977-2978.

943. Chabassol, David J. & Thomas, David C. (U. Victoria, British Columbia, Canada) **Sex and age differences in problems and interests of adolescents.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 16-23.—Investigated the problems and interests of 1366 adolescents using an instrument devised by P. M. Symonds and later used by D. B. Harris as well as H. Kaczowski (see PA, Vol. 39:9849). Findings of the various studies were compared to determine the validity of Symonds hypothesis that changes in the social and economic structure of society would immediately change the relative emphasis of these problems and interests. Certain problems and interests offered by the instrument did alter their position in the 32 yr. spanned by the 4 studies, but others seemed to be impervious to the influence of the changes of which Symonds spoke. The influence of regional and geographic differences in the samples used in the various studies is not known.—*Journal abstract*.

944. Johnson, Paul D. (U. Minnesota) **Predicting self reports of adolescent smoking behavior with step-wise multiple regression, moderator analysis, and interaction detection techniques.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3045.

945. Lifshin, Jo A. (Michigan State U.) **Conscience orientation and family interaction in early adolescent boys.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2995.

946. Lortmer, Rowland. (Simon Fraser U., Burnaby, British Columbia, Canada) **Change in the development of moral judgments in adolescence: The effect of a structured exposition vs a film and discussion.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 1-10.—Examined the inducement of developmental advance in 130 male and female adolescent high school students, using both expository and film presentation conditions. Results indicate that both treatments induced some change but that the pattern of change between groups differed. These differences were interpreted as indicative of the effects of the structure and content of the treatments interacting with the developmental level of the Ss. Implications for education and a developmental theory of moral judgments are discussed. (French summary)—*Journal abstract*.

947. Schippers, Louis. (Boston U., Graduate School) **Patterns of identification with parental moral values among late adolescents and related measures of superego expression.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2967-2968.

948. Stuempfig, Daniel W. & Machr, Martin L. (U. Illinois) **Persistence as a function of conceptual structure and quality of feedback.** *Child Development*, 1970(Dec), Vol. 41(4), 1183-1190.—Attempted to determine how 76 white and 8 black high school students of varying conceptual structure (measured by a sentence completion test) would respond to personal and imper-

sonal feedback on a performance task. It was predicted that, whereas abstract Ss would show no difference in motivation under the 2 feedback conditions, concrete Ss would show increased motivation when administered personal feedback. These predictions were confirmed and it is suggested that the Conceptual Systems Theory may provide a logical basis for interpreting empirical findings related to social class differences in responding to performance feedback.—*Journal abstract*.

949. Thornburg, Hershel. (U. Arizona, Coll. of Education) **Adolescence: A re-interpretation.** *Adolescence*, 1970(Win), Vol. 5(20), 463-484.—An essay based on Havighurst's developmental tasks reevaluated in contemporary terms.—A. B. Warren.

ADULTHOOD & OLD AGE

950. Baltes, Paul B. (U. Saarland, W. Germany) **Längsschnitt- und Querschnittesequentzen zur Erfassung von Alters- und Generationseffekten.** [Longitudinal and cross-sectional sequences in the study of age and generation effects.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2951.

951. Jackson, Moss A. (Temple U.) **The effect of social and objective reward upon verbal learning in a disengaged and engaged population.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2283.

952. Levy, Judith M. (U. Florida) **Phenomenological aspects of childbearing.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2994.

953. Lewis, Charles N. (Boston U., Graduate School) **Reminiscence and self concept in old age.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2994.

SOCIAL PSYCHOLOGY

954. Burgess, Robert L. & Bushell, Don. (U. Washington, Seattle) **Behavioral sociology: The experimental analysis of social process.** New York, N.Y.: Columbia U. Press, 1969. xiii, 418 p. \$12.50.

955. Dean, William A. (United States International U., San Diego, Calif.) **Men under stress.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2956-2957.

956. Kelman, Herbert C., Osgood, Charles E., & Miller, George A. (Harvard U.) **Comments on Wiesner's paper.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.) "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 95-100.

957. Kessel, Frank S. (U. Alberta, Center for Advanced Study in Theoretical Psychology, Edmonton, Canada) **Social psychology, experimental psychology and the social psychology of the experiment.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 114-126.—Discusses the recent growth of experimental social psychology which has involved wholesale adoption of classical methodology as conceived by experimental psychology. Paradoxically, research and writings on the "social psychology of the experiment" raise serious questions about certain assumptions implicit in classical methodology, i.e., those concerning the nature of the subject matter and the relationship between E and S. The views of R. Rosenthal, M. T. Orne, and others are discussed in this context and general implications considered in the light of the humanistic

movement in American psychology. The general conclusion is that the values and criteria for all experimentation in psychology may be destined to undergo a radical reorientation. (French summary) (32 ref.)—*Journal abstract*.

958. **Pechoux, Michel.** (U. Paris at the Sorbonne, France) **Sur la conjoncture théorique de la psychologie sociale.** [The theoretical unification of social psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4 5), 290-297.—Discusses social psychology, its general aims, methodology, subject matter, and its historical antecedents and recent developments.—*R. E. Smith*.

959. **Wiesner, Jerome B.** (Massachusetts Inst. of Technology) **The need for social engineering.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 85-94.

CULTURE & SOCIAL PROCESSES

960. **Adler, Kurt A.** (Alfred Adler Inst., New York, N.Y.) **Adlerian view of the present-day scene.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 113-121.—The scenes examined are the school, psychotherapy, drugs, the professional's social responsibility, guidance of youth, and rebellion and progress. Emphasis is placed on Alfred Adler's views that "the honest psychologist cannot shut his eyes to social conditions which prevent the child from becoming a part of the community. . . . Thus the psychologist must work against nationalism when it is so poorly understood that it harms mankind as a whole; against wars of conquest, revenge, and prestige . . . and against all other obstacles which interfere with the spreading of social interest."—*A. R. Howard*.

961. **Alger, Ian.** (New York Medical Coll.) **The superego in time of social conflict.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 51-56.—Examines values, social conflict, and superego development. Language is described not only as the method by which a culture codifies its values, but also as a method of delimiting reality. The current distrust of the value systems is seen as developing from many factors: (a) television, rapid transportation, and family mobility; (b) computerization; (c) the possibility of nuclear destruction; (d) the deterioration of the environment; (f) the population explosion; and (g) the emphasis on ethnicity. These stresses, conflicts, and exposures to new experiences and different values challenge the values of the society and the internalized values of the individual. The pressure of the times is for diffuse and flexible superegos capable of dealing with "situation ethics." It is suggested that group therapy may help the individual who seeks therapy for superego anxiety to interpret and clarify his current values and to reinforce the possibility of new value systems. The use of videotaped replay in this conjunction is described.—*S. Knapp*.

962. **Bennis, Warren G.** (State U. New York, Buffalo) **A funny thing happened on the way to the future.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 431-450.—Reviews earlier predictions of democratization of organizations and the rise of new, rapidly-changing temporary systems. Dilemmas requiring new perspectives on the future of the democratic process are discussed: the breakdown of legitimacy,

conflict of populist vs. elite functions, interdependence and complicity in the environment, lack of correct metaphor, and discontinuities between micro and macro systems. In conclusion forecasts of new trends for public bureaucracies are made.—*Author abstract*.

963. **Brody, Eugene B. (Ed.)** (U. Maryland, Medical School) **Behavior in new environments: Adaptation of migrant populations.** Beverly Hills, Calif.: Sage, 1969, 479 p. \$12.50.

964. **Bulatao, Jaime C.** (U. Manila, Philippines) **Mapping Manila society by photographs and factor analysis.** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 6-11.—16 photographs of individuals taken in Manila were described through the use of 12 adjectives in a Q-technique and were intercorrelated. 20 male undergraduates served as Ss. The resulting matrix was factor analyzed and yielded 3 factors, which were interpreted as social classes, phenomenologically arrived at, i.e., (a) Westerner-Provinciano Filipino, (b) urban Filipino, and (c) Chinese.—*Journal abstract*

965. **Cheln, Isidor.** (New York U.) **The concept of power.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 327-343.

966. **Etzoni, Amitai.** (Columbia U.) **Man and society: The inauthentic condition.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 451-459.

967. **Gagné, Raymond.** **Le Canada français: Les rapports intimes entre culture, langue et personnalité.** [French Canada: Close relationships between its culture, language and personality.] *Interprétation*, 1970(Jul), Vol. 4(3), 25-53.—Defines the concepts of culture, language, personality, and structuralism in the perspective of present-day sciences, attempting to demonstrate how clearly the structuralist hypothesis illustrates the close and inextricable relationships between these concepts; and describes the critical balance of dominant forces (the social dynamics making possible the preservation of a society's peculiar aspect in spite of constant internal and external pressures which tend so greatly to modify it from the linguistic and cultural viewpoint). As a result of linguistic and cultural confusion, the French Canadian is afflicted by "diverse linguistico-cultural psychoses." Inextricable ties between culture, language, and personality are seen at the base of the political and social disturbances in French Canada. If the French language and culture are not preserved in Quebec, they will not survive elsewhere in Canada.—*T. N. Webster*.

968. **Kiser, Clyde V., Grabill, Wilson H., & Campbell, Arthur A.** **Trends and variations in fertility in the United States.** Cambridge, Mass.: Harvard U. Press, 1968, ix, 338 p. \$6.95.

969. **Liff, Zanel A.** (Postgraduate Center for Mental Health, New York, N.Y.) **Impasse: Interpersonal, intergroup and international.** *Group Process*, 1970(Sum), Vol. 3(1), 7-30.—Discusses the impression that our society is currently characterized by an unwillingness to compromise or to reconcile, and that psychologically we avoid conflict resolution in favor of the impasse.—*A. Barclay*.

970. **Mangalam, J. J. & Schwarzweller, Harry K.** (U. Guelph, Ontario, Canada) **General theory in the study of migration: Current needs and difficulties.** *International Migration Review*, 1968(Fal), Vol. 3(1), 3-18.—Discusses the need for a more comprehensive,

general theoretical approach to the study of migration. Against a background of recent trends in migration research, drawn from the current literature, probable reasons are suggested for this lag in general theory building. In addition to a number of misconceptions about the nature of migration, and difficulties stemming from the sources of migration data which reinforce those misconceptions, the study of migration has suffered from a lack of concern on the part of our leading sociological theorists. (French, Spanish, & German summaries) —*Journal abstract.*

971. McCleary, Roland D. (Mark Twain School, Northlake, Ill.) **The violence of the privileged in the U.S.A.** *International Journal of Offender Therapy*, 1970, Vol. 14(2), 81-85.—Endeavors to explain the roots of violence noted in radical students, especially the children of the successful. The harshness and shortness of life in the historical past is contrasted to the extension of dependency and education required by present society. "We have actually extended the rivalry between father and son into a much later age than is healthy and by so doing we are setting up situations so complicated, frustrations so intense and hostility so guilt-ridden that no decent boy can turn on his self-sacrificing parents. Therefore, he must make the system the target for his violence." Compounding the souring of the old opportunities and the inadequacy of overprotective parents, the technological emphasis on immediacy leads the young to think that the solution to social problems is equally amenable to immediate solution. (French, German, & Spanish summaries)—*S. Knapp.*

972. Naftalin, Arrthur. (U. Minnesota) **The urban problem and action research.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 108-114.

973. Northway, Mary L. (Brora Center, Toronto, Ontario, Canada) **The sociometry of society: Some facts and fancies.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 18-36.—Presents facts which have recurred in many sociometric studies and findings emerging from current research. The presentation is divided into 5 parts: sociometric affinities and diffinities; sociometric differential; persistence of personal relations; difference in sociometric structure of apparently similar groups; and developmental sociometry. Implications from each of these for guidance of the social growth of the individual and for amelioration of social organization are stressed. A point of view regarding the nature of society is described, i.e., that the affinities and diffinities among individuals provide the psychological basis for the human existing as a social being and form the groundwork that has made it possible for human society to develop. (French summary) (38 ref.)—*Journal abstract.*

974. Orpen, Christopher. (U. Cape Town, South Africa) **Prejudice and adjustment to cultural norms among English-speaking South Africans.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 217-218.—Tested the argument that adjustment to cultural norms is the crucial variable underlying the holding of intolerant attitudes toward outgroups in settings with prejudiced norms. 101 English-speaking white South African schoolchildren (average age = 16) were given 2 measures of intolerance toward minority groups and measures of the personal and social aspects of the degree of their accommodation to cultural norms—susceptibility to cultural pressure (social conformity) and adherence to culturally-approved

values (South Africanism). The significant correlations obtained between the prejudice, social conformity, and South Africanism scales are interpreted as supporting the argument.—*Author abstract.*

975. Rosner, Menachem. (Kibbutz Reshafim, Israel) **Communitarian experiment, self management experience and the kibbutz.** *Group Process*, 1970(Sum), Vol. 3(1), 79-100.—Discusses the possible interrelationships that might exist between communal experiences exemplified in the kibbutz, and their potential application to American culture. Certain aspects of the kibbutz movement and its relevance for present communal movements within the United States are reviewed.—*A. Barclay.*

976. Weidman, Hazel H. (U. Alabama, Medical Center) **Anthropological theory and the psychological function of belief in witchcraft.** *Southern Anthropological Society Proceedings*, 1968, No. 1, 23-35.—Reviews anthropological and psychiatric views in an attempt to explain witchcraft by a synthesis of the 2 systems. C. Kluckhohn's work on witchcraft, emphasizing ambivalence as the central dynamic factor, is considered in light of current psychiatric theory's stress on ego functioning. Focus is on the interrelationship of social ambiguity and psychological ambivalence. The inherent ambiguity of many social and individual situations is discussed, and it is concluded that witchcraft beliefs function in the maintenance of social and personality systems. "Belief in witchcraft may well serve the needs of a psychologically integrative process which helps to prevent a pathological reliance upon projection in the form of markedly psychotic episodes or in the form of elaborate delusional systems." This analysis is explained for different societies, and ongroup and individual levels. (22 ref.)—*C. R. Vestal.*

977. Wenk, Michael G. (Dept. of Immigration, Research & Information Div., Washington, D.C.) **Adjustment and assimilation: The Cuban refugee experience.** *International Migration Review*, 1968(Fal), Vol. 3(1), 38-49.—Describes a study of Cuban refugees in the United States. An 85-item questionnaire was sent to a sample of 200 Cuban families representing 534 adults and 593 children. Topics covered included questions concerning background, education, family composition, acceptance of the new environment, and degree of assimilation in the new culture. Results are detailed and suggest that the Cuban is self-sufficient, progressive, and eager to adapt to his new surroundings, and "possesses the will and energy to become a productive and beneficial member of society."—*P. McMillan.*

978. White, Ralph K. (George Washington U., Inst. for Sino-Soviet Studies) **Three not-so-obvious contributions of psychology to peace.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 344-355.

979. Wolfgang, Marvin E. (U. Pennsylvania) **Violence and human behavior.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 309-326.

Ethnology

980. Thomas, Charles W. (Center for the Study of Racial & Social Issues, Los Angeles, Calif.) **Psychologists, psychology, and the black community.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology

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Social Structure & Social Role

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like everyone else, Oscar. *Psychology Today* 1970(Sep), Vol. 4(4), 26-32.—Oscar Lewis has written that the poor share a culture of poverty which poisons itself. However, lengthy interviews in 1960 with a 1960 survey of 100 poor Puerto Rican families suggest that "even small changes in the life of the poor in this society can bring about distinct changes in their values." Limited but real improvements in economic welfare of these people have given them a feeling that upward mobility is possible for anyone who sheds his vices and works very hard.—E. J. P. ... 989 Singh, N. P. (Delhi U., India) Different attitudes of agricultural entrepreneurs towards social and economic goals. *Indian Journal of Social Work* 1970(Jul), Vol. 31(2), 177-182.—Investigated the attitudes of progressive-traditional and successful-unsuccessful entrepreneurs (agricultural) of Delhi. Results from 80 Ss from 4 progressive and 4 traditional villages indicate that progressive successful Ss had a positive rating of their economic progress, liking for the profession for their sons, and a positive attitude toward modernization. The traditional and unsuccessful Ss had very different attitudes in the opposite direction. Implications of the findings are discussed.—J. W. Kane

989 Starny, H. G. & Green, R. I. (U. Strathclyde, Glasgow, Scotland) Working-class conservatism: A review and an empirical study. *British Journal of Sociology* 1971(Feb), Vol. 10(1), 10-20.

Examines the characteristics of manual working-class Conservatives. Intergeneration downward mobility is shown to make a substantial contribution to working-class conservatism. The embourgeoisement, social protest, and deference explanations of working-class conservatism are critically reviewed. A survey exploring the organization of attitudes in the working class is reported. A total of 69 variables constituting a questionnaire completed by 302 Ss produced differences between working-class Conservative and Labour supporters which correspond fairly well with the pattern of attitudes in a complementary survey of white-collar Ss. The deference explanation is reexamined on the basis of these results. S. L. Lipietz's analysis of working-class authoritarianism is also discussed. (35 ref.)—*Journal of ...*

989 Tupper Miller, Rhika. (Illinois Inst. of Tech.) Psycho-social correlates of social mobility. *Journal of Research in Personality* 1970(Nov), Vol. 4(4-B), 3011-3012.

989 Wilson, Charles F. Toward a new social order. In F. F. Kohn, S. W. Cook & F. F. Leach (Eds.), *The future and the problems of society*. (See PA Vol. 46 Issue 1) 368-374.

Religion

989 Becker, John O. (St. Louis U.) The cognitive factor in religious orientations. *International Journal of ...* 1970(Nov), Vol. 31(5-B), 2951.

989 Chertland, William A. (Lake Forest Coll.) Convicts and covenants: A model for interracial social action. *Journal of Psychology*, 1970(May), Vol. 2(1), 25-45.

Examines the best examples of many ... of these resources as the ... of the medical profession in establishing ... the long experience of the Christian ... O. ...

964 Duke, Robert W. (Lancaster Theological Seminary, Pa.) Religion and mental health: A theological point of view. *Journal of the American Academy of Religion*, 1971, 39, 1-11.

... suitable for psychotherapists and theologians to ...
... of mental health ...
... false gods masquerading as judges or ...
... to the recovery of ...

Hill, Wayne C. (University of Minnesota) Some aspects of group psychotherapy and psychoanalysis used in a modern religious cult. *Group* (Northbrook, Ill.), 1971, 21(4), 214-218. Describes and analyzes a modern religious cult which uses techniques of persuasion similar to traditional group ...

psychedelic culture. *A Reader*.
997 Lohr, N. Zvi. (Catholic U of America) Some personality factors in extreme religiosity. *Thruist* (International, 1971, Nov.), Vol. 11(4), 214.

Cross Cultural Comparison

998 Long, Barbara H., Miller, Robert C., Rosow, Ronald V., & Reddy, V. (University of Illinois) Self-description as a function of evaluative and activity ratings among American and Indian adolescents. *Child Development*, 1972, 43, 1-11.

... in Telugu and English were checked as ... by 100 Indian and 100 American adolescents and rated on evaluative and activity scales by 27 undergraduates in each culture. High commonalities and differences between cultures ... and in the construction of the adjective Indian and have endorsed more adjectives and there were ...

... endorsement-activity correlations were found for the Indians. Results suggest a greater effect for ... Americans, greater are differences for Americans and ...

999 McKeown, Ian J. (London Heriott-Watt University) Continuity in Chinese. *Journal of Clinical Psychology*, 1971, 27, 111-117. The cross studies of African cultural ...

... pressure on African so that is created a false sense of direction situation. - P. Henshaw

Family

1000 Briggs, Harry W. (University of California, Berkeley) ... and ... of the second-born. *Journal of Marriage and the Family*, 1972, 34, 100-109. Survey data from ... academic overrepresentation of the first ...

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marital role tension was related to the husband's acceptance of physical intimacy between mother and child, and his own psychophysiological condition. Enhancement of the wife's self-image, specifically her sexuality, was related to role differentiation in the basic family organization. Enhancement of the husband's self-image and level of communication were related to aspects of socioeconomic status and specifically to the wife's continued confidence in him as a husband 1st, then a father, when she becomes a mother. Sexual gratification and the reported frequency of integrative events are related to current and projected body image. The frequency of disintegrative events is related to naive romanticism.—*Journal abstract.*

1006. **Napier, Augustus Y.** (U. North Carolina, Chapel Hill) **Patterns of growth and stasis in marriage over several generations.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2999.

1007. **Rollins, Boyd C. & Feldman, Harold.** (Brigham Young U.) **Marital satisfaction over the family life cycle.** *Journal of Marriage & the Family*, 1970(Feb), Vol. 32(1), 20-28.—Attempts to trace the pattern of general and specific aspects of marital satisfaction over the family life cycle. Separate questionnaire data were obtained from both husbands and wives in 799 middle class families. Results suggest that husbands and wives are influenced in very different ways by stage of family life cycle experiences. In general, family life cycle experiences were more associated with marital satisfaction for wives than husbands. Especially in the subjective area of feelings about marital interaction, the dependent children stages of the family life cycle were associated with negative evaluations of the marriage by the wife. (32 ref.)—*Journal abstract.*

Social Change & Social Programs

1008. **Bard, Morton.** (City Coll., City U. New York) **Alternatives to traditional law enforcement.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 128-132.

1009. **Deutsch, Martin.** (New York U., Inst. for Developmental Studies) **Organizational and conceptual barriers to social change.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 47-57.

1010. **Guttentag, Marcia.** (City U. New York, Graduate Center) **Evaluation of social legislation.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 40-46.

1011. **Kramer, John R.** **The social relevance of the psychologist.** In F. F. Korten, S. W. Cook, J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 32-39.

1012. **Lawrence, Ernest S.** (Cedars-Sinai Medical Center, Los Angeles, Calif.) **Where angels fear to tread: Reply to Spaner.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 63-66.

1013. **O'Kelly, Charlotte G. & Petras, John W.** (U. Connecticut) **Images of man in early American sociology: II The changing concept of social reform.** *Journal of the History of the Behavioral Sciences*, 1970(Oct), Vol. 6(4), 317-334.—To give an overview of the major viewpoints on social reformism in the first era

of American sociology, a study of the 1st 5 presidents of the American Sociological Society—Sumner, Ward, Giddings, Small, and Ross—is presented.—C. M. Franks.

1014. **Spaner, Fred E.** (National Inst. of Mental Health, Community Mental Health Center Consultation, Chevy Chase, Md.) **The psychotherapist as an activist in social change: A proponent.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 58-62.

1015. **Ulrich, Roger & Wolfe, Marshall.** (Western Michigan U.) **Research and theory on aggression and violence.** *Science Teacher*, 1969(May), Vol. 36(5), 24-28.—Presents results of research on experimentally induced aggression in animals. Various aversive stimulation conditions and the aggressive behaviors they arouse, are discussed in terms of operant and classical conditioning of animal and human behavior. In contrast to these findings, the reaction to racial social movements in the United States is typified by a marked disregard for the application of behavior conditioning principles derived from animal experimentation. Thus, the non-violent solution to racial problems advocated by Dr. Martin Luther King was met with general apathy, while the violent demonstrations in Watts, California, and similar aggressive outbursts in other parts of the country, provoked an immediate reaction from the white community toward social reform. Implications for the application of behavior conditioning principles to social change and programs are discussed. (27 ref.)—P. Zell.

1016. **Kipnis, David & Vanderveer, Richard.** (Temple U.) **Ingratiation and the use of power.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 280-286.—Investigated the effect of subordinates' behavior on a leader's use of rewarding powers. It was predicted that an appointed leader would allocate more rewards to an ingratiating subordinate when faced with a hostile, rather than an inept, or no-problem, subordinate. An experimental test of this prediction with 30 male university freshmen received no support. It was found that the ingratiating subordinate received more than his share of the rewards, regardless of the presence or absence of a problem worker. The presence of a hostile subordinate caused the leader to dispense more rewards to all compliant subordinates. Results are discussed in terms of the effects of perceptual contrast on interpersonal perception.—*Journal abstract.*

SEXUAL BEHAVIOR

1017. **Bell, Robert R. & Chaskes, Jay B.** (Temple U.) **Premarital sexual experience among coeds, 1958 and 1968.** *Journal of Marriage & the Family*, 1970(Feb), Vol. 32(1), 81-84.—Presents a 1968 replication of a 1958 study of premarital sexual behavior and attitudes, using the same questionnaire with a sample of 250 coeds in the same university. The most important finding of the study was that the commitment of engagement has become a less important condition for engaging in premarital coitus and for whether or not guilt feelings will exist about their experience.—*Journal abstract.*

1018. **Berkov, Beth.** (U. California, Berkeley) **Illegitimate births in California.** *Milbank Memorial Fund Quarterly*, 1968, Vol. 46(4), 473-506.—Presents a methodology for statistical estimation of numbers, proportions, and rates of illegitimate births by age and race of mother. Better identification of illegitimate birth statis-

tics is derived from a coding system of birth certificates designed to protect mothers from public knowledge of concomitant factors of birth, e.g., congenital malformations, infant death, or illegitimacy. The sample consisted of 30% (N=18,125) of the birth records forwarded to the California State Health Department in the 1st 9 wk. of 1966. Results are reported by geographical distribution of live births and illegitimate live births by age and race of mother and birth order in the study sample in comparison with data from California, selected states, and the United States. Findings are compared with previous studies which attempted to discern underlying racial and social factors in illegitimate birth statistics. (19 ref.)—*P. Zell.*

1019. Gagnon, John H. & Simon, William. **They're going to learn in the street anyway.** *Psychology Today*, 1969(Jul), Vol. 3(2), 46-47, 71.—Suggests that meaningful sex education must develop out of the natural experiences of the child. This is complicated by the existence of great differences in the patterns of sexual development and interests of individual children. Males and females also have very different approaches to sex during adolescence. In order to have adequate sex education the adults must clarify their own goals and deal with honest issues of sexual relationships. Sex education cannot be truly successful until there is considerably more useful knowledge of how sex fits into the lives of people.—*E. J. Posavac.*

1020. Maranell, Gary M., Dodder, Richard A., & Mitchell, David F. (U. Kansas) **Social class and premarital sexual permissiveness: A subsequent test.** *Journal of Marriage & the Family*, 1970(Feb), Vol. 32(1), 85-88.—Tests I. L. Reiss' hypothesis that among conservatives those of higher social status are less permissive than those of lower status, while among liberals the relationship is in the opposite direction. Measures of fundamentalism, idealism, academic orientation, and authoritarianism were used independently to identify liberals and conservatives in a sample of 437 undergraduates. Both a chi-square and a sign test were applied to the data; neither confirmed Reiss' hypothesis. An extraordinarily strong relationship between permissiveness and the sex of the person, however, was found. Consequently the data was reanalyzed, while controlling for sex, to investigate the possibility that the validity of the hypothesis is contingent upon the sex of a person, but again the hypothesis was not confirmed.—*Journal abstract.*

1021. Simon, William. (Inst. for Juvenile Research, Chicago, Ill.) **Sex.** *Psychology Today*, 1969(Jul), Vol. 3(2), 23-27. Changes in the sexual climate of America appear to be profound if the openness with which sex is discussed is taken as the measure of such changes. The actual changes in behavior are often less profound, however. There does appear to be a greater tolerance for deviation from traditional sexual patterns partially as a result of a desire for more intense experience. Also, new directions in sexuality may be indicated by increasing emphasis on sexual competence.—*E. J. Posavac.*

Birth Control & Abortion

1022. Clark, Elizabeth W. (U. California, Berkeley) **A study of particular factors and their association with the adoption of family planning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2095-2096.

1023. Ward, Audrey W. (U. Sheffield, Medical Care

Research Unit, England) **Family planning clinics in Sheffield, 1967.** *Journal of Biosocial Science*, 1969(Jul), Vol. 1(3), 207-219.—Surveyed 1048 new patients at family planning clinics in Sheffield over a 4-mo period. 242 visited clinics at the outset of marriage and 806 had been married at least 6 mo. The Family Planning Association (FPA) had 894 patients and the Local Authority (LA) had 154. Wives of nonmanual workers were overrepresented at FPA clinics but not at LA clinics. Wives of semiskilled and unskilled manual workers were generally underrepresented. There is some evidence that relative accessibility affects clinic attendance. The most commonly used methods of contraception used before the clinic visit were condom and coitus interruptus. Among those able to give a firm answer there had been more unplanned pregnancies than planned, except among the nonmanual groups. 96% of the perinatal and 20% of the other Ss were working full-time. The perinatal Ss were equally divided in their choice of clinic methods—pill or cap. Among the other Ss, 49% were prescribed the pill, 27% an intrauterine device, and 24% the cap.—*Journal summary.*

ATTITUDES & OPINIONS

1024. Baldwin, Bruce A. (Arizona State U.) **Dissonance induction-reduction utilizing cognitive and affective approaches among repressors and sensitizers.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2975-2976.

1025. Bem, Sandra L. & Bem, Daryl J. (Carnegie Mellon U.) **We're all nonconscious sexists.** *Psychology Today*, 1970(Nov), Vol. 4(6), 22-26, 115-116.—Studies have shown that students evaluate research articles attributed to a male more highly than when the same work was attributed to a female. Such attitudes naturally develop when the socialization process refuses to take the talents of women seriously. Genetic explanations of present American sex roles cannot account for the much larger place women have in Russian society. Even individuals who are aware of the problem and want to stop forcing wives to accept the role of the housewife, continue to treat the husband as the one who is doing the really serious work.—*E. J. Posavac.*

1026. Bruvold, William H. (U. California, School of Public Health, Berkeley) **Affective response toward uses of reclaimed water.** *Journal of Applied Psychology*, 1971(Jeb), Vol. 55(1), 28-33.—Developed 3 Thurstone-type attitude scales in order to assess public reaction to high contact uses of reclaimed waste water. The scales were evaluated by field survey research conducted in northern and southern California. Test-retest reliability coefficients ranged from .82-.92 and scale results met expectations regarding the influence of degree of contact and environment upon attitudes toward waste water reuse. The scales developed should be useful in future applied and theoretical research involving waste water reclamation.—*Journal abstract.*

1027. Cooper, Joel. (Duke U.) **The role of personal responsibility in the arousal of cognitive dissonance.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2955-2956.

1028. Condry, R. William; Keniston, Kenneth, & Cabin, Seymour. (Harvard Medical School, Boston, Mass.) **The war and military obligation: Private attitudes and public actions.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 525-549. Studied the relation-

ship between attitudes toward the Vietnam war and willingness to sign a strongly worded and publicized antiwar resolution, in a random sample of 131 male college seniors at a selective liberal arts college. Level of opposition to the war did not fully explain why many strongly antiwar Ss did not sign the resolution. With level of opposition to the war held constant, personality measures and other attitudes differentiated between signers and nonsigners. It is hypothesized that the disposition to act publicly in support of private attitudes is a separate variable, which may be independent of the content and intensity of attitudes. (20 ref.)—*Journal summary*.

1029. Elms, Alan C. (U. California, Davis) **Pathology and politics.** *Psychology Today*, 1970(Feb), Vol. 3(9), 27-31, 58-59.—Conducted intensive interviews with 21 radical rightists from Dallas and similar numbers of moderates and liberals. Comparing the responses of the 3 groups revealed that most members of the far right were psychologically normal. Their espousal of very conservative political attitudes has been interpreted as a nearly pathological use of projection and displacement. These attitudes, however, can be better understood in terms of the functional approach to attitudes developed by Smith, Bruner, and White. Right-wing attitudes offer easily-mastered explanations of current political events and, for an individual living in Dallas, such attitudes are socially admired.—E. J. Posavac.

1030. Feather, N. T. (Flinders U. of South Australia, Bedford Park) **Balancing and positivity effects in social recall.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 602-628.—Conducted 3 experiments in which Ss 1st rated an issue using the evaluation scales of the semantic differential, and subsequently wrote sets of arguments concerning the issue. Ss then rated each argument for the strength of their agreement or disagreement. Results in all studies show that Ss wrote a greater number of attitude-consistent arguments than attitude-inconsistent arguments (a balancing effect). The preponderance of attitude-consistent arguments increased as attitude became more extreme. (23 ref.)—*Journal summary*.

1031. Rak, Damian. (13 Gumbinnenstr., Munich, W. Germany) **Über die Lage des Nullpunktes in seelischen Bezugssystemen.** [On the position of the zero point in psychic frames of reference.] *Psychologische Beiträge*, 1970, Vol. 12(3), 393-400.—Investigated the problem of whether the experiences of pressure, psychic tension, equanimity are 2-sided instead of 1-sided as previously believed. It is suggested that the 0 point is located within the respective frames of reference and not at their margin.—*English summary*.

1032. Rambo, William W. & Fromme, Donald K. (Oklahoma State U.) **Structural characteristics of liberal-conservative attitudes: A note.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 970.—Administered a set of 109 Likert-type items purporting to tap the liberalism-conservatism attitude system to 234 middle-age, middle-class Ss and 106 undergraduates affiliated with organizations which could be placed at the left or right of the liberal-conservative scale. Results support the concept of a general factor in the liberal-conservative attitude domain. The pattern of loadings displayed convincing stability across both samples.—S. Knapp.

1033. Ray, John J. (Macquarie U., Sydney, New South Wales, Australia) **"A new measure of conservatism": Its limitations.** *British Journal of Social &*

Clinical Psychology, 1971(Feb), Vol. 10(1), 79-80.—Discusses a short format of the 1968 Conservatism (C) Scale of G. D. Wilson and J. R. Patterson (see PA, Vol. 43:15017), noting (a) a standardization defect in that none of the samples to which it was administered appeared to approximate a normal one, and (b) that it varied little from Wilson's and Patterson's 1968 C scale. "It is concluded that the C scale is not suitable for use with a sample randomly drawn from the general population." A table is included which shows the lack of discriminating power of the individual items.—P. Hertzberg.

1034. Romanynshyn, Robert D. (Duquesne U.) **A theoretical-empirical investigation of white-attitudes-toward-blacks and black-attitudes-toward-whites: A phenomenology of attitudes.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3005.

1035. Roos, Leslie L. (Northwestern U.) **Urbanization and modernization: Some computer-based experiments.** *Behavioral Science*, 1970(Jul), Vol. 15(4), 350-358.—The growth of data banks and possibilities for secondary analysis have made the development of techniques for generalizing from 1 group of individuals to another particularly desirable. Thus, when extensive survey data on villagers are available, it would be useful to be able to make reasonable predictions as to the distribution of urban attitudes on the same questions asked of the rural respondents. Such a technique is described here and applied to Turkish survey data (from 316 male respondents from metropolitan areas and approximately 8000 peasants) dealing with various attitudes deemed important for an understanding of the modernization process. Problems of model fit and the possibilities for utilizing this methodology with other data sets are discussed. (18 ref.)—*Journal abstract*.

1036. Ross, Michael; Insko, Chester A., & Ross, Hildy S. (U. North Carolina) **Self-attribution of attitude.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 292-297.—Conducted 2 experiments to investigate the effects of previous behavior on subsequent reports of attitude. In Exp. I 46 undergraduates were randomly assigned attitude responses which were represented as their own. The Ss' attitudes were then assessed. Results indicate that the assigned attitudes influenced the later reports of attitude. The final responses of Ss whose attitudes were assigned did not differ from those of Ss whose initial attitude responses were genuinely their own. In Exp. II with 125 undergraduates the consistency and number of supposed previous responses were varied. Results show that the consistency but not the number of previous responses affect final reports of attitude. $\frac{1}{2}$ the Ss in Exp. II were not strictly forbidden from altering their supposed previous responses. As predicted, fewer Ss changed their previous responses in the consistent response condition, than in either the single or inconsistent response conditions.—*Journal abstract*.

1037. Wells, James O. (George Washington U.) **An experimental study of the assignment of responsibility for unintentioned, subintentioned, and intentioned death.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2294-2295.

Formation & Change

1038. Carter, Richard F., Pyszka, Ronald H., &

Guerrero, Jose L. (U. Washington, School of Communication) **Dissonance and exposure to aversive information.** *Journalism Quarterly*, 1969(Spr), Vol. 46(1), 37-42.—Reports studies related to cognitive dissonance and motivation in dissonance. Study I induced 3 conditions: dissonance with commitment, dissonance without commitment, and control. Increasing aversiveness of the information evoked less avoidance in the dissonance conditions with college students. Study II consisted of questions dealing with car-buying decisions. An interest rating scale found that attacking the individual rather than the choice was less likely to produce avoidance in 38 graduate students' wives. Study III found that avoidance based on an attack on the choice rather than the individual led to more avoidance in 64 junior high school students. The studies were related to others in mass media and a possible interaction of cognitive and motive states was postulated.—J. A. Kline.

1039. Cautela, Joseph R., Walsh, Kenneth J., & Wish, Peter A. (Boston Coll.) **The use of covert reinforcement in the modification of attitudes toward the mentally retarded.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 257-260.—Tests the use of covert reinforcement (COR) to modify in a positive direction attitudes toward retardates. 42 undergraduates filled out a Mental Retardation Opinionnaire. 21 Ss (experimental group) practiced the COR procedure: 21 Ss (treatment-control) practiced imagination scenes without reinforcement. 3 wk. after treatment, posttest scores on the Opinionnaire were obtained. A *t* test showed that the COR group changed significantly ($p < .01$) in a positive direction over the treatment-control group. Data are interpreted in terms of (a) increased frequency of images of a retarded person, and (b) the association of reinforcement with a mentally retarded person.—*Author abstract*.

1040. Cialdini, Robert B. (Columbia U.) **Attitudinal advocacy in the verbal conditioner.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 350-358.—Investigated the effect of advocacy in a verbal conditioning situation. 135 undergraduates reinforced the opinions of "passersby" concerning the expansion of Federal power: $\frac{1}{2}$ reinforced conexpansion responses, and $\frac{1}{2}$ reinforced proexpansion responses. The passersby were experimental cohorts, who allowed Ss to experience either successful or unsuccessful verbal conditioning in a way that produced either high or low public commitment to the reinforced position in the conditioner. An advocacy effect was found, such that Ss reinforcing proexpansion responses subsequently became more pro than Ss reinforcing conexpansion responses. This effect was found to be specific to those interview items on which overt advocacy occurred. Results are interpreted according to the self-attribution theory of D. Bem as demonstrating that the self-perception of overt advocacy behavior is a determining condition for the production of attitudinal shifts in the direction of the advocated position. It is concluded that the intention or set to advocate, by itself, is not a sufficient condition for such shifts. (15 ref.)—*Journal abstract*.

1041. Crano, William D. & Messé, Lawrence A. (Michigan State U.) **When does dissonance fail? The time dimension in attitude measurement.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 493-508.—Attempted to integrate findings related to the effect of differential

monetary reinforcement upon attitude change through the systematic variation of the time lag between conflict arousal and attitude measurement. Results indicate a dissonance effect ($p < .03$) in the immediate measurement condition, and a reinforcement effect ($p < .002$) with delayed attitude measurement. (17 ref.)—*Journal summary*.

1042. Edwards, John D. (Ohio State U.) **Resistance to attitude change as a function of the centrality and relatedness of bonded values.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 367-369. Experimentally induced initial attitudes were cognitively bonded to value statements varying on the dimensions of personal importance to 49 Ss and relevance to the attitude object. Neither variable affected the extremity of initial attitude. However, following discrepant information, attitude measures showed that bonding important values to initial attitudes conferred greater resistance to attitude change than either bonding to unimportant values or no bonding. This effect was obtained for both levels of value relevance. Value relevance did not affect resistance to attitude change.—*Journal abstract*.

1043. Frantz, Thomas T. (State U. New York, Buffalo) **Student and non-student change.** *Journal of College Student Personnel*, 1971(Jan), Vol. 12(1), 49-53. Investigated the changes in a group of 49 college seniors (29 male, 20 female) that had taken place since high school compared with changes in a similar age group of 34 individuals (10 male, 24 female) who had not attended college. All Ss completed a 5-factor scale: intellectual, social, moralism, traditional, and altruism. The groups were not similar in socioeconomic status or educational level. Test-retest reliability of the 5 factors ranged between .74 and .95. Few differences were obtained between the college and noncollege Ss. College students appeared to have become less judgmental, conservative, and moralistic. Most changes clearly took place on the social scale for both groups of Ss. College students became less moralistic and more tolerant about matters of religion, sex, and general conduct. The nature and extent of change among both groups were similar.—R. H. Mueller.

1044. Littlejohn, Stephen W. (U. Utah) **An experimental study of source credibility and communication exposure.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3028.

1045. Pallak, Michael S. & Heller, Jack F. (U. Iowa) **Interactive effects of commitment to future interaction and threat to attitudinal freedom.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 325-331.—Manipulated the variable of threat to attitudinal freedom in 62 undergraduates via a note from the S's partner which either arbitrarily assigned the S an attitudinal position (high threat) or solicited the S's attitudinal preference (low threat). With no expectation of future interaction with the partner (low commitment), greater negative attitude change was predicted under high threat than under low threat. With expectation of future interaction with the partner (high commitment), an attenuation of this effect was predicted, presumably because commitment to future interaction with the partner would forestall restoration of attitudinal freedom via negative attitude change. Significant Commitment \times Threat interaction on the attitude change measure confirmed the predictions.—*Journal abstract*.

1046. Penner, L. A. & Rokeach, M. (Michigan State U.) **The effects of employment condition on value**

systems. *Papers in Psychology*, 1969(Oct), Vol. 3(2), 47-51.—Interviewed 88 female and 133 male unemployed workers at a state unemployment office. Ss ranked Rokeach's 12 terminal and 12 instrumental values in order of their importance. In a follow-up study 7-9 mo. later, 66 Ss again ranked the values. Politeness decreased and broadmindedness increased for the Ss who were employed. For Ss still unemployed, equality and patience decreased while salvation, politeness, and tenderness increased. For the "temporarily unemployed-still unemployed" group, the decrease in the importance of equality was beyond the .002 level of confidence. The relationship between employment condition and value importance changes is discussed in terms of variations in employment expectations.—*S. Knapp.*

1047. Stone, Vernon A. & Eswara, Harrogadde S. (U. Wisconsin) **The likability and self-interest of the source in attitude change.** *Journalism Quarterly*, 1969(Spring), Vol. 46(1), 61-68.—Studied the effects of arguing for and against one's self-interest, and communicator likability, in persuading an audience. 168 undergraduates were provided with a pamphlet describing the TV coverage in the courtroom issue, and the sources (a lawyer and a journalist). Attitudes were assessed on bipolar scales before and after the speakers were heard, and the results indicate that a low likable source arguing against his self-interest was more effective than when arguing for his self-interest. In high likability conditions there was no difference. Self-interest interacted with other variables rather than being a main effect. Overlap is noted between credibility and likability which seem to operate independently enough to warrant separate consideration.—*J. A. Kline.*

Influence & Behavior

1048. Hendrick, Clyde & Taylor, Stuart P. (Kent State U.) **Effects of belief similarity and aggression on attraction and counteraggression.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 342-349.—Studied the effects of varying belief similarity on a behavioral variable (aggression) and interpersonal attraction. 48 male undergraduates competed with a pseudo-opponent on a RT task. On each of several trials Ss set varying levels of shock which they wished the opponent to receive if the latter lost on that trial, and received shocks the opponent set for them if they lost. S's shock setting constituted a direct measure of aggression. Ss competed against an opponent who was either similar or dissimilar in attitudes, and who was either aggressive or nonaggressive, and then evaluated the opponent on several scales. Results show that only aggression of the opponent affected Ss' counteraggression. Both opponents' aggressiveness and belief similarity affected attraction. It is suggested that the common sense assumption that attraction mediates aggression may be incorrect. The 2 variables may be independent with different sets of determinants. The everyday observation of co-occurrence of liking and aggression may be due to the simultaneous activation of their separate independent variables. (18 ref.)—*Journal abstract.*

1049. Meichenbaum, Donald H. (U. Waterloo, Ontario, Canada) **Examination of model characteristics in reducing avoidance behavior.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 298-307.—Examined the relative efficacy of 2 model characteristics in reducing avoidance behavior using a

2 × 2 factorial design. Fearless vs. coping behavior and behavioral and cognitive modeling vs. behavioral modeling alone were studied. 36 female undergraduates with an extreme fear of nonpoisonous snakes were assessed twice on a graduated behavioral approach test and on self-report measures of fearfulness. Between approach tests Ss observed 3 televised female models in the same approach situation. The behavioral and affective self-report measures indicate that observation of coping models, who initially demonstrate fearful behavior, subsequently model coping, and finally mastery behaviors, is significantly superior to mastery models in enhancing fear reduction. The addition of the models' self-verbalization to the coping condition significantly enhanced treatment effectiveness. Results indicate that a coping self-verbalizing model was the most effective model to reduce avoidance behavior. Factors required to facilitate modeling treatment of avoidance behavior are discussed. (37 ref.)—*Journal abstract.*

1050. Novak, David W. (U. Kentucky) **Social psychological processes and reactions to the handicapped.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2262.

GROUP & INTERPERSONAL PROCESSES

1051. Aronoff, Joel & Messé, Lawrence A. (Michigan State U.) **Motivational determinants of small-group structure.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 319-324.—Reports an investigation of individual motivation as a determinant of group structure. 50 male undergraduates high on either safety or esteem needs were homogeneously formed into 10 5-S groups. All groups were given a standardized set of tasks, and Ss' task-oriented behaviors were coded using Borgatta's interaction process scores. As predicted, safety groups tended to establish a more hierarchical social structure, in that task-oriented behaviors consistently were concentrated in fewer Ss in safety groups than in esteem groups. It is concluded that groups tend to organize themselves in ways that are compatible with the motivations of their members. (18 ref.)—*Journal abstract.*

1052. Barbour, Alton. (U. Denver) **Sociometric meaning in interpersonal relationships.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 193-201.—The meaning of sociometry as a methodology is explained, and various research ideas are explored, each aimed at increasing knowledge of interpersonal relationships. (29 ref.)—*A. Krichev.*

1053. Baron, Robert A. (U. South Carolina) **Magnitude of victim's pain cues and level of prior anger arousal as determinants of adult aggressive behavior.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 236-243.—Hypothesized that: (a) under conditions where Ss were not angered prior to their opportunity to aggress, increments in the magnitude of pain cues emitted by the victim would lead to corresponding reductions in the strength of the attacks against this individual; and (b) under conditions where Ss were angered before aggressing, it was predicted that increments in the magnitude of pain cues from the victim would either fail to inhibit or actually tend to facilitate subsequent aggression. Results of an experiment with 60 male undergraduates indicate that Ss direct more intense attacks against the victim under the angered than the nonangered condition, but the strength of these attacks

decreases significantly under both conditions as the magnitude of pain cues from the victim increases.—*Journal abstract.*

1054. **Baron, Robert A.** (U. South Carolina) **Magnitude of model's apparent pain and ability to aid the model as determinants of observer reaction time.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 196-197.—Investigated the effects of magnitude of apparent suffering of a live peer model and the instructions concerning their ability to aid this individual on O.R.T. It was predicted that under conditions where Os were informed that they could influence the suffering of the model by the speed of their responses, RT would decrease as the magnitude of pain evidenced by this individual increased. However, under conditions where Os were informed that they could not aid the model, it was expected that RT would actually increase as the degree of pain shown by this person increased. Results of an experiment with 32 female undergraduates support these predictions.—*Journal abstract.*

1055. **Bell, Cecil H.** (Boston U., Graduate School) **The effects of group size on bargaining outcomes and interaction patterns in a mixed-motive game.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3014.

1056. **Bindrim, Paul.** (2000 Cantata Dr., Hollywood, Calif.) **Nudity as a quick grab for intimacy in group therapy.** *Psychology Today*, 1969(Jun), Vol. 3(1), 24-28.—Based on the possibility that nudity might hasten the process of becoming emotionally open, a nude marathon encounter weekend was conducted. Results of the 1st nude marathon were improved self-confidence and acceptance of others. On the basis of the results of 38 nude marathons, it is suggested that "controlled skin contact might be therapeutic in and of itself."—*E. J. Posavac.*

1057. **Cohen, Stephen L. & Jaffee, Cabot L.** (U. Tennessee) **The effects of varying the number of conditioned leaders on group problem solving.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 95-96.—Divided 120 male undergraduates into 30 4-man groups. The independent variable was the number of persons reinforced for verbal output in a group problem-solving situation: (a) in 10 groups, only 1 S was reinforced; (b) in 10 others 2 Ss were reinforced; and (c) in another 10 groups, all 4 Ss were rewarded for their verbal participation. The dependent variables investigated were the amount of time necessary for solution of the problems and the total number of conflict remarks generated during those sessions. Results indicate that the b groups took significantly longer to come to solution of the problem than either of the other 2 conditions. The number of conflict remarks, however, did not discriminate among treatments. Evidence suggests that the probable cause of the b groups' poor performance is due to the significantly greater number of conflict statements generated by the initial high talker than were in the other 2 treatments. (24 ref.)—*Journal abstract.*

1058. **Coulson, William, et al.** (Center for Studies of the Person, La Jolla, Calif.) **Inside a basic encounter group.** *Counseling Psychologist*, 1970, Vol. 2(2), 1-55.—Describes the transcript of a 16-hr weekend encounter group consisting of 10 members, 2 of whom were "facilitators" (group leader-psychologists). Carl Rogers and Richard Farson. The other 8, a heterogeneous group, were comprised of strangers to one another, yet willing to engage in a "first-time filming of

an encounter group." From the 1st hr., chiefly marked by "cautious garble," the group reached a point of personal concern by the 16th hr. Regarding the encounter group as "what happens when you have a lot of time to spend with people and no agenda," it was characterized by (a) feedback; (b) "explicating the implicit," i.e., implicit became explicit; (c) being personal; (d) identification; (e) expressing intention; and (f) movement of the body. The only requisite for an encounter group is that there be an "occasion" for it. Basic encounter groups are effective in terms of immediate process changes; knowing you are loved is a potent event, but adverse effects include returning home a changed person so that you are no longer effective as a "company man," and "bashing people with openness," e.g., shocking people. Responses by R. J. Corsini, M. Lakin, M. M. Ohlsen, N. Kagan, and L. D. Goodstein, and a rejoinder by W. Coulson are included.—*W. S. Sahakian.*

1059. **Crott, Helmut W.** (U. Mannheim, W. Germany) **Konfliktverhalten: Eine experimentelle Untersuchung zum kooperativen Zwei-Personen-Spiel.** [Conflict behavior: An experimental investigation into a cooperative two-persons-match.] *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2956.

1060. **Davis, James H., Bates, Peter A., & Nealey, Stanley M.** (U. Illinois) **Long-term groups and complex problem solving.** *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 28-35.—Previous research with ad hoc laboratory groups has suggested that a model assuming the emergence of an equalitarian social structure predicts better the problem solving performance of small groups than an alternative model assuming a hierarchical structure. This experiment studied 19 long-term groups and 43 individuals having substantial interpersonal experience during a business game that continued for several wk; the hierarchical but not the equalitarian model could be rejected as an accurate description of group performance. A strong cultural value stressing equalitarianism is proposed as 1 of several possible explanations.—*Journal abstract.*

1061. **Delbecq, Karl H.** (State U. New York, Binghamton) **Conceptions of group decision and group conflict applied to vector space: A research model.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 440-450.—Attempts to integrate and clarify basic theory and to discuss research methods and concepts for the description and measurement of the group decision process. Ways for describing and measuring the speed, accuracy, and ultimate satisfaction of group decisions are proposed and related to (a) controllable conditions which may be manipulated (b) the interaction in the group which cannot be controlled, and (c) the personality characteristics and attitudes of the group members. The result of this attempt is a vector model which describes decision making in terms of attitudes. It makes use of a new line of research which has become known as dynamic calculus.—*Journal abstract.*

1062. **Eagly, Alice H.** (U. Illinois) **Leadership style and role differentiation as determinants of group effectiveness.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 509-524.—All-male and all-female groups discussed a case history and provided a statement of their analysis of the case. The relationship between leadership style, as measured by Friedler's Least Preferred Co-worker (LPC) instrument, and task effectiveness (quality of the statement) was investigated for both the top task contributor and the best-liked member of the group.

LPC of the top task contributor did not relate to task effectiveness. In the role-differentiated groups, LPC of the best-liked member related positively to task effectiveness in the male groups and negatively in the female groups.—*Journal summary*.

1063. Frankel, Gail. (U. Rochester) **Reported self-disclosure and perceived characteristics of the discloser.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2279.

1064. Freid, Joel B. (U. South Carolina) **The effects of input and feedback on accuracy of self descriptions in short-term sensitivity training.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2279-2280.

1065. Gamez, George L. (U. Texas) **T-groups as a tool for developing trust and cooperation between Mexican-American and Anglo-American college students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2305.

1066. Gamez, Kay B. (U. Texas) **Transfer of learning from T-groups to other groups.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2305-2306.

1067. Gibbard, Graham S. (U. Michigan) **The study of relationship patterns in self-analytic groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2983-2984.

1068. Golden, Stanford B. (U. Tennessee) **The substitution and addition of newcomers into small groups: Effects of conformity.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2339.

1069. Gormly, Anne V. (U. Illinois, Urbana-Champaign) **Interpersonal attraction and value similarity: The linear model of attraction and Rokeach's value theory.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3021-3022.

1070. Griffitt, William; Byrne, Donn, & Bond, Michael H. (Kansas State U.) **Proportion of positive adjectives and personal relevance of adjectival descriptions as determinants of attraction.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 111-121.—Hypothesized that the positive and negative descriptive adjectives used in investigations of impression formation would influence attraction responses in the same linear fashion as had been established for similar and dissimilar attitudes. It was also hypothesized that the motivational context of the stimuli would be positively related to the steepness of the linear function. With 2 independent samples of 63 and 90 undergraduates, 3 sets of adjectives of differential favorableness were presented at 3 levels of personal relevance. Analysis of variance indicates strong support for the 1st hypothesis ($p < .001$) but no support for the 2nd. Instead, as personal relevance increased, the magnitude of the attraction response increased ($p < .001$). An interaction ($p < .05$) between proportion and relevance suggests that Ss in the high relevance condition tended to discount inconsistent negative adjectives to a greater extent than those in the low and medium relevance conditions. (40 ref.)—*Journal abstract*.

1071. Hayward, George W. (U. Texas) **Expressed aggression as a function of guilt level under varying conditions of legitimacy and external threat.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2281.

1072. Hendrick, Clyde; Bixenstine, V. Edwin, & Hawkins, Gayle. (Kent State U.) **Race versus belief similarity as determinants of attraction: A search for a fair test.** *Journal of Personality & Social Psychology*,

1971(Mar), Vol. 17(3), 250-258.—Conducted an experiment to assess the efforts of race vs. belief similarity on interpersonal evaluations. Videotaped interaction was used to manipulate both variables. 40 undergraduates observed 2 white and 2 black actors discussing an issue and then evaluated them. 1 white and 1 black agreed with the Ss' position, and the remaining pair disagreed. Results show strong belief effects, but few race effects, confirming previous research. A 2nd experiment employed only the video portion of the tape in order to study assumed similarity and attraction. Results show some assumed dissimilarity of blacks, but it was unrelated to attraction. Rather, the expressive behaviors of actors determined attraction, while racial membership had no effect at all. (15 ref.)—*Journal abstract*.

1073. Holder, Barry T. (State U. New York, Buffalo) **Post-training retention effects as a function of training exposure.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2282.

1074. Husbands, C. T. (U. Illinois, Chicago Circle) **Some social and psychological consequences of the American dating system.** *Adolescence*, 1970(Win), Vol. 5(20), 451-462.—Relates the superficiality and lack of emotional commitment in the American pattern to instability of marriages.—A. B. Warren

1075. Jaffee, Cabot L., Richards, Steven A., & McLaughlin, Gerald W. (U. Tennessee) **Leadership selection under differing feedback conditions.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 349-350. Under 2 differing feedback conditions (specific and nonspecific) leadership voting within 27 small groups of female undergraduates ($N = 3$ each) was analyzed. It was found that modifying the percentage of reinforcement to different Ss influenced voting behavior significantly, and that Ss in the 2 treatment conditions did not differ in their ability to match votes with reinforcements. It was felt that Ss respond more rapidly to duration of speech rather than quality of speech in voting for leaders.—*Journal abstract*.

1076. Jastrebske, Ellen M. & Rule, Brendan G. (U. Alberta, Edmonton, Canada) **Effects of group variance and advocated position on conformity.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 550-559.—Employed a $2 \times 2 \times 2$ factorial design to test the influence of amount of group variance, direction of advocated shift, and judgmental instruction sets on conforming responses. The hypothesis predicted an interaction where conformity was maximized, with less variance under empirical validation instructions and more variance under social validation instructions. Ss changed opinions significantly more when the group advocated agreement than when it advocated disagreement on the issue. (17 ref.)—*Journal summary*.

1077. Julian, James W. & Kimball, Richard K. (State U. New York, Buffalo) **Effects of task orientation and level of prior agreement on willingness to agree.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 213-215.—Examined the effects of prior agreement from others on Ss' subsequent willingness to agree under both individual and group-oriented conditions. 160 female undergraduates served as Ss. Under both orientations, the level of subsequent agreement was highest following unanimous (100%) prior agreement from others, lowest following strong partial (75%) agreement, and moderate following still lower levels of prior agreement (50 and 25%). The applicability of social exchange formulations was tested and found inadequate under circumstances

where the prospect of future gain from the exchange was minimal.—*Journal abstract.*

1078. Kahn, Arnold; Hottes, Joe, & Davis, William L. (Iowa State U.) **Cooperation and optimal responding in the Prisoner's Dilemma game: Effects of sex and physical attractiveness.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 267-279.—Predicted that males would make choices in the Prisoner's Dilemma (PD) game in such a way as to maximize their winnings, while females would alter their choices on the basis of the social nature of the setting. 2 PD game studies were undertaken in which, for $1/2$ the Ss, the cooperative response would lead to higher winnings, while for the remaining Ss the competitive choice was optimal. In the 1st study 40 undergraduates played with like-sex partners, while in the 2nd study 80 Ss played with opposite-sex partners, whose physical attractiveness varied. Both studies found males more likely than females to make the optimal choice, while females were more likely to vary their choices as a function of the sex and attractiveness of their partner. Findings suggest that males and females do not have differential motives to cooperate, but respond to different cues. (26 ref.)—*Journal abstract.*

1079. Kazdin, Alan E. & Bryan, James H. (Northwestern U.) **Competence and volunteering.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 87-97.—Designed 2 experiments to determine the effect of competence upon aiding behavior. It was hypothesized that competence, particularly that relevant to the aiding response, would increase 96 undergraduates' willingness to volunteer help. Competence was manipulated by indicating to the Ss that they were either physically fit (task-relevant response) or possessed creative ability (task-irrelevant). The dependent variable was the S's volunteering to donate blood. Results in both studies support the hypothesis that competence increases volunteering behavior although task relevance had no effect. (19 ref.)—*Journal abstract.*

1080. Kelly, Marynell A. (U. Arizona) **Active vs passive leadership techniques with development groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2990.

1081. Kennedy, John L. (U. Southern California, School of Business Administration) **Simulation study of competition in an "open world."** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 42-45.—5 3-man teams competed in a business game in an environment in which behavioral access to the simultaneous behavior of a competing team by means of closed-circuit TV and sound could be purchased. Switching to other teams made possible nearly continuous surveillance of all the competitors. Preliminary results describe the various adaptations of the teams to this unusual technological capability. Speculations on the implications of such research for the worlds of business and international relations are included.—*Journal abstract.*

1082. Kennedy, John L. (U. Southern California, School of Business Administration) **The system approach: A preliminary exploratory study of the relation between team composition and financial performance in business games.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 46-49.—Asked 16 3-5 man self-organizing teams, composed to vary on a dimension of conceptual complexity of the individual members, to compete in a laboratory-based business game. Competitive performance was measured in terms

of profit or loss accumulated over a 12-wk period of operations. Variation in team size (3-5 members) was not related to performance. The primary composition variable, conceptual complexity, as measured by a Paragraph Completion Test, was significantly related to financial performance. *Journal abstract.*

1083. Kleinke, Chris L. & Pohlen, Paul D. (Claremont Men's Coll.) **Affective and emotional responses as a function of other person's gaze and cooperativeness in a two-person game.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 308-313.—Investigated the influence of context upon attitude toward a gazing person. 50 male undergraduates played a Prisoner's Dilemma (PD) game with a confederate whose gaze (constant vs. no gaze) and cooperativeness (100% cooperative, 90% cooperative, and 100% competitive) were manipulated in a 2×3 factorial design. The 1st part of the study found that Ss' ratings of the confederate on liking and partner preference were significantly affected by cooperativeness but not by gaze. Significant Gaze \times Cooperation interactions occurred for Ss' self-ratings on friendly-hostile and cooperative-competitive scales. Ss in the 100% competitive-gaze and 100% cooperative-no gaze groups saw themselves as friendly and cooperative, while Ss in the 100% competitive-no gaze and 100% cooperative-gaze groups gave hostile and competitive self-ratings. Although Ss in the 100% competitive-gaze condition rated themselves as cooperative, their actual PD game behavior was highly competitive. Part 2 of the study supported the hypothesis of A. Kendon (see PA, Vol. 41:5907) that gaze and emotional arousal are functionally related by showing that Ss in the gaze condition had significantly higher heart rates than Ss in the no gaze condition. Heart rates for all Ss decreased significantly during the course of the experiment. (25 ref.)—*Journal abstract.*

1084. Lakin, Martin. (Duke U., Sensitivity Training & Group Process Lab.) **Group sensitivity training and encounter: Uses and abuses of a method.** *Counseling Psychologist*, 1970, Vol. 2(2), 66-70.—A call is issued to demand higher standards of trainer development and preparation, and to discriminate between good and bad theory, good and bad marginal practice. Goals, conceptions, rationales, and results to date require reassessment. Over 2 decades growth gives the training movement, an American phenomenon, its majority, proceeding from a learning experience with therapeutic side effects to a therapeutic experience with learning side effects. In considering the functions of the trainer, sensitivity, judgment, and the understanding required demand relative chronological and emotional maturity. Training groups provide intimacy, belongingness, authenticity, and feedback. Although trainers generally are ethical, moral dilemmas occasionally occur. It is not advisable to employ encounter groups in structureless confrontations of hostile subgroups (e.g., Jews-Arabs). W. S. Sahakian.

1085. Marcus, Esther S. (New York U.) **The relationship of psychological differentiation to the congruence of temporal patterns of speech.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2288.

1086. McMillen, David L. (Mississippi State U.) **Transgression, fate control, and compliant behavior.** *Psychonomic Science*, 1970(Oct), Vol. 21(2), 103-104.

—Tested the hypothesis that increased "fate control" will lead to increased compliance in 32 male undergraduates. Fate control was manipulated by inducing S

to tell a lie about information he had received and then make use of the information. Other Ss were induced to lie but could not make use of the information. Controls who told no lie were included in the design. Significant compliance was observed in the "fate control" group only.—*Journal abstract.*

1087. McNeel, Steven P. & Messick, David M. (Southern Illinois U.) **A Bayesian analysis of subjective probabilities of interpersonal relationships.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 311-321.—Investigated Ss' perceptions of the likelihood of several interpersonal relationships in hypothetical 2- and 3-person groups. 29 undergraduates judged the probability that 2 people were joined by a specific interpersonal relationship, given various amounts and kinds of prior information regarding the incidence of that relationship in the group. The Bayesian likelihood ratio, computed from initial probability levels and amount of change due to the information, was assumed to measure the impact of the information on the S. The likelihood ratios provided fairly strong verification for the predictions of balance theory and suggested other cognitive biases also function in Ss' processing of information about social relationships. It is suggested that the likelihood ratio provides an appropriate and convenient measure of the informativeness of a stimulus in any situation in which probabilities can be estimated. It is also suggested that the consideration of humans as Bayesian processors of social information may have important theoretical and methodological implications for research in the area of belief change.—*Journal abstract.*

1088. McWhirter, Richard M. (Texas Tech U.) **Interpersonal attraction in a dyad as a function of the physical attractiveness of its members.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3029-3030.

1089. Messé, Lawrence A. (Michigan State U.) **Equity in bilateral bargaining.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 287-291.—Hypothesized the norm of equity to mediate conflict in a 2-person bargaining situation by giving prominence to that outcome whose ratio of payoffs is equal to the ratio of the inputs (work on a prior task) of the bargainers. 40 pairs of male undergraduates were assigned to 1 of 5 different input-ratio conditions, and given the same set of outcomes over which to bargain. Results support the hypothesis with respect to both the differential frequencies with which outcomes were agreed upon and the time needed to reach agreement. Findings are used as the basis for speculating about the nature of the bargaining process.—*Journal abstract.*

1090. O'Connell, Michael J. (U. Tennessee) **The effects of immediate reinforcement, delayed reinforcement, and perceptual cues on inquiry during verbal interaction.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2290.

1091. Pepitone, Albert. (U. Pennsylvania) **The role of justice in interdependent decision making.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 144-156.—A motivational analysis of decision making in which payoffs are interdependent suggests that choices can be regarded as means of allocating rewards in accordance with certain ethical principles, which may not correspond to rational decision criteria of the sort proposed by statistical decision and game theorists, e.g., maximizing expected utility. Specifically, Individuals a

and b appear to make maximizing choices with the frequency that is required to maintain or achieve justice in the distribution of rewards—a condition quantitatively defined as equality of the ratios of their perceived relative merit (X) to the amount of reward (R) felt to be deserved. Thus, $X_a/R_a = X_b/R_b$. Experiments with 2 undergraduates designed to test hypotheses derived from this exchange theory of choice behavior yielded entirely affirmative results.—*Journal abstract.*

1092. Plon, Michel. (Ecole Pratique des Hautes Etudes, Paris, France) **A propos d'une controverse sur les effets d'une menace en situation de négociation.** [Regarding the controversy over the effects of threat in negotiations.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 268-282.—Presents a review and critical analysis of the classical threat-negotiation experiments of Deutsch and Krauss and the ensuing work of Borah, Gallo, Shomer, Davis, and Kelley. (22 ref.)

1093. Regula, Clarence R. (State U. New York, Buffalo) **The effects of inequity and responsibility on helping behavior.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2324-2325.

1094. Reilly, Richard R. & Jaffee, Cabot L. (Educational Testing Service, Princeton, N.J.) **Influences of some task-irrelevant factors on leader selection.** *Psychological Record*, 1970(Fal), Vol. 20(4), 535-539.—Studied the effect of 3 task-irrelevant factors on leader selection under 2 conditions of task-reward in a 2⁴ factorial design. 96 groups of 3 female Ss each participated in problem-solving sessions with an experimental confederate. The status, verbal participation, and confidence factors all significantly influenced Ss' voting behavior under both reward conditions. Ss made significantly more self votes under the high reward conditions, however. Results also suggest that Ss' estimations of the number of problems solved by the experimental confederate were influenced by the confidence and verbal participation factors.—*Journal abstract.*

1095. Rubincroft, Carl I. (U. Texas) **Leadership in dyadic groups as a function of dominance and ethnic composition.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2265.

1096. Smith, David E. & Rose, Alan J. (Haight-Ashbury Free Clinic, San Francisco, Calif.) **A case study of the Charles Manson group marriage commune.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(3), 99-106.—Describes commune living based on direct observation.—*M. V. Kline.*

1097. Streufert, Siegfried & Castore, Carl H. (Purdue U.) **Information search and the effects of failure: A test of complexity theory.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 125-143.—Examined the effects of increasing failure and the structural complexity of decision-making teams on 4 aspects of information search and utilization. 24 structurally homogeneous dyads (male volunteers) and 12 unselected control dyads served as Ss in a complex experimental simulation running for 6 30-min periods. Information load was held constant at 7 inputs period. The proportion of failure inputs was sequentially increased from 1:7 in Period 1 through 6:7 in Period 6. Dyads in the control condition were not exposed to failure. It was found that structurally simple Ss engaged in more delegated information search than complex Ss. Self-initiated information search initially increased, then remained fairly constant at higher proportions of failure. Contrary

to expectations, no differences were found between simple and complex Ss in self-initiated search. Complex dyads exceeded simple dyads on 2 measures of information utilization. The number of search moves used in integrative decisions produced an inverted U-shaped curve with optimal levels at moderate proportions of failure. Efficiency of information utilization showed a general decrease as failure increased. Data give limited support for complexity theory and support, where applicable, the information search theories of J. T. Lanzetta and N. T. Feather. (45 ref.)—*Journal abstract*.

1098. Townes, Brenda D. (U. Washington) **Non-metric multidimensional scaling of sociometric data**. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2269.

1099. Verplanck, William S. (U. Tennessee) **Trainers, trainees, and ethics**. *Counseling Psychologist*, 1970, Vol. 2(2), 71-75.—When 2 value systems collide, there can be no rational choice between them. Humans vary as do values and needs; the individual's rights and freedoms must be respected, and his is the responsibility of choosing among the alternatives offered in the light of prevailing risks and prospective gains. To accomplish this, it is necessary for the counselor to define and state his own beliefs, rituals, and values, and that is his basic ethic. A corollary is that no individual should be "required to join a group, of whatever sort, for whatever purpose."—*W. S. Sahakian*.

1100. Weber, Russel J. (U. California, Berkeley) **The effects of videotape feedback on interaction behavior and role perception in small decision making groups**. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2332-2333.

Influence & Communication

1101. Allen, Vernon L. & Levine, John M. (U. Wisconsin) **Social pressure and personal preference**. *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 122-124.—Investigated R. S. Crutchfield's (see PA, Vol. 30:2454) contention that preference judgments are uniquely immune to group pressure. 81 undergraduates were tested in same-sex groups of 5. Controls were unaware of the answers of the rest of the group, experimental Ss answered last in turn, and E simulated group responses to apply group pressure. Effects of social pressure were measured by changes in responses to 20 stimuli given several weeks earlier under experimental conditions. Results strongly indicate that group pressure did influence preference judgments.—*Journal abstract*.

1102. Allen, Vernon L. & Levine, John M. (U. Wisconsin) **Social support and conformity: The role of independent assessment of reality**. *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 48-58.—Investigated the role of 1 factor in the reduction of conformity produced by a partner who agrees with the S in the face of group pressure: the independent assessment of social and physical reality provided by the partner. Ss were 123 undergraduates. 2 social support conditions were created, differing only in S's perception of his partner's adequacy as a valid referent for making judgments. A unanimous group was also included to provide a conformity base line. Results indicate that the valid social support condition produced a significantly greater decrease in conformity than the invalid social support condition, though both conditions reduced conformity relative to the unanimous group. Results

support the hypothesis that independent assessment of reality provided by a partner is an important factor underlying the efficacy of social support in reducing conformity. (21 ref.)—*Journal abstract*.

1103. Ashmore, Richard D. (U. California, Los Angeles) **Intergroup contact as a prejudice-reduction technique: An experimental examination of the shared-coping approach and four alternative explanations**. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2949-2950.

1104. Belovicz, Meyer W., Finch, Frederic E., Pruitt, Dean G., & Teger, Allan I. (U. Massachusetts) **Comments on "The risky shift in group betting"**. *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 81-86.—Argues that D. G. Pruitt and A. T. Teger (see PA, Vol. 43:15712) included a methodological defect in their attempt to extend the generality of the risky shift to group betting, and that "the operational definition of probability used by them is not a measure of probability." A reply by Pruitt and Teger follows in which they review their methodology and give support for their conclusions. They note that the term "probability preference," questioned by Belovicz and Finch, could more appropriately be labeled "odds preference."—*M. West*.

1105. Ference, Thomas P. (Columbia U.) **Feedback and conflict as determinants of influence**. *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 1-16.—Asked 60 undergraduates to make a series of 20 judgments on the qualifications of applicants for college admissions. Ss' judgments were based on information provided by 2 sources. The analysis focused on differences in the influence of the sources, resulting from varying levels of conflict in the information provided and from the feedback on the accuracy of the judgments given to the S after each trial. Ss based their judgments on the content of the information when conflict was mild and on a choice between sources when conflict was strong; also, judgments based on a choice between sources were less intense. Feedback was found to determine the preference for sources although results were less clear-cut than expected. (18 ref.) *Journal abstract*.

1106. Hamilton, David L. (Yale U.) **The structure of personality judgments: Comments on Kuusinen's paper and further evidence**. *Scandinavian Journal of Psychology*, 1970, Vol. 11(4), 261-265.—Challenges the conclusions of J. Kuusinen (see PA, Vol. 43:12993) based on a comparison of the factor structures of individual Ss' ratings of their peers with the structure of peer ratings made by a group of Ss. He concluded that the group structure adequately represented the individual structures and that interindividual differences were unimportant. It is argued that the between-S differences in Kuusinen's results were too pronounced to be dismissed as negligible. Data are presented from a study in which 9 male undergraduates made personality ratings of stereotypic role figures. The factor structure underlying each S's ratings was determined and compared with that of each other S. The degree of congruence between the factor structures of pairs of Ss varied and in general only moderate convergence was observed. Implications of these individual differences for the concept of implicit personality theories are discussed.—*Journal abstract*.

1107. H6weler, Marijke & Vrolijk, Arle. (Free U., Amsterdam, Netherlands) **Verbal communication**

length as an index of interpersonal attraction. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 511-515.—Tested the hypotheses that (a) one's attitude is reflected in length of speech, and (b) both sexes show a more extensive verbal output when talking to a male. 40 male and 40 female undergraduates were asked by a male or female E to write a "spoken letter" to someone they liked and disliked. Both hypotheses were confirmed.—S. Knapp.

1108. Rubin, Jeffrey. (Tufts U.) **The nature and success of influence attempts in a four-party bargaining relationship.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 17-35.—Analyzed the functioning of a complex 4-party bargaining system in an experiment with 192 female undergraduates. 2 of the bargaining parties, A and B, were defined as having equal power, this power being greater than that of A and B's respective allies, X and Y—who also had equal power. The bargaining system was further structured to make it desirable for A and B to interact indirectly with each other, via X and Y as intermediaries. Within this paradigm, A and B's relationship with each other (cooperative vs. competitive) and X and Y's counterpower vis-à-vis A and B (high vs. low) were manipulated in a 2×2 factorial design. It was found, as predicted, that the system functioned most effectively (in terms of outcome levels and degree of positive affect among the 4 parties) when A and B were cooperatively oriented, and X and Y had low counterpower. The system functioned least effectively when A and B were competitive and their allies' counterpower was high. Unexpected findings emerged, however, with respect to the kinds of influence attempts directed by A and B at X and Y. Among the more provocative of these was the fact that cooperative As and Bs, in contrast with those receiving a competitive induction, made the most frequent use not only of promises but also of threats.—*Journal abstract.*

Social Perception & Motivation

1109. Argyle, Michael & McHenry, Robert. (Oxford U., England) **Do spectacles really affect judgments of intelligence?** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 27-29.—Made video tapes of performers with and without spectacles, seen either static for 15 sec. or being interviewed for 5 min. Judges (30 undergraduates) rated IQs of performers as 12 points higher when they were seen wearing spectacles and were seen briefly; when the performers were seen for 5 min., however, spectacles made no difference. It is argued that this result throws doubt on experiments in person perception using photographs or brief exposure.—*Journal abstract.*

1110. Bayes, Marjorie A. (U. Miami) **An investigation of the behavioral cues of interpersonal warmth.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2272.

1111. Daves, Walter F. & Griffin, Julia W. (Georgia State U.) **Context effects in person perception as a function of dogmatism.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 927-932.—Investigated the role of dogmatism in context effects in the judgment of the personality dimension tense-relaxed. 48 undergraduates were selected on the basis of their scores on the Rokeach Dogmatism Scale. 4 Ss were assigned to each cell of the $2 \times 3 \times 2$ experimental design, which included sex of S, level of dogmatism, and nature of the 6 anchor

photographs (tense or relaxed) which preceded the test photographs. Ss then judged 6 neutral test photographs of adult males. The neutral photos were judged to be more relaxed when preceded by the tense anchors and more tense when preceded by the relaxed anchors. Dogmatism was not a significant source of variance. Female Ss tended to respond more strongly to the tense anchor and to judge the neutral photos as being more relaxed than male Ss. (20 ref.)—*Journal abstract.*

1112. Doise, Willem & Zavalloni, Marisa. (Ecole Pratique des Hautes Etudes, Paris, France) **The generality of social perception characteristics.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 521-524.—Conducted an experiment to determine if cognitive style is a general characteristic of personality. 20 male and 29 female French undergraduates were asked to complete 3 questionnaires which presented triads of familiar persons, famous people, and nations. Ss were to indicate which 2 were alike and how they differed from the 3rd. Ss reacted consistently in categorizing the different social stimuli. It is concluded that categorization style may be regarded "as a generalized tendency or even as a personality trait."—S. Knapp.

1113. Edwards, John D. & Ostrom, Thomas M. (Loyola U., Chicago, Ill.) **Cognitive structure of neutral attitudes.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 36-47.—Having either all neutral experiences with an attitude object, or a wide range of positive, neutral, and negative experiences can produce overall affective neutrality, but these 2 types of experience should have different consequences for cognitive structure. An experiment is described in which 42 undergraduates formed attitudes about 2 hypothetical persons and responded to 2 single-score measures of attitude and a measure of cognitive structure. Manipulation of the evaluative homogeneity (all neutral vs. positive, neutral, and negative) of information about the attitude object shows that the evaluative profile of cognitive structure was significantly influenced by homogeneity. However, the effects of this variable were not detectable using single-score measures of attitude.—*Journal abstract.*

1114. Elfenbein, Morton H. (Boston U., Graduate School) **Judge and subject complexity as determinants of cognitive structure in impression formation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2957-2958.

1115. Foster, Jeremy J. (Bolton Inst. of Technology, England) **Note on perceived personality of a nude.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 941-942.—Reports a pilot study of the effect of the nudity of a stimulus person (SP) on the personality characteristics ascribed to him. Separate subgroups of 18 male and 18 female students rated either the face only or the whole torso of underclothed and nude SPs on semantic differential scales and made judgments as to social class and intelligence. For female Ss, the nude female SP was rated higher on activity and potency and lower on evaluation by Ss who saw the whole torso. The nude SPs of both sexes were placed in a lower social class by the torso groups than the face groups, while male SPs were seen as less intelligent.—*Journal abstract.*

1116. Gozali, Joav & Sloan, Jack. (U. Wisconsin Milwaukee) **Reflections of the categorization of human excellence.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 207-211.—Attempted to identify the relationship between individual selection of important

persons and conformity, and to identify the relationship between frequency of selection and rank order weight frequency. 48 undergraduate students were asked to "list and rank order the 10 most important persons in the history of mankind," and to complete the Internal-External Control Scale. Significant correlations were found which suggest that conformity is an important factor in the selection of important persons. Also, data strongly suggest that the technique employed is a sensitive and reliable instrument.—*Author abstract.*

1117. **Griffitt, William & Jackson, Thomas.** (Kansas State U.) **Context effects in impression formation as a function of context source.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 321-322.—Obtained assimilation effects from 32 undergraduates when contextual stimuli and test stimuli were attributed to the same target person. A weak tendency toward contrast effects was noted when contextual stimuli and test stimuli were attributed to separate individuals.—*Journal abstract.*

1118. **Hartnett, John J.** (Virginia Commonwealth U.) **Group risk taking and constituency power.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 273-278.—180 male undergraduates were randomly assigned to 1 of 3 conditions. Each condition consisted of 154 man groups. Ss made individual and then unanimous group decisions that involved risk, with the belief that they could come back for a 2nd session. The decisions involved answering questions correctly for money, with more difficult questions paying more money. Ss in Condition I were told the decisions would affect only themselves. Ss in Condition II were told they were deciding for themselves and for 4 other students. Ss in Condition III were also assigned constituents but were told that the constituents had decision power as to whether the group could come back as decision makers for a 2nd session. A significant conservative shift ($p < .02$) was found in Condition III indicating that the power of constituents affects group risk taking.—*Author abstract.*

1119. **Hendrick, Clyde & Page, Horace A.** (Kent State U.) **Self-esteem, attitude similarity, and attraction.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 588-601.—Ss evaluated 3 stimulus persons on several rating scales who were either 10, 50, or 90% similar to themselves in attitudes. Ss were divided into low, moderate, and high self-esteem groups on the basis of an earlier Q sort. Results indicate a strong positive relation between perceived similarity and positive attribution for each of the dependent variables, including liking, sophisticated, intelligent, sincere, happy, and a social distance scale. A negative relation was obtained for 2 undesirable traits: arrogant, and cynical. (18 ref) —*Journal summary.*

1120. **Johnson, Michael P. & Ewens, William.** (U. Michigan) **Power relations and affective style as determinants of confidence in impression formation in a game situation.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 98-110.—In an experiment with 88 undergraduates 3 hypotheses were tested concerning confidence in impression formation: (a) individuals in a situation in which another person has power over them are more confident of their impressions of him than are those in a situation in which the other person has no power over them, (b) individuals in a situation in which they assume that the other person believes that he has power over them are more confident of their impressions than those who assume that the other person believes that he has no power over them,

and (c) individuals who score high on the Ehrlich-Lipsey Affective Style scale are more confident of their impressions of the other person than those who score low. These hypotheses were strongly confirmed in a 2-person, non-zero-sum game situation. Results support the need to introduce motivational variables into theories of person perception. Several theoretical formulations are presented.—*Journal abstract.*

1121. **Jones, Edward E., Worchel, Stephen; Goethals, George R., & Grunet, Judy F.** (Duke U.) **Prior expectancy and behavioral extremity as determinants of attitude attribution.** *Journal of Experimental Social Psychology*, 1971(Jan), Vol. 7(1), 59-80.—Instructed 224 undergraduates in an experiment on attitude attribution, to estimate the "true attitude" of a target person after reading an essay in which he took 1 or the other side of a controversial issue. 4 independent variables were manipulated: the direction of the essay (pro vs. antilegalization); its extremity (strong vs. weak); freedom to choose position vs. assignment to position (choice vs. no choice); and prior expectancy (expect pro vs. expect anti). All experimental predictions were confirmed by results. When the essay was strong: (a) attitudes were attributed more in line with behavior under choice than under no choice conditions; (b) even under no choice conditions, the target person was seen as believing to some extent in the arguments of his essay; and (c) the role of choice was especially prominent when the position of the essay was unexpected. As in previous experiments, there was considerable variability in those conditions in which the target person wrote an essay under no choice instructions endorsing the position he presumably opposed. In attempting to determine what produced this variability, it was found that Ss with generalized expectancies of internal control were more sensitive to variations in choice than Ss whose expectancies were externalized.—*Journal abstract.*

1122. **Kreps, Juanita M.** (Women's Coll.) **Separation of work and income.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46 Issue 1) 140-151.

1123. **Leventhal, Gerald S. & Michaels, James W.** (Wayne State U.) **Locus of cause and equity motivation as determinants of reward allocation.** *Journal of Personality & Social Psychology*, 1971(Mar), Vol. 17(3), 229-235.—Investigated the influence of external and internal constraints on the assessment of inputs. 32 male Ss believed that they were recommending guidelines for rewarding participants in a future study of physical performance. Ss judged the extent to which 16 hypothetical individuals deserved to be rewarded for performance on a vertical jump task. For each individual Ss received information about jump performance, effort, body height and training. With performance held constant, individuals whose body height and training made them especially well qualified to perform at a high level were considered less deserving of reward than individuals whose height and training did not give them such an advantage. Individuals with high rather than low effort were considered more deserving even though their performance was similar.—*Journal abstract.*

1124. **Levin, Irwin P. & Schmidt, Charles F.** (I. Iowa) **A paired-comparisons paradigm for investigating person perceptions.** *Psychonomic Science*, 1970(Sep), Vol. 20(6), 359-361.—Presented 27 undergraduates with a series of pairs of person descriptions. Each person description consisted of 1 or more personality trait

adjectives. Within each pair of person descriptions, Ss had to choose the person he would most like to have as a friend and indicate how much he preferred that person over the other person in the pair. When a description consisted of several adjectives, it was suggested that Ss integrate the information through a weighted averaging process. Consistent with this notion, a reliable set size effect was obtained with positive-valued adjective sets; however, no reliable set size effect was obtained with negative adjectives. There was no evidence for discounting of inconsistent information when a pair of antonyms was included in the description of a given person.—*Journal abstract.*

1125. Lovie, A. D. & Davies, Ann D. (U. Liverpool, England) An application of Bayes' theorem to person perception: The effect of rate of revision and initial revision on the perception of another's age. *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 322-327.—Considers the way in which estimates of age are revised as further information is presented and compares Ss' revisions with a Bayesian model. Lists of cue statements were constructed and 50 undergraduates considered whether the statements described a young, middle-aged, or old man. Each list favored 1 hypothesis. Lists were designed to investigate the effect on Ss' revisions, of Bayesian revision rate, and size of initial Bayesian revision. Ss were conservative in their revisions but their revision rates reflected the Bayesian model. The diagnostic impact of the initial item of information is discussed.—*Journal abstract.*

1126. Luginbuhl, James E. (North Carolina State U.) The effect of legitimacy of a request and compliance versus noncompliance on the evaluation of others. *Journal of Personality*, 1970(Dec), Vol. 38(4), 482-492.—80 male undergraduates read a supposedly true interaction between 2 workers in a business firm, in which A made a request of B. The status of B relative to A, the legitimacy of the request, and compliance vs. noncompliance by B were varied. It was found that (a) compliers to legitimate requests and noncompliers to illegitimate requests were liked better than noncompliers to legitimate requests or compliers to illegitimate requests, (b) noncompliers were seen as more internally controlled than compliers, and (c) individuals may respond to an atypical situation by imposing upon it a consistent internal structure. Status had little effect.—*Journal summary.*

1127. Milgram, Stanley. (City U. New York, Graduate Center) The experience of living in cities: A psychological analysis. In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 152-173.

1128. Miller, Bruce N. (U. Nebraska) The effects of photographic material portraying black Americans on the behavior of white Americans. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2289.

1129. Partington, John T. & Clarke, Louise. (Brock U., Catharines, Ontario, Canada) Personality impression formation: A correlational-experimental design. *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 47-54.—62 undergraduates rated how they would accept a number of hypothetical stimulus people represented by combinations of self-referent statements denoting opposite poles of 4 personality dimensions. Ss also gave self-endorsement responses to a personality battery which sampled the same 4 dimensions. Perceivers were classified into personality types defining levels of a

S's factor which together with 4 stimulus cue factors comprised a complete factorial design for analyzing the acceptance ratings. Although the main experimental results suggest that stimulus cue integration may be more linear than configural, the nature of S-cue interactions illustrates the need for more representative design in social perception research. (French summary) (30 ref.)—*Journal abstract.*

1130. Sadalla, Edward K. (Stanford U.) The effect of verbal and non verbal coding strategies on the recognition of novel human movements. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2326.

1131. Schützenberger, Marcel-Paul. Etude statistique d'un problème de sociométrie, réciprocité en sympathie et antipathie. [Statistical investigation of the problem of sociometry, reciprocity in sympathy and antipathy.] *International Journal of Sociometry & Sociatry*, 1968(Sep), Vol. 5(3-4), 125-132.—Attempts to formulate statistical treatment of certain aspects of sociometric inquiry, and presents an example of its application. 4 classes of students designated choices of a best friend, 4 best friends, and 3 classmates who were regarded with antipathy. An attempt was made to sociometrically determine the number of existing reciprocities in responses to the 3 questions. Results show that the antipathy choices do not become manifest in reciprocity to any less degree than do choices related to sympathies. Results are discussed in relation to the lack of theoretic value of the null hypothesis for estimation of population variance in determining reciprocity in sociometric status. (French summary)—B. A. Stanton.

1132. Seder, I. Paul. (Duke U.) Some determinants of attribution of offensive and defensive behavior in a conflict situation. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2266.

1133. Sigall, Harold. (U. Rochester) Effects of competence and consensual validation on a communicator's liking for the audience. *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 251-258.—70 female undergraduates in a laboratory experiment presented a communication to an audience. Prior to the experiment all Ss had strongly endorsed the advocated position. S involvement in the persuasive attempt was varied: Ss were randomly assigned to high- or low-involvement conditions. The preprogrammed audience indicated either that they agreed, but changed only slightly in the advocated direction, or that they disagreed, but changed considerably in that direction. Ss then expressed their liking for the audience. On the basis of competence theory and consensual validation, it was predicted that under low involvement, the agreeing-small-change audience would be liked better than the disagreeing-large-change audience, while under high involvement, the reverse relationship would hold. Results support the hypothesis. The relationships between competence and consensual validation, and between effort and involvement, are discussed. (21 ref.)—*Journal abstract.*

1134. Strickland, Lee E. & Fruchter, Benjamin. (U. Texas) Nonredundant matrices in the determination of socioeconomic status. *International Journal of Sociometry & Sociatry*, 1968(Sep), Vol. 5(3-4), 117-124.—Modified the procedure developed by J. X. Jamrich for the analysis of status within sociogroups to eliminate redundant relationships, and extended it to include 3-stage relationships. In the analysis of status

within sociogroups, the 2-stage relationships a group member has with himself are considered redundant. Those 3-stage relationships which are extensions of the redundant 2-stage relationships are also considered to be redundant. An improved sociometric status index is proposed in which the status of a group member is the number of nonredundant 1-, 2-, or 3-stage inward relationships he has with the other group members.—*Journal abstract.*

1135. Tankard, James W. (U. Texas) **Effects of eye position on person perception.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 883-893.—Prepared black and white stimulus photographs of 6 models in 3 conditions: (a) looking straight into the camera, (b) looking downward, and (c) looking sideways. Photographs were shown to 48 undergraduates and young adults who were told to assume they were interviewing the models for jobs. Ss rated models on 15 semantic differential scales, a salary scale, and answered 4 brief questions on the model and nature of the experiment. Eye position influenced response to models. Significant differences were found for 11 of 16 scales in comparisons of straight and downward gazes and for 2 of 16 scales in comparisons of straight and sideways gazes. Results indicate that impressions of another person are influenced by changes in the position of the eyes even when the amount of eye movement is very small. (18 ref.)—*Journal abstract.*

1136. Tankard, James W. (Stanford U.) **The connotative meaning of the eye contact cue to a perceiver.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2330-2331.

COMMUNICATION

1137. Honeck, Richard P. (U. Wisconsin) **An experimental study of paraphrases.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2310-2311.

1138. Krueger, Roy L. (U. Tennessee) **Syntax, semantics and meaning: Sentences written as meaning to mean the same thing as other sentences.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2314.

1139. Stevens, Warren D. (Indiana U., Audio-Visual Center) **Affection and cognition in transaction and the mapping of cultural space.** *AV Communication Review*, 1970(Win), Vol. 18(4), 440-445.—This is the 3rd and last in a series of articles in which an attempt is made "to conceptualize culture as the totality of sign behavior patterns" and culture mediation as the process involved in forming shared systems of sign behavior. In this article, a transactional relationship between affective and cognitive mental functions is stressed.—*Journal summary.*

Language

1140. Barrutia, Richard. (U. California, Irvine) **Visual phonetics.** *Modern Language Journal*, 1970(Nov), Vol. 54(7), 482-486.—Describes the creation and development of a complete visual scheme for the phonemic system of Spanish. The scheme is based on an idea from *Introductory Linguistics* by R. A. Hall which demonstrates a possible patterning of consonants by comparing box-like structures for English and Spanish in a prismatic construction. Alterations and expansions are suggested

through which the prismatic form for Spanish can become a powerful tool in teaching phonetics. Means of presenting the prismatic structure to a class are also suggested.—*S. Diamond.*

1141. Catford, J. C. & Pisoni, David B. (U. Michigan) **Auditory vs. articulatory training in exotic sounds.** *Modern Language Journal*, 1970(Nov), Vol. 54(7), 477-481.—2 groups of English speakers of 8 and 6 undergraduate students received either auditory or articulatory instruction in learning to produce exotic sounds. Performance on production and discrimination tests indicate a striking superiority for Ss who received systematic training in the production of exotic sounds as opposed to those Ss who received only discrimination training in listening to these sounds. Results suggest that what is effective in the teaching of sound production and discrimination is the systematic development by small steps from known articulatory postures and movements to new and unknown ones. The possession of a scientific knowledge of articulatory phonetics by the teacher was shown to be extremely successful in leading students to the correct production of foreign sounds and thereafter to facilitate the discrimination of these sounds. The latter finding was taken as support for some carryover from productive competence to auditory discriminatory competence.—*S. Diamond.*

1142. Flynn, Edward J. (St. Louis U.) **Beyond frequency: A two-dimensional theory of verbal meaningfulness.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2981-2982.

1143. Foote, Russell. (U. Wyoming) **Homophones as ambiguous stimuli in research: A comparison of the associative meaning of homophones and non-homophones.** *Psychonomic Science*, 1970(Nov), Vol. 21(4), 249-251.—Presented 36 homophones and 36 nonhomophones randomly to 30 undergraduates in a single response, free association task. The greater dispersion of the response distributions to homophones than to nonhomophone stimuli as well as the longer response latencies to homophones suggest that the associative meaning of homophones is more ambiguous than other elements of the vocabulary and, consequently, that homophone units may be fruitfully employed in research necessitating the use of such ambiguous stimuli. Several such potential uses are discussed along with possible research aimed towards clarifying the phenomenon of homophones per se, apart from their use as research tools.—*Journal abstract.*

1144. Gill, Wayne S. & Hogan, Charles A. (2310 Tower Life Bldg., San Antonio, Tex.) **The effect of language upon gender shaping.** *International Journal of Symbolology*, 1970(Aug), Vol. 2(1), 9-12. In order to determine the effect of learning a 2nd language on gender shaping, 28 adult bilingual (Spanish-English) Ss were compared with a similar group of Ss who spoke only English. Each S was presented a list of 50 English nouns, both abstract and concrete, and asked to note whether he usually considered the noun to be masculine or feminine. The analysis of results consisted of computing "t" score values for both masculine and feminine words on the 2 S groups. The results showed no significant difference between the means of either the masculine or feminine words.—*Journal abstract.*

1145. Gumenik, William E. & Dolinsky, Richard. (U. Toledo) **Effect of verb and object meaning on the connotative evaluation of sentence subjects.** *Journal of Experimental Psychology*, 1971(Mar), Vol. 87(3),

436-438.—Reports that in a previous experiment by W. E. Gumenik and R. Dolinsky (see PA, Vol. 44:2287), CVCs used as sentence subjects were rated good when verb and object had similar, and bad when they had opposite, evaluative meaning. In line with a congruity principle explanation, it was held that good verbs acted as associative and bad verbs as dissociative bonds between sentence subject and object. To determine whether verbs had further effects on the evaluative meaning of the subject, an experiment was conducted with 35 undergraduates using neutral and understood (omitted) objects. With good verbs, CVC subjects were rated good, irrespective of whether the objects were good, neutral, or understood and were rated bad if the objects were bad. With bad verbs, the ratings were reversed. Apparently, the role of verbs is greater than being a bond between sentence subject and object.—*Journal abstract.*

1146. Harvey, Pierre. *Nous sommes tous des sous-développés.* [We are all the underdeveloped.] *Interprétation*, 1970(Jul), Vol. 4(3), 85-96.—In approaching the problem of language in relation to economic issues, the English language is seen as dominating the economic life of the Western world. The causes of this phenomenon are traced from its being the language of economic life (dominated by England) during the Industrial Revolution of the 19th century. In the 2nd 1/2 of the 19th century and beginning of the 20th liberal capitalism was 1st and foremost English, with invention of the new economic-social language consequently in English. With World War I economic superiority passed to the United States, giving still further penetrating power to the English language as it adapted to the requirements of technological change and the appearance of new scientific administrative management techniques. The new technology, as symbolized by the computer, spread throughout the world by the United States, imposes upon its users the language of the country originating it, a language foreign to the nations employing the American technology. Many nations, e.g., France and Sweden, can assimilate the new national language, English, with workers making their living in the new language while daily life continues in the language of the country—a situation which does not hold true, however, in French Canada.—*T. N. Webster.*

1147. Holt, Herbert. *Is psychoanalytic language obsolete?* *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 35-40.—Proposes that the sickness of present society is due to the overwhelming emphasis on cerebral activity. 2 methods of communication are distinguished and described: myth and discursive language. Discursive language is seen as being limited to the objective, the general, and the logical, whereas mythical language, the subjective, emotional, and imaginative, is seen as embodying an eternal truth. "Horizontal or lateral thinking (mythology) is more popular and more useful today, especially since the basic, mathematical vertical thinking (discursive) can often be done more effectively by computers than man." The reappearance of mythological thinking is described as an attempt to break the rigid image of reality which discursive thinking has created so that new ideas may emerge. A dynamic tension between the 2 forms of communication is considered essential for insight. Psychoanalytic language is presented as vertical thinking that has become almost totally obsolete. It is recommended that in existential psychiatry the language "must be concrete, subjective,

and mythical, and must be the language of the person with whom the work is being done and a language that must be shared."—*S. Knapp.*

1148. Lanteri-Laura, G. & Philippi, J. D. (U Strasbourg, France) *Lapsus et paraphrases sémantiques: Conceptions neurophysiologiques et psychopathologiques.* [Semantic lapses and paraphrases: Neurophysiological and psychopathological conceptions.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 283-289. Discusses cases of lapses and paraphrases and attempts to develop a model of their underlying mechanisms. Lapses are considered phonological selections related to a binary model, synaptic functions, and as having neurophysiological bases. Paraphrases are believed to be of psychopathological origin, serving the conflict between behavior and internal wishes, while lapses are considered to be involuntary, occurring in spontaneous speech, and serving to obscure message transmission.—*R. E. Smith.*

1149. Ludwig, David J. (Concordia Senior Coll.) *The effect of language upon gender shaping: A rejoinder to W. S. Gill and C. Hogan.* *International Journal of Symbolology*, 1970(Aug), Vol. 2(1), 13.—W. S. Gill and C. Hogan (see PA, Vol. 45:Issue 6) attempted to replicate a study performed by Ludwig & Moore (1969). The suggestion is made that the negative results "cast considerable doubt" on the previous study.—*Journal abstract.*

1150. Rao, T. S. (National Inst. of Education, New Delhi, India) *Bilingualism and adjustment difficulties.* *Indian Educational Review*, 1969(Jan), Vol. 4(1), 57-66.—Investigated 2 hypotheses regarding monolingual bilingual children: that they show relatively more problem behaviors than monoglots and to that extent are maladjusted; and that the degree of maladjustment is related to their 2nd-language attainment. The sample was comprised of 226 6-10 yr. olds, with Kannada or Telugu as their mother-tongue, drawn from the 1st 5 classes of 30 primary Tamil-medium schools of Madras. Relevant information about the Ss was sought from the teachers through an inventory covering school situations and from the parents through another inventory covering home situations. For the 1st hypothesis, a control group of children with Tamil as their mother-tongue, matched for intelligence, was used. The 2nd-language attainment of the sample was judged by measuring 4 language skills. Results support the 1st hypothesis partially, but not the 2nd.—*Journal abstract.*

1151. Taylor, Kent B. (George Washington U.) *An information-theory measurement of CVC trigram meaningfulness.* *Psychonomic Science*, 1970(Oct), Vol. 21(2), 101-103.—Examined the validity of the approach to measuring the meaningfulness of nonsense syllables in terms of Ss' ratings and use of associations and pronounceability. The redundancy of nonsense syllables was quantified by means of their component transitional probabilities, using information-theory measurements. These mathematically derived ratings were in agreement with Ss' ratings of association value and pronounceability used by previous investigators to identify the relative meaningfulness of CVC trigrams. It is hypothesized that the redundancy measures, by measuring the amount of structure in trigrams, are indicative of the potentiality for yielding signification meaning in short verbal units.—*Journal abstract.*

1152. Wexler, Kenneth N. (Stanford U.) *An automaton analysis of the learning of a miniature system*

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Canadian Journal of Behavioural Science, 1971(Jan), Vol. 3(1), 11-17.—184 undergraduates each responded to the California F Scale, a reversed F Scale, and rated the item pairs on the degree the original item was contradicted by its reversal. Correlations across items indicate a negative relationship between the contradictoriness scale value obtained from the group for each item pair and the number of double agreements given each item pair by the group. Further analysis of data indicates that each S tended to give double agreements when his ratings indicated the reversal basically contradicted the original item. Thus this type of correlation across items can no longer be taken as evidence that Ss give double agreements when the original item is not contradicted by its reversal. (French summary)—*Journal abstract*.

1166. Israel, Howard M. (U. Montana) **A measurement of affect discrimination: A validation study.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2282-2283.

1167. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Relation of fear of death in subjects to fear of death in their parents.** *Psychological Record*, 1970(Fal), Vol. 20(4), 541-543.—Compared the fears of death of female undergraduates to those of their parents, and found that the fears of death of daughters significantly resembled those of their mothers, but not of their fathers. Ss and their parents were evaluated by their responses to L. J. Collett's and D. Lester's fear of death scale. Implications of results for understanding the development of fears of death are discussed.—*Journal abstract*.

1168. Montserrat-Estève, Santiago. (Clínica Médica Universitaria, Barcelona, Spain) **Egostasis.** [Egostasis.] *Anuario de Psicología*, 1969, Vol. 1, 45-55.—Discusses the different meanings and implications that ego offers in psychology, noting that recent advances in experimental psychology necessitate a new ego concept. The processes of homeostatis (self-regulating system of biological balance) and sensoriostatis-perceptostatis (a self-regulating system for equilibrium with the world) are elaborated, and the concept of egostasis is introduced. The function of egostatis is perceived as maintaining an equilibrium between the corporal ego (under homostatic regulation) and the psychological ego (under sensoriostatic regulation) so as to keep the personal ego in a dynamic state of constant flux. The hypothesis of egostatis is discussed in relation to information theory and H. Frank's "Informationspsychologie."—P. Hertzberg.

1169. Rump, E. E. & Court, John. (U. Adelaide, South Australia) **The Eysenck Personality Inventory and Social Desirability response set with student and clinical groups.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 42-54.—Administered the Eysenck Personality Inventory (EPI) to 3 student-groups and to 2 clinical groups in studies to investigate Social Desirability (D) effects. Form A of the EPI and the EPPS D scale were completed by 100 students; Form A and the Marlowe-Crowne Social Desirability (D) scale by 177 students; Form B and the Marlowe-Crowne D scale by 175 students; and Form A, including the Lie (L) scale, by 38 potential renal transplant patients and 15 potential renal donors. Negative linear correlations between the Neuroticism (N) scale and the D or L scales were found for all groups. A very pronounced reduction in N scores was found with potential renal donors, together with high L scores. In most cases, no reliable

correlation between Extraversion (E) and the D or L scales was found. The N and E scales were correlated negatively for Form B. Implications of these results for the use of the EPI are considered. Correlations with age and IQ were also obtained. (31 ref.)—*Journal abstract*.

Behavior Correlates

1170. Anast, Philip. (Eastern Washington State Coll.) **Blaming the nation: Fad or maturity?** *Journalism Quarterly*, 1969(Fal), Vol. 46(3), 552-557.—Intro-extrapunitiveness expressed as a tendency to blame the United States or foreign powers for current and recent international problems was measured by a summated scale. It was predicted that intro-punitiveness would correlate with certain measures of maturity, provided by a questionnaire answered by 314 respondents of a nonprobability sample. The hypothesis was supported by significant correlations between the tendency to blame the nation and cognitive complexity, academic rank, amount of time devoted daily to news-seeking behavior, altruistic attitude toward work in the Peace Corps and Volunteers in Service to America, and interest in foreign affairs.—J. A. Kline.

1171. Canty, James J. (Fordham U.) **Personality and behavior correlates of extreme positive self-regard.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2978-2979.

1172. Gale, Diane S. (State U. New York, Buffalo) **Locus of control, information seeking, and reaction to success and failure.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2280-2281.

1173. Glass, Albert J. **The psychological aspects of emergency situations.** In H. S. Abram (Ed.), "Psychological aspects of stress." (See PA, Vol. 46:Issue 1) 62-69.

1174. Handal, Paul J. (St. Louis U.) **Individual and group problem solving and type of orientation as a function repression-sensitization of death anxiety.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2986.

1175. Hersen, Michel & Sudik, Ellen. (Fairfield Hills Hosp., Newtown, Conn.) **Verbal conditioning as related to awareness, paranoia, and suspiciousness.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 43-47.—Using the MMPI Pa scale as a measure of social sensitivity, 80 female high school students were administered a verbal conditioning task and a suspiciousness scale. High Pa Ss did not perform better than low Pa Ss and high Pa Ss had a higher proportion of awareness. Only aware Ss demonstrated incremental performance, a finding consistent with cognitive theory. Low suspicious Ss demonstrated significantly better performance on 3 of the 4 trial blocks than did high suspicious Ss. "These data were interpreted as reflecting a defensive process on the part of the High Suspicious Ss and a greater receptivity to social cues on the part of the Low Suspicious Ss."—E. J. Kronenberger.

1176. King, Bradford D. (Boston U., School of Education) **Learning and orality: The relationship between oral receptivity and serial learning, verbal recall and grade-point average in college women.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2990-2991.

1177. Machotka, Pavel. (U. California, Santa Cruz) **Ego defense and aesthetic distortion: Experimental effects.** *Journal of Personality*, 1970(Dec), Vol. 38(4).

560-580.—The "arousal-control" hypothesis of aesthetic representation states that the greater the arousal value of an object, the greater the degree of disguise required before a representation of the object can be called aesthetic. 4 studies were conducted to find the personality correlates of Ss who by their behavior support the hypothesis. A strong experimenter effect was discovered: (a) in 2 male-run studies, supporters of the hypothesis were sensitizers; and (b) in 2 female-run studies, supporters were repressors. Evidence suggests that differences may be attributed to the degree of sexually-related anxiety evoked in the Ss.—*Journal summary.*

1178. **Petzel, Thomas P.** (St. Louis U.) **Concept attainment by repressors and sensitizers as a function of threatening or nonthreatening cues and number of irrelevant dimensions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3002.

1179. **Prężyna, Władysław.** **Postawa religijna a cechy osobowości analizowanej w świetle danych 16-czynnikowego kwestionariusza R. B. Cattella.** [Religious attitudes and personality traits analyzed on the basis of the data supplied by R. B. Cattell's 16-factor questionnaire.] *Roczniki Filozoficzne: Annales de Philosophie*, 1969, Vol. 17(4), 99-124.—Investigated the relationship between the religious attitudes and personality characteristics. The religious attitude scale applied in this study was constructed by the author. Personality was investigated with the 16 PF in its Polish version standardized on Polish population. The sample consisted of 60 women and 40 men. Results reveal the high positive religious intensity group to possess on the average more emotional maturity, more super-ego control, greater self-control, higher sensitivity and contact with the environment. The lower intensity group was characterized by the opposite features. (English summary)—*J. Holowinsky.*

1180. **Vando, Alan.** (Columbia U.) **A personality dimension related to pain tolerance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2292-2293.

1181. **Weikert, Clemens.** (Lund U., Sweden) **Detection of target cues as related to spiral after-effect duration.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(8), 11 p.—Studied the relationship between personality in terms of spiral aftereffect (SAE) duration and the ability to detect target cues. 69 Swedish soldiers served as Ss. Results indicate that Ss with short aftereffect duration in the final scores of a series of 10 SAE trials performed better on the detection task than Ss with long aftereffect duration. Effects of differences in training level and motivation are discussed.—*Journal abstract.*

1182. **Williams, Jean M., Hoepner, Barbara J., Moody, Dorothy L., & Ogilvie, Bruce C.** **Personality traits of champion level female fencers.** *Research Quarterly*, 1970(Oct), Vol. 41(3), 446-453.—Studied 30 national level female fencers with the 16 PF and the national level female fencers with the 16 PF and the EPPS to determine if there were distinct personality traits characteristic of champion level female fencers, and if there was any correlation between personality traits and level of achievement in the 1968 National Championship. A definite fencer's personality emerged when they were compared with the national norms. In general, the competitive fencer may be described as a very reserved, self-sufficient, autonomous individual with a below-average desire for affiliation and nurturance. She has a strong need to be the very best and

is an intelligent, creative, experimenting, and imaginative person. She also tends to be assertive and aggressive. An analysis of variance revealed that only 1 personality factor would differentiate levels of achievement. The top level competitor was significantly more dominating than the low level competitor. (19 ref.)—*Journal abstract.*

INTELLIGENCE

1183. **Bottenberg, E. H.** (U. Würzburg, Inst. of Psychology, W. Germany) **Kognitive Attitüden und Intelligenz.** [Cognitive attitudes and intelligence.] *Psychologische Beiträge*, 1970, Vol. 12(3), 415-446.—Factor-analyzed intelligence and additional cognitive functions to determine the relationship between cognitive attitudes and intelligence variables of cognitive attitudes. 117 students were tested. The investigation yielded 5 factors that can be interpreted: (a) field articulation, (b) linear type of cognition, (c) flexible vs. constricting control, (d) concrete vs. abstract conception, and (e) velocity of determined meaning replenishing. The factors a, b, and c overlapped variables of cognitive attitudes and intelligence variables. Factor d was limited to cognitive functions. Factor e was relevant to a single cognitive function and intelligence variables. The scheme of dimensions developed in the field of cognitive attitudes and intelligence is discussed. (6 p. ref.)—*English summary.*

1184. **Maxwell, James.** (Scottish Council for Research in Education, Edinburgh, Scotland) **Intelligence, education and fertility: A comparison between the 1932 and 1947 Scottish surveys.** *Journal of Biosocial Science*, 1969(Jul), Vol. 1(3), 247-271.—In 1932 all 11-yr-old children in Scottish schools were given a group intelligence test, and a sample of 1000 individually tested. Future careers of this sample were followed until 1939. In 1968, 709 of the original sample were traced, and data about education, employment, and family obtained. In 1947, a parallel survey was conducted and 1208 children individually tested and followed up for 16 yr. Similar data were obtained for the 1947 sample. A comparison between length of education indicates a greater proportion completing a full secondary education in the 1947 than in the 1932 sample. Proportionally, more of the 1947 sample graduated from university. In marriage, it was possible to cut across the 1932 sample at the age of 27 yr., to make direct comparison with the 1947 sample at the same age. The greatest incidence of marriage was in the middle range of IQ, but later records for the 1932 sample show a relative uniformity of marriage over the IQ range. The pattern for occupational class was similar. 2 measures of differential fertility for IQ were used. For both samples, there was a negative relationship between the mean IQs of the sample members and the number of their sibs, more marked for the 1947 sample. The number of children born to members of the 2 samples before the age of 27 shows a similar relationship, but in the following 20 yr., the pattern for the 1932 sample changed to 1 with a peak of mean IQ at 2 children. It is suggested that linear differential fertility for IQ may be a function of the age of the parent.—*Journal summary.*

1185. **McKeown, Thomas.** (U. Birmingham, England) **Prenatal and early postnatal influences on measured intelligence.** *British Medical Journal*, 1970(Jul), Vol. 3(5714), 63-67.—Examines possible explanations for pregnancy duration beyond the maximal rate of fetal

growth. Conclusions are based on comparison of pre- and postnatal growth rates. The lengthening of pregnancy may be related to the selective advantages of maturity at birth, particularly, in man, the development of immunity to infectious disease. Verbal reasoning scores recorded in the 11-plus examination provide no evidence that the retarded prenatal growth associated with prolongation of gestation affects measured intelligence. There are considerable score differences in a general population of births in relation to birth weight and duration of gestation; but, like the larger differences related to maternal age and order of birth, they are not found in sibs. It was also found that twins raised singly from birth have scores higher than twins raised together, and little lower than those of single births. This indicates that even the pronounced retardation of fetal growth which occurs in twin pregnancy has little effect on verbal reasoning, the large differences between twins and single births being due to postnatal experience.—*Journal abstract.*

1186. **Schmideberg, Melitta.** (Assn. for Psychiatric Treatment of Offenders, London, England) **The socio-psychological impact of IQ tests.** *International Journal of Offender Therapy*, 1970, Vol. 14(2), 91-97. —Examines the influence that IQ tests have had on the mentality of 2 generations. Since the tests were developed by and for the middle classes, they discriminate against the non-educated, the lower classes, those from minority groups, and those from different social and national groups. The assumption of constant, i.e., unchangeable, basic intelligence is seen as defeatist, having a positive and negative effect on the self-concept out of proportion to the level of validity of the tests. (French, Spanish, & German summaries)—*Journal summary.*

CREATIVITY

1187. **Bader, Lawrence J.** (Boston U., Graduate School) **The effects of task-taking atmosphere, level of creativity and field-independence on creative production.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2974-2975.

1188. **Bliss, William D.** (Montana State U.) **Birth order of creative writers.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 200-202. —Compares birth-order data of 39 writers and 25 poets with Roe's eminent scientists and finds that the literary group holds a lower birth-order position.—*A. R. Howard.*

1189. **Calvi, G.** **La natura e i limiti della creatività nevrotica.** [The nature and limits of neurotic creativity.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Jan), Vol. 30(1), 17-35. —On the basis of the life of Antoine Rodondi, a French painter born of Italian parents, creativity is considered on a dimension ranging from organization to disorganization intersecting another dimension ranging from rigidity to ideological mobility. Within the limits of both dimensions 2 dependent variables are inversely related, effective mobility under the direction of intentionality and apparent mobility resulting from habits.—*L. L'Abate.*

1190. **Harris, Richard & Hall, Alfred E.** (U. Illinois) **Creativity and the need for associative novelty.** *Canadian Journal of Psychology*, 1970(Apr), Vol. 24(2), 90-97. —Based on J. P. Houston and S. A. Mednick's experiment (see PA, Vol. 37:6699), the differential reinforcing properties of associative novelty were assessed for high-creative and low-creative Ss. 80

undergraduates, the top and bottom 26% of a pool of 156 Ss who had taken the Remote Associates Test (RAT), participated in a 2x4 factorial experiment. The independent variables were creativity, measured by the RAT, and type of reinforcement of nouns; the dependent variable was the number of nouns chosen over blocks of 40 trials. Each S saw 180 cards with 2 words, a noun and a nonnoun, typed on each card. If S chose the nonnoun, E responded with its most common associate. If S chose the noun, E responded with a very common associate, a moderately common associate, a very uncommon associate, or a similar-sounding word, depending on the experimental condition. Neither main effect of creativity nor type of reinforcement was significant ($p > .05$); only the effect of trials was significant ($p < .01$). Hence, the main findings of Houston and Mednick were not replicated. Such results may have been due to the nature of the task which was perceived by the Ss as a multidimensional concept-identification task with many irrelevant aspects to divert S's attention from the relevant features of the experiment. (French summary)—*Journal abstract.*

1191. **Kogan, Nathan.** (New School for Social Research) **A clarification of Cropley and Maslany's analysis of the Wallach-Kogan creativity tests.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 113-117. —Attributes the conclusion of A. J. Cropley and G. W. Maslany (see PA, Vol. 44:2349), that complete statistical independence had not been established for intelligence and creativity in the Wallach-Kogan creativity tasks, to a failure to rotate. A promax rotation of the Cropley-Maslany principal-components solution is reported. Such rotation yields a pure creativity factor and 2 intelligence factors. Unlike the Cropley-Maslany principal-axis factor loadings, the promax solution is congruent with most of the evidence reported in other relevant investigations of the creativity-intelligence distinction. (18 ref.)—*Journal abstract.*

PERSONALITY MEASUREMENT

1192. **Cook, David A.** (Duke U.) **Is Jung's typology true?: A theoretical and experimental study of some assumptions implicit in a theory of personality types.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2979-2980.

1193. **Eysenck, H. J. & Castle, M.** (U. London, Inst. of Psychiatry, England) **A factor-analytic study of the Barron-Welsh Art Scale.** *Psychological Record*, 1970(Fal), Vol. 20(4), 523-525. —Conducted a factor analysis on the 86 items of the Barron-Welsh Art Scale, using 111 male students as Ss. 4 almost entirely independent factors were found, all of which could be interpreted with some confidence.—*Journal abstract.*

1194. **Frick, Willard B.** (U. Michigan) **A holistic theory of healthy personality.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2982-2983.

1195. **Gilis, John S. & Kinsella, Noel A.** (St. Thomas U., Fredericton, New Brunswick, Canada) **Some personality factors of matched groups of New Brunswick blacks and whites.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 66-71. —Randomly matched groups of 14 blacks and 14 whites from the same high school completed Form C of the 16 PF under the joint supervision of 2 test administrators. 1 white and 1 black. Group differences were found on 2 of

the 16 factors: A (.01) and Q2 (.01). An illustration is given of the inapplicability of knowledge of the group differences to decision making about individuals. (French summary)—*Journal abstract*.

1196. Hendricks, Moana; Guilford, J. P., & Hoepfner, Ralph. (U. Southern California, Psychological Lab.) **Measuring creative social intelligence.** *Reports from the Psychological Laboratory, University of Southern California*, 1969(Jan), No. 42, 36 p.—Focuses on the aspect of social intelligence pertaining to coping with other persons. In terms of structure-of-intellect theory, this area includes the 6 behavioral-divergent-production abilities (DBX), which have to do with the generation of behavioral ideas in quantity and variety. 22 new tests were designed to measure these 6 DBX abilities. To determine the distinctness of these hypothesized abilities from both behavioral-cognition abilities and semantic-divergent-production abilities, 3 of the former and 4 of the latter were also represented by tests in the analysis, plus the ability cognition of semantic unit (verbal comprehension), to represent the verbal IQ. Analysis showed that the DBX abilities could be demonstrated as distinct from one another, from behavioral-cognition abilities, from semantic-production abilities, and presumably from IQ. (24 ref.)—*Journal summary*.

1197. Jackson, Russell H., Manaugh, Thomas S., Wiens, Arthur N., & Matarazzo, Joseph D. (U. Oregon, Medical School) **A method for assessing the saliency level of areas in a person's current life situation.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 32-39.—It was hypothesized that salient content might be reflected in how a person speaks. A Topic Importance Scale (TIS) was developed to measure specific but relatively independent topics of high, moderate, or low importance (saliency) in the current life situation of college students. 348 male and 232 female Ss ranked each of the 45 topics of the TIS along a scale from 1-7 for each of 4 subdivisions: interest, information, involvement, and strength of feeling. A high level of reliability was noted. Saliency level did not represent a single, unitary dimension. Partial evidence of the validity of the TIS was noted. The methodology used was noted as having applicability to the study of psychological states.—*E. J. Kronenberger*.

1198. Kamen, Gary B. (U. Missouri, Columbia) **The effects of a stress producing film on the test performance of adults.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2989.

1199. Nowakowska, Maria. (Polish Academy of Sciences, Inst. of Praxiology, Warsaw) **A model of answering to a questionnaire item.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(4), 420-439.—Presents a model of answering to questionnaire items, which could serve as a basis for construction of a computer program for simulating the process of answering, with the requirement that the input data should correspond to empirically measurable parameters of items. 56 psychology students answered questions on the 16 PF and then rated the question and their answers on a 17-item evaluation scale. Factor analysis based on information coefficients yielded 7 factors: (a) emotional and motivational attitude, (b) specific past experience, (c) intellectual evaluation of question and answer, (d) value of question, (e) social desirability, (f) specific emotional context, and (g) frequency of behaviors. Results are presented in the form of a model of answering to the questionnaire items. This model assumes both the

content-dependent and content-independent determinants of the answer. (18 ref.)—*Journal abstract*.

1200. Ray, John J. (Macquarie U., North Ryde, New South Wales, Australia) **The development and validation of a balanced Dogmatism scale.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 253-260.—Produced a balanced Dogmatism Scale by writing entirely new items to express sentiments opposed to those accepted by the archetypical dogmatic. The scale of 36 items showed a reliability of .91 on the standardization (student) sample and .78 on an adult community sample. Validity is demonstrated for the scale as a whole and for the 2 halves separately. (15 ref.)—*Journal abstract*.

1201. Roubertoux, P., Carlier, M., & Chagniboff, J. (U. Paris, France) **Preference for non-objective art: Personal and psychosocial determinants.** *British Journal of Psychology*, 1971(Feb), Vol. 62(1), 105-110.—Utilized the criteria of representational vs. non-representational art to construct a scale of aesthetic preference which was found to be consistent and reliable. A test of 70 male and 179 female undergraduates with the scale differentiated 2 groups: S_N who showed preference for nonrepresentational art, and S_R who showed preference for representational art. S_N showed higher mean scores than S_R on the 3 scales of the 16 PF (dominance, dependent character, conservatism) and on the scale of globalism of approach. The sociocultural background of the S_N 's family was found to be significantly lower than that of S_R . (17 ref.)—*Journal abstract*.

1202. Ryan, Bruce A., Maguire, Thomas O., & Ryan, Toni M. (U. Alberta, Edmonton, Canada) **An examination of the construct validity of the FIRO-B.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 419-425.—Examined the construct validity of the Fundamental Interpersonal measuring instrument in W. C. Schutz's (see PA, Vol. 33:2479) theory of interpersonal behavior. 3 separate components of construct validity (substantive, structural, and external) as outlined by J. Loevinger were examined and evaluated. A total of 144 noncollege adults represented 3 criterion groups (salesmen, policemen, and service volunteers) for the 3 interpersonal need areas (inclusion, control and affection) measured by the FIRO-B. None of the expectations regarding the 3 components of validity were supported. Data suggest that FIRO-B is not a valid measure of the interpersonal needs as outlined in Schutz's theory of interpersonal behavior.—*Journal abstract*.

1203. Sappenfield, Bert R. (U. Montana) **Perception of self as related to perception of the "ideal personality."** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 975-978.—Tested the prediction that persons assumed to have normal orientations will perceive their own personalities as similar to the "ideal personality." 86 undergraduates Q-sorted 55 adjectives (a) to describe the self, and (b) to describe the ideal personality. The prediction was confirmed, as evidenced by the findings (a) that median r 's, for individual Ss, between the 2 sets of Q-sort scores, were .67 to .75, for 4 groups who performed both Q-sorts; and (b) that, when group medians were based on 1st Q-sorts by the Ss involved, median self-descriptive Q-sort scores were highly correlated ($r = .85$ to .91) with median ideal-personality Q-sort scores. Across-group r 's between variables were only slightly lower than across-group r 's within a given variable.—*Journal abstract*.

1204. **Silverman, Bernie I.** (Michigan State U.) **Studies of astrology.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 141-149.—Attempted to determine (a) if astrology yields valid personality descriptions, and (b) why many people feel that it does. It is concluded that traditional astrology is invalid because (a) 1600 undergraduates failed to respond to the Rokeach Value Survey in a manner predicted by astrologers; and (b) patterns of divorce and marriage, personality contingent behaviors, did not correspond to astrological predictions. The variable of membership group saliency was thought to contribute to astrology's apparent validity, because only when astrological personality descriptions were labeled as such did persons see themselves as accurately described by them.—*Author abstract.*

1205. **Stover, Lillian; Guernsey, Bernard G., & O'Connell, Mary.** (Pennsylvania State U., Individual & Family Studies) **Measurements of acceptance, allowing self-direction, involvement, and empathy in adult-child interaction.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 261-269.—Modified a measure of empathic interaction previously developed by the authors (see PA, Vol. 42:847) to comprise 3 separately scorable subscales. The new coding system demonstrates concurrent validity by correlating .85 with the prior measure, while measuring 3 other variables which are relatively independent of each other: acceptance, allowing self-direction, and involvement. Construct validity for each subscale and the total empathy score was demonstrated with a group of 51 mothers who underwent training in conducting Rogerian play therapy sessions. It is suggested that the new set of scales will prove useful for exploring a wider range of problems in child psychology. (16 ref.)—*Author abstract.*

Inventories

1206. **Farley, Frank H.** (U. Wisconsin) **Generality of faking effects in the dimensional measurement of personality.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 265-268.—Investigated the faking effects revealed by R. G. Salas (see PA, Vol. 42:12993) and R. G. Salas and J. F. Richardson (see PA, Vol. 42:12994) on tests of the Eysenck Personality Inventory (EPI) using Australian soldiers. 40 American undergraduates were administered the EPI Form A with standard and "fake bad" instructions. No significant effect of a fake bad set on extroversion and lie scales was found, but neuroticism was significantly susceptible to faking. Further analyses suggest that the lie scale tended to expose a malingerer's intention rather than assist in concealing it. Differences in results from those of Salas, and restrictions on the generality of faking effects, are discussed.—*Journal abstract.*

1207. **Felipe, Abraham I.** (U. Philippines, Manila) **Social desirability tendency and endorsement of items in a forced-choice inventory.** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 12-18.—Tested the hypothesis that (a) information about social desirability (SD) tendency is predictive of choice of inventory statements arranged in a 2-option forced-choice format, and (b) is a construct validity study of an experimental SD scale. 94 undergraduates served as Ss. From scale scores, the number of undecided answers, and the endorsement of the more desirable inventory statements were predicted. Results show that the experimental scale can help predict answers on 2-option inventories,

confirming the above hypothesis and at the same time supporting the validity of the scale.—*Journal abstract.*

1208. **Gravitz, Melvin A.** (Montgomery Coll., Takoma Park, Md.) **Declination rates on the MMPI validity and clinical scales.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 103.—Presents the mean number of MMPI items omitted from each MMPI scale on 5962 male and 3528 female job applicants. The mean scores were noted as low. Males tended to omit somewhat more items than females.—*E. J. Kronenberger.*

1209. **Kadri, Z. N.** (U. Singapore) **The use of the MMPI for personality study of Singapore students.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 90-91.—Describes the administration of the MMPI to a final sample of 200 male and 60 female Singapore undergraduates who were representative of the ethnic distribution in their school. Results are compared to MMPI results from a similar study of California freshmen. Similarities between the personality profiles of both S populations are attributed to (a) common knowledge of socially desirable answers to the MMPI, and (b) the process of internalization of affective-cognitive norms of Western culture as postulated by S. L. Fong.—*P. Hertzberg.*

1210. **Lederman, Edward.** (Columbia U.) **An evaluation of the rationale for the forced-choice structure of the Thorndike Dimensions of Temperament.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2258.

1211. **Lowenberg, Geula.** (U. Minnesota) **Investigation of convergent and discriminant validity of trait dimensions, defined by a self-descriptive adjective checklist.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2340-2341.

1212. **Platt, Jerome J., Pomeranz, David, & Eisenman, Russell.** (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Validation of the Eysenck Personality Inventory by the MMPI and Internal-External Control Scale.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 104-105.—Test results from the Eysenck Personality Inventory (EPI), the MMPI, and Rotter's Internal-External Control Scale were obtained on 1177 college freshmen and numerous correlations computed. The results supported the construct validity of the EPI.—*E. J. Kronenberger.*

1213. **Shaw, Blair W.** (Ontario Inst. for Studies in Education, Toronto, Canada) **The development of a measure of three conceptual models of behavior.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 37-46.—The Beliefs-About-Behavior inventory was constructed to measure the relative extent to which individuals use each of 3 conceptual models of behavior: theological, illness, and psychological. An initial inventory was written, and after a trial with a sample of university students, a final inventory was written and psychometrically analyzed. The final inventory was administered to 329 Ss consisting of undergraduates, nurses, and high school students. A 2nd phase of this study analyzed the inventory scores of a variety of Ss from mental health-related professions. (French summary) (22 ref.)—*Journal abstract.*

Projective Techniques

1214. **Bramante, Michael R.** (City Coll., City U. New York) **Sex differences in fantasy patterns: A repli-**

cation and elaboration. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2273-2274.

1215. Vaught, Glen M. (State University Coll. New York, Oswego) **Autokinetic word writing. Perceptual & Motor Skills**, 1970(Dec), Vol. 31(3), 912-914.—Administered role-playing and standard instructions to 100 undergraduates during autokinetic word-writing sessions. Role-playing instructions produced more words than standard instructions with no apparent loss of projection. The hypothesis that role-playing instructions decrease the degree of ambiguity accompanying the autokinetic word writing technique was not supported.—*Journal abstract*.

1216. Wachtel, Paul L. & Schimek, Jean G. (New York U., Research Center for Mental Health) **An exploratory study of the effects of emotionally toned incidental stimuli.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 467-481.—Examined the effects of emotionally toned (angry or pleasant) incidental stimuli upon fantasy production. Ss told more aggressive TAT stories when highly aggressive passages from a play were audible from the next room (at a volume and fidelity which made it difficult to follow the verbal message) than they did when no such stimulus was playing. No increase in aggression was noted in the presence of a pleasantly toned stimulus. Individual differences in responsiveness to the incidental stimulus were related to other measures of influence by incidental stimuli, and little individual consistency was evident. (17 ref.)—*Journal summary*.

Rorschach Test

1217. Howell, Robert J. & Carlisle, A. Lindsay. (Brigham Young U.) **The effect of hypnotically induced and nonhypnotic mood changes on the Rorschach test.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 28-36.—Administered the Rorschach to 11 Ss under 4 experimental conditions: posthypnotic happy, posthypnotic depressed, nonhypnotized happy, and nonhypnotized sad. 2 judges correctly distinguished the posthypnotic protocols from the nonhypnotized protocols in every instance and detected at a significant level the "depressed" protocols from the "happy" protocols in both the posthypnotic and nonhypnotized conditions. Virtually no differences existed in the quantitative scores among the 4 conditions. Under the posthypnotic happy condition, Ss gave more positive responses, and under the posthypnotic depressed condition, more negative responses. Ss gave more unique responses in the 2nd posthypnotic condition than in the 2nd nonhypnotized condition. (Spanish & German summaries)—*Journal abstract*.

1218. Reisman, Stephen; Insko, Chester A., & Valins, Stuart. (U. North Carolina) **Triadic consistency and false heart-rate feedback.** *Journal of Personality*, 1970(Dec), Vol. 38(4), 629-640.—Ss viewed slides of the Rorschach cards while listening to heart sounds that were supposedly but not actually their own. Some Ss were told that increased heart rate was a sign of mental health (positive condition), and some that the increased heart rate was a sign of mental abnormality (negative condition). The sign of the heart-rate increase generalized to the associated cards (i.e., was positive in the

positive condition and negative in the negative condition). The triadic effects were not unambiguously occurring when the increased heart rate was associated with achromatic cards.—*Journal summary*.

CLINICAL PSYCHOLOGY

1219. ———. **Focus adolescence: A transcultural seminar.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 250-255.

1220. Albee, George. (Case Western Reserve U.) **The short, unhappy life of clinical psychology.** *Psychology Today*, 1970(Sep), Vol. 4(4), 42-43, 74.—Clinical psychology's association with academic psychology has not been comfortable because the 2 disciplines do not share enough values. There are several options which would divorce clinical psychology from the liberal arts graduate schools; however, funding is not available and it is likely that training of the scientist-professional will not change for some time. Clinical programs will be reduced, nevertheless, as the present generally young psychologists begin to retire and the demand for academic psychologists increases.—*E. J. Posavac*.

1221. Ansbacher, Heinz. **Alfred Adler, individual psychology and Marilyn Monroe.** *Psychology Today*, 1970(Feb), Vol. 3(9), 42-44, 66.—Adler's concern with power relationships, striving for growth, and social interest have meaning for current theories of motivation. Some of Adler's principles were illustrated by applying them to Marilyn Monroe's life and suicide by drawing on her early recollections, inferiority feelings, and lack of social interest. Rather than inquiring into the sources of her maladjustment, Adler would have asked what she was trying to accomplish by a given act. Therapy would then have concentrated on helping her to gain a life goal with more social usefulness.—*E. J. Posavac*.

1222. Azoulay, J. (Mental Health Center Paris, France) **Sur une tentative de psychanalyse appliquée.** [On an attempt of applied psychoanalysis] *Interprétation*, 1970(Jan), Vol. 4(1-2), 41-65. Examines (a) the problems affecting a mental health center in Paris, particularly the "adult" sector and the team work between patients, attendants, and doctors; (b) the reasons why a local health center is more effective than a psychiatric institution; (c) the functions of and differences between psychoanalysis and psychiatry with an emphasis on psychiatric institutions and their therapeutic value; (d) the respective roles of attendants, staff, and the psychoanalyst. It is argued that working daily with psychotics in a psychiatric institution has fostered an artificial relationship between patient and attendants, and created a greater dependency and aggressiveness of patients toward attendants. This can be remedied by the work performed within the community whereby outside intervention and pressure is restricted thus giving the patient more freedom, autonomy and individual attention by psychiatrist or attendants. It is suggested that the institution only intervene as a last measure at which time it must adapt itself to the patient's needs. The attendants should be given more responsibility and independence, and the psychiatrist should act primarily as a hiatus between psychoanalysis and the psychiatric institution so that the latter can achieve the therapeutic value it is seeking. It is concluded that an adequate psychiatric staff plus a varied institutional system will

allow the patient to "live his psychosis as a manner of being rather than as a sickness."—*S. Maze.*

1223. **Barnes, F. W., Vaillant, G. E., Havens, L. L., & Barnhill, J. O.** (Brown U., Div. of Biological & Medical Sciences) **A new approach to the study of psychogenic disturbances.** *New England Journal of Medicine*, 1970(Oct), Vol. 283(18), 959-963. Psychiatry suffers from many misunderstandings and from some of its own excursions into various schools of thought. It needs to become as realistic and meaningful as possible in terms of the doctor's grasp of the inner experience of the patient. Also, a resourceful, resilient, multifaceted approach is sought after by many. Toward these goals a realistic encounter with the primary material of human nature in its many vagaries has been designed through a specially developed use of dramatic works. As background for this, an integrated approach was used to assess the contribution of each school of thought to the development of psychiatry and its present day potential.—*Journal abstract.*

1224. **Blank, Leonard.** (Rutgers State U., Graduate School of Education) **Nudity as a quest for life the way it was before the apple.** *Psychology Today*, 1969(Jun), Vol. 3(1), 18-23.—Surveys of the social backgrounds of nudists suggest that they do not differ from nonnudists in any major ways. The fact that nudists do not appear to be sexually aroused by unclad bodies, implies that sexual arousal is a learned response to nudity. It was found that nudists relative to nonnudists possessed "greater personality deviations, sexual conflicts and inhibitions, and distortions of the body image." Nudism may, therefore, promote mental health for nudists by serving as an outlet for their tensions.—*E. J. Posavac.*

1225. **Brodeur, Claude.** **Freud ou l'impossible dépassement de l'oedipe.** [Freud or the impossible transcendence of the Oedipus complex.] *Interpretation*, 1969(Jul), Vol. 3(3), 119-142.—Analyzes Freudian theory concerning extension of the Oedipal conflict from the family to society, with society considered an exact replica of the family, and Freud's attempt to retrace the origins of the history of human society, from the primal horde stage (with its law of the father), equal rights of brothers, totemic society, society of gods, and finally a society having 1 god as a father substitute. To succeed in forming a society different from the family, men must, "rather than repress their Oedipal conflict, consciously recognize their desire to kill the father and possess the mother, and choose rather, after having accepted the paternal or parental prohibition, to divide amongst themselves... the possible sexual partners, [and] all wealth of that society. This, then, is a true transcendence of the Oedipus complex." 2 replies to the question of why Freud never really managed to theoretically formulate positive ways for a transcendence of the Oedipal conflict are presented: (a) Freud never "terminated" his self-analysis, and the influence on Freud of the society of his time was considerable. Other pertinent questions include: Are contemporary psychoanalysts confined within the Oedipus complex? Will not contemporary social revolutions, including the Chinese "cultural revolution," modify present-day society in the sense of a transcendence of the Oedipal conflict? The latter question is probed in relation to the 4 social revolutions experienced by Quebec in the last 25 yr.—*T. N. Webster.*

1226. **Brodeur, Claude.** **La négation comme facteur essentiel de formation du sujet humain.** [Negation as an essential factor in human development.] *Interpretation*, 1968(Jul), Vol. 2(3), 35-44.—Explains Freud's

ideas on the beginning of human thought, with primitive intellectual judgment proceeding from oral impulses (whether to eat or spit out something), and with a 2nd decision, concerning the real existence of that perceived. Affirmation and negation, a polarity corresponding to 2 groups of impulses (Eros and destruction) represent the demands of an I-pleasure and an I-real. Though Freud does not precisely state, we... add that, if all intellectual judgment is essentially constitutive of the human subject, it is negative type of intellectual judgment according to the very primitive form that we have defined which ushers in the human being to his own subjectivity... it is due to this initial negative type intellectual judgment that the S initially employs a process of repression that is, precisely, a certain manner of completely negating the existence of objective external reality." In illustration of these Freudian thoughts, dreams of patients are presented in which is formulated, by means of symbols, this same negative type intellectual judgment in its most primitive form.—*T. N. Webster.*

1227. **Brown, Fred.** (Mt. Sinai Hosp., Div. of Psychology, New York, N.Y.) **Changes in sexual identification and role over a decade and their implications.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 229-251.—Evaluated the Rorschach records of 1393 psychiatric and medical patients comprising 2 groups separated by a decade and totaling 1254 for response to Card VI and the sex of figures seen on Cards III and VII. The primary hypothesis stated that there would be a change in the sex of figures seen on these cards, contrary to expectations based upon consensually accepted modal responses and indicating more certainty concerning sexual identification and role in the earlier group. General and specific hypotheses were largely confirmed and their theoretical and practical psychosocial implications discussed. (20 ref.)—*Author abstract.*

1228. **Dax, E. Cunningham.** (Mental Health Services Commission, Hobart, Tasmania, Australia) **Psychiatric aspects of poverty.** *Medical Journal of Australia*, 1970(Oct), Vol. 2(18), 815-817.—Distinguishes between collective, cyclical, and relative poverty and describes their psychiatric characteristics. The danger of putting psychiatric labels on the poor which disguise social factors and lack of money is noted. The psychiatric team is described as confronting the poor under 3 circumstances: (a) when they are referred by a welfare worker, (b) where poverty is associated with a psychiatric condition, and (c) when children from poor homes are referred by various agencies. At the present time, however, "the need for psychiatric intervention most frequently comes because of relative poverty, in which the shame of poverty and its concealment may become the major problem in association with anxiety and depression." Psychiatric disabilities which may be encountered in the hard core poor are described. It is concluded that "when governments assume their full responsibilities, the psychiatric services will have to play a greater part in giving support, advice and treatment than they do at present."—*S. Knapp.*

1229. **Ferriss, Gregory S.** **Evoked responses and their clinical application.** *American Journal of EEG Technology*, 1970(Mar), Vol. 10(1), 17-26.—Defines and illustrates the calculation of averaged evoked potentials (AERs). AER studies of patient and normal groups in the search for clinical correlations are noted. Studies have included IQ, the impaired stimuli attending of schizophrenics, the recovery cycle of psychotics, audiometric studies, and the development of objective tests for

color blindness. It is noted that the "use of AERs in cerebral disorders can often give information which correlates grossly with the location and extent of pathologic lesions." Similarly, AERs have applications in corticography and stereotaxic brain surgery as a means of identifying structures. (24 ref.)—*S. Knapp.*

1230. Godinova, A. M. & Verinskaya, D. K. (Lab. of Medical Genetics, Leningrad, USSR) **Elektricheskaya aktivnost' mozga pri sindrome Shereshevskogo-Turnera i mozaitsizme.** [Cerebral electrical activity in Shereshevsky-Turner's syndrome and mosaicism.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 873-879.—Reports results of EEG examinations of 34 7-32 yr. old females exhibiting Shereshevsky-Turner's syndrome (anomalies of body structure accompanied by hormonal and metabolic disturbances) due to certain chromosomal aberrations involving the total absence of sex chromatin or its absence in only some cells (mosaicism). The features characterizing the EEGs of 2 age groups (16 yr. and below, and 17 yr. and over), and mosaicists are detailed. These features are ascribed to the failure of maturation of individual structures in the brain—a specific manifestation of a genetically engendered general somatic disorder. (English summary)—*I. D. London.*

1231. Goldstein, Michael J., et al. (U. California, Los Angeles) **Interpersonal themes in the Thematic Apperception Test stories of families of disturbed adolescents.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 354-365.—Analyzed TAT stories of 24 families containing disturbed adolescents according to: (a) perceptual cognitive structuring of cards; and (b) quality of interpersonal relationships. The cards used had a high probability of stimulating familial themes. 24 13-19 yr. old adolescents in 4 groups (aggressive-antisocial, active family conflict, passive-negative, and withdrawn) and their parents showed distinctive patterns of response to these TAT cards. Parents of aggressive-antisocial Ss perceived minimal involvement among family figures while parents of withdrawn Ss perceived skewed and negative relationships. Parents of active family conflict and passive-negative Ss were similar in perceiving familial relationships with both positive and negative involvement among the characters. Data obtained on Ss was complementary to the parental data for 2 groups (aggressive-antisocial and passive-negative) and congruent for the other 2 groups (active family conflict and withdrawn). Hypotheses concerning the organization and quality of relationships in these families are offered.—*Journal abstract.*

1232. Golubeva, I. V. (Inst. of Experimental Endocrinology & Hormonal Chemistry, Moscow, USSR) **Adaptatsiya interseksov k peremene pola.** [Adaptation of intersexuals to change of sex.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 911-914.—Reports observations of 31 cases of sex-change in intersexuals: 13 from female to male and 18 vice versa. Several psychological and behavioral reactions before and after change of sex are described. Sex alteration is possible at any time, due regard, however, being extended to the psychological and physiological factors involved. The most suitable time for this change is at 3-4 yr. and 14-20 yr. of age. Greater difficulties are encountered at the age of 4-10 yr. and after 20-21 yr. (English summary)—*I. D. London.*

1233. Isaeva, E. I. & Milea, Sh. (2nd Moscow Medical Inst., USSR) **O klinicheskikh variantakh epileptoidnoi**

psikhopatii u detei i podrostkov. [On clinical variants of epileptoid psychopathy in children and adolescents.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1556-1560.—Presents results of observations of 38 7-14 yr. old children, exhibiting either epileptoid psychopathy (EP) or pathological traits of character threatening to develop into EP. The clinical distinctiveness of this form of psychopathy is described, and its clinical variants are presented. The "hereditary-constitutional" factor is assigned the major role in the genesis of EP. An unfavorable early environment promotes the emergence of epileptoid personality traits. A genetic connection between EP and epilepsy was not confirmed. (English summary) (15 ref.)—*I. D. London.*

1234. Krasil'nikova, M. N. & Alisevich, K. D. (Bashkir Republic Psychoneurological Hosp., USSR) **O soderzhanii v likvoro i syvorotke krovi psikhicheskikh bol'nykh C-reaktivnogo belka.** [On C-reactive protein content in the cerebrospinal fluid and blood serum of the mentally ill.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1678-1681.—Attempted to elucidate the role of immunological shifts in the cerebrospinal fluid (CSF) in the pathogenesis of diseases of the brain, utilizing simultaneous determinations of the presence of C-reactive protein (C-RP) in the blood and CSF of 217 patients with different neuropsychic illnesses and of 8 normals. A diagnostic breakdown of the former group is presented: schizophrenia (58); epilepsy (50); reactive psychoses, psychopathy, and chronic alcoholism (10); viral and infectious inflammation of the brain (25); residual disorders of earlier meningoencephalitis (30); other noninflammatory diseases of the brain (44). With few exceptions, C-RP was disclosed in the CSF more often when it was also present in the blood. During the treatment of 30 patients with psychotropic drugs: aminazine (chlorpromazine) and haloperidol, C-RP was detected in the blood and CSF more frequently and in higher titres than before treatment. The appearance of C-RP in the CSF during treatment is viewed as an indirect index of the central action of psychotropic drugs, involving the partial formation of C-RP in the CNS. (English summary)—*I. D. London.*

1235. Krippner, Stanley. (Maimonides Medical Center, Dream Lab., Brooklyn, N.Y.) **Hypnosis and psychedelia.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(3), 92-98.—Compares hypnosis and psychedelic experience. (45 ref.)—*M. V. Kline.*

1236. Lagadec, Claude. **La pensée par couple et l'inconscient.** [Binary thinking and the unconscious.] *Interprétation*, 1968(Jul), Vol. 2(3), 21-29. Presents a parallel between the system of the unconscious (Freud) and the binary system of thinking (Wallon's "paired thinking"), including: (a) the presence of contradictory elements in both systems, differing from the non-contradiction required in conscious thinking after ages 7-8; (b) absence of the judgment modality in both systems; (c) absence of the time factor in the unconscious, as compared with a lack of time sense and perception of causality in binary thinking; (d) the total subjection of the unconscious to the pleasure principle, while binary thinking is a temporary structure of extreme rigidity to which the reality principle does not apply; and (e) the dependency of the unconscious on a primary process in which energy is free (or mobile), as contrasted with conscious thinking, the latter depending on a secondary process in which energy is bound to content, while binary thinking is a preconceptual and pre-

relational stage of theoretical intelligence.—T. N. Webster.

1237. Mahrer, Alvin R. (Miami U.) **Interpretation of patient behavior through goals, feelings, and context.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 186-195.—Offers 3 guidelines and 4 brief illustrations of their use in aiding interpretation of patient behavior. (31 ref.)—A. R. Howard.

1238. Mastukova, E. M. (Research Inst. of Forensic Psychiatry, Moscow, USSR) **Nekotorye razlichia rechevykh narushenii pri shizofrenii i motornoi alalii u detei doskol'nogo vozrasta.** [Some differences in speech disturbances in schizophrenia and motor alalia in preschool children.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Oct), Vol. 70(10), 1523-1528.—Presents results of a comparative study of speech disturbances in 3-6 yr. old children with catatonic schizophrenia (N = 25) or motor alalia (N = 9). Along with some general symptoms of speech pathology (absence or underdevelopment of verbal communication, echolalia, paraphasia, insufficient perception of oral communication), the "qualitative structure" of these disturbances in both groups was different. These differences are described in detail and analyzed in connection with the general clinical features of both conditions. (English summary)—I. D. London.

1239. Mikhalev, P. V. (Medical Inst., Vladivostok, USSR) **Katamnesticeskoe obsledovanie lits, perenesshikh porazhenie yadovitoi meduzoi primor'ya (gonionemoi).** [Catamnestic study of persons who have suffered injury from the poisonous littoral jellyfish (Gonionema).] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Dec), Vol. 70(12), 1850-1856.—Reports an analysis of catamnestic data on 340 persons who had been stung by gonionemal jellyfish between 1958-1966. During the period of catamnestic study, 139 cases of neuropsychic disorders were noted: 4 psychotic states, 60 neurotoxic disturbances, and 75 somatoneurological deviations. The psychotic states were varied (schizophreniform syndrome against a background of marked organic changes in the psyche, psychosensory form of encephalitis, epileptiform syndrome, dysthymic-hypochondriac syndrome). These states emerged only in those with signs of organic or functional insufficiency of the brain before the stinging. Neurotoxic disorders were expressed in 22 astheno-neurotic, 15 astheno-autonomic, 9 cenesthopathic-hypochondriac, 3 psychosensory, and 11 phobic syndromes. Predominating among the somatoneurological disorders were: 34 stable dermoparesthetic symptoms; 29 constant or periodic muscular-articular, polyradiculoneuritic pains; and 12 periodic convulsive contractions of separate muscle groups or states of sudden muscular weakness of the cataleptoid type. (English summary) (17 ref.)—I. D. London.

1240. Nuckolls, Katherine B. (U. North Carolina, Chapel Hill) **Psychosocial assets, life crisis and the prognosis of pregnancy.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2796.

1241. Ravkin, I. G., et al. (Moscow Research Inst. of Psychiatry, USSR) **O roli allergicheskogo faktora v razviti i oformlenii klinicheskoi kartiny shizofrenii i epilepsii.** [On the role of the allergic factor in the development and delineation of the clinical picture in schizophrenia and epilepsy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Nov), Vol. 70(11), 1682-1686.—Presents an analysis of some clinical manifestations of schizophrenia and epilepsy in connection with the assumed

involvement of an allergic factor (AF) in their genesis. The experiment was based on laboratory examinations of schizophrenics (30 in the acute and 30 in the chronic stage of psychosis) and 80 epileptics (during attacks and at various times before and after). The existence of an AF was confirmed by examination of the state of nonspecific immunity and the monocytogram. The role of an AF was clearly indicated in the development and delineation of the clinical picture for "hypertoxic schizophrenia and torpid catatonic stupor." It is suggested that status epilepticus should be viewed as a hyperergic reaction. The AF occurs in the development of individual epileptic attacks and acute epileptic psychoses. (23 ref.) (English summary)—I. D. London.

1242. Ravkin, L. I. & Maisevich, G. R. (Inst. of Poliomyelitis & Viral Encephalites, Moscow, USSR) **Morfologicheskie izmeneniya v tsentral'noi nervnoi sisteme pri postvaksinal'nykh entselafomielitakh, razvivayushchikhsya posle privokov ospennoi vaksiny u detei.** [Morphological changes in the central nervous system in postvaccinal encephalites developing in children after smallpox vaccination.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Oct), Vol. 70(10), 1465-1471.—Presents results of a histological study of the CNS in 6 deceased children. The morphological similarity of the cases with experimental allergic encephalomyelitis, as well as (a) the connection between postvaccinal encephalitis and respiratory infections, and (b) the negative data of virological research provide evidence for the allergic (autoimmune) pathogenesis of the encephalites which develop after smallpox vaccination in children. (English summary)—I. D. London.

1243. Rychlak, Joseph F. (Purdue U.) **The two teleologies of Adler's individual psychology.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 144-152.—Attempts to demonstrate how and why Adler extended "his teleological conception of man as individual actor to an even broader teleology of mankind as a whole, set in directed motion by organic evolution." Offers some implications of Adlerian thinking for contemporary society. A. R. Howard.

1244. Saavedra, Alfredo. **Relaciones somato-psiquicas en medicina: Enfoque psiquiatrico.** [Somatic-psychic relations in medicine: Psychiatric approach.] *Revista de Neuro-Psiquiatria*, 1970(Mar), Vol. 33(1), 17-22.—Discusses the relation between mind and body (i.e., the psychological and organic) regarding physical and mental health. The influence of (a) emotional attitudes, (b) the placebo effect, and (c) the attitude and words of a doctor on organic illness are considered. The psychological factor as the predominant precipitator of psychosomatic illness is discussed. In stressing the importance of considering a person as a mind-body entity, medical progress in treating organic illness is considered very beneficial for psychiatry. —P. Hertzberg.

1245. Thorne, Frederick C. (4 Conant Square, Brandon, Vt.) **Adler's broad-spectrum concept of man, self-consistency, and unification.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 135-143.—Adlerian psychology represented a broader concept of man than any contemporary theory. Recent years have witnessed a decreasing emphasis on Freud and Jung and an increasing recognition of Adler.—A. R. Howard.

1246. Van Rootselaar, F. J. & Boerma, F. Westendorp. (State U., Lab. of Bacteriology & Serology, Groningen, Netherlands) **Serum levels of immunoglobulins in**

mongolism, in epilepsy and in unclassified mental deficiency. *Psychiatra, Neurologia, Neurochirurgia*, 1968(Nov), Vol. 71(6), 501-507. Compared the immune globulins in 12-24 yr. old mentally deficient patients with those of normal controls. It was found that the 3 globulins tested revealed abnormalities for the mongols.

PERSONNEL

1247. ———. **Psychiatric nursing.** *British Medical Journal*, 1969(Mar), Vol. 1(5643), 526. Reports that the Central Health Services Council again emphasizes the shortage of nurses in psychiatric hospitals. To alleviate the shortage certain recommendations have been made: (a) nurses should be relieved from domestic and clerical work; (b) the size of wards should be reduced to manageable units, and (c) nurses should take a more active part in the treatment of patients and should be prepared accordingly. If these recommendations are accepted, the status of the psychiatric nurse will be raised, and more qualified nurses attracted to the profession.—*I. Halev.*

1248. Anthony, William A. & Wain, Harold J. (Southern Illinois U.) **Two methods of selecting prospective helpers.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 155-156. Compared 2 methods of selecting trainees for an empathy training program using 31 army medical corpsmen. 1 method involved obtaining the prospective trainees' pretraining levels of empathic communication; the other method involved presenting the trainees with a brief analogue of the training program for which they were being considered and assessing the effects of this brief training analogue. Although both methods were correlated significantly with training outcome, the training analogue method had a significantly closer relationship ($r=.61$ vs. $r=.35$) with outcome measures.—*Journal abstract.*

1249. Athlestan, Gary T. & Paul, Gerald J. (American Rehabilitation Foundation, Minneapolis, Minn.) **New approach to the prediction of medical specialization: Student-based Strong Vocational Interest Blank scales.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 80-86. Studied longitudinal data from 1583 undergraduates in an attempt to devise means of predicting eventual specialization for medical students. Specialty membership was determined in a follow-up study 11 yr. after the SVIB was administered. SVIB scales for surgeons, obstetricians, pediatricians, and psychiatrists were developed, using the items which differentiated the specialist groups as freshmen. Senior-based scales were also tested, but predicted no better than those using freshman responses. The resulting student-based scales were reliable on retest, but on measures of distributional overlap, they did not perform as well as standard SVIB occupational scales. However, their predictive validity was superior to that of previously developed SVIB scales for medical specialists. *Journal abstract.*

1250. Carkhuff, Robert R. (American International Coll., Center for Human Relations & Community Affairs) **Principles of social action in training for new careers in human services.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 147-151. Selected 14 personnel indigenous to the inner-city and trained them in helping and human relations skills as functional professionals. In turn, 6 functional professionals utilized an internship principle in conducting similar training programs for new careers in human services for 63

essentially unselected hard-core unemployed.—*Journal abstract.*

1251. Dengrove, Edward. (541 N. Edgemere Dr., W. Allenhurst, N.J.) **The hypnotist's subjective experiences during trance induction.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(3), 75-81. Describes the subjective experiences of a number of competent hypnotherapists during the process of induction and discusses their importance to both therapist and S.—*M. V. Kline.*

1252. Dewdney, J. C. (U. New South Wales, School of Health Administration, Kensington, Australia) **Prestige ratings of hospital personnel.** *Hospital & Health Care*, 1971(Jan), Vol. 1(10), 8-9. 63 students of hospital administration, including 18 medical graduates, each ranked 20 hospital personnel groups according to prestige, using the method of extremes. Overall there was close agreement between the medical and nonmedical participant groups. Among the medically qualified group there was least agreement upon the ranking of honorary medical officers (general practitioners), hospital engineers, and members of hospital management boards, nonmedical participants agreed least on rankings of catering officers, medical social workers, radiographers, and theatre sisters.—*Author abstract.*

1253. Griver, Jeanette A. & Robinson, Margot B. (Compsych Systems, Inc., Santa Monica, Calif.) **Multimedia strategies for improving the effectiveness of managerial staff meetings.** *Human Factors*, 1971(Feb), Vol. 13(1), 11-16. Describes a communication training program designed to reduce nonproductive time and increase the level of individual participation during managerial staff meetings. The program was applied to a group of 20 staff members of a 152-bed hospital and was evaluated over a 2-yr period. After a preliminary communication analysis, multimedia feedback techniques were employed to reduce individual communication errors. Performance analyses, audio- and video-tape recordings and playback were techniques employed. Results showing a 46% average time decrease in staff meetings and a 100% increase in individual participation during meetings are being maintained in the 3rd yr. of study.—*Journal abstract.*

1254. Israël, P. **Psychoanalystes—Institutions—psychiatrie—variations.** [Psychoanalystes—institutions—psychiatrie—variations] *Interpretation* 1970(Jan), Vol. 4(1-2), 91-107. Examines the relationship between practicing psychoanalysts and mental institutions, and the problems that these institutions (psychiatric in particular) present to psychoanalysts who wish to be accepted by them. The manner in which psychoanalysts have come to question their place and function in their profession is explained. It is argued that, in the psychiatric institution, the psychoanalyst is challenged by both the psychotic element which lends itself to theory but not to practice, and the social element which accentuates the effects of intrapsychic repression. If he tries to deal with both he and the institution become entangled in contradictions. He must assume the role of mediator between both. Only then can he improve the already deteriorating relationship between attendants and patients, as well as himself and the institution. His own position would be that of psychoanalytical advisor for the nonanalyst, a role similar to that in the analytical psychodrama.—*S. Maze.*

1255. Kemp, David E. (U. Oklahoma, Medical Center) **Normative data for the AB Scale.** *Journal of*

Clinical Psychology, 1971(Jan), Vol. 27(1), 114-115.—A 23-item version of the AB Scale, a predictor of therapist effectiveness, was administered to 10 samples of male Ss. Normative data are presented. Results indicate that the AB Scale is fairly stable across different populations and that scores are more symmetrical in the samples with greater professional training. 3 of the versions of the AB Scale are mentioned as worth considering, and when the AB Scale is used, researchers should consult those studies which report normative data for those versions utilized.—E. J. Kronenberger.

1256. Krebs, Richard. (Sinai Hosp., Baltimore, Md.) **Staff resistance to mental health workers as psychotherapists.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 28-29.—The staff at a department of psychiatry was reluctant to accept as psychotherapists a group of 8 mature housewives trained under a grant from the Maryland Department of Health and Mental Hygiene. The 36-mo course was established to train the women to function in a wide range of helping roles rather than only as psychotherapists. A questionnaire given to 6 randomly chosen senior professional staff members asked for opinions on 25 tasks and included a final question of whether the trainees should be paid for their services. The responses suggested that the women would experience a great deal of frustration in their wish to become psychotherapists. 7 mo. after the 1st rating was made the 6 staff members were queried again and staff resistance was found to have lessened markedly. Factors contributing to staff members' changed perception of trainees' ability and usefulness included community pressure on a relatively small staff to provide psychotherapy, and staff contact with the trainees. The 1 staff member who did not view the trainees more positively after 7 mo. had had little contact with them. The attitude of the women themselves also changed, as they began to see themselves as competent psychotherapists and not as 2nd-rate staff members. R. Soley.

1257. Leighton, Dorothea C. & Cline, Nora F. (U. North Carolina) **The public health nurse as a mental health resource.** *Southern Anthropological Society Proceedings*, 1968, No. 1, 36-46.—Reports findings from questionnaires completed by 106 public health nurses, who furnished data about themselves, about 5 randomly selected patients from their caseloads, and about their caseloads in general. The long-range goal of the study was to devise inservice mental health training programs for public health nurses on the basis of the findings.

1258. Lyons, Thomas F. (U. Michigan, Medical School) **Role clarity, need for clarity, satisfaction, tension, and withdrawal.** *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 99-110.—In a mailed-questionnaire study of 156 staff registered nurses, perceived role clarity was related negatively to voluntary turnover, propensity to leave, and job tension, and positively to work satisfaction. The correlations of role clarity with voluntary turnover, propensity to leave, and work satisfaction were nonsignificant for Ss classified as low on a need-for-clarity index; the correlations were significantly higher for Ss with a high need for clarity. The correlations between role clarity and job tension were significant for both subgroups. The concepts of role clarity, the rigidity of role specifications, and the conditions of role specificity, as opposed to the processes of role specification, are discussed regarding organizational theory and change. (41 ref.)—*Journal abstract*

1259. Phillips, Clinton E. (American Inst. of Family

Relations, Los Angeles, Calif.) **A study of marriage counselor's MMPI profiles.** *Journal of Marriage & the Family*, 1970(Feb), Vol. 32(1), 119-130.—Analyzed the MMPI profiles of 149 male marriage counselors for mean scales, standard deviations, variances, and for high and low point characteristics. Of these, 139 were judged as to ability to perform as marriage counselors; differences in profiles were found. It was also hypothesized that there would be manifest differences in the MMPI profile characteristics of Ss from the Protestant ministry and those from other professions. The hypothesis was upheld. Symbolic interaction theory is the framework within which this research was done. A review of literature, a discussion of theory, and this research suggest that this type of study should be helpful to marriage counseling training centers in their selection of persons for training. (29 ref.)—*Journal abstract*.

1260. Rockland, Lawrence H. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Psychiatric consultation to the clergy: A report on a group experience.** *Pastoral Psychology*, 1970(Jan), Vol. 21(200), 51-53.—Since the majority of people bring their emotional problems to their minister or family doctor, psychiatrists can perform an important function by helping these caretakers deal more effectively with the people who consult them.—O. Strunk.

1261. Silverstone, Stanley J. (Postgraduate Center for Mental Health, New York, N.Y.) **On the mystique of training analysts.** *Psychoanalytic Review*, 1970, Vol. 57(2), 283-284.—The chief purpose of training analysis is the personal validation by the student analyst of the existence of the unconscious in himself. The student analyst needs to suffer this narcissistic wound before he can know the nature of such a process in others. "It is suggested that while psychoanalysts who have undergone personal psychoanalysis are probably no healthier than nonanalytic psychotherapists, they will possess certain rational doubts about those things they find themselves defending most strongly, and thus they do take into account an aspect of self-deception which is available only through direct personal experience." D. Prager.

1262. Wilson, Marguerite. (U. California, School of Social Welfare, Berkeley) **Strategies of teaching in corrections.** *Social Casework*, 1970(Dec), Vol. 51(10), 618-624.—4 conflict areas were identified by faculty for social work students in correctional field placements. 51 students were given a questionnaire designed to measure their conflict between responsibility to a client and responsibility to others and society. 16 teaching methods are suggested to help students resolve conflict situations.—M. W. Linn.

1263. Woodbury, Michel. **L'engagement social du psychoanalyste.** [Social commitment of the psychoanalyst.] *Interpretation*, 1969(Jul), Vol. 3(3), 57-83.—In the light of the recent phenomenon of community centering of psychiatric activity, explores the psychiatrist-psychoanalyst's role in the new psychiatry, including: (a) increasing the number of his didactic analyses to multiply as quickly as possible the number of physicians possessing psychoanalytical training, (b) analyzing as many as possible of the members of disciplines directly in contact with populations at risk (physicians, social workers, nurses, educators, parole officers, etc.); and (c) crisis intervention. Factors of the social revolutions of the 20th century, including changes in the role of women and change in family structure are discussed in relation to their effect of disharmony between the generations.

The middle class younger generation, having internalized a family environment in which a "panarchate" replaced the patriarchy, demonstrate for a dehierarchization of other social institutions. "Intellectual racism," another target of the young, is viewed from the standpoints of psychoanalysis and structuralism. Finally, the role of our language is examined with its structure of comparatives, in the "either-or" system in education and other institutions, together with the role of the socially committed psychoanalyst in his involvement with these social institutions. (16 ref.)—*T. N. Webster.*

PSYCHOTHERAPY & ANALYSIS

1264. ———. **Table ronde: Psychanalyse et psychanalystes: Perception de la psychanalyse et des psychanalystes par un groupe d'intellectuels, d'artistes et de militants sociaux de Montréal.** [Round table discussion: Psychoanalysis and psychoanalysts: Perception of psychoanalysis and psychoanalysts by a group of Montreal intellectuals, artists, and social militants.] *Interprétation*, 1969(Jul), Vol. 3(3), 7-36.—Discusses undirected interviews of 23 persons, prefaced by the question: "What do you think of psychoanalysis?" Comments by Ss indicate that psychoanalysis as a concept is meaningful in their lives, part of modern intellectual knowledge, furnishing landmarks in the same sense as Christianity and Marxism. Freudism and Marxism are viewed as competing systems of interpretation. Concerning psychoanalytic ideas, Ss expressed some sympathy, but much less toward psychoanalysts as a social group. Criticisms included: (a) psychoanalysis is a means of assuring social conformity, adjusting the individual to the status quo; (b) certain psychoanalysts, psychiatrists, and psychologists tend to reduce manifestations of social militancy to a phenomenon of individual pathology, and are therefore viewed as a group favoring social conservatism; (c) because of its high cost, psychoanalytic therapy is reserved for a privileged class; (d) the psychoanalyst's abilities might better be used in experiments accessible to more people; (e) to the degree Ss saw psychoanalysis as an undertaking of the highest cerebral order, they were ready to consider it for themselves or to recommend it for others, but (f) to the degree Ss saw the treatment as an affective and interpersonal adventure, they tended to be apprehensive.—*T. N. Webster.*

1265. Ancona, Leonardo. (Catholic U., Faculty of Medicine, Rome, Italy) **Le virement de la dynamique autoplastique à la dynamique alloplastique.** [The turning of an autoplactic dynamism into an alloplastic dynamism.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 208-214.—Discusses the influence of psychoanalytic therapy on the moral life of the patient. It is believed that progress obtained via psychoanalysis does not necessarily coincide with moral progress. It is suggested that "actuality testing" be substituted for "reality testing" so that moral progress will reach the same level at the same time as therapeutic progress.—*R. E. Smith.*

1266. Beutler, Larry E. (U. Nebraska) **Predicting outcomes of psychotherapy on the basis of social judgment theory.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2272-2273.

1267. Bigras, Julien. **Le monstre maternel, un monstre muet.** [The maternal monster, a mute monster.] *Interprétation*, 1970(Oct), Vol. 4(4), 57-104.—Describes the case of a maternal monster dwelling in the imagi-

nation of a 6-yr-old boy and his mother, causing such fear that both Ss were paralyzed with terror: the boy unable to attend school, and the mother forced by fear to stay in her mother's home, which she thoroughly disliked. During psychoanalysis of both (by the same analyst), the following hypothesis emerged: "the boy and his mother absolutely need to invent imaginary monsters (representative and identifiable); the imagination of the mother had been transmitted to her child." Regarding fears experienced by the mother (of dark, empty places in which noises, animals, witches, etc., could be imagined) the analyst discusses his own childhood memories of similar fears which stimulated his curiosity, and evoked the desire to help. The boy is seen as wishing to return to the womb. The void of the womb is thought to underlie the structure of the fantasies, the apperception of which the mind cannot tolerate without faintness. So monsters are invented to fill the void.—*T. N. Webster.*

1268. Bigras, Julien. **L'identification des objets et l'identification au père-ideal.** [Identification of objects and identification with the father-ideal.] *Interprétation*, 1968(Jul), Vol. 2(3), 5-20.—Describes the dreams of a patient who decided to arrange her thoughts during psychoanalysis, giving a precise meaning to fantastic objects which free association had rendered especially invested, and identifying her thoughts and objects of desire. During a sequence of dreams, the patient's preoccupation with identifying objects did not seem evident; in this sequence the mechanism of displacement, involving the interchangeability of "container-contained," was operative in a compulsion of repetition in dreams of a single childhood scene, a prototype modified in material but not in form. In subsequent dreams, manifestly representing a desire to identify objects, the patient, identifying with the analyst, her younger brother, and her father, refused the analyst's desire for free association. In identifying objects, the patient identified with her father-ideal, appropriating his ability to transform raw material into a functional container. In this case, involving the patient's desire to seduce her father, or be seduced by him, only the father-ideal (in the patient's childhood) possessed the ability to identify objects (as did the analyst in the analytical situation). The patient therefore arrogated an ability which, during her childhood, was possessed only by her father.—*T. N. Webster.*

1269. Caprini, G., et al. (Chiarenzi Zevio Hosp., Verona, Italy) **L'utilizzazione del diazepam in associazione alla succinil-colina nell'ellettroshock.** [Diazepam associated with succinylcholine in electroshock therapy.] *Rivista di Neurobiologia*, 1968(Apr), Vol. 14(2), 300-302.—ECT is still used as a cure in psychiatry, especially since barbiturates and succinylcholine have eliminated the danger of muscular-skeletal lesions and cardiac and respiratory complications. In 450 sittings diazepam substituted for the barbiturates. It was found that when used along with succinylcholine, diazepam offers the following advantages: (a) elimination of barbiturates and the consequent dangers of depression and of laryngeal spasm; (b) reduction of the dosage of succinylcholine; (c) possibility to immediately verify the electroconvulsion arrival; (d) absence of unpleasant memories even when one does not succeed in obtaining the electroconvulsion; (e) rare agitation of the patient upon awakening; and (f) less resistance on the part of the patient to accept ECT.—*A. M. Farfaglia.*

1270. Caruso, Igor A. (U. Salzburg, Austria) **Psych-**

analyse et idéologie. [Psychoanalysis and ideology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(4-5), 215-220.—Discusses the historical and philosophical aspects of psychoanalysis as related to the therapy of psychopathological behavior. Topics such as psychoanalysis as a "latent sociology" and as the practice of an art are also discussed.—*R. E. Smith.*

1271. **Cordner, George M.** (U. Claremont Theological School) **The role of imagination in psychotherapy.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2276.

1272. **De Marinis, Darlo & Petrella, Fausto.** **Esperienze di psicoterapia individuale nel borderline.** [Experiences of individual psychotherapy in borderline subjects.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(S), 350-357.—Studied an approach to the problem of borderline which would integrate clinical and psychodynamic possibilities. The problem of borderline is seen as a particular organization of the ego and the use of the nebulous ego. Metapsychological concepts of the borderline are summarized. The life style of these Ss is a type of pseudoreality infiltrated with feelings of depersonalization and an almost hallucinatory style of learning; this is illustrated by the description of a clinical case of a 24-yr-old S. Technical aspects are considered with Schmelberg's contribution emphasized. Traditional psychoanalytical treatment promotes regressive movement as indicated by the underdeveloped ego. An active and selective directive and finalized therapy centered on the ego and on reality is the most beneficial.—*A. M. Farfaglia.*

1273. **Di Mizio, Michele.** **Difficoltà nell'approccio psicoterapico al borderline ricoverato in una corsia psichiatrica.** [Difficulties of the psychotherapeutic approach in borderline inpatients in a psychiatric hospital.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(S), 368-372.—The psychotherapeutic approach is indispensable in the treatment of a borderline S. Certain factors make this type of treatment difficult. The doctor's 1st concern is to establish if the S is really psychotic. The borderline S causes uncertainties in the doctor, so ECI is used if the S is considered psychotic, or drug therapy if the S is considered neurotic. After the S has been exposed to this, any possibility of another approach is compromised. In a psychiatric hospital the problem is increased by the lack of doctors who have had psychotherapeutic training and by the many interrogations at bedside. A case of a 20 yr. old in a psychiatric hospital illustrates the deficiency of the methods used in such hospitals. In a 9-mo follow up the S verbalized her resentment toward her doctors, the hospital, and her therapy and treatment. It is concluded that even a doctor with a background in psychoanalysis meets with difficulties in such a surrounding, for he must submit to the hospital policy.—*A. M. Farfaglia.*

1274. **Diamond, Michael I.** (Pennsylvania State U.) **A comparison of three content analytic approaches to the analysis of interviewer verbal behavior in the initial psychiatric interview.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2301-2302.

1275. **Dudek, S. Z.** (U. Montreal, Quebec, Canada) **Effects of different types of therapy on the personality as a whole.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 329-345.—Compares psychoanalytic, medical (drugs, electroconvulsive), and maintenance therapies by means of pre- and posttherapy Rorschachs to evaluate direction of therapeutic change.

The major premise that each therapeutic approach results in different long term effects on the personality as a whole, irrespective of diagnostic label, was confirmed. Psychoanalytically oriented therapies with 26 16-45 yr. old Ss, resulted in a liberation of fantasy and libido and greater awareness. Medical therapies, with 33 14-53 yr. old Ss, resulted in better reality contact but with greater personality constriction. Maintenance therapies, with 29 Ss who were retested 5-18 yr. after initial testing, resulted in no basic personality change in both neurotic and schizophrenic Ss.—*Journal abstract.*

1276. **Duryee, John S.** (Columbia U.) **The therapeutic qualities of professional and nonprofessional helpers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2277.

1277. **Eckardt, Marianne H.** **Perspectivas terapéuticas.** [Therapeutic perspectives.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969(May), No. 12, 35-45.—Presents an address from the Third International Forum of Psychoanalysis held in Mexico in August, 1969. Psychoanalytic theory is discussed, noting that theory may have a negative effect on therapy by imposing rigidity. The benefits to be gained from the patient-therapist relation are stressed. It is considered important to reestablish in the patient the feeling of being a vital, living organism. The importance of the therapist's dialogue and his role in directing the patient's feelings is noted. Sleep and dreams are considered very important in therapy. The therapist is also urged to encourage a patient to express his feelings metaphorically.—*P. Hertzberg.*

1278. **Ehrlich, Milton P.** (5 Riverside Dr., New York, N.Y.) **The role of body experience in therapy.** *Psychoanalytic Review*, 1970, Vol. 57(2), 181-195.—Discusses the concepts of various authors concerning body awareness. In behavior one acts with his body as well as with his personality. The body image is fundamental to all experience, and is as resistant to change as any psychological self-attitude. The defensive maneuvers of the body directly parallel the resistance mechanisms operating in the realm of the mind. Awareness of physical being may help open an individual up to psychological self-attitudes. "Therapists should recognize the importance of body awareness in the same way in which they are...attuned to unconscious mental processes." Various experiences with patients are described. (22 ref.) *D. Prager.*

1279. **Fancher, Raymond E. & Gutkin, Daniel.** (U. Rochester) **Attitudes toward science, insight therapy, and behavior therapy.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 153-155.—Assessed attitudes toward 2 kinds of insight therapy and 2 kinds of behavior therapy using 145 college students. The insight therapies were preferred but the behavior therapies were viewed as being more scientific. Highly similar results emerged from males, females, natural science majors, social science majors, and humanities majors. It is concluded that the behavior therapist starts out at a disadvantage relative to the insight therapist with respect to the attitude he is met with by the general public.—*E. J. Kronenberger.*

1280. **Görres, Albert.** (U. Munich, Psychological Inst., W. Germany) **Psychoanalyse und Verhaltenstherapie.** [Psychoanalysis and behavior therapy.] *Praxis der Psychotherapie*, 1969(Aug), Vol. 14(4), 184-195.—Reports on the "Scientific Monastery" of Munich, where psychoanalysts and behavior therapists cooperate

peacefully. The latter believe that psychoanalysis and psychotherapy, based on depth psychology, have found a successful competitor in behavior therapy. Theoretical and practical reasons for this are presented. The basic principles of behavior therapy are less speculative and more empirically and experimentally established than those of its "competitors." Its treatment periods are shorter and less expensive, with large quotas of success. Of course, the methods used in behavior therapy are not truly competitive to psychoanalysis. Instead they supplement and simplify the existing therapeutic instrumentality, especially in treating large numbers of patients, e.g., in treating neurotic children in polyclinical institutions. An attempt is being made for a synthesis between psychoanalysis and behavior therapy, to be called "psychoanalytic behavior therapy."—*P. von Toal.*

1281. **Grold, L. J.** (Westwood Hosp., Los Angeles, Calif.) **Problems of confidentiality in treating adolescents.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 246-247.—Suggests that a redefinition of confidentiality is needed in regard to hospitalized adolescents since effective treatment "necessitates maximal intrastaff communication." The advisability of sharing information concerning patients with their families or with clinical and nonclinical staff is discussed. In a review of occasions when hospital psychiatrists had broken the rule of confidentiality, it was found that this usually occurred when the psychiatrist's own anxiety was high or when he felt he might be criticized later for withholding information. It is stressed that any planned breach in confidence must be carefully evaluated. "Only thus can the doctor minimize the influence of his own personal biases . . ." and consider what course of action is the best for his patient.—*B. A. Burkard.*

1282. **Halper, Ira S.** (Presbyterian-St. Luke's Hosp., Chicago, Ill.) **The counterpoint of racial and oedipal themes in the psychotherapy of a Negro patient.** *Psychoanalytic Review*, 1970, Vol. 57(2), 169-180.—Discusses racial and Oedipal themes in the psychotherapy of a Negro theological student. The patient's Uncle Tom facade and clown-like appearance concealed aggressive, competitive strivings. The meaning of color to the Negro is reviewed, and the connection between sexual and racial problems in the relationship between Negroes and whites is explored. Difficulties in the treatment of Negro patients by white therapists is also discussed. The "Negro problem" was used in part as a resistance in this case; however, the racial difference between patient and therapist was not a major obstacle in therapy. Reasons for this phenomenon are suggested. Comments are made relating the patient's choice of a career to some aspects of the clown figure. (30 ref.)—*Journal summary.*

1283. **Heigl, Franz.** **Del pensamiento estructural en el psicoanálisis.** [On structural thoughts in psychoanalysis.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969(May), No. 12, 61-71.—Discusses psychoanalysis as a method of thinking and as a theory of human behavior, elaborating established theories from diverse schools. The concept of structure is discussed from many viewpoints, e.g., topographical, dynamic, genetic, and adaptive, noting that all behavior is an expression of structure. Structured thought, i.e., thought in the hypothetical-deductive system of psychoanalytic theory, is considered in relation to the above viewpoints, as well as considered of organismic or integrative thought. The concept of multiple determination (all behavior has many phases and aspects) is considered unique to psychiatry. Struc-

tural thought is considered to permit the formulation of judgments, conclusions, and predictions relative to the individual, but not to influence temperament, sex, and social capacity.—*P. Hertzberg.*

1284. **Schultz, J. H.** **Gedächtnis des Organischen u. Psychotherapie.** [Organic memory and memory in psychotherapy.] *Praxis der Psychotherapie*, 1969(Aug), Vol. 14(4), 157-167.—Discusses injections of animals with brain extract of reflex-influenced animals. Ungal showed in 1965 that brain extracts of conditioned rats changed the reflexes of mice, creating a "code" for nervous cells. Findings were applied to human reactions and the phenomena are discussed, which are important in psychotherapy: remembering, learning, habit forming, extinguishing, exercising, and schooling. Habit forming, in the meaning of "hardening," leads into the comprehensive problem of forgetting. Normally human memory often refuses to forget certain motives. The behavior therapy endeavors to interrupt undesirable courses of reactions, to "extinguish" them, as producing aversion to alcohol in heavy drinkers by emetin injections and antabus shock, which have proven to be more effective than treatments by hypnosis and suggestion. Steady exercise and schooling are recommended as habit forming.—*P. von Toal.*

1285. **Johnson, Sarah A.** (U. Illinois, Urbana-Champaign) **A comparison of mother versus child groups and traditional versus behavior modification procedures in the "treatment" of disobedient children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2989.

1286. **Mathieu, Pierre.** **Identification et symbolisation.** [Identification and symbolization.] *Interprétation*, 1968(Jul), Vol. 2(3), 31-34.—Criticizes J. Bigras (see PA, Vol. 45:Issue 6) report: "Identification of objects and identification with the father-ideal" (concerning a patient in whom a childhood sex play, discovered by her mother, had deeply marked and modified her "libidinal economy"; overneat and perfectionistic since the early experience, her ambivalence toward her mother had deprived her of recourse to identification with her father) in which a series of dreams related to the mother-child experience involved an alternance of "container-contained" (displacement). Contrary to Bigras, the "container-contained" pair is considered the exhibition of a desire to be contained by another desire (the patient's "identification with the father-ideal was in reality no more than symbolic fantasy material serving to reunite her with her mother.")—*T. N. Webster.*

1287. **Nagera, Humberto & Colonna, Alice.** (U. Michigan, Children's Psychiatric Hosp.) **Freud's theory of conflicts.** *Psychoanalytic Review*, 1970, Vol. 57(2), 224-244.—Describes the research being conducted over the last 6 yr. by the Concept Research Group at the Hampstead Child Therapy Clinic, "relating to the study of a large number of preselected basic psychoanalytic concepts as postulated and developed by Freud." The aim of the research is to place Freud's writings in proper context, e.g., noting the historical influences leading to a particular statement. A proper understanding of the hierarchy of psychoanalytic propositions is also emphasized. The research described in this paper applies these methods to the mental forces that can engage themselves in conflicts in the person. (37 ref.)—*D. Prager.*

1288. **Radin, Sherwin S.** (University Bldg., Syracuse, N.Y.) **The effects of a "primal horde" experience in adolescence.** *Adolescence*, 1970(Win), Vol. 5(20), 397-

406.—Presents a case study of a 30-yr-old male in which an adolescent group murder of a hated male teacher became psychodynamically important. The relevance of this experience in the man's psychoanalysis is discussed.—A. B. Warren.

1289. **Rioch, Margaret J.** (Washington School of Psychiatry, D.C.) **Should psychotherapists do therapy?** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 61-64.—Suggests that the medical model upon which therapy is based is inadequate. Definitionally, therapy exists when a patient seeks the help of an expert for the treatment of a disease. In psychotherapy, however, the expert cannot help the patient until the patient ceases to be passive and obedient and becomes an active participant. The model for this kind of activity is an educational 1, which may consist of Socratic teaching or behavior therapy. It is considered that whatever the therapy, the word itself is misleading and has resulted in the 2nd-rate position of psychologists and other nonmedical therapists. The awe that society and individuals have for the medical profession is described as a possible hindrance to the activity. Other terms for "psychotherapist" and "patient" are suggested, e.g., psychological counselor and client, which may clarify the issues and the antagonism between the medical and nonmedical professions. It is concluded that "when treatment [e.g., medication and hospitalization] is needed it should be the province of the medical profession. Psychologists would hold a more self-respecting and more consistent position if they undertook the job of education in the area of interpersonal living rather than the treatment of an illness."—S. Knapp.

1290. **Rustin, Stanley L.** (York Coll., City U. New York) **Therapist authenticity in group and individual psychotherapy with college students.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 45-50.—Describes the humanistic approach to therapy. An experience with a group of 8 undergraduates using therapist honesty is presented. Although no pre- and posttherapy testing had been done, a comparison of the GPAs for 4 treatment groups receiving various amounts of group and/or individual counseling was made. Results suggest "that involvement in group and individual counseling, besides providing an important growth experience for the students and the counselor, apparently enabled the students to function more effectively and, for the period they were in counseling, improve their academic performance." An analogy is drawn between the role of the zaddik in the Hasidic Jewish community and the role of the therapist.—S. Knapp.

1291. **Schwartz, Edith.** (382 Central Park W., New York, N.Y.) **A dream which restructured an important memory.** *Psychoanalytic Review*, 1970, Vol. 57(2), 259-262.—Describes therapy sessions with a 24-yr-old man and a particular dream which restructured a critical event in his life. The event had been an expression of rage that had necessitated elaborate defenses to prevent aggression and self-expression. The dream illustrated the patient's increased ego strength (a) in his work and social life, (b) in reduced castration fears about entering a woman, and (c) in the analytic situation. The dream also indicated a change of direction from passivity to activity which continued for many months of psychoanalytic treatment.—D. Prager.

1292. **Seidenberg, Robert.** (State U. New York, Upstate Medical Center, Syracuse) **Noli me tangere!** *Psychoanalytic Review*, 1970, Vol. 57(2), 196-202.—Dis-

cusses a common form of mutiny in marriage—the withdrawal of 1 partner from another. Whether it is the male or the female who withdraws from the union, there is generally unrecognized deep-seated antagonism, revulsion, or fear that must be eliminated if the marriage is to continue. Over the generations "noli me tangere" has been the idiom of alienation. 2 illustrative case studies are included.—D. Prager.

1293. **Thomas, John K.** (U. Rochester) **The perception of therapeutic conditions by hospitalized psychiatric patients.** *Dissertation Abstracts International* 1970(Oct), Vol. 31(4-B), 2292.

1294. **Verny, Thomas R.** (290 St. Claire Ave. W. Toronto, Ontario, Canada) **Analysis of attrition rates in a psychiatric outpatient clinic.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 37-48.—Patients have to traverse 6 distinct stages if they are going to receive psychotherapy in a psychiatric outpatient clinic. Of 1400 patients who 1st called the clinic for psychiatric help, only 63 actually received more than 7 sessions of psychotherapy. No clear-cut profile emerges of the patient who is likely to complete his evaluation or who is a good psychotherapy prospect.—D. Prager.

1295. **Weckowicz, T. E., Yonge, K. A., Cropley, A. J., & Muir, W.** (U. Alberta, Edmonton, Canada) **Objective therapy predictors in depression: A multivariate approach.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 3-29.—170 clinically depressed patients, as assessed by the Beck Inventory of Depression, were administered a number of tests. A correlational analysis of the data was carried out with 20 1st-order and 6 2nd-order factors emerging; 7 significant canonical correlations were found. Basic dimensions and patterns of depression were noted. A 2nd part of the study dealt with finding predictors of the outcome of therapy. The findings indicate those Ss which responded best to ECT, psychotherapy, or drugs. The possibility of constructing a short battery of relatively objective tests for depression is suggested. This battery would consist of: GSR to a noxious stimulus, the amount of alienation, presence or absence of previous admissions, sex of the patient, along with the guilt, self-hate, crying spells, fatigue, and loss of libido measures on the Beck self-administered Inventory of Depression.—E. J. Kronenberger.

Therapeutic Process

1296. **Alby, Jean M.** **Quelques réflexions sur la frustration dans la cure analytique.** [Some remarks on frustration in analytical treatment.] *Interprétation* 1970(Oct), Vol. 4(4), 31-55.—Defines the role of frustration in psychoanalytic therapy, as seen by Freud (abstinence rule), and later by adherents of more active techniques, e.g., Ferenczi. "The frustration-regression transference sequence is the foundation of the analytical situation. Frustration is, for most analysts, an element determining the development of transference which will become 'the strongest resistance,' while it should also be considered as the very agent of the therapeutic action and success." The patient must maintain a balance between impulsive frustration and the pleasure his ego finds in counterinvestments. The analyst's activity is seen as narrowly limited at times: too much frustration of the patient may cause discontinuance; however, too much gratification may hinder the analytical process. (40 ref.)—T. N. Webster.

1297. **Allen, Arnold.** (Cincinnati General Hosp., O.

The fee as a therapeutic tool. *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 132-140.—As an avenue for the expression of selective firmness and selective permissiveness in psychotherapy, discusses the handling of the payment or nonpayment of the fee. Some clinical vignettes are described to illustrate either firmness or permissiveness in fee handling, based on dynamic and genetic considerations, as being constructive to the patient's progress in therapy. The interaction on this level can play an important part in terms of defining and affirming reality, providing structure, strengthening the ego and superego, or in helping the patient to achieve a greater degree of flexibility, using the therapist as a model for identification. When the charges and fee are not considered in terms of the total therapeutic interaction, a valuable therapeutic tool is being overlooked. —*Journal summary.*

1298. Barande, Robert. **A la recherche du processus analytique.** [In search of the analytical process.] *Interprétation*, 1968(Oct), Vol. 2(4), 5-45.—Discusses pitfalls awaiting the psychoanalyst who attempts to communicate his experience in the analytical process (including an attempt to approach the process by scientific means). 1 difficulty presented is "speaking in the 3rd person of an adventure in which he participated simultaneously in the 1st and 2nd person, and in which, furthermore, the efficacy of the 'workings' came into play in the infraverbal, the unsaid, the non-formulated of the relationship." Having chosen an approach to his discourse, the analyst then finds himself in a position analogous to that of an artist attempting to criticize his own work, in addition to being confronted by seemingly innocent countertransference intrusions. Among others, further pitfalls include: (a) "the risk of infiltration of his metapsychological thought by the rational mental categories of the manifest discourse"; and (b) "assignment of a therapeutic purpose to the analysis and assimilation of the analytical process by the healing process, or implicit acceptance of the didactic purpose of the analysis and by the known affiliation of the psychoanalyst with a professional institution with consequent collusion of the analytical and training processes." *T. N. Webster.*

1299. Brockbank, Reed. (2299 Post St., San Francisco, Calif.) **On the analyst's silence in psychoanalysis: A synthesis of intrapsychic content and interpersonal manifestations.** *International Journal of Psychoanalysis*, 1970, Vol. 51(4), 457-464.—When a patient is silent during analysis he may be resistant (Freud), anal erotic (Ferenczi), showing a defensive ego operation (Anna Freud), or showing the result of the analyst's countertransference (Zeligs). When the analyst is silent he may be using "a potent tool," establishing a unique situation, be encouraging unconscious fantasies or aggressions, be seen as doing interpretation by the patient, or be trying to be suggestive of what he desires from the patient. The idea of analysts' silence acting as an autosuggestive interpretation or engendering countertransference from the patient should be stressed. *J. Chavitt.*

1300. Friel, Theodore W. (State U. New York, Buffalo) **Selected factor analytic studies of relevant process variables of first psychotherapy interviews.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2280.

1301. Lebovici, S. **L'engagement dans la psychanalyse.** [Commitment in psychoanalysis.] *Interprétation*, 1969(Jul), Vol. 3(3), 37-56.—Defines the conditions

of commitment in both the clinical and didactic psychoanalytical situation with respect to patient and psychoanalyst. For the patient, psychoanalysis is a commitment to understand, to reflect rather than act, to remember and elaborate, to comply with the basic rule of association of ideas; "commitment in psychoanalysis from a desire to be healed and understood or to be healed while understanding, is conflictualizing from the start." The analyst must strike a balance between the desire to heal and the desire to understand. Psychological problems inherent in the contradictory functions of the psychoanalyst in the psychoanalytical situation stem from desire to heal, understand vs. systematic abstinence. Related difficulties of selection by schools of psychoanalysis of persons with the necessary qualities and abilities assuring commitment are discussed. (15 ref.).—*T. N. Webster.*

1302. Sauri, Jorge J. (435 Cordoba, Buenos Aires, Argentina) **Modalidades de estructuración de la situación terapéutica.** [Structural characteristics of the therapeutic situation.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 240-243.—Describes 3 different, but interrelated, "moments" of the therapeutic situation. In the 1st, the "possibility of therapy" situation, there is a hopeless malaise giving rise to a dependence situation; here catharsis is intimately related to an indicative word. In the 2nd moment there is a "common field of significations" where the word is hermeneutic and the biographical temporality is explored. In the last moment—didactical—the medical word is mayeotic and the therapist structures a "karological time" for the therapeutic encounter.—*English summary.*

1303. Shader, Richard L., Binstock, William A., & Scott, Dorothy. (Massachusetts Mental Health Center, Psychotherapy Study Center, Boston) **Subjective determinants of drug prescription: A study of therapists' attitudes.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 384-387.—Reports a study of the influence of the screening therapist's attitudes on treatment outcome in 500 consecutive applications for treatment at an outpatient facility of a mental health center. Factors influencing the interviewer's decision to prescribe antidepressant medication after the initial consultation to a subsample of 100 patients diagnosed as having nonpsychotic depressive reactions are emphasized.

1304. Springmann, Rafael B. (Tel-Hashomer Hosp., Israel) **What he is or what he does.** *International Journal of Psychoanalysis*, 1970, Vol. 51(4), 479-488.—Compares 2 types of intervention: noninterpretative (what the analyst is) and interpretative (what the analyst does). 1 case of each type is described. A cooperative patient responded to interpretations; a negative one to noninterpretation followed by interpretative work. By being what he is and proving it the analyst paves the way for curing by doing what he does. *J. Chavitt.*

1305. Tabata, Osamu. (Kyoto U., Japan) **A consideration of the therapeutic variables in the psychotherapeutic relationship.** *Japanese Psychological Review*, 1969(May), Vol. 12(1), 89-107.—Reviewed recent research problems concerning the therapeutic variables in counseling and psychotherapy and presented theoretical and methodological viewpoints. Some minor research trends were discussed under the following titles: (a) studies on the therapist's therapeutic variables, (b)

studies on the client's therapeutic variables; (c) studies on the therapist-client variables in the relationship; and (d) research methodology and the hypotheses on the psychotherapeutic relationship and personality change. Self-rating inventories for therapist and client were constructed using 120 items. From these inventories, 3 factors were extracted through factor analysis. Using those inventories named "Experiencing Inventories," 2 studies were reported which concerned the characteristics of the therapeutic relationship at the initial interview. (4 p. ref.)—*Journal abstract*.

1306. Tucker, Robin C. (Ohio U.) **Psychotherapist ambiguity tolerance as related to process and change in psychotherapy.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3012.

Group Therapy

1307. Barron, Jules. **Group psychotherapy: Evolution and process.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 27-30.—Describes the history of group therapy from the late 19th century until World War II and the resistance to it. With the large numbers of people needing therapy during that war, group therapy was adopted as a necessary expedient, and has since become widely used and acceptable. It is considered that the history of psychotherapy recapitulates the sociologic maturation of man from primitive to more social forms. "The therapy group may be regarded as a microcosm of society following similar processes of evolution." Individual therapy confirms the value of the individual in an age of mechanization, and group therapy confirms the value of the individual to the community and the value of the community to the individual. Group evolution, process, and history are combined under the term "onto-phylogenetic." 5 different group arrangements are noted with varying numbers of therapists treating individuals, couples, and families.—S. Knapp.

1308. Becker, Robert E., Harrow, Martin, & Astrachan, Boris. (U. Connecticut, Medical School, Farmington) **Leadership and content in group psychotherapy.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 346-353.—Explored the effect of the psychotherapist on the content of group psychotherapy meetings. Content variables including information, opinions, problem solutions, questions, answers, and comments on interaction were studied in a series of conventional, therapist-led group therapy meetings and parallel "unled" group sessions, without a therapist. Ss were 24 psychiatric inpatients. Ratings were obtained for 108 4-min taped segments of group therapy meetings distributed according to a $2 \times 3 \times 3$ factorial design. The 3 factors were: (a) led and unled sessions, (b) patient groups of 3 different therapists, and (c) segments from the beginning, middle, and end portions of group therapy meetings. Data support the hypothesis that conventional group meetings would have more discontinuity of discussion. Partial support is also provided for the hypothesis that (a) more task-oriented and less nontask-oriented material would be elicited in conventional group psychotherapy, and (b) there would be more questions and fewer answers or statements in the therapist-led session. Therapist-led group psychotherapy contained fewer nonpsychologically loaded questions and answers and fewer answers or statements of all types. 3 factors (transference, the focusing on group

process, and the leader as a model of behavior) are advanced to account for the impact of the therapist upon the group. (20 ref.)—*Journal abstract*.

1309. Crary, William G. (U. Southern California, Medical School) **Goals and techniques of transitory group therapy.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 389-391. Describes transitory group therapy, an open-end form of brief psychotherapy in which the membership may fluctuate daily, as especially useful for admissions or observation wards or a crisis intervention clinic. The goals of such therapy and general principles for conducting the groups are outlined. Major advantages and disadvantages are also noted.

1310. Creson, Dan L. & Blakeney, Patricia M. (U. Texas, Medical Branch, Galveston) **Social structure in an adolescent milieu program: Implications for treatment.** *Adolescence*, 1970(Win), Vol. 5(20), 407-426.—Attempted "to determine how accurately the staff perceives the structure and function of the adolescent group within the treatment program . . . [and to] explore the use the staff makes of such knowledge . . . in formulating therapeutic plans." The group consisted of 12 hospitalized boys studied over a 3-mo period.—A. B. Warren.

1311. De Minicis, Carlo & Ranzato, Francesco P. **Il borderline come elemento disgregatore di un gruppo di psicoterapia.** [The borderline as the disrupting element in group psychotherapy.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 366-368.—In group psychotherapy an element of disturbance could be the introduction of a new element, e.g., a borderline case which was mistaken for a neurotic. The borderline S is not capable of foreseeing the reactions to his behavior, for he is insecure, full of vindications, anxieties, and hypersensitivity with insufficient development of objective relations. Instances where borderlines disrupt group therapy are given. The borderline must be treated in individual psychotherapy; in a group he can be the outside element who inspires or instigates a type of collective mutiny.—A. M. Farfaglia.

1312. Gaburri, Eugenio & De Simone Gaburri, Gilda. **Il borderline nella psicoterapia istituzionale.** [Borderline in institutional psychotherapy.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 357-362.—Instituted group psychotherapy for so called chronic psychiatric Ss. Any aggressive expression was permitted in the meetings in which the S, through an analytical approach, could express his own complaints and needs. It was observed that the role of the borderline is precise: he is isolated but differently from the schizophrenic. There is a certain pretense in the borderline that his isolation is proof of his own self-sufficiency. Paradoxically the schizophrenic reaches positions of leadership more frequently than the borderline. While the schizophrenic wavers between dependency and negativism, the borderline wavers between submission and mistrust. Although receptive toward the therapist, he shows a frigidity toward the institution and a refusal of its organization. The multipolar rapport and lateral transference permit the borderline to release his hostility. The anxieties connected with the destructive impulses can be calmed in the group because it can be continually attacked but not destroyed.—A. M. Farfaglia.

1313. Goldman, George D. & Brody, Helen M. (Adelphi U.) **An analytic and a behavioristic view of an encounter weekend.** *Group Process*, 1970(Sum), Vol. 3(1), 101-121.—Reviews impressions gained from an

encounter group experience, generalizing them to other such situations. It is concluded that (a) encounter groups appear to be rather ad hoc, without substantial points of contact with adequate and realistic therapeutic goals; and (b) they offer little in the way of substantive contribution to amelioration of personal problems.—A. Barclay.

1314. Gross, Richard S. (U. South Carolina) **The effects of structuring and therapist presence or absence on behavior in a group psychotherapy setting.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2985.

1315. Hartman, John J. (U. Michigan) **The role of ego state distress in the development of self-analytic groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2986-2987.

1316. Heckel, Robert V., Holmes, George R., & Rosecrans, Clarence J. (U. South Carolina) **A factor analytic study of process variables in group therapy.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 146-150.—Group psychotherapy was conducted 3 times a week using a total of 30 male Ss. An analysis of group responding was made and all responses grouped into categories. Intercorrelations of 11 process variables were obtained and presented. 6 factors were derived. Different factors emerged for different stages. "The identification of communalities of the behavior reported here appears to provide considerable information as to what behaviors are meaningfully linked between these 2 stages of group development."—E. J. Kronenberger.

1317. Hofstein, Saul. (Yeshiva U., Wurzweiler School of Social Work) **Modalities in the treatment of family discord.** *Journal of Jewish Communal Service*, 1970(Fal), Vol. 47(1), 20-29.—Social work has increasingly come to the realization that changes accomplished through individual therapy could add to family harmony only as those changes could be accepted by the family and integrated into its total functioning. 1 approach which acknowledges the centrality of the family as a whole is relationship counseling. The individuals involved are engaged separately in interrelated processes, with joint interviews at critical points. This approach is based on the recognition that certain relationships are key to the family functioning. Another approach is conjoint therapy. The complex role of the worker meeting with the whole family is described. 1 of his main tasks is to facilitate communication and interaction. The family must be viewed as an open system or process which maintains its stability through constant changes and renews its energy through its interchanges with the external world. An example of a family interview is given.—S. R. Diamond.

1318. Levin, Raúl E. & Rivelis de Paz, Lea. (G. Araújo Alfaro Polyclinic, Psychopathology & Neurologic Service, Buenos Aires, Argentina) **Aportes para una teoría de la técnica en psicoterapia grupal: Grupos de duración limitada de niños en edad de latencia.** [Contributions to the theory of the technique for group psychotherapy: Short-term groups for children in latency age.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 265-268.—Proposes 2 modifications in short-term dynamic group therapy procedures with children in latency age: (a) the groups should be constituted only by children of the same sex, and (b) interpretations should be made taking into account the fact that regression is spontaneously limited by the mere fact of the time limit, and that, conversely, a deep

regression should not be encouraged. Clinical examples are provided.—English summary.

1319. Marrone, Robert L., Merksamer, Mary A., & Salzberg, Philip M. (Sacramento State Coll.) **A short duration group treatment of smoking behavior by stimulus saturation.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 347-352.—2 saturation procedures of different lengths were administered to Ss who desired to quit smoking. Ss chain-smoked for either 20 hr. (Group E1) or 10 hr. (E2). Total abstinence was the main dependent measure. Both groups experienced relatively equal success on a short-term basis. Long-term abstinence was noted for Group E1 only. 60% of the E1 Ss were not smoking 4 mo. after treatment.—A. Barclay.

1320. Ondaraza Linares, Jaime. **Alcuni fenomeni di gruppo nei pazienti borderline: Considerazioni preliminari.** [Some group phenomena in borderline patients: Introductory considerations.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 381-388.—Studied borderline Ss in group therapy for 2 yr. among students and postgraduates who attended 1½-hr weekly meetings. Borderlines were those Ss with weak egos and peculiar defense mechanisms but appeared to be affected by less serious disturbances. The majority in the group had neurotic disorders. For borderlines relationship within the group is difficult, because it represents a confrontation with reality. Many think that group therapy is the best form of psychotherapy for the borderline. Specific cases are cited where the socializing aspect eventually results in a feeling of belonging. Other phenomena of borderlines in group therapy are (a) positive effects of specular reactions, which help resolve primary narcissism; (b) condensation in an unexpected release of tensions accumulated over successive meetings involving topics discussed by the group; (c) sensitivity; and (d) resonance—answers from borderlines range from ignoring the problem to emotional reaction. Group therapy can be beneficial for borderlines, but 1 must be aware of the difficulties, and frequently individual therapy is necessary before participation in the group. (17 ref.)—A. M. Farfaglia.

1321. Platt, Rhoda. (Family Mental Health Clinic, Jewish Family Service, New York, N.Y.) **The myth and reality of the "matriarch": A case report in family therapy.** *Psychoanalytic Review*, 1970, Vol. 57(2), 203-223.—Summarizes 6 yr. of therapy with a family in which the mother dominated the family functioning. Interaction between family members and therapist was the core of the treatment process. Pathology in children as a reflection of pathology in total family functioning is discussed, in this case stemming from role reversal in the marital pair. The special features of this family caused the therapist to proceed on the assumption that the key to therapeutic success or failure was the mother. Family relationships appeared to have improved by the end of therapy.—D. Prager.

1322. Query, William T. (U. Kentucky) **An experimental investigation of self-disclosure and its effect upon some properties of psychotherapeutic groups.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2263.

1323. Sigrell, Bo. (U. Stockholm, Sweden) **Group psychotherapy: Studies of processes in therapeutic groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3008.

1324. Stuart, Brett R. (Veterans Administration Center, Jackson, Miss.) **Selecting a behavioral alter-**

native through practice. *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 219-221.—Describes action group therapy as being like traditional group therapy with psychodramatic techniques placing emphasis on the immediate behavior of the patient as it effects his successful adjustment to life situations.—A. Krichhev.

1325. **Truax, Charles B.** (U. Calgary, Alberta, Canada) **Degree of negative transference occurring in group psychotherapy and client outcome in juvenile delinquents.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 132-136. Measurements of negative transference and patient personality change were obtained on 80 juvenile delinquents involved in group psychotherapy. Negative transference was associated with positive therapeutic benefit. The therapist who was more open, nondefensive, real, or genuine facilitated the expression of negative transference. The greater the occurrence of negative transference, the greater the delinquent's improvement. There was some question as to whether or not a true measure of negative transference was obtained.—E. J. Kronenberger.

1326. **Truax, Charles B., Wittmer, Joe, & Wargo, Donald G.** (U. Calgary, Alberta, Canada) **Effects of the therapeutic conditions of accurate empathy, non-possessive warmth, and genuineness on hospitalized mental patients during group therapy.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 137-142.—16 psychotherapy groups with 10 patients each were given a battery of psychological tests pre- and posttherapy. Measurements of therapeutic conditions were obtained on 3 scales. Measurement of patient personality change was also obtained. There was a positive relationship between level of conditions offered during group psychotherapy and degree of therapeutic outcome. There was a significant change on the Sc subscale of the MMPI. Low or high levels of correlations showed negative or positive change, respectively, on the Sc scale.—E. J. Kronenberger.

1327. **Volterra, Vittorio & Soverini, Stefano.** **Soggetti e situazioni "borderline" in un gruppo misto aperto di discussione.** [Borderline subjects and situations in a mixed group open to discussion.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 391-394.—Observed the behavior of borderline male Ss during a 1-yr period at biweekly meetings attended by Ss, doctors, and assistants. Ss with "marginal" symptomatology manifested a behavior which expressed itself in the desire to stand out, to distinguish himself from the others. With alcoholics, depressives, and neurotics, these borderlines behaved as schizophrenics revealing regressive tendencies; while in groups which were mainly psychotic, they relied on the sources of their ego, limited fantasies, and reinforced personal defenses.—A. M. Farfaglia.

Behavior & Conditioning Therapy

1328. **Ball, Thomas S.** (Pacific State Hosp., Pomona, Calif.) **Treatment by escape-avoidance conditioning: Historic and contemporary applications.** *California Mental Health Research Digest*, 1969(Fal), Vol. 7(4), 165-175.—Defines escape and avoidance conditioning as a unifying concept underlying the diverse treatment procedures of O. Lovaas and M. Seligman, representing the operant approach, and N. Kephart and K. Pryor representing the cognitive approach. Using the work of J. Iliard and R. Seguin, historical procedures are compared

with contemporary methods of Watson, Thorndike, and Pavlov within the escape-avoidance conditioning construct. New applications of training and treatment methods within the same scientific framework are implied.—P. Zell.

1329. **Ferinden, William & Van Handel, Donald.** (Linden, Board of Education, N.J.) **Elimination of soiling behavior in an elementary school child through the application of aversive techniques.** *Journal of School Psychology*, 1970, Vol. 8(4), 267-269.—Presents a case study illustrating the application of aversive techniques in a school setting. Soiling behavior, which had occurred as often as 3 times/day before aversive procedures were initiated, was eliminated in this child with no reoccurrence in a 6-mo follow-up. Results lend additional confirmation to the feasibility of employing aversive conditioning or punishment in modifying or eliminating socially unacceptable behavior. Amelioration of symptomatology appropriately seemed to precede a thorough investigation of etiological factors.—*Journal abstract.*

1330. **Hark, Richard D.** (Michigan State U.) **An examination of the effectiveness of covertant conditioning in the reduction of cigarette smoking.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2958.

1331. **Hekmat, Hamid & Theiss, Michael.** (Wisconsin State U., Stevens Point) **Self-actualization and modification of affective self-disclosures during a social conditioning interview.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 101-105.—Gave 60 18-51 yr. old undergraduates the Personal Orientation Inventory to measure self-actualization, and assigned them to 1 of 4 groups: high self-actualizing, moderate self-actualizing, low self-actualizing, and control. The high self-actualizing group had a significantly higher rate of affective self-disclosures prior to conditioning. Analysis of adjusted scores indicate that the low self-actualizing group had the highest rate of conditioning ($p < .05$). The high self-actualizing individuals showed a nonsignificant gain in the rate of affective self-disclosures during conditioning but were more resistant to extinction as compared to the low and the moderate groups. Findings are discussed in terms of psychotherapeutic theory, practice, and future research. (16 ref.)—*Journal abstract.*

1332. **Hiester, Douglas S.** (U. Miami) **The reduction of test anxiety in college students by programmed modifications of systematic desensitization and two affect elicitation techniques.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2282.

1333. **Kraft, Tom.** (Claybury Hosp., Woodford Bridge, England) (Lal and Lindsley described the successful treatment of a 3-yr-old child with chronic constipation by a simple rearrangement of social contingencies. It was felt therefore that it might be worthwhile briefly reporting a case of compulsive shoplifting, where treatment was effected by an alteration in social contingencies.) **Treatment of compulsive shoplifting by altering social contingencies.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 393-394.—A. Barclay.

1334. **Lindeman, Herman H.** (Arizona State U.) **Physiological arousal level, symbolic stimuli, and vicarious conditioning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2286.

1335. **Mann, Jay.** (U. Arizona) **Differential effects of procedural variations in vicarious systematic de-**

sensitization of test-anxiety. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2287-2288.

1336. Nevin, David A. (Fordham U.) **Prediction of response to a token economy treatment program in a mental hospital.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2999-3000.

1337. Perloff, Bernard F. (Stanford U.) **Influence of muscular relaxation, positive imagery, and neutral imagery on extinction of avoidance behavior through systematic desensitization.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3001.

1338. Ploog, Detlev. (Max Planck Inst. for Psychiatry, Munich, W. Germany) **Die Trieb-Dressur-Verschraenkung in der Verhaltenstherapie.** [Instinct-training interlacing in behavior therapy.] *Praxis der Psychotherapie*, 1969(Aug), Vol. 14(4), 167-170.—Discusses knowledge gained in behavior research, covering especially the field of ethology in its application to behavior therapy, keyed to the word development and learning. In training animals, the instinctive drift should be considered: conditioned behavior can, in certain cases, be overruled by unconditioned instinctual behavior, when inborn primary tendencies become stronger than the desire for secondary rewards of the trainer. The art of training has thus to make use of primary appetences by choosing such secondary rewards which resemble the primary ones. In normal human beings, the appetences are "freely convertible" and not rigid courses of action, as is the case with animals. With mental patients, however, the appetences are often no longer "convertible." It is the task of behavior therapy to loosen the faulty instinct-training interlacings so that new modifications of behavior become possible, and the patient can regain freedom of behavior.—P. von Toal.

1339. Rachman, S., Hodgson, R., & Marzillier, J. (Inst. of Psychiatry, London, England) **Treatment of an obsessional-compulsive disorder by modelling.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 385-392.—Results suggest that the modeling treatment produced a significant improvement in the patient's obsessional-compulsive behavior. Although the objective data cannot confirm this view, it is felt that the pure response-prevention phase contributed to the maintenance of the improvement. The implosion treatment, "horror" tape, and control tape had no apparent therapeutic effect. The method of treatment described here, while differing from Meyer's owes much to his work. The present rationale was different and placed little weight on Meyer's "expectance change" concept. Instead an attempt was made to combine a modeling approach (based on Bandura's work) with a response prevention technique (based on Baum's work). Experience with 5 patients treated so far has encouraged the plan for a full investigation.—*Journal abstract.*

1340. Ryback, David. (Rohrer, Hibler & Replogle, Montreal, Quebec, Canada) **Cognitive behavior modification: Increasing achievement using filial therapy in the absence of supervision.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 77-87. Studied the effectiveness, in the absence of professional supervision, of standard token-reinforcement procedures used by a mother in treating her 13-yr-old mentally retarded son for dyslexia. This procedure followed a 7-mo period during which the S's reading ability had significantly improved. Then supervision was withdrawn and for 2½ mo. the mother-son dyad worked well in a self-sufficient manner. During this period the S made

24,234 single-word reading responses, reading an average of 120 words per min. value of reinforcement. Results support the use of standard token-reinforcement procedures for amelioration of cognitive deficits, especially where professional help is limited for economic or social reasons. (French summary) (33 ref.)—*Journal abstract.*

1341. Suinn, Richard M. (Colorado State U.) **Short term desensitization therapy.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 383-384.—Research has raised the possibility that behavior therapy procedures can benefit from even further departures from traditional psychotherapy formats. Although behavioral approaches such as desensitization therapy are distinctive departures from the verbal psychotherapies, there is still an implicit commitment to 1 traditional approach: the reliance upon 1 or 2 weekly appointments. Clients being treated for phobias are typically seen for desensitization sessions twice weekly. Yet, both theory and current research argue for more frequent meetings as being more effective. Robinson and Suinn saw clients with spider phobia daily for 5 consecutive days, meeting 1 hr/day. Clients were tested on a behavioral task prior to and following massed treatment. Results showed that prior to therapy, none of 20 clients was able to place his hands near the spider twice as it moved across the cage. Suinn and Hall relied upon a shorter treatment period: students with test-taking anxiety were desensitized within 24 hr. Results showed that the marathon treated clients showed recoveries to the same degree as that achieved in a group treated for 4 wk. Theoretically, massed treatment should be more effective than spaced treatment.—A. Barclay.

1342. Turner, Wolfgang. (U. Munich, Psychology Div., W. Germany) **Verhaltenstherapie bei einem Patienten mit sozialen Ängsten, Stottern und psychosomatischen Störungen.** [Behavior therapy with a patient suffering from social anxiety syndrome, stuttering, and psychosomatic disturbances.] *Praxis der Psychotherapie*, 1969(Aug), Vol. 14(4), 171-180. The patient, a 23-yr-old office worker suffered from various fears, stuttering, nervous stomach trouble, insomnia, as well as fear of his boss, of talks with various persons, and of phone calls. He was advised to take a leave of absence for 3 wk. for intensive therapy. The treatments given him consisted mainly of exercises for desensitization and for gaining detachments, using the methods of symptom analysis and in vivo training. His fear became controlled, and he learned to overcome his stuttering by metric speech. Back in his office, he was able to act and work with greater self-control and efficiency. His stomach trouble and insomnia disappeared without special medical treatments.—P. von Toal.

1343. Turner, R. K., Young, G. C., & Rachman, S. (London School of Economics, England) **Treatment of nocturnal enuresis by conditioning techniques.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 367-381. 115 enuretic children were assigned to 5 treatment groups: 3 groups received Mowrer-type continuous signal, twin signal, or intermittent twin signal conditioning treatment, and 2 groups were given "placebo" or "arousal" control treatments. Over a 1 mo. period, there was no difference between conditioning and control procedures, and it was concluded that further research is needed to determine the basis of treatment response. There was no evidence in support of the escape training hypothesis, and the twin-signal modification to standard bell-and-pad treatment is not recommended. The investigation confirmed the success

of conditioning treatment in bringing about the initial arrest of enuresis (i.e., in 81.4% of the cases) but the relapse rate was high. The investigation provided tentative evidence that intermittent conditioning treatment offers 1 way of reducing the frequency of relapse. The problem of obtaining satisfactory parental cooperation in a badly housed working-class population was apparent, and ways of reducing the demands that treatment imposes on parents are indicated. Results are discussed with regard to theories of conditioning treatment of nocturnal enuresis, and possible improvements in this technique of treatment.—*A. Barclay.*

1344. **Tyler, Vernon O. & Straughan, James H.** (Western Washington State Coll.) **Coverant control and breath holding as techniques for the treatment of obesity.** *Psychological Record*, 1970(Fal), Vol. 20(4), 473-478.—Tested 2 techniques for the treatment of obesity. 57 women volunteers were randomly assigned to 3 groups matched for age and estimated overweight. The coverant control group was trained in L. E. Homme's method. Prior to permitting herself to perform a high probability reinforcing event (e.g., turning on the kitchen faucet or answering the phone), S would emit a negative noneating coverant (e.g., imagining how ugly her fat was) and a positive noneating coverant (e.g., visualizing how attractive she would look when she was slim). Ss in the breath-holding group were trained to take a deep breath and hold it when tempted to eat fattening foods. The control group was taught a modified version of E. Jacobson's relaxation method. The groups were trained in 7 sessions over 9 wk. The coverant control group lost .75 lb., the breath-holding group lost .43 lb., and the relaxation group gained .53 lb. None of these differences were significant. Implications for Homme's theory and further research are discussed.—*Journal abstract.*

1345. **Wallis, Hedwig.** (Hamburg U., Psychosomatische Div., W. Germany) **Erste Erfahrungen mit verhaltenstherapeutischen Verfahren bei Kindern.** [First experiences in applying behavior-therapeutic methods to children.] *Praxis der Psychotherapie*, 1969(Aug), Vol. 14(4), 180-184.—Considers nocturnal enuresis to be based on habit deficiency, established by a variety of causes, including a neurotic and faulty development in the meaning of depth psychology. A conditioning apparatus developed by G. Schröder is described: the child sleeps on a mat which actuates a bell at the 1st drop of urine, thus waking the child, who is then forced to urinate into a container, thus forming the habit of waking when the need to urinate is felt. Adipose children are treated with a proper diet and increased bodily exercises. Specific anxiety syndromes of children, e.g., the fear of medical treatments (injections, catheterizing, etc.), are discussed. Schröder uses the method of reciprocal inhibition leading to desensitization, e.g., tolerating the injection prick without an anxiety reaction. It is concluded that the behavior therapy offers a number of possibilities for an effective elimination of psychosomatic symptoms.—*P. von Toal.*

1346. **Wolpe, Joseph.** (Temple U., Medical Center) **For phobia: A hair of the hound.** *Psychology Today*, 1969(Jun), Vol. 3(1), 34-37.—Phobias of specific stimuli can be removed using systematic desensitization procedures employing deep muscle relaxation. Such desensitization is useful whenever anxiety conditioning lies at the base of the behavior disorder as it does in cases of sexual inadequacy, stuttering, neurotic hypochondria, character neurosis, and psychosomatic states. It appears

"that almost all neuroses stem from emotional habits that are essentially phobias." Follow-ups of 249 cases of neuroses cured by behavior therapy suggest that very seldom does a new symptom replace the 1 removed.—*E. J. Posavac.*

Special & Adjunctive Therapy

1347. **Ament, Philip.** (Roswell Park Memorial Inst., Buffalo, N.Y.) **Removal of gagging: A response to variable behavior patterns.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 1-9.—Suggestion through hypnosis serves as the logical basis for combined uses of desensitization, retraining, reality testing, reality validation, and learning. Reciprocal inhibition and operant conditioning are combined with classical conditioning, time distortion, posthypnotic suggestion, and specific hypnotic interventions, e.g., analgesia, to facilitate the attainment of the desired goals. The results sought involve the patient's adaptation to dentures but at a minimal emotional price. Results tend to be reinforced by increased self-esteem and improved interpersonal relationships, and are usually self-perpetuating. 3 case histories are presented showing the production of gagging in patients with different behavior patterns. The clinical handling and conditioning are discussed. (Spanish & German summaries)—*Journal abstract.*

1348. **Blume, Sheila B., Robins, Joan, & Branston, Arthur.** (Central Islip State Hosp, N.Y.) **Psychodrama techniques in the treatment of alcoholism.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 241-246.—Presents an outline of some of the recurring themes and psychodrama techniques that have been found particularly useful and applicable to the treatment of alcoholism in an inpatient setting.—*A. Krichev.*

1349. **Goldman, Elaine & Goldman, Sally.** (Moreno Inst., Beacon, N.Y.) **Sociodrama and psychodrama with urban disadvantaged youth.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 206-210.—Presents an example of the successful incorporation of socio- and psychodrama in Upward Bound programs for disadvantaged high school girls. Role reversal between teachers and girls was especially successful.—*A. Krichev.*

1350. **Gruenewald, Doris.** (Michael Reese Hosp., Psychosomatic & Psychiatric Inst. for Research & Training, Chicago, Ill.) **Agoraphobia: A case study in hypnotherapy.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 10-20.—Presents the case study of a 58-yr-old woman with a 43-yr history of agoraphobia who was treated with ego-supportive direct suggestion and hypnoanalytic techniques. Literature pertaining to etiological factors and treatment problems is cited. Pertinent details of the S's recent and past history are presented. The treatment plan, course of therapy, and outcome are discussed in the context of limited therapeutic goals and anticipated moderately successful results. A psychodynamically oriented rather than technique-centered approach to hypnotherapy is suggested. (Spanish & German summaries)—*Journal abstract.*

1351. **Herman, Leon A.** (Warwick State Training School for Boys, N.Y.) **An exploration of psychodrama.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 211-213.—4 groups of 6 randomly selected boys met in weekly 2-hr psychodrama sessions for 10 wk. The group members had less serious infractions of rules, achieved better academically, and tended to stay for shorter

periods than the average for all inmates.—*A. Krichev.*
 1352. **Hollander, Carl.** (Ft. Logan Mental Health Center, Denver, Colo.) **A blueprint for a psychodrama program.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 223-228.—Describes the evolution of psychodrama at a mental health center from a centralized experimental program to a full therapeutic vehicle. Changes include the systematic development of staff training programs on various levels.—*A. Krichev.*

1353. **Pavlovsky, Eduardo A.** **The social influence of psychodramatic techniques.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 259-265.—Discusses the use of psychodramatic techniques within an analytic approach as an aide to training mental health workers and to improve the ongoing hospital programs.—*A. Krichev.*

1354. **Sakles, Constantine J.** (U. Maryland, Medical School, Baltimore) **The place of psychodrama in an inpatient psychiatric treatment program.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 235-240.—Psychodrama is viewed as having a valuable part to play in the inpatient treatment program as both a means of individual therapy and a chance to use in vivo techniques to expose antitherapeutic situations which exist on the ward. 2 case histories are included.—*A. Krichev.*

1355. **Siroka, Robert W. & Schloss, Gilbert A.** (Moreno Inst., New York, N.Y.) **The death scene in psychodrama.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 202-205.—Following the exploration of the protagonist's problems, he can be moved into an existential psychodramatic confrontation with death. He acts what it feels like to die and be dead. He may also be asked to defend himself to St. Peter.—*A. Krichev.*

1356. **Thomas, Marian.** (Utah State Hosp., Youth Center, Provo) **The challenge of music therapy.** *Provo Papers*, 1968(Win), No. 4, 12-21.—Discusses the use of music therapy in the treatment of the mentally ill, and its particular use in a state hospital youth program where it was combined with a variety of other treatment modalities. Illustrations are given of the successful use of music therapy in the treatment of emotionally disturbed children.

1357. **Warner, G. Douglas.** **Psychodrama in a small, private psychiatric center.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 229-234.—A 5-yr program is reviewed, and a typical session is described. Psychodrama is seen as a human relations training device as well as a therapy technique. Future plans are mentioned.—*A. Krichev.*

1358. **Watkins, John G.** (U. Montana) **The affect bridge: A hypnoanalytic technique.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Jan), Vol. 19(1), 21-27.—The "affect bridge" is a technique whereby a patient is moved experientially from the present to a past incident over an affect common to the 2 events rather than through an overlapping "idea" as is usual in psychoanalytic association. The current affect is vivified and all other aspects of the present experience hypnotically ablated. The patient is then asked to return to some earlier experience during which the affect was felt and to relive the associated event. A case of a 35-yr-old woman is presented during which 2 affect bridges were used to secure a regression to early oral levels of development as part of the treatment of obesity. Significant conflict material so secured was brought forward to the present to achieve insight and working-through. The technique appeared to achieve significant therapeutic change in a comparatively short period of

time. (Spanish & German summaries)—*Journal abstract.*

Drug Therapy

1359. **Akindele, M. O., Evans, J. L. & Oswald, I.** (University Coll. Hosp., Ibadan, Nigeria) **Mono-amine oxidase inhibitors, sleep and mood.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 47-56.—Presents electrophysiological evidence from the sleeping human (Ss were 7 adult volunteers and 4 patients) to support the clinical impression that a dose of phenelzine (nardil, antidepressant) must exceed a critical minimum and must be administered for longer than a minimum duration if its desired actions are to be obtained. After 5-22 days of phenelzine, 60-90 mg. day, signs of REM (paradoxical) sleep were abolished. Time of abolition in 3 depressed Ss coincided with the start of mood improvement. Up to 52 successive nights without REM sleep had no adverse effects. "Rebound" increase of REM sleep followed withdrawal and also followed phenelzine overdose. Phenelzine tended to reduce restlessness in sleep and cause insomnia on withdrawal. Effects on REM sleep were not observed with nialamide, 75 mg. for 17 days, or with 500 mg. by injection. Brain monoamines are thought to be implicated in the chemistry of sleep as well as in the regulation of mood. (French summary) (23 ref.)—*Journal abstract.*

1360. **Aleksandrovskii, Yu. A.** (Moscow Research Inst. of Psychiatry, USSR) **Ob osnovnykh kriteriyakh klinicheskoi otsenki deistviya trankvillizatorov.** (On the main criteria for clinical assessment of tranquilizer action.) *Zhurnal Nevropatologii i Psikiatrii*, 1970(Dec), Vol. 70(12), 1873-1882.—Studied the clinical action of the minor tranquilizers (meprobamate, amizyl, trioxazin, chlorthalidoxepoxide, diazepam, oxazepam, nitrazepam, etc.) in order to determine their general and specific effects. Their action was observed on 800 ambulatory and hospitalized patients, representing a great variety of neuropsychic disorders. 16 components of clinical action were indicated, and 2 groups of effects were distinguished, traceable to the psychotropic and the neuroautonomotropic action of the preparations. Psychotropic activity was seen in their action upon emotional excitability, particularly as encountered in neurotic and neurotoxic disorders. Neuroautonomotropic activity was displayed in their action upon central autonomic dysfunction and sleep disturbances and in their myorelaxant and anticonvulsive effects. The differential effects of the various tranquilizers were analyzed, ranked, and tabulated, permitting cross-comparisons and differentiated therapeutic use. (English summary) (30 ref.)—*J. D. London.*

1361. **Carney, M. W. & Sheffield, Brian F.** (382 Clifton Dr. N., St. Annes-on-Sea, England) **Associations of subnormal serum folate and vitamin B₁₂ values and effects of replacement therapy.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 404-412.—Presents an investigation of some of the clinical associations of low serum folate and B₁₂ values found in a previous survey of 432 psychiatric inpatients. There were 105 low folate (< 2 ng.) Ss and 53 low B₁₂ (< 150 pg.) Ss, 19 of whom had low values for both. Most low serum values were associated with vitamins. Extrinsic provocative factors. Thus 89% of low folate, 58% of low folate-low B₁₂, and 44.1% of low B₁₂ Ss had received drugs during the 3 preadmission wk: barbiturates, phenothiazines, and antidepressants (in that

order) were the commonest drugs among low folate Ss, and phenothiazines among low B₁₂ Ss. Significantly more low B₁₂ Ss (38.2%) than low folate Ss (18.6%) were physically ill. Low folate Ss had significantly more hematological abnormalities than normal folate Ss, whereas low B₁₂ compared with normal B₁₂ Ss did not. A retrospective survey of results of treatment with folic acid and vitamin B₁₂ supplements reveals that among low folate Ss, 39 received folate and 63 did not. Folate-treated Ss with organic psychoses, endogenous depression, and schizophrenia, when assessed on a 4-point scale, were found to be in a better clinical state at discharge than untreated Ss. There was no evidence that cyanocobalamin-treated low B₁₂ Ss were in a better clinical state at discharge or spent a shorter time in the hospital than similar untreated Ss, though the assessment period was probably too short for firm conclusions to be drawn.—*Journal abstract.*

1362. Davis, Karen V. (U. Illinois, Urbana-Champaign) The effect of drugs on stereotyped and nonstereotyped operant behaviors in retardates. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3018.

1363. Eryshev, O. F. & Mikhalev, I. N. (Bekhterev Research Psychoneurological Inst., Leningrad, USSR) Opyt primeneniya preparata melleril-retard pri lechenii bol'nykh s depressivno-bredovym i trevozhno-depressivnym sindromami. [A trial utilization of melleril-retard in the treatment of patients with depressive-delusional and anxious-depressive syndromes.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Jul), Vol. 70(7), 1055-1060.—Reports results of observations of 42-17-68 yr. old depressed mental patients (7 with schizophrenia, and 27 with affective, 4 with involutional, and 4 with vascular psychoses), undergoing treatment with various doses (50-650 mg. daily) of melleril-retard, a long-acting phenothiazine derivative. Good therapeutic effect is reported for 29 patients—primarily among those with affective disorders where the clinical picture was dominated by anxiety or phobia. The antidepressant action of melleril-retard is viewed as secondary and appeared in the 3rd-4th wk. of treatment in conjunction primarily with a tranquilizing effect what was observed in the first few days of therapy. Along with a certain antipsychotic action, melleril-retard, even in large doses, enjoyed the advantage of incurring no marked sedative effects or marked neurological disorders. Melleril-retard is highly recommended for psychiatric practice. (English summary) (21 ref.).—*I. D. London.*

1364. Fleis, E. P. (Moscow Research Inst. of Psychiatry, USSR) Semiologiia narusheni dvigatel'nykh funktsii pri lechenii neirolepticheskimi preparatami. [Symptomatology of disturbances of motor functions during treatment with neuroleptic preparations.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Dec), Vol. 70(12), 1798-1804.—200-19-85 yr. old patients (179 schizophrenics, 11 manic-depressives, 10 other psychotics) were observed in the course of treatment with various neuroleptic preparations, in order to study the different forms of ensuing neurological side effects. Extrapyramidal disorders, arising from the therapeutic use of neuroleptics, were cut short by the use of pharmacological correctors (various antiparkinsonian preparations and im injections of aminazine—(chlorpromazine)—in cases of treatment by other neuroleptics). 4 symptomatological groups of neuroleptic motor dis-

turbances were distinguished: (a) akineto-rigidity and akinesia, (b) hyper- or dyskineses involving torsional dystonia, athetosis, chorea, ballism, myoclonus, etc.; (c) hyperkineses of the oral region and (d) motor automatisms. Subgroups are identified and analyzed. The utility of symptomatological side effects for differential diagnosis is discussed. (English summary) (31 ref.).—*I. D. London.*

1365. Gentili, E. (U. Milan, Clinic for Nervous & Mental Disease, Italy) Esperienze sull'uso ambulatoriale con un derivato demetilato dell'amitriptilina (nortriptilina). [Experiments on the ambulatory use with a demethylate derivative of amitryptiline (nortryptiline).] *Acta Neurologica*, 1970(May), Vol. 25(1), 126-130.—Observed 80-20-70 yr old Ss suffering from endogenous, reactive, and symptomatic depressions. Ss were given daily dosages of nortryptiline of 30-75 mg. orally for 3 1/2 mo. When a stable result was attained, the dosage was reduced progressively. Side effects were constipation, dryness of the mouth, and urine retention. There was no neurological harm. The 1st positive results occurred from 7-10 days after treatment was initiated. It is concluded that the drug is very efficient with mild side effects. Results were excellent in endogenous depressions and very notable in reactive and symptomatic depressions. (English summary)—*A. M. Farfaglia.*

1366. Gilyadova, L. A. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) K izucheniiy immunologicheskikh mekhanizmov rezistentnosti k aminazinu. [On immunological mechanisms of resistance to aminazine.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Dec), Vol. 70(12), 1862-1867.—Utilizing complement absorption as index, studied the anti-aminazine (antichlorpromazine) antibodies in the blood of 219 mental patients, 101 of whom were treated with aminazine. Complement absorption was positive in 47% of the cases treated with aminazine, in those cases untreated with aminazine, complement absorption was absent. Only 3% of 131 normal donors exhibited positive complement absorption. The highest number of instances of positive complement absorption was encountered in the group of schizophrenics. Complement absorption is specific not just to aminazine, but is positive for other phenothiazine preparations (stelazine, majoetil, etc.). (English summary) (30 ref.).—*I. D. London.*

1367. Horvath, Dennis P. (Long Island Consultation Center, N.Y.) Some psychodynamic considerations in patients referred for chemotherapy. *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 57-60.—Considers the triangles of chemical agents vs. emotional disturbance vs. organicity and therapist vs. psychiatrist vs. patient both to be a product of the patient's own mother vs. father vs. child triangle. Possible internal monologues are presented as the patient's reactions to referral to the chemotherapist and the prescription of medication. Exaggerated reports of side effects, difficulty in swallowing, and the quest for sleeping pills are discussed in terms of this model for the psychodynamics of the patient. Some difficulties for the patient who must stop taking the drugs after an extended length of time are discussed.—*S. Knapp.*

1368. Huessy, Hans R. & Wright, Alice L. (U. Vermont, Medical School) The use of imipramine in children's behavior disorders. *Acta Paedopsychiatrica*,

1970(Jul), Vol. 37(7-8), 194-199.—Among 52 children diagnosed as hyperkinetic, 67% showed marked improvement on an average daily dose of 50 mg. of imipramine. Because it can be administered once a day, it becomes the first drug of choice. Extensive laboratory study revealed no negative effects in 20 Ss. Side effects were minimal, occurring largely among children showing no beneficial effects.—G. Rubin-Rabson.

1369. Johnson, Gordon; Maccario, Micheline; Gershon, Samuel, & Korein, Julius. (New York U., Medical School) **The effects of lithium on electroencephalogram, behavior and serum electrolytes.** *Journal of Nervous & Mental Disease*, 1970(Oct), Vol. 151(4), 273-289.—Studied the effect of acute and chronic administration of lithium carbonate on EEG, behavior, and serum electrolytes in 10 patients. 5 Ss, 3 of whom were manic-depressive in the manic phase, and 2 who were schizoaffective in the excited phase, received lithium as part of a double blind, controlled evaluation of lithium and chlorpromazine in manic states. The remaining 5 were patient volunteers in a study of the effect of lithium on electrolyte metabolism. A base-line EEG was followed by ingestion of 750 mg. of lithium carbonate, and after 1½ hr., an acute postdrug EEG was repeated and blood was drawn for serum lithium and electrolyte analyses. A 3rd record was taken after chronic administration of lithium. Acute lithium administration produced only minimal EEG changes without the presence of behavioral change. Transient fluctuations in serum electrolytes were observed. Following chronic administration, the presence and severity of the EEG changes were most highly correlated with neurotoxicity. EEG changes observed included alterations in the alpha activity, diffuse slowing, accentuation of focal abnormality, and changes in average evoked response. Although there was some relationship between serum lithium levels and EEG changes, S-specific variations, cerebral organic disease, and, possibly, sodium balance are important variables. Clinical psychiatric change was not related to EEG changes. The problem of drug-specific EEG changes and possible modes of action of lithium are discussed. (34 ref.)—*Journal abstract*.

1370. Knobel, Mauricio. (U. Buenos Aires, Psychiatric Clinic, Argentina) **Die Anwendung von Psychopharmaka bei Kindern und Jugendlichen.** [The use of psychopharmaka in children and adolescents.] *Acta Paedopsychiatrica*, 1970(Jul), Vol. 37(7-8), 200-212.—The increasing number of patients makes the use of psychopharmaka imperative in psychiatric practice. A study of psychodynamic factors may elucidate the actual drug action. 4 fundamental variables must be considered: child, mother, family, and physician. Each of these may show a placebo attitude, in favor of the curative action, or an antidrug action, undoing the results of the medication or provoking toxic reactions or side effects. The drug has an added symbolic significance, as magic, idealized, gratifying, healing, or the opposite. The manner of administration—oral, anal, or parenteral—has, depending on the individual, psychodynamic implications. By means of the drug, a psychic dissociation comes about which may allow discrimination and favor the development of the ego in the place of psychotic personality segments. Every drug-treated child is a child with organic pathology, since the drug has modified his CNS. This adds an extra variable to research in etiology and therapy.—G. Rubin-Rabson.

1371. Lader, M. H. & Mathews, A. M. (U. London, Inst. of Psychiatry, England) **Comparison of methods of relaxation using physiological measures.** *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 331-337.—The effects of a single injection of methohexitone sodium or saline were monitored in 18 anxious patients using forearm blood flow, heart rate, skin conductance, and frontalis EMG. The physiological changes were compared to those when the patients listened to tape-recorded instructions to relax or listened to a tape of neutral content. No differences were found between the treatments except for an increase in skin conductance fluctuations following the injection. A marked dose-dependent tachycardia was induced by methohexitone sodium.—A. Barclay.

1372. Lesser, Leonard I. (Child Guidance Center of Orange County, Costa Mesa, Calif.) **The children's psychopharmacology clinic: Its role within a total program for children's psychiatric services.** *Acta Paedopsychiatrica*, 1970(Jul), Vol. 37(7-8), 212-222.—Of 300 children, 30% of whom were psychotic, for a large number, the incorporation of psychopharmacological agents enabled the disturbed child to remain at home pending the planning of remoter goals. Preliminary studies suggest these agents produce rapid symptomatic improvement followed by a plateau which is maintained. If this can occur at a point of crisis, intervention can prevent deterioration of the child's social milieu and facilitate the recovery process.—G. Rubin-Rabson.

1373. Mashkovskii, M. D. (All-Union Research Chemico-Pharmaceutical Inst., Moscow, USSR) **Adrenergicheskie mekhanizmy deistviya antidepressantov.** [Adrenergic mechanisms involved in the action of antidepressant drugs.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 750-759.—Presents a survey of the data and views concerning the influence of psychotropic preparations on the adrenergic processes in the CNS. The significance of the adrenergic processes in the pathogenesis of depressions is stressed along with their role in the mechanisms involved in the action of contemporary antidepressants. A tabulation is given of the influence of a wide range of psychotropic agents on the behavioral and affective reactions of man and animals, and noradrenaline content in the brain. The methods of pharmacological research, utilized in the search for new antidepressant preparations, are examined. (English summary) (90 ref.)—I. D. London.

1374. Rumyantseva, G. M., Faktor, M. I., & Nefed'eva, M. I. (USSR Academy of Medical Sciences, Inst. of Psychiatry, Moscow) **Primenenie soli litiya dlya profilaktiki afektivnykh pristupov.** [The use of lithium salts for the prophylaxis of affective attacks.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1712-1718.—Observed 52 ambulatory patients with mental disorders, involving attacks predominantly characterized by affective disorders. These included 32 cases of attack-like schizophrenia (discontinuous course), 16 cases of cyclothymia, and 4 of psychopathies with phasic disorders of mood. Treatment with lithium carbonate extended over a period of not less than 6 mo. These salts were effective in the prophylaxis of manic and depressive attacks. Several stages in their preventive action were distinguished: The 1st appeared after 3-4 mo. of treatment and was characterized by a change in the clinical picture of the attacks. The 2nd stage ensued after 6-7 mo. of treatment with shortening of the attacks and

lengthening of the lucid intervals between them. The 3rd stage ensued toward the end of the 1st yr. and was characterized by a decrease in the number of attacks, followed by their complete disappearance. (English summary) (19 ref.)—*I. D. London.*

1375. Schapira, Kurt; McClelland, H. A., Griffiths, N. R., & Newell, D. J. (U. Newcastle upon Tyne, England) **Study on the effects of tablet colour in the treatment of anxiety states.** *British Medical Journal*, 1970(May), Vol. 2(5707), 446-449.—Treated 48 patients with anxiety states, attending psychiatric outpatient clinics with oxazepam (serenid-D), which was administered in tablets of 3 different colors—red, yellow, and green. Every patient received 1-wk treatment with each color, according to a random program. A latin square design was used to ensure complete balance between the colors and between the weeks. The patients' symptoms were categorized and assessed by both weekly physicians' ratings and daily self-rating, which showed close agreement. Color preference was shown on both these scales in that symptoms of anxiety were most improved with green, whereas depressive symptoms appeared to respond best to yellow. Such color preferences, however, did not reach levels of statistical significance, except for phobias as rated on the physicians' assessment. Results indicate that color may play a part in the response to a drug.—*Journal abstract.*

1376. van Krevelen, D. A., Maresca, A., & Schreurs-Dijkstra, M. (3 Scheveningswert, The Hague, Netherlands) **Evaluation of tegretol in the treatment of behaviour disorders in children: Methodology and results.** *Acta Paedopsychiatrica*, 1970(Jul), Vol. 37(7-8), 222-234.—14 children, 7 Dutch and 7 Italian, nonepileptic but hospitalized, were treated with tegretol for 8 wk. Outcome was evaluated by analysis of observation reports, EEG curves, and Bourdon test results. The drug noticeably decreased aggressiveness and hypermotility, and side effects were only temporary. Disparities in the Dutch-Italian data were probably due to the greater role of gross cerebral damage in the Italian institution.—*G. Rubin-Rabson.*

1377. Wilbanks, George D., et al. (Rush Medical Coll., Presbyterian-St. Luke's Hosp., Chicago, Ill.) **Toxic effects of lithium carbonate in a mother and newborn infant.** *JAMA: Journal of the American Medical Association*, 1970(Aug), Vol. 213(5), 865-867.—Describes the case of a 30-yr-old woman receiving carefully monitored lithium carbonate therapy in late pregnancy who developed a toxic condition during the delivery process, apparently due to hemodynamic or metabolic alterations or both, as no additional lithium carbonate was given. Massive diuresis was effective treatment. The infant also had elevated serum lithium ion levels with the clinical signs of cyanosis and flaccid muscle tone. Both mother and infant recovered without obvious permanent damage. Extreme caution should be used with lithium carbonate therapy in late pregnancy until further data can be obtained on the maternal-fetal relationship. The promise of effective therapy must be weighed with therapeutic benefit.—*Journal abstract.*

HOSPITAL CARE & INSTITUTIONALIZATION

1378. Barter, James T. & Langsley, Donald G. (Colorado Psychiatric Hosp., Adolescent Ward, Denver) **The advantages of a separate unit for adolescents.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 241-243.—Describes a 15-bed adolescent unit serving patients of high school and junior high school age. It is

suggested that on an all adolescent ward a structured program can be developed which is geared to the needs of this group. Although staff problems can be troublesome, personnel who are responsive to the needs of young people can be found. Individual psychotherapy, patient-staff meetings, sociodrama, small group therapy, family therapy, and parent-group therapy are used. Patients and families receive pamphlets describing ward policies, privileges, and restrictions. 2 resident school-teachers tutor individually. An environment is created in which adolescents can get better by understanding the roots of their behavior, and by seeing the harm it does and the rewards of altering it.—*B. A. Burkard.*

1379. Bigras, Julien. **Introduction au problème que pose la présence du psychanalyste dans l'hôpital psychiatrique, au Québec.** [Introduction to the problem of the psychoanalyst's presence in the psychiatric hospitals of Quebec.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 133-136.—Discusses the general dissatisfaction of psychoanalysts in French Quebec regarding their work and responsibility in the psychiatric hospitals and gives several reasons for this attitude. These include: (a) an incompatibility between private and hospital practice, (b) the tendency of a psychoanalyst to reduce the hours of work devoted to the hospital, (c) the loss of interest in treating patients at the hospital, and (d) the refusal to engage in hospital administration and activities. It is also noted that the psychoanalyst tends to escape the "bad areas" of practice, e.g., prisons and asylums.—*S. Maze.*

1380. Bossé, Jean. **Psychoanalyse, psychiatrie et institutions psychiatriques.** [Psychoanalysis, psychiatry and psychiatric institutions.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 137-143.—Examines the ambiguous role of the psychoanalyst in the hospitals of Quebec, his reasons for practicing in a hospital, his responsibility to this institution and the relevance of his individual work to psychoanalysis in general. It is proposed that psychoanalysis has deviated from its original objectives by becoming confused with psychiatry. The psychiatrist and psychoanalyst are distinguished from each other: the former is primarily a doctor whose purpose is to reintegrate his patient into society while the latter is especially interested in the unconscious, the psychic and latent structures of the human mind. Both are incompatible, should be considered as such, and must perform their function separately.—*S. Maze.*

1381. Buxner, Robert M. (Louisiana State U.) **Prediction of post-hospital adjustment for psychiatric patients after an instrumented training program.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2274.

1382. Cowell, Daniel D. (National Inst. of Mental Health, Washington, D.C.) **Developing community-oriented teamwork on an admissions ward.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 1-4.—A therapeutic community, in which responsibility for making some decisions had been given to patients, proved to be unworkable. After an increase in staff anxiety and dissension, administrative control was returned to the doctors, and the staff was seen to relax and resume their more accustomed and time-tested roles.—*R. Sivley.*

1383. Faux, Eugene J. & Farley, O. William. (State Div. of Mental Health, Children's Service, Provo, U.) **An evaluation of a hospital youth center.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 244-245.—Discusses findings from a research project, con-

ducted by 10 candidates for master's degrees in social work, on different aspects of the youth program at Utah State Hospital. The hospital youth program is described and results of 4 of the student topics are detailed.—B. A. Burkard.

1384. Frécourt, Jean. (Mental Health Center, Paris, France) **Malaise dans l'institution.** [Uneasiness in the institution.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 109-131.—Examines (a) the need for a real rather than formal division of theoretical and practical work in the institution within the context of a mental health center in Paris, (b) the function of the psychoanalyst and the difficulties he encounters in an institution (for psychotics primarily), and (c) the role of the attendants vis à vis the analyst and the patients. It is noted that there has been a growing feeling of uneasiness within the mental institution due to problems, e.g., (a) a sense of rigidity, and immobility from within; (b) the absence of autonomy among the staff, the immaturity of attendants (especially in conflicts among themselves), and their excessive dependence on a psychiatrist and psychoanalyst who is often absent; (c) inadequate treatment for neurotics and psychotics; and (d) a passive and regressive state among patients that has been induced by poorly planned hospitalization and an artificial patient-attendant relationship. The 2 aspects of institutional activities are distinguished from each other as either functional (administrative duties) and specific (treatment of mental patients). It is argued that a sense of movement must be maintained by individual members as well as by the institution as a whole so that a concerted effort can be adopted toward the patient. A study of the "collective psychology of the institution" based on Freud, as well as that of its whole structure, including the roles of attendants is proposed. More freedom of thought, better communication among staff members and the separation of psychoanalytical from institutional responsibilities are suggested.—S. Maze.

1385. Friedman, Irwin. (Westwood Hosp., Los Angeles, Calif.) **A youth activity group.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 247-250.—Describes a program created for young patients who were disrupting an entire hospital routine. Ss were formed into a group consisting initially of 10 14-22 yr. old boys and girls who met with a therapist every weekday for an activity program. Although the 1st meeting was turbulent, a cohesion developed which was attributed to "a collective desire to establish identity through peer relationships." The group agreed that the most important part of the program was the "small world created for and by the group." Most Ss needed help in developing a mature self-image and responding appropriately to authority. Behavior and goals were not stereotyped. Experience indicates that a "well-organized, carefully structured program for younger patients exerts a beneficial influence on their total clinical management and enhances the effectiveness of dynamic treatment procedures."—B. A. Burkard.

1386. Gottlieb, Brian M. & Digiondomenico, Peter A. (Child & Family Mental Health Services, Lewiston, Me.) **Modifications of a therapeutic community on a brief-stay ward.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 23-24.—A small psychiatric unit (20 beds) seeking to use therapeutic community concepts found it necessary to modify several techniques. Patients were assigned to committees, including a privileges and welcoming committee. Another committee was responsible for assigning housekeeping tasks on the unit, and

inappropriate individual behavior was made the problem of the entire group. Modifications are described as a "segmented approach" designed to enable the staff to handle problems more effectively than would a massive interruption of all community functions. Evaluation of the program is described as being difficult because of the brief length of stay that is characteristic of patients in this unit.—R. Sivley.

1387. Graham, John R., Allon, Richard; Friedman, Ira, & Lilly, Roy S. (Kent State U.) **The Ward Evaluation Scale: A factor analytic study.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 118-122.—The 69 items of the Ward Evaluation Scale were intercorrelated and the matrix of item intercorrelations factored using a principal components analysis. After rotation 6 psychologically interpretable factors emerged: staff interest in patients, cleanliness of ward, absence of disturbing noise on the ward, staff permissiveness and sensitivity, patient comfort, and adequacy of hospital services. 5 factor scales were developed and item numbers presented. The derived factor scales did not closely parallel the original rational scales. A replication of this study is suggested.—E. J. Kronenberger.

1388. Graham, John R., Lilly, Roy S., Allon, Richard, & Friedman, Ira. (Kent State U.) **Comparison of the factor structures of staff and patient responses on the Ward Evaluation Scale.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 123-128.—A factor analysis of the Ward Evaluation Scale (WES) for staff responses was completed, and the results are presented. 5 salient dimensions in the staff perceptions of hospital wards were noted and factor scales were constructed for 4 of the factors. The derived staff factor scales did not correspond closely to the original rational subscales of the WES and differed from previously reported data for patient responses.—E. J. Kronenberger.

1389. Labbé, Pierre & Mathieu, Pierre. **Le psychanalyste et la clinique externe.** [The psychoanalyst and the external clinic.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 145-149.—Discusses the general function of a psychiatric clinic in Quebec that is (a) designed to give the best possible treatment to a selected group of patients (whose financial means is secondary); (b) maintain a full-time staff of doctors; and (c) give special, and, if necessary, daily attention to a patient. The growing need for a psychoanalyst to be independent of the psychiatric hierarchy and administrative structure of the hospital is examined.—S. Maze.

1390. Mahel, Sanford. (Veterans Administration Hosp., Roseburg, Ore.) **Outcome of patients' assuming a staff function.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 25-28. Several methods of studying the outcome of patients' assuming a staff function were developed. A committee composed of representatives from various patient groups, called the Patient Evaluation Committee, was selected to make recommendations concerning notes submitted by staff and other patients. Differences in note categories before and after the new system was instituted were studied. Other methods used to evaluate the effect of the note system were to ask staff members at 6-wk, and 4- and 6-mo intervals to compare their impressions of the ward. A 3rd method was to ask the views of the ward consultant, who had visited the ward monthly for a period of 6 yr.—R. Sivley.

1391. Mace, Douglas L. (U. Rochester) **College volunteers as group leaders with chronic patients: Effects of ward personnel involvement on ward**

behavior change. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2287.

1392. **Morentz, Paul E.** (Veterans Administration Hosp., Martinez, Calif.) **A simple method of coding psychiatric records.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 12-13.—A mimeographed code booklet and code sheet developed by the investigator lists 43 factors to be coded and the explanations of the code. About 5-10 min. of ward secretary time is required for coding the majority of items, while the physician codes the remainder, in from 30 sec. to 5 min. Included in the code are such factors as age, sex, race, religion, residence, service connection, referral source, psychiatric and physical diagnoses, alcohol problems, number of admissions, medication, treatment, suicide attempts, length of stay, and condition at discharge. The processing of 625 admissions in 1968 used the following machines for the times indicated: IBM 029 Card Punch, 7.5 hr.; IBM 056 Card Verifier, 7.5 hr.; IBM 514 Reproducing Punch, 11 hr.; and IBM 1130 Computing System, 11.3 hr. One can obtain estimates of local costs for similar programs by using these figures as a guideline.—*R. Sivley.*

1393. **Shea, Marilyn C.** (Ohio State U.) **The differentiation of judgment.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2266-2267.

1394. **Solomon, Harry C.** (Harvard Medical School, Boston, Mass.) **Half a century of hospital psychiatry.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 367-371.

1395. **Terl, Beatrice G.** (Baltimore Workshop for Retarded, Md.) **A dynamic work program for maximum-security patients.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 381-383.—Describes a psychodynamically based work-for-pay program created to rehabilitate maximum-security male patients at a 300-bed state hospital. The program emphasizes graduated levels of responsibility, realistic working conditions, and group psychotherapy.

1396. **Treffert, Darold A.** (Winnebago State Hosp., Wis.) **Administering a residential program.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 237-240.—Draws conclusions concerning child-adolescent units based on the author's experience as unit administrator and hospital superintendent. A list of program ingredients which have worked successfully at a state hospital are included. Program objectives, problems encountered, and staff guides are discussed.—*B. A. Burkard.*

PSYCHOANALYTIC INTERPRETATION

1397. **Aruffo, Roy N.** **Lactation as a denial of separation.** *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 100-122.—Briefly reviews the medical and psychoanalytic literature on the problem of galactorrhea (or the abnormal secretion of milk in virgins or other nulliparous women), and presents an analytic treatment report of an adolescent girl. The psychogenic factors are evaluated.—*J. Z. Elias.*

1398. **Bychowski, Gustav.** (Mt. Sinai School of Medicine, New York, N.Y.) **Psychoanalytic reflections on the psychiatry of the poor.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 503-509.—Psychoanalytic theory originally was concerned with only the analytic situation and not with the impact of social-economic conditions external to that situation. Being middle class leads to inner flight (neurosis). Being

lower class leads to acting-out, unusual behavior, or outer flight. Poverty brings scarcity, lack of stimulation, and results in intellectual dullness, academic deficits, inarticulation, emotional isolation, depression, hopelessness, and apathy. These are all seen in the children of poverty. Hostile aggression is common and defies socialization. (17 ref.)—*J. Chyatte.*

1399. **Chertok, Leon.** (22 rue Legendre, Paris, France) **Freud in Paris: A crucial stage.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 511-520.—Breuer told Freud about Anna O. in 1882. 3 yr. later Freud went to Paris on a postgraduate scholarship. Here he learned hysteria was not malingering and that neurotic symptoms like hysteria were induced by ideas. Charcot used hypnosis to induce hysterical paralysis. Freud perceived the connection between hysteria and sexuality at that time. 10 yr. after leaving Paris, he postulated his theory connecting sex and neurosis. (22 ref.)—*J. Chyatte.*

1400. **Géahchan, Dominique J.** **Références métapsychologiques pour une psychothérapie des psychoses en milieu institutionnel.** [Metapsychological references for a psychotherapy of psychoses in an institution.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 11-40.—Within the context of Freudian metapsychology, the close relationship between dreams and psychoses (transference, neurosis, schizophrenia, acute hallucination, etc. . . is analyzed and substantiated by the various works of Freud, including *The Interpretation of Dreams*, *The Unconscious*, *President Schreber*, *Introduction to Narcissism*, *Mourning and Melancholy*, and *Neurosis and Psychosis*. The metapsychological notions of narcissism, the instinct of death, and reality, and their interrelation with all psychoses are examined. It is concluded that the psychotic will always regress to a narcissistic state, reality will always be rejected, and the death instinct will continue to be a predominant factor of negation and division. Only desire will overcome all 3.—*S. Maze.*

1401. **Geba, Richard.** (Inst. for Psychoanalytic Training, New York, N.Y.) **Dostoevsky and "The Gambler": A contribution to the psychogenesis of gambling: II.** *Psychoanalytic Review*, 1970, Vol. 57(2), 289-302.—Reviews major psychoanalytic contributions to the subject of gambling and uses this review as a basis for analyzing Alexis, the gambler in Dostoevsky's novel. A primary determinant in the gambling impulse is the preoedipal mother. Hence, the oral components of the personality surge to the foreground. Through his powerful identity with his mother, the gambler imagines an immunity against loss; his storehouse is self-replenishing like the mother's milk. He also expects to satisfy his own insatiable hunger. 4 features in the psychogenesis of the gambler are traced: (a) the oedipal search for knowledge, (b) the giving and getting of secrets as an act of love, (c) the equation of secret and genitals, and (d) the need to incorporate the secret physically. The self-punishment and defeat of the gambler are viewed as paradoxical but unintended means to attain childhood hopes and dreams to win the mother's body. The masochistic pleasures and desires that accrue to that end are but secondary motivations. (29 ref.)—*D. Prager.*

1402. **Greenacre, Phyllis.** (501 E. 87th St., New York, N.Y.) **The transitional object and the fetish with special reference to the role of illusion.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 447-456.—Transition objects arise in infancy and are given up in latency; fetishes are manifested during latency or adolescence and remain a part of adult sexual activity.

The transition object can promote illusion or a misinterpretation of reality. It is a tangible sign of a changing relationship during a period of growth and maturation. It is given up by 4 yr. of age by reducing it in size, e.g., the security blanket or by its becoming a toy to be used at bedtime or during play. A fetish is detrimental to maturation and represents a perceived bodily defect.—J. Chyatte.

1403. Halverson, John. (U. California, Santa Cruz) **Amour and Eros in the Middle Ages.** *Psychoanalytic Review*, 1970, Vol. 57(2), 245-258.—Presents an outline of a tentative psychological approach to love in the medieval world, taking into account the historical dimension, and proceeding from Freud's later theoretical position on the instincts and the divisions of the psyche. (8 ref.)—D. Prager.

1404. Herbert, Edward T. (Northern Illinois U.) **Myth and archetype in "Julius Caesar."** *Psychoanalytic Review*, 1970, Vol. 57(2), 303-308.—Many critics have felt that *Julius Caesar* should have been called *The Tragedy of Brutus*. This argument loses force when the play is viewed as a myth and can be interpreted as a dramatization of an archetypal situation similar to that discussed by Freud in *Totem and Taboo*. Actions in the play which seem at 1st to be contradictory and inconsistent are seen to be natural and deeply rooted in the human psyche when viewed in the light of Freudian insights.—D. Prager.

1405. Kaplan, Donald M. (175 W. 12th St., New York, N.Y.) **Comments on the screening function of a "technical affect," with reference to depression and jealousy.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 489-502.—Freud indicated that screen phenomena are conscious attempts to embody and repress infantile experience. All memories are screen memories in that they retain and distort personal data. Cited are examples of "technical affect" where a patient exhibits 1 emotional stance in therapy and another in other spheres. To a patient depression is a mood with diluted fantasies. To a patient jealousy is a painful mood and has an element of "crazy." Screen depression results from trauma in the early years where "overprotection" is obvious. (42 ref.)—J. Chyatte.

1406. Krippner, Stanley & Easton, Harry K. (Maimonides Medical Center, Dream Lab., Brooklyn, N.Y.) **The essential theme in Jungian psychology.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 19-26.—Describes the contributions of Jung to existential psychology. Jung's analytic psychology is described as an open system utilizing intuition, clinical impressions, and flexible and changing hypotheses in a basically phenomenological approach to therapy. The individual is regarded as unique, and a transcendent approach emphasizing his ability to purposively change is the basis of Jungian therapy. Neurosis is regarded as a morbid development, and as the beginning of a creative development. The conscious and unconscious are considered to be 2 aspects of the psyche which must be integrated. The mutual involvement of the therapist and the patient in the therapeutic situation is emphasized. The patient in the therapeutic situation is described as 3 parts of a whole—existential anxiety in the realization of death is considered basic to the creation of a viable identity. It is concluded that Jung's writings merit more attention than they have received. (23 ref.)—S. Knapp.

1407. Lewin, Bertram D. **Metaphor, mind, and manikin.** *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1),

6-39.—Examines the psychoanalytic use of the metaphor as exemplified frequently in Freud's writing with particular reference to the metaphoric concepts as to the "structure" of the mind.—J. Z. Elias.

1408. Lewis, Murray D. (U. Rochester, Medical School) **A superego distortion: The defensive use of expressions of moral concern.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 465-470.—Verbal expression of moral concern may be true expressions, a matter of expected convention, an indication of social anxiety, or an effort to appease others to ward off retaliation. The superego distortion helps defend one against a feeling of helplessness and gives a false sense of control.—J. Chyatte.

1409. Markle, Durward J. (Bellevue Psychiatric Hosp., New York, N.Y.) **Freud, Leonardo and the lamb.** *Psychoanalytic Review*, 1970, Vol. 57(2), 285-288.—In his study of Leonardo da Vinci, Freud states that the famous Mona Lisa smile is explainable in the light of Leonardo's mother-child relationship, and represents Leonardo's memory of the satisfaction he received as a child at his mother's breast and the love he found in her smiling gaze. Further he attributes the retained childhood feelings toward the mouth as also evident in other paintings, e.g., "The Holy Family." Freud's analysis is critically reviewed in light of Leonardo's childhood condition, with Leonardo being viewed as the child in "The Holy Family."—*Journal summary*.

1410. Mouján, Octavio F. (G. Aráoz Alfaro Polyclinic, Psychopathology & Neurology Service, Buenos Aires, Argentina) **Los rasgos de carácter en la pubertad y mediana adolescencia.** [Character traits in puberty and midadolescence.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 255-260.—Presents a psychoanalytic (Freudian) interpretation of characterological changes in puberty and midadolescence. During early adolescence, both men and women identify themselves with their parents of the opposite sex; this situation is later reversed and both achieve the proper identification. Clinical examples are provided.—V. A. Colotta.

1411. Muldworf, Bernard. **Psychanalyse et engagement.** [Psychoanalysis and commitment.] *Interprétation*, 1969(Jul), Vol. 3(3), 85-117.—Examines the psychodynamic genesis and structure of commitment, its psychology and psychopathology, and its relations with ideology and unawareness. Identification, sublimation, and the religious experience are explored as to their roles in the psychology, motivations, and psychological effect of militant commitment; the authority relation (father figure) is at the roots of "psychopathological commitment," as well as security-seeking in the group (mother figure), and passive and dependent submission; an objectively conflictual situation may enable 1 to grasp at the "solution" nature of political commitment; illusory, empirical, prospective, and functional knowledge are operant in ideology. Unawareness of deep motivations is present in the psychological unconsciousness of militant commitment, while at the ideological level one takes part in politics as the unconscious agent of structural laws which must lead to the necessary correspondence between production and productive relationships. 3 theories are discussed: (a) ideology is in a like manner constituent of social life as fantasy is constituent of individual life; (b) the metonymy of desire is in some manner the root origin of the collective

"imaginary"; and (c) commitment appears to be a new synthesis belonging to a specific order of reality—politics.—*T. N. Webster.*

1412. Pollock, George H. (Inst. for Psychoanalysis, Chicago, Ill.) **Temporal anniversary manifestations: Hour, day, holiday.** *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 123-131.—Discusses the appearance of psychic symptoms on anniversaries or other temporal points through examples of a variety of cases. Psychoanalytic literature references to this subject are cited.—*J. Z. Elias.*

1413. Reid, Stephen A. (San Fernando Valley State Coll.) **A psychoanalytic reading of "Troilus and Cressida" and "Measure for Measure."** *Psychoanalytic Review*, 1970, Vol. 57(2), 263-282.—Suggests that the bitterness and futility in *Troilus and Cressida* were the result of Shakespeare's understanding that something in the sex drive made its absolute gratification improbable, and that this, in turn, was the source of futility in public action. Several years later, in *Measure for Measure*, Shakespeare felt that this inability of the sex drive to achieve absolute gratification could be turned into a partial positive by persuading men that limited satisfaction is the best.—*D. Prager.*

1414. Schafer, Roy. (Yale U.) **An overview of Heinz Hartmann's contributions to psychoanalysis.** *International Journal of Psycho-Analysis*, 1970, Vol. 51(4), 425-446.—Hartmann revised Freud's theories 5 ways. An attempt was made to dissolve its dualism by introducing the concept of degree, to choose the biological-adaptational vantage point as a framework for psychoanalytic theory, and to become its anatomist and bring preciseness and coherence by examining both its gross and fine aspects. Through use of the concept of neutralization, Hartmann refined Freud's psychoeconomic ideas. He made the mind analogous to the common idea of government and its duties. "Hartmann's contributions to psychoanalytic theory of increased orderliness, subtlety, and comprehensiveness have continued and even added to some difficulties, while diminishing or resolving others." (35 ref.)—*J. Chyatte.*

1415. Spielman, Philip M. (Mt. Zion Hosp. & Medical Center, San Francisco, Calif.) **Envy and jealousy: An attempt at clarification.** *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 59-82.—Envy and jealousy, frequently interchanged, are examined for delineation as to meaning and psychoanalytic usage. It is concluded that envy involves 2 persons; jealousy, 3. The related psychodynamics are discussed.—*J. Z. Elias.*

PSYCHODIAGNOSIS

1416. ———. **Psychiatric disorders in the community.** *British Medical Journal*, 1970(May), Vol. 2(5707), 435.

1417. Albert, Gerald. (C. W. Post Coll., Long Island U.) **Sentence completions as a measure of progress in therapy.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 31-34.—Proposes the use of the Rotter Incomplete Sentences Blank as an index of therapeutic movement. Administered at well separated intervals, the completions would be judged for gain or loss in emotional health with a + or -. In addition to measuring improvement, the minus items would indicate for the therapist areas where attention is needed. Examples of responses of a 25-yr-old female who had had a schizophrenic break are presented. Good correlation was found between the improvement noted by this method and that indicated on MMPI scores. It is

suggested that this method may provide a highly dependable therapeutic instrument.—*S. Knapp.*

1418. Beenen, Folkert. (Wilhelmina Gasthuis Psychiatric Clinic, Amsterdam, Netherlands) **Psychiatric diagnosis and subjective probabilities.** *Acta Psychologica, Amsterdam*, 1970(Dec), Vol. 34(2-3), 328-337.—Investigated the possibility of improving the diagnostic process in clinical practice by using subjective probabilities. Subjective probability estimates of 11 clinicians were used in constructing diagnostic rules. Results of diagnoses of 25 patients suggest no real improvement over spontaneous diagnosing. Some limitations and implications of the study are discussed.—*Journal abstract.*

1419. Bernardi, Silvano & Rabassini, Aldo. **Considerazioni sull'importanza dell'psicodiagnostica con metodi proiettivi Rorschach e TAT nelle pseudonevrosi (casi Borderline).** [Considerations on the importance of psychodiagnostics with Rorschach and TAT projection methods in pseudoneurotic (borderline cases).] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 362-365.—Defined "borderline" as a form of psychosis which presents itself with a neurotic exterior. The essential characteristic is the weak ego. The lack of distinction between subject and object creates the psychotic situation. The Rorschach Test by way of the method of comprehension, of the detail of perceptive data shows how the ego is in contact with reality. The ambiguous stimulus represented by the spots in their color, form, and movement as well as the answers reveal the persistence of autistic thought and of narcissistic libido. The elements in the Rorschach Test which indicate a borderline structure are listed. The TAT, although more superficial regarding the personality, is of value. The tendency of the S toward autistic thinking and his narcissistic needs can be seen in the light of the social and family pressures to which the ego is subjected.—*A. M. Farfaglia.*

1420. Dobbs, Norman J. (Purdue U.) **Predicting length of psychiatric hospitalization using demographic and psychological test data.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2276.

1421. Dudley, Harold K., Williams, Jack D., & Overall, John E. (Rusk State Hosp., Tex.) **Relationships of Beta IQ scores to socio-cultural factors in a psychiatric population.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 68-74.—Beta IQ scores and 18 social history variables were recorded for a sample of 432 psychiatric patients. Significant sources of variations were: age, race, sex, history of previous psychiatric hospitalization, education, work, achievement, mental states, military and criminal records, and various clinical diagnostic groups. A formula is presented for estimating Beta scores using a combination of background characteristics. "The difference between actual performance and the performance that is expected for a patient with the particular background characteristics is proposed as a sensitive index of acute functional impairment."—*E. J. Kronenberger.*

1422. Hartlage, Lawrence C. (Indiana U., Medical Center, Indianapolis) **Differential diagnosis of dyslexia, minimal brain damage and emotional disturbances in children.** *Psychology in the Schools*, 1970, Vol. 7(4), 403-406.—Tested the efficacy of 3 tests (WISC, Bender Gestalt, and Wide Range Achievement Test—WRAT) in identifying 81 children who had been classified into the 3 classification categories (31 dyslexic, 25 minimally brain damaged, and 25 severely emo-

tionally disturbed; mean age, 9.8 yr.; mean WISC IQ, 101). The analysis indicates that the tests could not be used as a sole basis for classification, although the WRAT reading discrepancy score is a "possible instrument for superficial differentiation of the 3 diagnostic categories..."—H. Kaczowski.

1423. Herron, William G. & Psaila, Justin. (St. John's U., Jamaica, N.Y.) **Diagnosing children's problems.** *Psychology in the Schools*, 1970, Vol. 7(4), 397-403.—This review of diagnostic methods of children's problems points to the various limitations in each classification system. The efficacy of the proposed tri-axial approach (Clinical Syndrome \times Intellectual Level \times Etiological Factors) is discussed. (23 ref.)—H. Kaczowski.

1424. Hettema, P. J. & Wolke, M. Y. **Constructie van een progressieschaal voor T.B.R.-delinquenten.** [Construction of a progress scale for the adjustment of mentally disturbed delinquents.] *Gewein*, 1970(Nov), Vol. 18(7), 473-495.—Described improvement of mentally disturbed delinquents by 477 items. 31 Ss were rated twice at a 5-mo interval on a 5-point scale for each of these items by 3 raters. Discrepancy scores (over this period) were correlated with an overall adjustment rating, after 211 items were found to have reached reliability $d=.30$. In the last step, 165 items and the criterion score were cluster analyzed. 3 clusters emerged: (a) the 1st cluster, with 102 items, defined adjustment to the clinic norms, (b) the 2nd cluster, with 26 items, dealt with active participation in possible aspects of the unit, and (c) the 3rd cluster, with 16 items, dealt with independence and social isolation.—S. G. Vandenberg.

1425. Hunt, William A. & Walker, Ronald E. (Loyola U., Chicago, Ill.) **Cue utilization in diagnostic judgment.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 62-64.—13 PhD clinicians made a differential diagnosis of 305 Ss using WAIS Comprehension and Vocabulary test protocols. The clinicians performed better than chance but the performance was noted as poor with the 6 neurotic and 6 organic protocols. The amount of information processed seemed to be positively related both to correct choices and to first choices. There was a poor showing of diagnosis by exclusion.—E. J. Kronenberger.

1426. Koppel, Irwin & Farina, Amerigo. (U. Connecticut) **Hospitalization time and psychiatrists' perceptions of mental patients.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 59-61.—54 psychiatrists rated 3 typical case descriptions in which hospitalization time was systematically varied. Each judge was asked to give a diagnosis, specify 3 factors that influenced his decision, to indicate the patients' severity of disturbance and their own diagnostic confidence, and to suggest recommendations for treatment, discharge, or other disposition. Hospitalization time had a significant effect but varied with the characteristics of the case. Length of hospital stay appeared to influence recommendations for medication and the total number of psychiatric treatments.—E. J. Kronenberger.

1427. Lehman, Elyse B. & Levy, Bernard I. (George Washington U.) **Discrepancies in estimates of children's intelligence: WISC and human figure drawings.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 74-76.—Scores were obtained on 4 measurements for 72 boys: WISC, Human Figure Drawings (HFD), Holtzman Inkblot Technique, and the Height Estimation Test. Relationships between the WISC and HFD were low but discrepancies between the IQs were significantly greater in the disturbed than in the normal group. There

was inconsistent support for the body image hypothesis. Intelligence level was an important factor in discrepancies in estimates of children's intelligence.—E. J. Kronenberger.

1428. Misyuk, N. S. (Minsk Medical Inst., USSR) **Puti automatizatsii diagnosticheskogo protsesssa.** [Ways of automating the diagnostic process.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 532-537.—Presents a logico-probability algorithm for the computer diagnosis of human disease, illustrated by the differential diagnosis of brain tumors in 632 patients and of acute cerebral dyscirculatory disturbances in 100 patients. Diagnostic exactness for the 2 groups was different and fluctuated within the limits of 80-90%. Automation of the diagnostic process is viewed as 1 of the ways of bringing about an improvement in the diagnosis and prognosis of disease. (English summary)—I. D. London.

1429. Obrzut, John E. & Thweatt, Roger C. (Northern Arizona U.) **Clinical differentiation with the spiral aftereffect technique.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 995-999.—Administered the spiral aftereffect (SAE) apparatus to 50 independently medically diagnosed organic patients and 50 normals matched in sex and age. Each S was given standard instructions for 6 trials of 30-sec exposure time. Variables, e.g., rate and direction of rotation, lighting intensity, and light adaptation, were controlled for all Ss. Scores and percentage computations of Ss in the various diagnostic groups indicate that the SAE test has significantly differentiated between cases of organic brain damage and normals ($p<.01$). No differences were shown between infectious vs. noninfectious organics and convulsive vs. nonconvulsive organics. However, there was a significant difference between pre and postnatal organics ($p<.01$). For the entire group there were 32% false negative classifications and 8% false positive classifications.—*Journal abstract*.

1430. Pierson, George R. (U. Oregon) **The High School Personality Questionnaire as a delinquency proneness assessment instrument.** *Description Abstracts International*, 1970(Nov), Vol. 31(5 B), 2964.

1431. Płużek, Zenonena. **Wartość diagnostyczna testu WISKAD-MMPI w zakresie nozologii psychiatrycznej.** [Diagnostic value of MMPI among psychiatric nosological groups.] *Roczniki Psychiatrii, Annuaire de Psychiatrie*, 1969 Vol. 11(4), 125-143.—Based upon Polish adaption of the MMPI developed for experimental purposes in the psychological laboratory of a psychiatric hospital in 1950. Differential diagnostic problems based on the data derived from the MMPI data are discussed (180 psychiatric cases and 200 normal individuals served as Ss). The objective devices consisting of different profiles are evaluated as to their value in differential diagnosis. (English summary)

1432. Purker, Gary W. & Smith, Roger C. (Comprehensive Care Center, Lexington, Ky.) **MMPI "cookbooks": Are rule relaxation and system combination procedures an answer to low classification rates?** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 96-101.—Assessed the effects of combining 2 MMPI classification systems and applying 3 rule-relaxation methods upon profile classification rates in 179 inpatient and 258 outpatient males. Ambiguities in classification and disagreement with clinical judges increased as a function of the flexibility of the classification procedure. Rule relaxation and system combination did produce a substantial increase in the proportion of classifiable

MMPI profiles. "The benefits of the proposed modifications may not be sufficient to warrant their use when the problems associated with the application of such procedures are considered."—*E. J. Kronenberger.*

1433. Querol, Mariano. *Relaciones somato-psíquicas en medicina: Enfoque electroencefalográfico.* [Somatic-psychic relations in medicine: Electroencephalographic approach.] *Revista de Neuro-Psiquiatria*, 1970(Mar), Vol. 33(1), 7-10.—Discusses EEG data from a clinical viewpoint, noting that, aside from epilepsy, the EEG is not a valid method for a specific diagnosis. However, due to the marked differences between normal and abnormal EEGs among sane and mentally ill individuals, the EEG is considered to be a valuable orientation device for diagnostic criteria. It is also considered to be helpful in aiding diagnosis of severe and chronic organic-cerebral disorders. The influences of REM sleep and psychotropic drugs on EEG medications are discussed.—*P. Hertzberg.*

1434. Rouzer, David L. (U. Minnesota) *Construct validation of the Minnesota-Briggs History Questionnaire: Age and personality correlates.* *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3006.

1435. Satz, Paul. (U. Kentucky) *A block rotation task and multivariate statistical procedure for the diagnosis of organic brain disorder.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2265-2266.

1436. Schwartz, Mark S. & Krupp, Neal E. (Mayo Clinic, Rochester, Minn.) *The MMPI "conversion V" among 50,000 medical patients: A study of incidence, criteria, and profile elevation.* *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 89-95.—Reviews previous studies regarding the 1-3/3-1 code of the MMPI. The incidence of this code designation in 50,000 medical patients is presented with 4000 profiles fitting this code pattern. 5 research questions are raised. Another part of this study, using 120 Mayo clinic patients, attempted to determine the medical diagnosis associated with 3 different elevations of the 1-3/3-1 profile. No significant differences were noted among the elevations.—*E. J. Kronenberger.*

1437. Smith, Roger C. & Porier, Gary W. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) *Factors influencing administrative disposition of psychiatric patients.* *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 54-59.—Disposition and psychiatric diagnosis were highly correlated in a sample of 437 military servicemen at psychiatric facilities for 2 major military installations. There was an increasing likelihood of separation from the service with increasing severity of diagnosis. Disposition and MMPI diagnostic classification were correlated with psychiatric diagnosis. MMPI classifications were generally unrelated to demographic or patient status variables. It was noted that degree of emotional disorder is not necessarily a primary determinant of administrative disposition of psychiatric patients.—*E. J. Kronenberger.*

1438. Tutoo, D. N. (Ministry of Defense, Directorate of Psychological Research, New Delhi, India) *The performance of socially adjusted and socially maladjusted subjects on Gibson maze test.* *Indian Journal of Psychology*, 1970(Jun), Vol. 45(2), 165-174.—Studies the performance of socially adjusted and socially maladjusted Ss using the Gibson Spiral Maze Test, a psychomotor test. 200 Ss were selected consisting

of 100 socially adjusted, 50 socially maladjusted (antisocial characters), and 50 socially maladjusted (neurotic type). All Ss were 20-35 yr. of age, literate, males, in good health. The MPI and Raven's Progressive Matrices were administered to measure the intelligence of all Ss. The score difference between the 2 groups was found to be statistically significant. The MPI educational score between the 2 groups was found to be statistically insignificant. Performance of socially adjusted Ss using the Gibson test proved to be of a higher score, since the socially maladjusted Ss used up more time to complete the test trial. The Gibson test showed that the socially adjusted performed better than the neurotics but not significantly better than the criminals. It was found that the Gibson test "can be usefully employed for diagnostic purposes in Indian setting also."—*J. Halev.*

1439. Watson, Charles G., Laliberte, Michael, & Sellers, Howard. (Veterans Administration Hosp., St. Cloud, Minn.) *Personality correlates of DAP facial expression.* *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 115-117.—Draw-a-Person (DAP) facial expression ratings and symptom ratings were correlated to test the diagnostic utility of the DAP facial expression. The results were negative with only 3 of 80 r's significant at the .05 level. Interjudge agreement on the facial expression ratings was poor. It is suggested that facial expression ratings may be sufficiently lacking in objectivity as to render very questionable their utility in personality appraisal.—*E. J. Kronenberger.*

1440. Wimmers, M. F. *Factoranalytisch-onderzoek van de W.A.I.S. subtests bij psychiatrische patienten en alcoholici.* [Factor analysis of the W.A.I.S. for psychiatric patients and alcoholics.] *Gawen*, 1970(Nov), Vol. 18(7), 496-509.—WAIS subtest scores for 125 psychiatric patients and 125 alcoholics were separately factor analyzed and the resultant 2 matrices rotated to the varimax criterion. Factor I was verbal comprehension; Factor II was related to the performance tests and has been called perceptual organization by Cohen; and Factor III was a memory factor which was only well defined in the psychiatric Ss.—*S. G. Vandenberg.*

BEHAVIOR DISORDER

1441. Gozali, Joav & Simons, Pauline. (U. Wisconsin, Milwaukee) *Community mental health services or cities of refuse.* *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 177-179.—Discusses the relative merits of treating socially deviant persons in large isolated institutions or in community integrated, small residential centers. Before community mental health centers can serve the needs of urban deviants, however, ways must be found of helping communities reestablish themselves as fit places to live. Middle-class professionals designing these centers are serving only their own interests if they do not consider these problems and draw community residents into comprehensive planning for the future.—*Journal abstract.*

1442. Joos, J., Debuyst, C., & Sepulchre-Cassiers, M. (Center of Neurology & Medico-Psychological Studies, Brussels, Belgium) *Boys who run away from home: A Belgian study.* *International Journal of Offender Therapy*, 1970, Vol. 14(2), 98-104.—Presents a study of 20 15-18 yr. old adolescents who had run away from home and been brought to court for truancy. Responses to a set of 13-14 questions indicate that most Ss (a) had

wanted to leave home for good, (b) had some sort of plans, (c) had only superficial attachments to their families and homes, and (d) left home from dissatisfaction rather than defiance. The future of habitual adolescent absconders is discussed. It is suggested that an occupation which satisfies their desires for adventure and activity would stabilize them more than a life requiring great stability and routine. (French, German, & Spanish summaries)—*S. Knapp*.

1443. Kleu, G. (U. Marburg, Clinic of Neuro-psychiatry, W. Germany) **Palmomental reflexes in adolescents with behavior disorders.** *Psychiatria Clinica*, 1970, Vol. 3(6), 375-380.—The palmomental (PM) reflex has been described in connection with lesions in the CNS, patients with intoxications and metabolic diseases. An attempt was made to determine if a "higher fixation of the reflex [exists] which could point to a decreased adaptation ability of mesencephalic structures." The PM reflex was studied in 13 boy and 5 girl 9-17 yr. olds with abnormal behavior. "In 10 Ss no reflex response was observed, although the stimulation duration was maximal (20 msec.). Based on the results, it is concluded that the PM reflex in adolescents with behavior disorders shows no difference in its structure, habituation, and stimulus duration as compared to healthy adults.—*P. McMillan*.

1444. Robertello, Richard C. & Forbes, Sylvia F. (Long Island Consultation Center, N.Y.) **The treatment of masochistic character disorders.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 41-44. Proposes that the "treatment of the masochistic character must combine an analytic, etiologic uncovering approach with a more surface conscious reconditioning one." The masochistic patient is described as one whose thoughts are obsessed with negative self-conceptions, who lives in the past or the future. He often feels ill physically and this may be self-induced by drinking and over work. His unhappiness is evidenced in his total demeanor. 2 types of masochistic character are distinguished: (a) oral, rage against the mother for deprivation of love, directed against the self; and (b) anal, rage against the punitive and restrictive mother, directed against the self. The secondary gain is described as the important difference between masochism and other neurotic symptoms which has made it into a character trait. Treatment involves an attack on the character defenses in order to reveal the rage underneath, and a concomitant training and encouragement of the patient to fight his masochistic thinking and behavior. Masochism is regarded as an addiction which can only be cured by the combination of analysis and reconditioning.—*S. Knapp*.

Drug Addiction

1445. Abrahams, M. J., Armstrong, J., & Whitlock, F. A. (U. Queensland, Brisbane, Australia) **Drug dependence in Brisbane.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(9), 397-404.—Examined the prevalence of drug-taking among 6 groups of individuals: medical and psychiatric inpatients and outpatients, medical and surgical inpatients and outpatients, patients attending a number of general practitioners' surgeries, and a group of healthy Ss attending a clinic for routine chest X-ray examination. About 500 people in each of 6 groups were interviewed and matched samples were drawn for intergroup comparison. A high prevalence of barbiturate

dependence and prevalence of amphetamine and narcotic dependence was found in all groups. A highly significant number of Ss in all groups showed varying degrees of dependence on common analgesic preparations. The most severely affected Ss were found in the 2 groups of psychiatric patients, who also had made attempts at suicide in the past. The small number of Ss who used analgesic drugs for purposes of suicide is noted. Greater care in the prescription of barbiturates and limits in the universal availability of common analgesic drugs are proposed.—*Journal abstract*.

1446. Whitlock, F. A. (U. Queensland, Brisbane, Australia) **The syndrome of barbiturate dependence.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(9), 391-396.—Compared 100 female patients suffering from severe barbiturate dependence with 100 female psychiatric patients matched for age, and, as far as possible, for personality and diagnosis. It was found that (a) the common symptoms and signs of barbiturate dependence are often misdiagnosed or overlooked, and (b) the etiology of the condition is complex, but appears to be based on a susceptible personality being subjected to a variety of stressful experiences. Multiple operations (particularly gynecological operations), psychiatric illness, and bereavement were noted in the dependent Ss. It is concluded that the ready availability of barbiturate prescriptions indicates clearly that barbiturate dependence is largely an iatrogenic disorder. It is suggested that all medical practitioners become more aware of the hazards of long-term barbiturate ingestion and the early signs and symptoms of dependence. *Journal abstract*.

Alcoholism

1447. Bergel'son, N. M. & Raikhinshtein, V. Kh. (Novosibirsk Medical Inst., USSR) **Kliniko-élektro-éntsefalograficheskie paralleli pri épileptiformnom sindrome, vyzvannom tyazheloï khronicheskom alkogol'noi intoksikatsiei.** [Clinico-electroencephalographic parallels in the epileptiform syndrome, produced by severe chronic alcoholic intoxication.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(May), Vol. 70(5), 731-736.—Reports results of clinical and EEG examinations of 40-25-55 yr. old chronic alcoholics with an epileptiform picture (36 in encephalopathic Stage II; 14 in Stage III with partial dementia) and a control group of 10 chronic alcoholics without such a picture. The data indicate that a distinct parallelism cannot be established between severity and form of the course of alcoholism, on the 1 hand, and, on the other, degree of changes in cerebral bioelectrical activity. Similarly, it is impossible to formulate clear-cut indices of EEG changes in 1 or another form of the epileptiform picture. However, in fully developed convulsive seizures, there is no doubt about (a) the existence of a cortical epileptogenic focus in the EEG in a considerable percentage of the cases, and (b) the presence of signs of especially severe intoxication: sharp reduction of amplitude of bio-potentials, gross disorganization of the basic rhythm, and the appearance of slow dysrhythmia. 3 types of changes in cerebral bioelectrical activity in alcoholism are distinguished and described. (English summary) (29 ref.)—*I. D. London*.

1448. Chernaenko, T. K. (Skvortsov-Stephanov Psychiatric Hosp. No. 3, Leningrad, USSR) **O sootnoshenii mekhanicheskogo i logicheskogo oposredovannogo**

zapominaniya u bol'nykh khronicheskim alkoholizmom II - III stadii i zdorovykh. [On the relationship of mechanical and logically mediated memorization in normals and chronic alcoholics in Stages II and III of alcoholism.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1349-1352.—Employed 61 chronic alcoholics and a control group of 30 normals (same age and educational level). For rote learning, 10 words were memorized; for meaningful learning, Luria's pictographic method was employed. No differences were detected in rote learning. A considerable decline in the capacity for meaningful, logically mediated memorization was observed in the alcoholics along with imprecision of reproduction. It is suggested that this is the result of not so much impairment of memory itself as a decline in all aspects of psychic activity (personality, set, attitude, selective attention, purposeful voluntary behavior). (English summary)—*I. D. London*.

1449. **Entin, G. M.** (Research Inst. of Psychiatry, Moscow, USSR) *Klinika i terapiya alkohol'nykh psikhovozov v pozhilom vozraste*. [Clinical picture and therapy of alcoholic psychoses in later years.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 743-750.—Presents an analysis of the various forms of alcoholic psychoses, and suggested treatment based on observations of 347 60-86 yr. old alcoholics, 204 of whom were suffering from alcoholic psychoses. The following alcoholic psychoses were distinguished: (a) alcoholic deliria and acute alcoholic hallucinosis, (b) delusional and hallucinatory-paranoid psychoses, and (c) vascular and somatogenic psychoses superimposed on chronic alcoholism. The clinical picture and special forms of therapy for each of these groups are described. (English summary)—*I. D. London*.

1450. **Fisk, Claire B.** (Boston U., Graduate School) *Psychological dependence, perceptual dependence and the establishment of a treatment relationship among male alcoholics*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2981.

1451. **Frolov, B. S.** (Kirov Military-Medical Academy, Leningrad, USSR) *O sindromologicheskoi strukture beloi goryachki*. [On the syndromic structure of delirium tremens.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 736-740.—Based on observations of 65 Ss with delirium tremens (DT), the structure and developmental features of its syndromes were studied as a function of gravity and duration of the psychosis. 3 stages of the course of delirium tremens are distinguished (initial, intermediate, terminal) along with 3 degrees of gravity for each stage (light, moderate, severe). The various syndromes, associated with each of the stages are described and analyzed. In Stage 1, withdrawal (dysphoric) syndrome; in Stage 2 syndrome of verbal hallucinosis, epileptiform reactions, delirious syndrome, hyperkinetic and musitating deliria, coma, oneirism; and in Stage 3 Korsakoff syndrome, residual delusion, residual hallucinosis, asthenic syndrome. (English summary)—*I. D. London*.

1452. **Libb, J. Wesley & Taulbee, Earl S.** (U. Alabama) *Psychotic-appearing MMPI profiles among alcoholics*. *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 101-102.—An MMPI test-retest procedure on 20 nonpsychotic alcoholics who initially appeared psychotic on the MMPI was utilized. Compared to a schizophrenic control, changes were evidenced in scales suggesting psychosis on a retest 21 days following evaluation. The results were interpreted as evidence for

delaying the testing until the alcoholic effects dissipate in recent excessive drinkers. —*E. J. Kronenberger*.

1453. **Moefes, S. M.** (Leningrad Psychoneurological Hosp. No. 2, USSR) *K voprosu ob alkohol'noi parafrenii*. [On alcoholic paraphrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 740-743.—Based on observations of 10 patients with alcoholic paraphrenia, an analysis of the structural features of this syndrome during the period of its formation is presented in order to understand the reasons for its extreme rarity in patients with alcoholic paranoid states. Only 2 groups of alcoholic paraphrenia are distinguished: (a) 1 characterized by the syndrome of mental (ideatory) automatism, and (b) 1 characterized by the syndrome of verbal hallucinosis. No delusional fantasizing was detected. (English summary)—*I. D. London*.

1454. **Smart, Reginald G. & Waller, Julian A.** (Alcoholism & Drug Addiction Research Foundation, Toronto, Ontario, Canada) *On alcoholics and their accidents*. *Journal of Safety Research*, 1969(Dec), Vol. 1(4), 170-178.—Presents an exchange between R. G. Smart and J. A. Waller on the accident rates of alcoholics when sober and the implications of further research in this area toward the development of effective countermeasures. Smart refers to the common assumption that the alcoholic's accidents result primarily from the heavy use of alcohol, and points out that the possibility that alcoholics may also have higher rates of accidents when sober has rarely been considered. 3 studies are cited containing data which suggest that the rates of sober accidents among alcoholics are far higher than expected. Waller's response, which questions the suggestion that the alcoholic's sober accident rate is greater than that of other groups of drivers, includes a discussion of the interaction of pharmacological and personality factors in the crash rates of alcoholic drivers and an estimate of their driving exposure while impaired by alcohol. A further response by Smart is included. —*Journal abstract*.

1455. **Von Forstmeier, Annemarie.** (United States International U., San Diego, Calif.) *The alcoholic's understanding of an existential theory of alcoholism*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2971.

Suicide

1456. **Brown, Timothy R.** (U. Oregon) *The judgment of suicide lethality: A comparison of judgmental models obtained under contrived versus natural conditions*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2978.

1457. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) *Suicide and sibling position*. *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 203-204.—Studies since 1966 "offer some support for the Adlerian hypothesis of greater frequency of suicidal behavior among first borns or last borns as compared to middle borns." (15 ref.)—*A. R. Howard*.

1458. **Lipmanov, R. G.** (Crimean Medical Inst., Simferopol, USSR) *Kliniko-statisticheskaya kharakteristika psikhicheskoi bol'nykh s suitsidal'nymi deistviyami*. [Clinico-statistical characteristics of the mentally ill displaying suicidal behavior.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1365-1368.—Presents a statistical study of mentally ill men and women (201 and 183, respectively), displaying

suicidal behavior (successful and unsuccessful). The highest rate of suicidal behavior was encountered in the 30-45 yr. age group. Sex differences were not significant. The ratio of successful to unsuccessful suicidal behavior is 1.4:1. The diagnostic breakdown was: schizophrenia (63.5%), involuntional psychoses (11.46%), alcoholic psychoses (9.9%), epilepsy (3.65%), vascular psychoses (3.13%), reactive psychoses (2.6%), and other groups (5.7%). The highest rate of suicidal attempts occurred in the 1st mo. following hospital discharge. The longer the lapse of time following discharge and the longer the duration of the mental disorder, the lower the rate of suicidal attempts. In the clinical picture the depressive or depressive-paranoid syndrome appeared as the common syndrome. (English summary)—*I. D. London.*

1459. Pelipas, V. E. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Nekotorye klinicheskie aspekty suitsidal'nykh tendentsii u psikhopaticheskikh lichnostei.** [Some clinical aspects of suicidal tendencies in psychopathic personalities.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970(Jun), Vol. 70(6), 914-919. — Presents an analysis and discussion, based on the materials of the Serbskii Institute of Forensic Psychiatry, Moscow, on their "forensicopsychiatric evaluations" of suicides, committed in 1956-1967, among psychopaths. (English summary)—*I. D. London.*

1460. Rosselli, Humberto. (Colombian Inst. of Nervous System, Bogotá) **Modalidades del suicidio en Colombia.** [Suicide's characteristics in Colombia.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 244-254. — Reports an analysis of 379 cases of suicide published in 14 Colombian newspapers from August 1967-July 1968. The main finding was that most suicides took place in the industrialized areas of the country with a higher incidence among young women. The reactions of the newspapers to the suicidal cases are also described; preventive aspects of suicide are discussed. (28 ref.)—*English summary.*

1461. Whitlock, F. A. & Broadhurst, A. D. (U. Queensland, Brisbane, Australia) **Attempted suicide and the experience of violence.** *Journal of Biosocial Science*, 1969(Oct), Vol. 1(4), 353-368. — Reviews some of the literature on the interrelationships between suicidal acts, accidents, surgical operations, and other forms of violent experience. It was postulated that persons making suicidal attempts would, more commonly than non-suicidal controls, have encountered violent experiences. To test this, 50 persons attempting suicide were compared with 50 non-suicidal psychiatric patients and with 50 healthy persons attending a chest clinic. Groups were matched for age, sex, and social class. Data from a questionnaire were recorded. Classes of violent experience were graded numerically on a basis of severity and degree of responsibility. It was found that suicidal Ss had significantly higher violence scores than either control group, a finding which remained significant when previous suicidal attempts were excluded from the score. (22 ref.)—*Journal summary.*

Crime

1462. Brodsky, Stanley L. (Southern Illinois U.) **The prisoner as agent of attitude change: A study of prison profiles' effects.** *British Journal of Criminology*, 1970(Jul), Vol. 10(3), 280-285. — Investigated 1 of the often-cited goals of the prisoner-speakers programs, i.e., if youth attitudes toward the punishment of criminals

and attitudes toward prisons were modified as a result of being exposed to the programs. The issue of prison profiles as a deterrent to criminal behavior was not tested. An appropriate testing of this issue would require the use of experimental groups exposed to the prison profiles and control groups, as well as follow-ups and establishment of criteria of criminality. For the present study only a small sample of behavior, i.e., attitudes, was studied, and this under some relatively limited conditions. There were other factors present, such as being in the prison itself, being part of a tour, and, in the case of the students, being part of a class. It is suggested that the present study represents a first step towards quantifying the effects of this widely spreading phenomenon of prisoner-speaking groups. Considerably more research is needed to understand behavioral as well as attitudinal change in different audiences and in varying kinds of presentations.—*Journal summary.*

1463. Chaplin, James P. (St. Michael's Coll.) **The presidential assassins: A confirmation of Adlerian theory.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 205-212. — Reviews the common characteristics of 9 persons who assassinated or attempted to assassinate United States' Presidents and finds confirmation for Adlerian theory.—*A. R. Howard.*

1464. Cohn, Rebecca R. (U. Oklahoma) **The Tennessee Self Concept Scale as a differentiator of delinquent female subgroups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2979.

1465. Hoghugh, M. S. & Forrest, A. R. (Aycliffe School, Darlington, Scotland) **Eysenck's theory of criminality.** *British Journal of Criminology*, 1970(Jul), Vol. 10(3), 240-254. — Attempts to present new evidence which bears on the validity and usefulness of Eysenck's theory applied to persistent young offenders. In the process, certain methodological aspects of testing Eysenck's theory were also touched on. The studies provide several points for discussion. The results consistently suggest that, contrary to prediction from Eysenck's theory, persistent young offenders are significantly more introverted than the normative samples or selected control groups. Furthermore, extroversion, as measured by these tests, appears to be a poor correlate of difficult behavior which is unresponsive to the normal reward and punishment strategies used for ensuring acceptable behavior in residential settings. It is concluded that according to the normal criteria for acceptance of a theory to which Eysenck also subscribes, his theory of criminality has been "falsified." Doubts may be raised regarding the samples, the tests, and the methods of analysis.—*Journal summary.*

1466. Mattocks, Arthur L. & Spencer, Verlin. (California Medical Facility, Vacaville) **A correlational study of the dependency-proneness of prison inmates and membership in social clubs.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 48-50. — Prison inmates who belonged to inmate clubs tended to have a greater degree of dependency-proneness than non-members. The nature of the club contributed to dependency-proneness of its members. A more supportive club attracted more members than a competitive activity-oriented one.—*E. J. Kronenberger.*

1467. Plummer, Jack M. (Texas Tech U.) **A comparison of successful and unsuccessful vocational rehabilitation clients from a reformatory population.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2964-2965.

1468. Soltz, William H. (U. Missouri, Columbia) **Comparative study of Negro-white differences on the MMPI and PAS.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3009.

1469. Warder, John; Presley, Allan S., & Kirk, Joan. (Royal Edinburgh Hosp., Scotland) **Intelligence and literacy in prison and hospital populations.** *British Journal of Criminology*, 1970(Jul), Vol. 10(3), 286-287.—Evidence is presented in the form of Progressive Matrices and Mill Hill Vocabulary scores which indicates a significantly lower level of literacy or reading ability in a prison population than in a psychiatric hospital population which is comparable in terms of intelligence. It is suggested that low literate forms of verbal tests should be used in studies of prisoners.—R. Gunter.

Juvenile Delinquency

1470. Bruce, Nigel. (U. Edinburgh, Scotland) **Delinquent and non-delinquent reactions to parental deprivation.** *British Journal of Criminology*, 1970(Jul), Vol. 10(3), 270-276.—The valuable evidence collected helps to confirm what so many caseworkers believe on the basis of experience, that delinquency is rooted in the general pathology of the family. Criminological research has in the past had an inadequate supply of reliable information about relationships within families in the population at large. In the last 20 yr., however, population surveys which contain more personal detail than the National Census have become more feasible and their value has been better appreciated. The little-studied field of the deprived child who does not turn delinquent was examined in a recent small-scale research in Eastern Scotland. The delinquent sample consisted of 36 boys and 14 girls in local approved schools who had at some time been in the care of local authorities for periods of time totaling more than 6 mo. The delinquent sample was the total of those children who satisfied the criteria in 6 approved schools in Eastern Scotland. The comparison group was selected at random up to an equal number. 11 random selections had to be rejected: 6 were untraceable, 1 declined to cooperate, 2 had been committed to approved schools, and 2 had been accepted so totally into the extended family at such an early age that the separation experience was not likely to have been traumatic. A further 11 were selected randomly to replace them, using the same criteria.—*Journal summary.*

1471. Cowden, James E., Schroeder, Charles R., & Peterson, William M. (Wisconsin Dept. of Health & Social Services, Madison) **The CPI vs. the 16 PF at a reception center for delinquent boys.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 109-111.—Compared the results of the CPI and the 16 PF in terms of their ability to classify boys within a juvenile correctional institution into subgroups differing in adjustment. Although the CPI was noted as the superior instrument, the 16 PF had some advantages over the CPI as a large-scale screening device.—E. J. Kronenberger.

1472. Gibson, H. B. (Polytechnic, Hatfield, England) **The factorial structure of juvenile delinquency: A study of self-reported acts.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 1-9.—An individually administered test of self-reported delinquency was given to 402 14-15 yr. old boys, following pilot work published earlier. Results were analyzed factorially and related to a measure of social handicap

on which the Ss were rated previously, and to the Ss' records of criminal conviction. A large general factor of delinquency and several specific factors were found. The general factor was related to social handicap and criminal conviction, but the specific factors showed differences in their relations to these 2 social variables. 2nd-order factors were also extracted and the 1st 2 generated a hypothesis concerning the interaction of handicap and conviction which was tested empirically on the data. (16 ref.)—*Journal abstract.*

1473. LaFon, Dorothy N. & Rousey, Clyde L. (Wailuku Health Center, Maui, Hawaii) **Residues of early father-child conflict.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 366-370.—Studied 80 9-18 yr. old delinquent boys, to determine if the presence of the substitution of the "f" sound as in "feet" for the voiceless "th" sound as in such words as "both," "bathtub," or "thanks" was related to disturbances in paternal-child relationships. Ss were given the Templin-Darley Test of Articulation. Analysis of the data supports the view that such a relationship is probable.—*Journal abstract.*

1474. O'Keefe, Edward J. (Fordham U.) **Impulsivity and its relationship to risk taking.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3000.

1475. Romano, Robert J. (Boston U., School of Education) **Counseling outcomes related to family background of delinquent male adolescents.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3004-3005.

1476. Smith, Nathaniel C. (Ohio State U.) **A comparison of short-form estimation methods in the WISC in juvenile public offenders.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 77-79.—WISC protocols were rescored with 5 short form-estimation methods. The data analysis revealed: (a) there were significant differences between the short form and Full Scale IQs in the estimation methods; (b) 3 significant sex differences in short form IQs; (c) validity coefficients in the high 80s and low 90s with no sex differences; (d) a great majority of the Ss were placed within 1 Wechsler classification of their Full Scale IQ by the short forms; (e) significant differences for both sexes in mean IQ discrepancy scores for the various estimation methods; and (f) when 4 or more subtests were employed, 75% of the cases fell within ± 10 IQ points of their Full Scale IQ. It is suggested that potential users of WISC short forms determine which method is most appropriate for their population.—E. J. Kronenberger.

Homosexuality & Sexual Deviation

1477. Hoffman, Martin. (Health Dept., Center for Special Problems, San Francisco, Calif.) **Homosexual.** *Psychology Today*, 1969(Jul), Vol. 3(2), 43-45, 70.—Male homosexuals are not necessarily ill and many studies have shown that psychiatrists cannot differentiate them from heterosexuals using life history and psychometric data. There are, however, some connections between homosexuality and psychopathology. The psychological disorders are related to reaction formation, incorporative wishes toward the male, and the shallowness of the relationships. Sociological pressures are actually more serious than the psychological disorders. The general hostility toward homosexuals forces them to accept the stigma and to adopt desperate, self-condemnatory attitudes.—E. J. Posavac.

3(1), 13-17.—Argues against the position of T. S. Szasz that the concept of mental illness is a myth. While certain points made in Szasz' book are considered to have value, e.g., the desire to end sentimentality and stiffen demands on the patient for honesty and improvement, the idea that all human activity is composed of games is not. Psychosis, delusions, and panic terror are considered as forms of mental illness which cannot be thought of as games. "Something evidently is very much the matter with the patient even if 'mental illness' is a myth."—S. Knapp.

1483. Degand, J. (Catholic U., Louvain, Belgium) Les fondements théoriques du non-directivisme rogerien dans ses rapports avec la psychologie pathologique. [Theoretical foundation of the Rogerian nondirectivism in its relations to pathological psychology.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970 (Jun), Vol. 19(2), 63-78. Basing arguments on the conceptions of C. R. Rogers' adaption-inadaption theory, and quoting liberally from the work of Rogers, the reality behavior of normal people is compared with the individual capacities in pathological patients, especially the capacities of conscious recognition and or reorganization notions. It is argued that, in mental diagnostics, the psychologist should not adapt a nosological viewpoint. In serious psychological situations of abandonment and paranoia, an indirect approach is recommended. This approach would maintain a prolonged contact with the patient and make it possible to introduce some modifications of perception, indicative of a certain capacity of the patient, which is generally denied to exist in such cases. (English summary) (24 ref.)—P. von Taal.

ref.)—P. von ¹⁰aal.

1484. Frighi, Luigi. **Approccio terapeutico multi-professionale alle problematiche dello studente universitario pseudoneurotico.** [Multiprofessional therapeutic approach to the problems of the pseudoneurotic university student.] *Rivista di Psichiatria*, 1969(Sep). Vol. 4(5), 373-376. Organized a psychopedagogical-social team to cope with the problems of borderline university students. During 5 yr., 8000 students were observed, a high percentage of whom had psychic disturbances. The psychopathological gamma extended from light personality disturbances (hyperemotion, anxiety) to the more serious schizophrenic psychosis. 50% of the Ss classified as psychotic were considered borderline averaging 20 yr. Intellectual inhibition was a frequent symptom at the beginning of a psychosis (difficulty of attention and concentration); in borderlines this inhibition is constant or occurs at exam time, etc. Where forced intellectualization was a defense against the "psychotic invasion" its sudden cessation represents the "imminent catastrophe on the fragile ego." Rarely, however, does this inhibition reach the aspects of pseudoweakness, as can occur in the evolutive forms of the schizophrenia. In order to reach a pedagogical balance, the students were given the help of professionals: (a) student assistants guided by psychiatrists and psychologists, and (b) social assistants who were helpful in making the parents aware of the student's illness. —A. M. Farfaglia.

1485. Frighi, Luigi & Ligi, Antonio. **Problemi sessuali degli studenti universitari pseudoneurotici: Confronto con altre categorie diagnostiche.** [Sexual problems of pseudoneurotic university students. Comparison with other diagnostic categories.] *Rivista di Psichiatria*, 1969(Sep). Vol. 4(5), 377-380. In the course of a study on sexual problems of university students, 43

1485. **Frighi, Luigi & Ligi, Antonio.** Problemi sessuali degli studenti universitari pseudoneurotici. Confronto con altre categorie diagnostiche. [Sexual problems of pseudoneurotic university students. Comparison with other diagnostic categories] *Rivista di Psichiatria*, 1969(Sep), Vol 4(5), 377-380. In the course of a study on sexual problems of university students, 43

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1482. **Brand, Millen.** Is mental illness a myth?
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clinical records of borderline students were examined. 23 (53.5%) had sexual problems. Sexual disturbances were divided into 3 categories according to the degree of severity: minor, average, and serious. 13.1% of the entire student population had sexual problems. There was a greater incidence of sexual disturbances in the borderlines compared to the entire student population. In the borderline Ss 26.3% had minor sexual disturbances; 30.4%, average; and 43.5%, serious. In the student population, 38.3% had light disturbances; 51.6%, average; and 10.6%, serious. Thus, serious sexual disturbances are more common in borderlines. The chaotic organization of the sexual characteristic of these borderline Ss is associated with a detached sadistic and sadomasochistic behavior. Among secondary symptoms of the borderline schizophrenics are pananxiety, panneurosis, and pansexuality. Borderlines are generally indifferent about their sexual problems.—A. M. Farfaglia.

1486. Giberti, Franco & Rossi, Romolo. **Profilo clinico e dinamico delle sindromi pseudoneurotiche.** [Clinical and dynamic profile of pseudoneurotic (borderline) syndromes.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 341-349.—Studied the term "borderline" which can be equivocal with repercussions on a therapeutic level, especially when used to replace diagnostic uncertainty. On a clinical level "borderline" involves many neurotic aspects which are mixed together chaotically and which form a neurotic syndrome that is polymorphous in nature. It is an uncomfortable combination of psychotic, neurotic, and characteral disturbances with many elements of normality and good health. A general borderline syndrome is characterized by 4 elements: anger, lack of affection in relationships, lack of self-identity, and depressive isolation. In this light, 4 groups can be identified: (a) psychotic border, (b) central borderline group (anxiety, anger, solitude, depression), (c) individuals who lack affection, and (d) neurotic border. A common dynamic component in "borderline" is the presence of neurotic structures and mechanisms with a weak, immature, archaic ego underneath. (41 ref.)—A. M. Farfaglia.

1487. Goldberg, D. P. & Blackwell, B. (Inst. of Psychiatry, General Practice Research Unit, London, England) **Psychiatric illness in general practice: A detailed study using a new method of case identification.** *British Medical Journal*, 1970(May), Vol. 2(5707), 439-443.—Gave a self-administered questionnaire, the General Health Questionnaire, aimed at detecting current psychiatric disturbance to 553 consecutive attenders to a general practitioner's surgery. A sample of 200 of these patients was given an independent assessment of their mental state by a psychiatrist using a standardized psychiatric interview. The "conspicuous psychiatric morbidity" of a suburban general practice assessed by a general practitioner who was himself a psychiatrist and validated against independent psychiatric assessment was found to be 20%. "Hidden psychiatric morbidity" was found to account for 1/3 of all disturbed patients. When 87 patients who had been assessed as psychiatric cases at the index consultation were followed up 6 mo. later, 2/3 of them were functioning in the normal range. Frequency of attendance at the surgery in the 6 mo. following index consultation was found to have only a modest relationship to severity of psychiatric disturbance. It is argued that minor affective illnesses often accompany

physical complaints and usually have a good prognosis. (25 ref.)—*Journal abstract.*

1488. Holland, Jimmie; Masling, Joseph, & Copley, Donald. (State U. New York, Buffalo) **Mental illness in lower class normal, obese and hyperobese women.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 351-357.—48 white women who were attending medical clinics for reasons other than obesity or psychiatric illness were interviewed for 2 hr., using Spitzer's Mental Status Schedule and a specialized medical history. The patients were then divided into 3 groups according to weight (normal, obese, and hyperobese). Results showed no significant differences in psychiatric disturbance among the 3 groups. Data based on specialized medical history showed that obese groups could be distinguished from the normal group by their eating when anxious, depressed, and not hungry, having a higher preferred weight, being more often head of household, delivering a child with birth weight over 9 lb., and reporting a husband underweight. (22 ref.)—W. G. Shipman.

1489. Mayo, Clara; Havelock, Ronald G., & Simpson, Diane L. (Boston U.) **Attitudes toward mental illness among psychiatric patients and their wives.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 128-132.—Compared the attitudes of wives with those of husband-patients and staff for general authoritarianism, authoritarian mental health attitudes, and antipsychological view of patient's illness. Results suggest that husband and wife held similar positions within a general attitude domain of authoritarianism. Wives were more similar to staff in attitudes toward mental illness, rated themselves higher than patients on a semantic differential scale, and generally shared the patient's physical as opposed to psychological orientation toward symptoms, causes, and treatment.—E. J. Kronenberger.

1490. Plotnik, Michaelene, M. (U. Florida) **An evaluation of the role of social competence in self-image disparity.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3003.

1491. Prats Homs, J. (U. Barcelona, Hosp. Clinic, Spain) **Acción de los psicofarmacos sobre la percepción taquistoscópica.** [Activity of psychopharmacology on tachistoscopic perception.] *Anuario de Psicología*, 1969, Vol. 1, 15-24.—Tested tachistoscopic perception in 48 Ss with nervous hypertension (high level of functioning), 20 Ss with melancholia (low level of functioning), and 10 normal controls. Ss were tested under the influence of (a) sedatives—chlordiazepoxide (librium), luminal, and oxazepam; and stimulants—amphetamine (benzedrine), dimethylimipramine, and pemoline. Tachistoscopic perception improved for the hypertension Ss on sedatives and for the depressive Ss on stimulants. Normal Ss followed the pattern of the depressives, but to a much less degree of intensity, i.e., tachistoscopic perception was augmented by stimulants and decreased by sedatives.—P. Hertzberg.

1492. Puoti, Mario M. **Definizione di "stati borderline" e cultura.** [Definition of borderline states and culture.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 388-391.—In psychology the term "borderline" is the boundary between normality and intellectual deficiency; in psychiatry, it is the boundary between normality and pathology, or between neurosis and psychosis; in sociology, it is the boundary between normality and dissociation. It is used in all situations when a boundary must be established between 2 states characterized by elements present in both states. In some writings it is

used freely to express a failure of behavioral realization; in other writings it indicates a very precise phenomenon and denotes psychopathological types which are difficult to categorize. It is studied as the clinical entity as a boundary (a) with the norm, (b) with neurosis, (c) with psychogenic psychosis, and (d) with psychopathology. The relationship between this psychopathological phenomenon and cultural structure is also studied.—A. M. Farfaglia.

1493. Saavedra, Victor. (Santa Clara Clinic, Lima, Perú) **El desarrollo histérico y su posibilidad nosográfica.** [Hysterical development and the possibility of its disease classification.] *Revista de Neuro-Psiquiatría*, 1970(Mar), Vol. 33(1), 45-52.—Examines the pathogenesis of the development of a hysterical personality. Theories of a defective ego (involving a "forgotten ego") and of an over-abundant ego are discussed in relation to the hysterical personality. Case histories of a 22-yr-old female and a 37-yr-old male, respectively, diagnosed as hysterical-hypochondriacal and hysterical, support the theory of a defective ego development, hyperemphilia, which considers that there is an affective basis for the development of hysterical personality. —P. Hertzberg.

1494. Shternberg, E. Ya. & Rokhlina, M. L. (USSR Academy of Medical Sciences, Inst. of Psychiatry, Moscow) **Nekotorye obshchie klinicheskie osobennosti depressii pozdnego vozrasta.** [Some general clinical features of depressions in later years.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1356-1364.—Presents results of 4-yr observations of 205 men and women over 50 yr. old, suffering from different depressive states, with $\frac{2}{3}$ experiencing morbid depression for the 1st time subsequent to their 50th yr. In most cases the diagnosis was late endogenous depression. 7 types of depressive syndromes were distinguished, typical for the various periods of later life. Correlations are presented between (a) features marking the symptomatology of the late depressions; and (b) nosological diagnosis, age at onset of the depression, and the form of its development. 3 types of development were distinguished: circular, periodic, and single depressions. Prognoses for late depressions were relatively unfavorable; almost $\frac{1}{2}$ displayed residual effects and 18% of the cases assumed a chronic course. (English summary) (31 ref.)—I. D. London.

1495. Stein, Eugene. (U. Minnesota) **Ego-resiliency, ego-control, and risk taking in psychiatric patients.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3010.

1496. Weckowicz, T. E., Cropley, A. J., & Muir, W. (U. Alberta, Edmonton, Canada) **An attempt to replicate the results of a factor analytic study in depressed patients.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 30-31.—Hamilton's procedure of factor analysis of the scores on a rating scale of depressed symptoms was replicated using 52 depressed depressed patients. The obtained result, when compared with Hamilton's data, indicated very little similarity. "It is to be hoped that future studies may establish an invariance of factors in depression obtained on a broader basis of measures and bigger samples of Ss than those used in Hamilton's original study." —E. J. Kronenberger.

1497. Weinberg, H., Walter, W. Grey, & Crow, H. J. (Simon Fraser U., Vancouver, British Columbia, Canada) **Intracerebral events in humans related to real and imaginary stimuli.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 1-9.—Re-

cordings were made from gold intracerebral electrodes in orbital and cingulate cortex and subdural electrodes on superior frontal cortex in 5 patients under treatment for chronic obsessional and anxiety disorders. Ss were instructed to guess whether or not they would receive a stimulus in the form of a flash, click, or electric shock to the finger. They were told to move a lever to the right when they expected a stimulus and to the left when they did not. A reward was offered for every 3 successive correct guesses. Sets of averages of 8 trials each were collected in 4 conditions: expectation-occurrence, expectation-nonoccurrence, no expectation-occurrence, no expectation-nonoccurrence. Averages were also taken of responses to random stimuli and of intrinsic activity when the lever was moved without guessing or stimuli. Clear cerebral events, termed "emitted potentials," were observed when stimuli were expected but did not occur. The emitted potentials resembled those evoked when real stimuli were presented on switch closure, suggesting that they may reflect memory processes corresponding to the perception of real events. In some experiments the latency of the emitted potentials was significantly shorter than that of responses evoked by real random stimuli, suggesting a rise in cortical excitability with expectancy. A positive deflection peaking at about 300 msec often appeared following switch closure, particularly with expectancy, and a negative variation usually preceded and accompanied this action. (French summary) *Journal summary*.

Neurosis & Emotional Disorder

1498. Altamirano, Guillermo; Berdicewski, Olga; Gomberoff, Mario, & Nazul, Ramsa. (Chile Santiago) **Influencia de la interacción padres-niños en la neurosis infantil: Alimentación.** [Influence of parents-children interaction in child neurosis: Feeding.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 221-233.—Studied maternal attitude during nursing and rearing by interviewing the mothers of 20 neurotic children and 20 normal children. Differences between the 2 groups were observed with respect to the mother's attitude toward the various aspects of feeding. Mothers of neurotic children demonstrated greater anxiety during breastfeeding, were more severe during weaning, and stricter in the handling of feeding problems. When infants, neurotic children tended to be more avid and restless while sucking, to react more strongly to weaning, and to present greater feeding problems. In actual feeding methods as such, no differences were observed between the 2 groups of mothers. (16 ref.) —English summary.

1499. Bourne, Peter G. **Psychological aspects of combat.** In H. S. Abram (Ed.), "Psychological aspects of stress." (See PA, Vol. 46 Issue 1) 70-85.

1500. Egeland, Byron & Halperin, Silas. (Syracuse U.) **A factor analysis of the elementary level of the California Test of Personality.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 105-108.—The California Test of Personality (CTP) was administered to 60 acting-out 5th grade boys. 2 interpretable factors emerged from a correlation matrix and factor analysis: self-esteem and feelings of competence, and social conformity. Since these 2 factors underlie the 12 scale scores, it is suggested that the use of all 12 scale scores is

unnecessary and that the 2 factor scores could replace the 12 scale scores. The total adjustment score was noted as being unjustified.—*E. J. Kronenberger.*

1501. **Girich, Ya. P.** (2nd Moscow Medical Inst., USSR) **Ob osobennostyakh sindroma psikhogennoi depressii u detei.** [On features characterizing the syndrome of psychogenic depression in children.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1548-1552.—Observed 84 5-17 yr. old children and adolescents in a study of psychogenic depression at the height of its development. 23 of these children were further subjected to a study of the dynamics of the depressive syndrome. Along with observational data, archival materials with anamnestic supplementation were also employed. Typical depressive states are rarely encountered in children. In their case the depressive syndrome is short-lived and its clinical symptoms attenuated and rudimentary. The younger the child is and the more predisposing factors there are (somatic failings, incorrect training, etc.), the more rudimentary the depressive syndrome and the more polymorphous the clinical picture, which consists of neurotic and pathocharacterological disorders. Psychogenic disorders in children exhibit the same dynamics as in adults: the depressive syndrome is replaced by an asthenoneurotic syndrome and then by characterological disturbances. In a number of cases, actual depressive disorders are little expressed and thus are often overlooked, with chief attention directed to the more striking neurotic and pathocharacterological disorders. (English summary)—*I. D. London.*

1502. **Kuznetsov, O. N.** **Klaustrosenoskopofobiya kak model' formirovaniya sindroma navyazchivyykh sostoyaniy.** [Claustrophobia as a model for formation of the syndrome of obsessive states.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 551-556.—Describes an obsessive state (fear of continuous observation under conditions of confined solitude, open to "public view"), arising as a result of prolonged isolation in a soundproof chamber with a viewing window, for which the name claustrophobia is proposed. Its physiological, psychological, and social-psychological aspects are discussed. The emerging psychological state may be viewed as a model for the obsessive syndrome, resulting from a "clash of opposite tendencies, the disturbance of elaborated [conditioned] stereotypes, informational deficiency, and inadequate interpersonal relations." A phenomenological similarity with paranoid tendency and mental automatism appeared. (English summary) (33 ref.)—*I. D. London.*

1503. **Milner, A. D., Beech, H. R., & Walker, V. J.** (U. St. Andrews, Scotland) **Decision processes and obsessional behaviour.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 88-89.—Describes an exploratory investigation of 6 Ss with obsessional symptoms and 8 controls. All Ss suffered from depression and were required to detect faint auditory tone signals in white noise under 2 conditions: (a) 50 presentations, and (b) 100 presentations where trials were repeated upon request. It was found that the obsessional Ss made a significantly higher demand for repeated trials. It is hypothesized that in obsessional disorder, decisions may be deferred to an abnormal extent.—*P. Hertzberg.*

1504. **Peña y Lillo, Sergio.** (Chile U., Psychiatric Clinic, Santiago) **Definición condicional del síntoma fóbico neurótico.** [Conditional definition of phobic

neurotic syndrome.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 261-264.—Proposes a model to account for the phobic syndrome based upon reflexology and learning theory. Such a model includes the classic phobic symptoms plus "phobic mechanisms" usually present in several neurotic constellations: any fear or symptom potentially linked to anxiety should be considered as a phobic mechanism if the following characteristics are present: (a) systematic appearance in front of a given stimulus which is not to be feared by a patient within his culture, (b) fear and anxiety while expecting the stimulus to appear with the corresponding tendency to avoid the feared situation, (c) emergence of a gradient of similar feared situations, and (d) a generalization system develops whereby similar new stimuli may trigger phobic symptoms. (17 ref.)—*English summary.*

1505. **Roth, Martin & Myers, D. H.** (U. Newcastle upon Tyne, England) **Anxiety neuroses and phobic states: II. Diagnosis and management.** *British Medical Journal*, 1969(Mar), Vol. 1(5643), 559-562.—Discusses diagnostic treatment and management problems of anxiety neurosis with an emphasis on the dual involvement of mental life and body function. The need for careful differential diagnosis is stressed. Personalities likely to be vulnerable to neurotic anxiety are identified. Brief supportive psychotherapy is preferred to more intensive approaches in family practice. Drug treatment is seen as complementary but not as an alternative to psychotherapy. Social rehabilitation is felt to be important in cases of severe chronic anxiety states.—*I. Halev.*

1506. **Scott, W. Clifford.** **Les rôles défensifs réciproques de la dépression et de la manie.** [The mutually defensive roles of depression and mania.] *Interprétation*, 1968(Oct), Vol. 2(4), 95-107.—Discusses the conscious and unconscious interactions of depression and mania, stressing that "1 cause of chronicity in depression is its use as a defense against progression to mania, a mechanism which can be compared with fixation as a regressive defense against progression." Progression from depression to mania, conversely, is partly a defense against continuing to be depressed, in order to mourn well (progressive ego-dystonic defense), and partly a giving up of the defensive aspect of the persistence of depression.—*T. N. Webster.*

1507. **Trallero, Jose T.** (U. Barcelona, Hosp. Clinic, Spain) **Psicofisiología de la enuresis.** [Psychophysiology of enuresis.] *Anuario de Psicología*, 1969, Vol. 1, 117-125.—Presents an etiological pathogenic explanation for enuresis, and a related therapy. 23 6-25 yr. old enuretics were equipped with an electronic device which caused a bell to sound when they began to urinate. This enabled the Ss to wake and gain voluntary control of their sphincters. Within 30 days of treatment, all Ss were cured of enuresis. Success was attributed to treating the neurological basis of enuresis, rather than its psychogenic character. (16 ref.)—*P. Hertzberg.*

1508. **Trifonov, O. A.** (Central Inst. for Advanced Medical Training, Moscow, USSR) **Klinicheskaya dinamika patokharakterologicheskogo razvitiya lichnosti afektivnovozbudimogo tipa u detei i podrostkov.** [Clinical dynamics of pathocharacterological development of an emotionally excitable personality type in children and adolescents.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1552-1556.—Presents a catamnestic study (up to 10 yr.) of 85 children and adolescents (now 12-24 yr. of age), involving an analysis

of variants of situationally caused pathocharacterological development of the emotionally excitable personality. Psychogenic factors, age, and the characteristics of the "soil," out of which such variants emerge were considered. Criteria for delimitation from "nuclear" and organic psychopathies are presented. (English summary)—*I. D. London.*

1509. Zhukovskaya, N. S. (Central Inst. for Advanced Medical Training, Moscow, USSR) **Klinicheskaya dinamika reaktivnykh sostoyaniy v forme sindroma strakha u detey i podrostkov.** [Clinical dynamics of reactive states in the form of a fear syndrome in children and adolescents.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Oct), Vol. 70(10), 1544-1548.—Observed 51 3-15 yr. old children with "reactive fears" (RF) in order to (a) study RF both in its dynamics and as a function of age in the various stages of the reactive state (RS), (b) determine more exactly the influence of traumatic factors and of premorbid personality traits on the formation and retrograde development of RF, and (c) elucidate the interrelationship of RF with other RS symptoms. 2 variants of RS development with a fear syndrome were discerned: favorable—uniform RF throughout the course of the RS; and less favorable—RF associated with asthenic, hypochondriac, and psychopathiform disturbances. It is shown that, in the genesis of RSs with RF and their transition into protracted conditions, premorbid personality traits, noxious factors in early childhood, age, and other factors play a great role. (English summary)—*I. D. London.*

Psychosis

1510. Agishev, V. G. (Medical Inst. of Sanitation & Hygiene, Leningrad, USSR) **K dinamike izmeneniy belkov syvorotki krovi pri nekotorykh infektsionnykh psikhozakh.** [On the dynamics of blood serum proteins in some infectious psychoses.] *Zhurnal Nevropatologii i Psikhiiatrii*(Sep), Vol. 70(9), 1343-1348.—Presents the results of a study of 106 patients (15-over 40 yr. old) with acute infectious psychoses (postpuerperal, rheumatic, purulently focal). In most cases, dysproteinemia was disclosed. During the acute phase an increase was noted in the levels of the haptoglobulins, ceruloplasmin, sialic acid, and α -globulins in the blood serum. During the course of the psychosis, these indices underwent definite changes in the direction of normalization, while not quite attaining the values indicative of clinical recovery. In cases of recidivism of the psychosis, an increase occurred in most of the biochemical indices. (English summary) (30 ref.)—*I. D. London.*

1511. Belen'kaya, N. Ya. (Central Inst. for Advanced Medical Training, Moscow, USSR) **Zagruzhenost' i ee otnoшение k yavleniyam rasteryannosti.** [Overburdening and its relation to confusional effects.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(May), Vol. 70(5), 727-731.—Presents an analysis of "overburdening" as "repletion of consciousness with intense morbid experiences," subsequent to the "affect of bewilderment" in which constitutes the essence of the confusional state in acute psychosis. The confusional state and acute psychosis are both integral to the syndromes of overburdening and it is in them that the various acute psychoses, and it is in them that the various manifestations of changes in self-consciousness (depression, delusion, hallucination, etc.) are revealed in the

course of acute development of disordered mental activity. 3 illustrative cases are presented. (English summary)—*I. D. London.*

1512. Felinskaya, N. I. & Immerman, K. L. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Tipy techniya i iskhodov psikhogennoi depressii.** [Types of course and outcomes of psychogenic depression.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Apr), Vol. 70(4), 564-569. Discusses 3 main syndromes of psychogenic depression encountered among the reactive psychoses in forensic psychiatric practice: depressive-paranoid, astheno-depressive, and depressive-hysterical. (English summary) (24 ref.)—*I. D. London.*

1513. Hamlin, Roy M. (Veterans Administration Hosp., Danville, Ill.) **Intellectual function 14 years after frontal lobe surgery.** *Cortex*, 1970(Sep), Vol. 6(3), 299-307.—Compared preoperative measures of intelligence with retests 8 and 14 yr. after frontal lobe surgery. All Ss were chronic psychotics at the time of the first tests. The long-term retests are reported for 33 nonoperated controls, for 16 patients with lower frontal lobe surgery (orbital topectomy), and for 18 patients with upper frontal lobe surgery (superior topectomy). Previous research showed that both groups of operated patients scored lower on intelligence tests shortly after surgery than they did before. The objectives of the long-term retests concerned: the permanence of changes, and the differential effects of lower and upper forebrain surgery. The lower forebrain patients obtained long-term scores remarkably comparable to those of the nonoperated controls. The superior topectomy patients showed significant loss 8 yr. after surgery, and this loss persisted 14 yr. after surgery. The loss was both permanent and appreciable, equivalent to some 10 points in IQ. Verbal and numerical tests reflected the permanent loss more clearly than perceptual and construction tests. The loss associated with upper frontal lobe surgery involved sustained attention, problem solving, and other intellectual functions. *R. Gunter*

1514. Jilek, Wolfgang G. & Jilek-Aull, Louise. (3 Gore Ave., Chiltwaick, British Columbia, Canada) **Transient psychoses in Africans.** *Psychiatry (Chica)*, 1970, Vol. 3(6), 337-364. A review of the literature reveals the paramount importance for African psychiatry of transient psychotic states of short duration and good prognosis, developing in close correlation with trauma. Definition of their nosological status is attempted. Special consideration is given to the concept of bouffee délirante and related syndromes; also to hysterical and schizophreniform psychoses. Organic and sociocultural aspects of etiology are evaluated. The question of racial and ecological determinants is examined and compared with historical and contemporary reports from the European scene. The phenomenon of transient psychosis is not specific to any area or ethnic group but more prevalent in tradition-directed cultures of preindustrial societies; exacerbation under conditions of acculturative stress is evidenced. Hypothetical explanations are offered for the fact that the phenomenon is less conspicuous in contemporary Western societies. (5 p. ref.) *Journal summary.*

1515. Khaletskii, A. M. (Astrakhan Medical Inst., USSR) **O smene sindromov v techenii periodicheskikh psikhozov.** [On change in syndromes in the course of periodic psychoses.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Apr), Vol. 70(4), 556-560. Discusses intermediate forms of schizophrenia and manic-depressive psychosis

following a periodic course, in which in the same person a considerable change in syndromes is observed, i.e., previous signs of schizophrenia give way to signs of manic-depressive psychosis and vice versa. This change may be connected with the intensity of the pathological process, but should not be taken as evidence of the essential unity of the 2 psychoses which continue to be distinguished by important differences. (English summary)—*I. D. London.*

1516. Makeev, G. A. (Karagandin Medical Inst., USSR) **O nekotorykh storonakh izucheniya immunologicheskoi reaktivnosti u bol'nykh shizofreniei i drugimi nervno-psikhicheskimi zabolevaniyami.** [On some aspects in the study of immunological reactivity in schizophrenia and other neuropsychic illnesses.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 891-896.—110 15-44 yr. old schizophrenics (paranoid, nuclear, and periodic forms of the psychosis) were subjected to tests of nonspecific immunity (properdin, complement, phagocytosis), the autoimmune processes (Coomb's reaction), and skin-allergies (bacterial allergens). Serving as controls were normals, patients with psychogenic psychoses ("neuroses, reactive psychoses"), and patients with psychoses of residual organic origin. It was shown that immunological shifts in schizophrenia correlate with clinical symptoms to a greater degree and, above all, with the type of its course. (English summary) (35 ref.).—*I. D. London.*

1517. Meyer, Mortimer M. & Ekstein, Rudolf. **The psychotic pursuit of reality.** *Journal of Contemporary Psychotherapy*, 1970(Sum), Vol. 3(1), 3-12.—Hypothesized that "whereas in the normal individual the cathexis is to external criteria as the basis of reality testing, in the psychotic the cathexis is to the internal world as the criteria for such evaluation." The borderline psychotic is described as an individual whose cathexis may fluctuate from the use of external to internal criteria for both outer and inner experiences, or to the use of external criteria for outer experiences and inner criteria for inner experiences. Under these circumstances a form of sensory deprivation occurs on the level of psychic processes. In the treatment of the psychotic, it is considered necessary to join the patient in his primary process world in order to establish communication and to develop the wish and need for external reality. The hallucinatory wish is described as a major stumbling block in the pursuit of these aims. Illustrations are presented of the disturbance in cathexis with respect to the testing of outer and/or inner experiences. "Such variation helps explain both the difficulty in treating the psychotic and some of the marked variations in the social adaptiveness of psychotics."—*S. Knapp.*

1518. Mikhailenko, I. N. & Nuller, Yu. L. (Bekhterev Psychoneurological Inst., Leningrad, USSR) **Vliyaniye nekotorykh faktorov na zabolevaemost' maniakal'no-depressivnym psikhozom i na osobennosti ego techeniya.** [Influence of certain factors on the incidence of manic-depressive psychosis and on the features of its course.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 907-911.—Anamnestic and clinical data for 125 19-70 yr. old manic-depressives were analyzed in order to (a) determine the frequency of occurrence of certain factors in the anamnesis of manic-depressives (hereditary predisposition, personality traits, and harmful exogenic factors, e.g., somatic diseases, head injuries, etc.), and (b) disclose their influence on the course of the psychosis. Where there was no hereditary predisposition,

malaria and a premorbid character, marked by mistrustful anxiety, appeared to be factors which increased the probability of occurrence of manic-depressive psychosis. The incidence was less in the presence of a predisposing heredity. (English summary)—*I. D. London.*

1519. Montinari, Giandomenico. **Psicoterapia interfaseica di una psicosi cicloide.** [Interphasal psychotherapy in a case of cycloid psychosis.] *Rivista di Psichiatria*, 1969(Sep), Vol. 4(5), 394-401.—Studied the case of a 28 yr. old with cycloid psychosis during 1½ yr between his 3rd and 4th attacks. As described by K. Leonhard, the 1st episodes indicate mobility and anxiety with pronounced interpretative-paranoid components, and frequent ecstatic experiences which progress to a euphoric-ecstatic-confused type. Cycloid psychosis, in its nosographic situation of symptoms and course of development, lies between manic depressive psychosis and schizophrenic syndrome. It appears to arise after psychotraumatic events with psychogenic forms. After a psychodynamic and therapeutic study, alternation of a brief serious psychotic period and long interval periods of symptoms in which the S often experiences normal activity was noted. Aspects which characterize cycloid psychosis are: (a) wealth and abundance of vivid, colorful, concrete details which are different from their objective reality; (b) facility of fluctuation between narcissistic-oral positions and phallic or edipic positions; (c) occurrence of the same dream; and (d) a scarce general differentiation of significant roles. Intensive treatment of these Ss is best.—*A. M. Farfaglia.*

1520. Muchnik, L. S. (Leningrad Medical Hygiene Inst., USSR) **Materialy k izucheniyu psikhoozov infektsionno-allergicheskogo proiskhozhdeniya.** [Materials on the study of psychoses of infectious-allergic origin.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 570-576.—Reports results of a clinical and laboratory study, over a 1-12 yr. period, of 150 16-45 yr. old persons with psychoses, whose emergence was closely coincident in time with exacerbations of focal suppurative or rheumatic infections, in order to establish cause-and-effect connections between the infectious process and mental disorders in infectious psychoses. It is suggested that psychoses in long, drawn out infections have allergic origins which play a role in the genesis of organic cerebral impairment, sometimes in connection with hereditary predispositions. Among the many mental diseases diagnosed as periodic schizophrenia, atypical manic-depressive psychosis, organic brain lesion pursuing a periodic course, etc., are undoubtedly psychoses of infectious origin. (English summary) (21 ref.).—*I. D. London.*

1521. Pérez, T. Aurora & Labos, Elsa. (Gregorio Aráoz Alfaro Polyclinic, Psychopathology & Neurologic Service, Buenos Aires, Argentina) **Relación objeto y estructura mental: Fragmentos del análisis de un niño psicótico.** [Object relations and mental structure: Comments of an analysis of a psychotic child.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 269-272.—A brief case study of a psychotic child is used to illustrate the contention that early disturbed object relations distort the possibility of a normal evolution of the mental structure. The presence of a psychotic structure is stressed, built up as a defense mechanism derived from an impaired working-through of early psychotic anxieties, that favors a psychotic mental modality and hence a psychotic behavior.—*English summary.*

1522. Rand, Gene V. (U. Utah) **Differences in reinforcer control between psychotic and non-psychotic groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3004.

1523. Scharfetter, Christian. (U. Zurich, Psychiatric Clinic, Switzerland) **Zur Psychiatrie und Psychologie symbiotischer Psychosen.** [On the psychiatry and psychology of symbiotic psychoses.] *Psychologische Rundschau*, 1970(Oct), Vol. 21(4), 257-269.—The discussion of this rare psychosis is introduced with a case study of a "folie à deux." Induction of delusions from one person to another is seen as social-psychological phenomenon. The psychology of symbiotic psychoses and genetic processes underlying the psychosis are traced through the literature.—W. J. Koppitz.

1524. Sukhareva, G. E. **Roľ' voznrastnogo faktora v klinike detskikh psikhovozov.** [Role of the age factor in the clinical picture of childhood psychoses.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Oct), Vol. 70(10), 1513-1517.—Presents an observationally based discussion on the importance of age in the emergence, clinical symptoms, and course of mental diseases up to the age of 16 yr. The influence of reactivity, associated with a given age, cannot be regarded as merely a pathoplastic factor, since it often is also pathogenetic. The important factors, determining the pathogenetic role of age, are: (a) underdevelopment of different organs and systems, and (b) disharmony of development during the transitional phases of growth. (English summary)—I. D. London.

1525. Tsvetkova, N. B., Dvoynikov, N. D., & Ionova, M. I. (Gorki Medical Inst., USSR) **Elektro-entsefalograficheskie dannye u bol'nykh afektivno-bredovymi i bredovymi psikhovozami presenil'nogo vozrasta v protsesse ikh katamnestichestskogo izucheniya.** [Electroencephalographic data in presenile persons with affective-delusional and delusional psychoses in catamnestic studies.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970(Jun), Vol. 70(6), 879-885.—Reports results of EEG examinations during catamnesis conducted over a 3-17 yr. period from the time of onset of the syndrome of anxiety-delusional melancholia in 22 presenile women and the syndrome of presenile delusion of harm in 12 others. The EEG in presenile affective-delusional psychoses was characterized by relatively shallow changes, in the form of a slowdown in α -rhythm and the appearance of single slow waves. EEG changes in presenile delusional psychoses had a more marked character with considerable disorganization of α -rhythm and slow activity. In presenile affective-delusional psychoses correlation was observed between EEG data and the severity of the melancholia syndrome. In presenile delusional psychoses, EEG changes were more pronounced in late paranoid schizophrenia and less in nonschizophrenic delusional psychoses. In evaluating the EEG in both types of psychoses, it is necessary to take into account the possibility of influence of vascular pathology on the bioelectrical activity of the brain. However, the nature and moderate character of the EEG changes in both types of psychoses suggest that functional disturbances in cortical neurodynamics predominate in their mechanisms. (English summary)—I. D. London.

1526. van der Does de Willebois, A. E. **De la Psychomotricité.** [On psychomotor reaction.] *Psychiatria, Neurologia, Neurochirurgia*, 1968(Nov), Vol. 71(6), 483-500.—Reviews the literature on psychomotor activity, and discusses: (a) the original "purely organic"

concept in pathology; (b) the singular role of the reflex arc and its subsequent influence in psychiatry; (c) the question of whether motor activity is modified by psychological reactions or vice versa; (d) the importance of repetitive movements in psychosis and their relationship to certain emotional states; (e) the global psychomotor reactions within the context of man in his totality, attaching greater significance to movements of expression related to emotional experience, since they may resemble motor disorders due to encephalopathy; and (f) the evolutionary primacy of motor activity, with attention focused on the functions of the limbic system, and its close relationship to the problems of modern man. It is asserted that "in certain respects, psychosis can be considered as a withdrawal to the limbic system." (31 ref.)—H. Singer.

1527. Widner, Frederic C. (Temple U.) **Training psychotics to discriminate sick and healthy behaviors.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2294.

Schizophrenia

1528. Bailey, John M. (Indiana U.) **Response disorganization and breadth of observation in acute and chronic schizophrenics, normals under high drive, and normal controls.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2271-2272.

1529. Bauman, Edward. (Lakehead U., Port Arthur, Ontario, Canada) **Schizophrenic short-term memory: A deficit in subjective organization.** *Canadian Journal of Behavioural Science*, 1971(Jan), Vol. 3(1), 55-65.—24 schizophrenic and 24 normal Ss received 3 trials on each of 2 lists of trigrams, 1 being for recognition and the other for recall. $\frac{1}{2}$ of the Ss received special instructions for alphabetical ordering of the recall terms, while the other $\frac{1}{2}$ was asked to do their best. Special instructions facilitated recall of normal Ss, but not of schizophrenics. Instructions had no significant effect upon the recognition scores. The effect of trials was to increase schizophrenic recall, but not recognition, while normals showed gains both in recall and recognition. It is concluded that the schizophrenic recall deficit results, in part, from an inability to subjectively organize memory store. (French summary) (28 ref.) *Journal abstract*.

1530. Belloni, F. (P. Pini Provincial Hosp. Inst., Milan, Italy) **Studio delle anomalie morfologiche linfocitarie nell'ambito familiare di soggetti schizofrenici.** [Morphological investigation of lymphocyte anomalies in relatives of schizophrenic subjects.] *Acta Neurologica*, 1970(Jan), Vol. 25(1), 59-69.—Studied the relatives of 22 schizophrenics. Blood was extracted from their finger and subjected to panocytic colorization according to Pappenheim. In all cases there were peripheral blood lymphocyte changes, especially cytoplasmic basophilia and nuclear polymorphism. The hereditary factor is transmitted as a predisposition to get the disease. The abnormal lymphocytes represent the morphological substratum of the modifications made by probable metabolic error. (English summary)—A. M. Farfaglia.

1531. Bernal, Martha E. & Miller, William H. (U. California, Neuropsychiatric Inst., Los Angeles) **Electrodermal and cardiac responses of schizophrenic children to sensory stimuli.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 155-168.—Compared the reactivity and habituation of 20 3-13 yr. old autistic schizophrenic

and 20 3-11 yr. old normal children using a variety of stimuli. The 1st 2 stimulation conditions were 15 tone trials followed by a novel tone stimulus, and 15 periods of darkness followed by a single period of partial illumination. Order of these stimulation conditions was counterbalanced in a groups \times order \times trials analysis of variance factorial design. Other stimuli were tones varying in intensity and photic flashes presented in fixed order following the 1st 2 conditions. The 2 groups differed in magnitude of response to the 1st 3 tone and illumination change trials, and thereafter showed no differences in habituation or reinstatement to the novel stimulus. This difference consisted of greater responsiveness for the normals and was independent of base level, spontaneous activity, order of condition, and type of stimulus. The schizophrenics showed a relationship between GSR magnitude and tone intensity that was similar to the normals' physiological tracking of changing intensity. Results for photic stimulation are the same as for the 1st 2 stimulus conditions. The peak-to-valley cardiac measure failed to yield any reliable group differences under any stimulation condition. (15 ref.)—*Journal abstract*.

1532. Bigras, Julien. *L'écoute psychiatrique et l'écoute psychanalytique, à la lumière d'un texte de Karl Abraham sur la psychose*. [Psychiatric and psychoanalytical reception within the context of a text on psychosis by Karl Abraham.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 157-163.—Compares the psychiatric approach of Karl Abraham and the psychoanalytical method of Freud in interpreting the case of 1 of Abraham's schizophrenic patients. It is argued that the attention of a psychiatrist is primarily focused on the symptomatic aspect of a patient while the psychoanalyst concentrates above all on his own unconscious, as well as that of his patient, because of his capacity for autoanalysis. It is concluded that autoanalysis constitutes the most apparent distinction between the psychoanalytical and psychiatric methodology.—*S. Maze*.

1533. Cameron, James R. (U. California, Berkeley) *Background variables related to the various forms of childhood autism*. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2274.

1534. Carley, John W. (North Texas State U.) *Effects of three conditions of reinforcement on the performance of three learning tasks by hospitalized chronic schizophrenics*. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2275.

1535. Chudina, L. D. (1st Moscow Medical Inst., USSR) *K zakonomernostyam smeny tipa techeniya katatonicheskoi shizofrenii*. [On the principles of change in type of course of catatonic schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jul), Vol. 70(7), 1027-1031.—Presents a catamnestic study in order to (a) further clarify the different courses of the developing psychosis observed in catatonic schizophrenia, (b) establish the pattern of their clinical pictures, and (c) determine the factors which either facilitate or hinder change in the developing course of the psychosis. Duration of catamnestic observations lasted up to 28 yr. for 279 schizophrenics, the onset of whose psychosis took place at ages from 7-59 yr. 3 basic types of course were established: (a) periodic (68 Ss), (b) discontinuous-progressive (80 Ss), and (c) continuous-progressive (131 Ss). With the exception of those in the last-named group, most experienced a transition from a relatively favorable course to 1 that was unfavorable, to the accompaniment

of psychopathological syndromic complication, the appearance of symptoms of deficit, and a reduced level of social adaptation. Such a transition occurred most often during the 1st 7 yr. of the psychosis under the impact of unfavorable exogenic factors. (English summary)—*I. D. London*.

1536. Dreistadt, Roy. *Schizophrenia: A new research design to study its causes*. *Journal of Psychology*, 1971(Mar), Vol. 77(2), 157-164.—Describes the findings of the major twin studies of schizophrenia that began with the classical research done by F. J. Kallmann. A new 2 part research design using data from identical twins was outlined to delineate genetic factors, childhood environmental factors, and later environmental factors in the etiology of schizophrenia. The nature of the possible genetic causes of schizophrenia as discussed and a self-actualization theory of schizophrenia is outlined. It was shown that the findings of various kinds of psychological and sociological research tend to support a self-actualization theory of schizophrenia. (20 ref.)—*Journal summary*.

1537. Filippov, Yu. I. (Inst. of Psychiatry, Moscow, USSR) *Narusheniya v sisteme polovyykh khromosom u bol'nykh shizofreniei zhenshchin*. [Disturbances in the sex-chromosomal system in schizophrenic women.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 715-717.—Studied (a) the frequency of trisomia-X among mentally ill women and its distribution among the different diagnostic groups, and (b) the clinico-psychopathological features characterizing such cases. Karyological examinations of 2000 mentally ill women were conducted, 1333 of whom were schizophrenic. 6 (all schizophrenic) were disclosed to have sex-chromosomal aberrations: 3 exhibited gametic trisomia-X (47,XXX) and 3 exhibited mosaicism (46,XX/47,XXX). The former were diagnosed as suffering from variants of a continuously developing schizophrenia pursuing an unfavorable course; the latter from attacklike schizophrenia following a more favorable course. (English summary) (15 ref.)—*I. D. London*.

1538. Fineman, Carol A. (U. Miami) *Goal setting strategies and the avoidance of evaluation in schizophrenia*. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2278.

1539. Gavrilova, N. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Sravnitel'naya otsenka prostranstvennoi sinkhronizatsii biopotentsialov kory golovnogo mozga u zdorovykh i bol'nykh shizofreniei pri issledovanii korotkikh vremennykh intervalov*. [Comparative estimation of spatial synchronization of cortical biopotentials in normals and schizophrenics when employing short time-intervals.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Aug), Vol. 70(8), 1198-1207.—Studied the features characterizing the spatial synchronization of cortical biopotentials for intervals of time equal to 250 msec. in normals and in paranoid schizophrenics under conditions of quiet and during mental activity (mental multiplication of 2 digit numbers). The dynamic character of the interactions between parts of the cerebral cortex was shown to be very considerable in normals. These interactions had a direction which coincided with that of the course of the long associative fibers. Processes in this direction proceeded more quickly than in the system of commissural fibers. Spatial synchronization is changed in paranoid schizophrenia. Here the normal dynamic character of processes was absent. Portions of

of whose psychosis proceeds with a prevalence of negative effects.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1368-1374.—Studied 50 16-40 yr. old male schizophrenics, the course of whose psychosis developed with the absence of an expressed psychotic symptomatology, and salient changes in personality. Early anamnesis disclosed marked signs of dysontogenesis, so that it is best to view such cases as child or, possibly, congenital schizophrenia. Some of the traits of personality, disclosed in childhood, are to be viewed as more characteristic of the schizophrenic defect than they are of the personality traits themselves. (English summary) (27 ref.)—*I. D. London*.

1548. **Kalugina, I. O.** (USSR Academy of Sciences, Inst. of Psychiatry, Moscow) **Klinicheskie osobennosti pristupoobrazno-progredientnoi shizofrenii u detei.** [Clinical features of attack-like-progressive schizophrenia in children.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1528-1532.—Presents results of observations of 53 5-12 yr. old children with a schizophrenia characterized by an attack-like progression. This form of the psychosis is encountered relatively often. 3 types of schizophrenia were distinguished: (a) 9 cases with a course approximating the continuous-sluggish form, (b) 32 running a continuous course combined with acute psychotic attacks, and (c) 12 with a course approximating the periodic form. While there may be varied degrees of progression of the psychotic process, the basic developmental patterns in the children were the same as in adults. However, in children the psychopathological structure of the attacks is characterized by the less marked nature of all symptoms. Besides, in children during remission, apart from symptoms of a schizophrenic defect, signs appear of arrested mental development. (English summary)—*I. D. London*.

1549. **Kalyagin, V. N. & Minchev, E. E.** (Astrakhan Medical Inst., USSR) **Rezultaty eksperimental'nopsikhologicheskogo i pnevmontsefalograficheskogo issledovaniia bol'nykh periodicheskoi shizofreniei.** [Results of experimental-psychological and pneumo-encephalographic examinations of periodic schizophrenics.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Dec), Vol. 70(12), 1842-1845.—Ss were 20 periodic schizophrenics (mostly 20-50 yr. of age) with clinical pictures predominantly marked by affective disorders, and number of attacks ranging from 3-20. All were subjected to psychological tests, while 10 were subjected, in addition, to pneumo-EEG examinations. Most of the Ss disclosed deviations indicating the existence of organic lesion of the brain. While this fact does not preclude an initial clinical diagnosis of periodic schizophrenia, it does point to the existence of a pathological background against which this endogenic affection develops and may explain the atypicality of its clinical picture and course of development. (English summary) (16 ref.)—*I. D. London*.

1550. **Kirpichenko, A. A.** (Vitebsk Medical Inst., USSR) **Sravnitel'naya kharakteristika izmenenii vyzvannykh potentsialov golovnogo mozga u bol'nykh razlichnymi formami shizofrenii.** [Comparative characteristics of the changes in evoked potentials in the brain of patients with different forms of schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 870-873.—Reports results of electrophysiological examinations of 168 16-50 yr. old patients with various forms of schizophrenia (sluggishly developing, paranoid, nuclear, attacklike, periodic). A correlation was demonstrated between the forms of the earlier components

(the specific or primary) and the later waves (the nonspecific or secondary) of photically evoked potentials, on the 1 hand, and, on the other, the form and duration of the psychosis. Under conditions of normal cerebral activity, (a) regulation of excitational behavior along specific and nonspecific pathways was managed owing to corticofugal influences, and (b) optimal relationships were created between information on the physical parameters of signals and that on their significance for the organism. In schizophrenia, however, a disturbance of the mechanisms of afferent synthesis occurred, and as a consequence, "a distorted reflection of the surrounding reality." (English summary)—*I. D. London*.

1551. **Kotzen, Gilbert M.** (Boston U., School of Education) **Change in working schizophrenic patients as a function of their perceptions of acceptance by ward staff and work supervisors.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2992.

1552. **Kramer, Edith.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **Comment.** *Bulletin of Art Therapy*, 1968(Jul), Vol. 7(4), 185-187.—Comments upon a report by R. W. Pickford (see PA, Vol. 46:Issue 1) discussing the art productions of a young highly gifted amateur painter produced during the course of a psychotic episode and recovery from it. The report is viewed as an example of a mechanism of transformation through art work analogous to Freud's concept of dream work.—*P. McMillan*.

1553. **Lamson, Amy F.** (Boston U., Graduate School) **Communication in families with a schizophrenic offspring and in normal families.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2993.

1554. **Lavretskii, E. F.** (Tomsk Medical Inst., USSR) **O sindrome lozhnoye uznvaniya pri shizofrenii.** [On the syndrome of false recognition in schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 560-564.—53 17-52 yr. old schizophrenics, with manifestation of the syndrome of false recognition at 1 stage or another in the development of the pathological process, were observed in a study of the symptomatology of Capgras' syndrome. 4 components of the syndrome were discerned: "positive double delusion, negative double delusion, intermetamorphic delusion, [and] Fregoli's symptom." It is shown that the syndrome of false recognition is not uniform with respect to either origin, course, or outcome. Further research is indicated to determine more exactly (a) the signs of this particular disorder, (b) the variants of its transformation, and (c) its relation to other psychopathological disturbances. (English summary) (21 ref.)—*I. D. London*.

1555. **Leibowitz, Gerald D.** (U. Rochester) **Conceptual systems in schizogenic families.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2285.

1556. **Marchbanks, Gabrielle & Williams, Moyra.** (Fulbourn & Cambridge United Hosp., Cambridge, England) **The effect of speed on comprehension in schizophrenia.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 55-60.—Devised and administered a task involving the carrying out of spoken commands of varied length and frequency to 80 schizophrenic Ss and 40 nonpsychotic controls under 4 conditions of speed. Schizophrenics made more errors as the speed of the commands was increased. Controls made more errors when natural pauses were eliminated than under the fastest speed condition. Schizophrenics repeated words from the commands as the speed of

delivery increased; controls repeated less as the speed increased.—*Journal abstract.*

1557. Monakhov, K. K. & Strelets, V. B. (Inst. of Psychiatry, Moscow, USSR) **K voprosu o strukture funktsional'nykh svyazei mezhdu vyzvannoi élektricheskoi aktivnost'yu temennoi i zatylochnoi oblasti kory golovnogo mozga u zdorovykh lyudei i bol'nykh shizofreniei.** [On the structure of functional connections between evoked electrical activity in the parietal cortex and that in the occipital cortex in normals and schizophrenics.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 864-870.—Attempted to formulate "EEG criteria for systemic organization in cerebral activity," employing 25 normals and 53 schizophrenics (before and during neuroleptic treatment). Superpositional recordings of parietal and occipital electrical activity, evoked by a light flash, were made. The data suggest that a specific program exists for the development of the electrical response—a program which secures the successive recruitment of the various functional structures that make up the response. In schizophrenia of different forms, disruption of the program for the development of the evoked response occurred. (English summary)—*J. D. London.*

1558. Ovsyannikov, S. A. (Central Inst. for Advanced Medical Training, Moscow, USSR) **Vyaloprotekayushchaya shizofreniya s istericheskimi proyavleniyami.** [Sluggishly developing schizophrenia with hysterical symptoms.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jul), Vol. 70(7), 1031-1037.—50 18 61 yr. old schizophrenics with duration of psychosis from 2-45 yr. were observed in a study of 2 forms of hysterical disorders occurring in schizophrenia following a sluggish course: (a) stable hysterical disorders, at whose basis lie a "thirst for recognition" and a desire to attract attention, and (b) transitory hysterical reactions of partial character. Analysis of the clinical features of the observed hysterical disorders led to the discernment of 3 diagnostic groups: 27 Ss with a predominance of hysterical symptoms in the schizophrenic picture, 19 Ss with a combination of hysterical symptoms and obsessional symptoms, and 4 Ss with a combination of hysterical disorders and symptoms of depersonalization. Hysterical symptoms were characteristic of the earlier stages of the psychosis (5-8 yr from its onset). Later hysterical symptoms gradually were replaced by psychopathoform disorders of heboid character which grew more and more stereotyped as they were fused with affective disturbances and paranoid symptomatology. At this time typical changes of personality gradually increased along with traits of psychic infantilism. (English summary) (25 ref.)—*J. D. London.*

1559. Ritvo, Edward R., et al. (760 Westwood Plaza, Los Angeles, Calif.) **Decreased postrotatory nystagmus in early infantile autism.** *Neurology*, 1969(Jul), Vol. 19(7), 653-658.—It was found that children with early infantile autism and evidence of perceptual inconstancy had significantly shorter postrotatory nystagmus than normal children when tested with their eyes open in a lighted room. However, when the same patients were blindfolded and tested in a darkened room, there was no longer a significant difference. A lack of response difference among children in the patient group was also found. Clinical factors in the patient group of personality development did not appear to influence the findings. This result supports the assumption that children who demonstrate evidence of perceptual inconstancy most likely have a unitary disease

process. It is particularly significant that the differences from normal children occurred when there were competing stimuli (visual and vestibular input), in contrast to the situation with vestibular stimulation alone. No evidence of habituation was noted in either group. Among the patients, clinical factors such as mutism, echolalia, normal speech, or the presence of a thought disorder did not appear to be discriminatory. *F. O. Triggs.*

1560. Rossi, R., Delmonte, P., & Terracciano, P. **Il problema dei rapporti fra omosessualità e schizofrenia.** [The problem of relationships between homosexuality and schizophrenia.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Jan), Vol. 30(1), 48-71. Homosexual trends at the conscious and unconscious level, were studied in the files of 100 schizophrenics. Results did not support psychoanalytic contentions on the role of homosexuality in schizophrenia, since homosexual trends did not play a relevant role in the etiology of schizophrenia and related delusional contents. *I. L'Abate.*

1561. Serebryakova, Z. N. (USSR Academy of Medical Sciences, Inst. of Psychiatry, Moscow) **Kvalifikatsiya i trudospособnost' bol'nykh shizofreniei s nepreryvnym techeniem po dannym épidemiologicheskogo issledovaniya.** [Working qualifications and capacity of schizophrenics whose course of psychosis is continuous according to data of an epidemiological study.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1375-1381. Presents results of an epidemiological study of "social adaptation" in schizophrenics (continuous form of psychosis) with respect to their mental state at the time of their examination. Working qualifications and capacity in cases of paranoid (296 cases) and unfavorably developing schizophrenia (92 cases), drawn from a general population of 1419 schizophrenics, are described. No significant difference in the proportion (15%) of working schizophrenics with respect to these 2 groups was disclosed. Working qualifications and capacity are shown to be a direct function of degree of advance of the morbid process. (English summary) *I. D. London.*

1562. Serebryakova, Z. N. (Inst. of Psychiatry, Moscow, USSR) **Sotsial'naya adaptatsiya bol'nykh shizofreniei s vyalyim techeniem zabolevaniya (po dannym épidemiologicheskogo issledovaniya).** [Social adaptation of schizophrenics whose psychosis follows a sluggish course (according to the data of an epidemiological study).] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Dec), Vol. 70(12), 1846-1850. An epidemiological study of 1 of a number of populations of schizophrenics disclosed 404 cases with sluggish development of the psychosis, constituting 28.2% of the population, 53.2% of these were working individuals. A study of the number of those working and of those psychotically disabled as a function of the leading syndrome and the duration of the psychosis shows that (a) the syndrome which is characterized by mildly expressed changes in personality is the most favorable with respect to adaptive potentialities, (b) syndromes with unsystematized delusional ideas and paranoid disorders are the least favorable, and (c) remaining syndromes (asthenic disorders, exaggerated structures, affective disorders) occupy an intermediate position. (English summary)—*I. D. London.*

1563. Serebryakova, Z. N. (USSR Academy of Medical Science, Inst. of Psychiatry, Moscow) **Sravnitel'naya kharakteristika kvalifikatsii i**

trudospobnosti bol'nykh shizofrenii s pristupo-obrazno-progredientnym i periodicheskim techeniem po dannym épidemiologicheskogo issledovaniya. [Comparative characteristics of the work qualification and capacity of schizophrenics with discontinuously progressive and periodic courses of their psychoses according to the data of an epidemiological study.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1701-1706.—Examined 352 cases of discontinuously progressive schizophrenia and 269 cases of periodic schizophrenia (constituting 24.8 and 18.9%, respectively, of the investigated population of schizophrenics). Working capacity and vocational qualification appeared to be a function of the number of attacks suffered and the character of the ensuing remission. Data are presented which provide evidence for better work adaptation in those in whom no productive disorders are observed in remission. (English summary)—*I. D. London*.

1564. Shmaonova, L. M. & Liberman, Yu. I. (Inst. of Psychiatry, Moscow, USSR) *Kliniko-statisticheskaya kharakteristika shizofrenii, protekayushchei v forme shubov i periodicheskii*. [Clinico-statistical characteristics of schizophrenia, following discontinuous and periodic courses.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jul), Vol. 70(7), 1037-1046.—An analysis of clinical observations of 770 schizophrenics (453 with a discontinuously progressive course of psychosis, and 317 with a periodic course). The necessity of a many-sided integrated approach to the "search for information on the prognosis and nosography of schizophrenia" is argued for—disclosure of general clinico-statistical relationships, determination of the separate types of development of the psychosis, and study of the psychopathological features characterizing the structure and dynamics of the symptoms, taking into account sex, age at onset of the psychosis, as well as a number of other factors which determine individual prognosis. (English summary)—*I. D. London*.

1565. Silverman, Julian. (Agnews State Hosp., San Jose, Calif.) *When schizophrenia helps*. *Psychology Today*, 1970(Sep), Vol. 4(4), 62-65.—There is growing evidence that some forms of schizophrenia are preludes to a more healthy level of adjustment. People who become better adjusted after such an episode, tend to be those whose symptoms appeared suddenly in response to a crisis and without paranoid coloring. The schizophrenic state is a period of heightened sensitivity and perhaps an opportunity to construct new alternatives in life. The administration of drugs to reduce symptoms may actually interfere with the necessary personality reorganization and the problem solving behavior.—*E. J. Posavac*.

1566. Silverman, Lloyd H. & Candell, Peter. (Veterans Administration Hosp., New York, N.Y.) *On the relationship between aggressive activation, symbiotic merging, intactness of body boundaries, and manifest pathology in schizophrenics*. *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 387-399.—60 20-54 yr. old male, relatively differentiated schizophrenics were seen individually for 3 sessions. In each session, a base-line assessment was made of the amount of manifest psychopathology and the degree to which ego boundaries were intact. Then, on different days in counterbalanced order, 1 group of Ss was subliminally exposed to pictures containing aggressive content,

neutral content, and content suggesting the theme of symbiotic merging. The other group was shown the same stimuli, but at a supraliminal level. For both groups, there followed a critical assessment of manifest pathology and body boundary intactness. Ss in the subliminal group responded to both the aggressive and merging stimuli with changes in both manifest pathology and body boundary intactness, while Ss in the supraliminal group were unaffected by the 2 kinds of stimulation. The reaction of the subliminal group, under both experimental conditions, varied as a function of time after stimulation, this being seen as bearing on the variability of schizophrenic behavior. Results are discussed in relation to the motivational state underlying changes in manifest pathology and body boundary intactness. (23 ref.)—*Journal abstract*.

1567. Silverman, Stephen E. (New York U.) *The effects of subliminally induced drive derivatives on ego functioning in schizophrenia*. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2291-2292.

1568. Slavin, Jonathan H. (U. Michigan) *The role of power conflicts in the psychodynamics of paranoid women*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3009.

1569. Stamboliev, P. N. (High Medical Inst., Varna, Bulgaria) *Immunoelektroforeticheski analiz syvorotki krvi v dinamike shizofrenii*. [Immunoelectrophoretic analysis of blood serum in the dynamics of schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1339-1343.—Attempted to establish a possible connection between the immunoelectrophoretic properties of blood serum drawn from 244 schizophrenics and the features characterizing their mental state at different stages in the developing psychosis. Blood serum was examined in 102 schizophrenics during both psychotic attacks and remission. An increase was noted in various globulin fractions—most often seen in schizophrenics undergoing their 1st and 2nd attacks (especially in periodic schizophrenia); less frequently in schizophrenics under observation during the later attacks and in chronic cases (continuous-progressive schizophrenia and intermediate forms). In cases of 1st attack, most characteristic was an increase in the β_2 A-globulin fraction. However, in more remote attacks an increase in α_2 -globulins was frequently noted. In remissions following 1st attacks, immunophoregrams became normal, while this did not occur in subsequent attacks. It is suggested that changes in the globulins of blood serum reflect the activity of the morbid process. (English summary) (23 ref.)—*I. D. London*.

1570. Tsutsul'kovskaya, M. Ya., Khurgin, Ya. I., Fastovets, N. O., & Pekunova, L. G. (USSR Academy of Medical Sciences, Inst. of Psychiatry, Moscow) *Opredelenie prognoza yunosheskoï nepreryvno tekushchei shizofrenii s ispol'zovaniem metodov matematicheskogo analiza*. [Determination of the prognosis of juvenile continuously developing schizophrenia through utilization of the methods of mathematical analysis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1694-1701.—Presents a clinicomathematical analysis of schizophrenics whose psychoses displayed courses of different types: sluggishly progressive (463), moderately progressive (158), malignantly progressive (185). 130 initial symptoms of the mental disease were distinguished and, employing a diagnostic algorithm, basic rules were constructed for

computer-determination of the type of course to be expected on the basis of early signs. The most informative signs and their combinations were also determined. A coincidence of 92-94% was procured for clinical and machine diagnoses. (English summary)—*I. D. London.*

1571. Wohlberg, Gerald W., Knapp, Peter H., & Vachon, Louis. (Boston U., Medical School) **A longitudinal investigation of adrenocortical function in acute schizophrenia.** *Journal of Nervous & Mental Disease*, 1970(Oct), Vol. 151(4), 245-265.—Followed the course of acute schizophrenics, including 2 intensively studied females, throughout hospitalization by means of: (a) plasma cortisol obtained twice daily, (b) 24-hr urine analysis for 17-ketogenic steroids (17-KGS), (c) tape recordings of daily therapy rated for major affects and "defensive strain," (d) computerized nursing notes, and (e) 2-person drawings rated on a primitive sophisticated scale. "Defensive strain," significantly correlated with plasma cortisol and 17-KGS in 1 S. In another case, psychotic manifestations appeared to be defending against depressive affect. The drawings correlated positively with adrenal cortical activity. Judges, blind to the biochemical findings, divided hospitalization into acute, improving, and separation phases, and predicted the phases to have, respectively, high, low, and intermediate biochemical values. These predictions proved correct for plasma cortisol. Data from 6 additional Ss confirmed elevation of plasma cortisol, urinary 17-KGS, or both, before separation, and significantly higher PM plasma cortisol 24 hr. after admission than at time of admission. Mean PM plasma cortisol and 17-KGS were elevated. Admission PM plasma cortisols were significantly higher than normal controls. Emphasis is placed on the intra and interindividual biochemical and psychological differences within the group of Ss, the total context of the S and, particularly, the meaning and effectiveness of his defensive system. (56 ref.)—*Journal abstract.*

1572. Yur'eva, O. P. (Inst. of Psychiatry, Moscow, USSR) **O tipakh dysontogeneza u detei, bol'nykh shizofreniei.** [On types of dysontogenesis in schizophrenic children.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Aug), Vol. 70(8), 1229-1235.—Reports results of observations (over a 1-15 yr. period) of 172 dysontogenetic schizophrenics, 5-33 yr. of age at time of final examination, in a study of the relationship between (a) the features characterizing dysontogenesis in the premanifest period of the affection, and (b) their manifest time and clinical features. 2 major types of dysontogenesis are distinguished: distorted development and arrested development. A correlation is established between the features of dysontogenesis and its degree of gravity and progressive character in the manifest period. It is suggested that the symptoms of dysontogenesis, as well as the individual psychopathological disorders in the premanifest period, are a manifestation of the basic disease. (English summary)—*I. D. London.*

1573. Zaltsman, E. G. (Central Inst. for Advanced Medical Training, Moscow, USSR) **O znachenii issledovani sialovoi kisloty v spinnomozgovoii zhidkosti i syvorotke krovi pri shizofrenii u detei.** [On the significance of sialic acid examinations in the cerebrospinal fluid and blood serum in childhood schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1521-1523.—Presents the results of sialic acid (SA) examinations of (a) 3-16 yr. old

schizophrenics (20 with unfavorable catatonic course of the psychosis, 63 with sluggish course, and 22 with acute onset with attack-like course); and (b) control groups (12 with rheumatic psychoses, 10 with residual symptoms of early organic lesions of the brain, and 22 with psychopathic traits of character without organic pathology). The highest positive deviations of the SA deviations investigated were found in rheumatic psychoses, the lowest in organic lesions of the CNS. In schizophrenia SA changes were expressed less than in the other groups. However, the direction of change tended to differ for early unfavorably developing schizophrenia and for the acute onset of periodic schizophrenia, with decrease in the case of the former and increase in that of the latter. It is suggested that SA level reflects the activity of the pathological process and the effectiveness of pathogenetic therapy. (English summary)—*I. D. London.*

1574. Zavidovskaya, G. I. (USSR Academy of Medical Sciences, Inst. of Psychiatry, Moscow) **Tipologiya sindroma navyazchivosti u bol'nykh blagopriyatno protekayushchei shizofreniei.** [Typology of the obsessional syndrome in those with favorably developing schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1686-1694. Observed 50 30 59 yr. old schizophrenics (duration of psychosis: 15 40 yr.). 2 types of obsessional syndromes were distinguished. The 1st type was characterized by a predominance of obsessional phobias and fears, which during periods of morbid exacerbations, appeared overly exaggerated structures. This type was associated with a development of the psychosis that is slightly progressive. The 2nd type of syndrome was characterized by a predominance of a wide range of other obsessional forms, e.g., contrastive thoughts and images, obsessive impulses, acute phobic attacks accompanied by marked autonomic disorders, and Geltungszwang (an urge to consider as true the improbable, even if its impossibility is simultaneously acknowledged). During periods of greatest acuteness of the psychosis, the syndrome became reminiscent of acute delusional states and was characterized by a clinical picture of protracted attacks. (English summary) (43 ref.)—*I. D. London.*

Schizophrenia Treatment

1575. Berman, Alan L. (Catholic U. of America) **The effect of videotape self-confrontation on level of ego functioning and thought disturbance in non-paranoid, process schizophrenics.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2976.

1576. Buscaino, V. M. **Biologia e terapia della schizofrenia.** [Biology and therapy of schizophrenia.] *Acta Neurologica*, 1970(Jan), Vol. 25(1), 1-58. Presents a documented, comprehensive study of all efforts and contributions regarding biological and therapeutic knowledge of schizophrenia from 1922-1970. Italian studies have shown that schizophrenia is not an enigma but a somatic disease, especially of the brain, liver, and intestine. 550 autopsies of the brain were made from 1922-1967. Foci are formed in the brain, and scattered in the cellular zones and nerve pathways: pathological changes are scattered in the nerve fibers. This "scattering" is the cause of the dissociative "psychic" symptoms. It is concluded that the best therapy for the schizophrenic is the 1 used in Italy: mobilizing the defense powers of the liver with the powerful help of

nucleotides. (German & English summaries)—A. M. Farfaglia.

1577. de Alarcon, R. & Carney, M. W. (Graylingwell Hosp., Chichester, England) **Severe depressive mood changes following slow-release intramuscular fluphenazine injection.** *British Medical Journal*, 1969(Sep), Vol. 3(5670), 564-567.—16 patients in whom schizophrenia was initially diagnosed and who were treated with fluphenazine enanthate or decanoate developed severe depression for a short period after the injection. In 5 cases this depression is thought to have been responsible for suicide. In 8 out of 10 cases the depression responded to ECT. It is recommended that patients who are treated with fluphenazine should be carefully supervised for the early detection of relapses or changes in the course of the illness.—*Journal abstract.*

1578. Ferholt, Julian B. & Stone, Walter N. (Veterans Administration Hosp., Cincinnati, Ohio) **Severe delirium after abrupt withdrawal of thiothixene in a chronic schizophrenic inpatient: A case study.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 400-403.—Describes a 46-yr-old man with a chronic schizoaffective psychosis who was treated with thiothixene (navane), 30 mg. daily for 57 days. After abrupt withdrawal of the drug he developed a severe acute brain syndrome lasting for 7 days. This was not controlled with a phenothiazine, but was quickly brought under control with reinstitution of the thiothixene. No evidence of permanent damage was found.—*Journal abstract.*

1579. Goldstein, Kenneth S. (U. Tennessee) **The effect of imposed patient-groupings upon symptom fluctuation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2984.

1580. Gorskiĭ, G. D. & Rybakov, V. L. (Novgorod Psychiatric Hosp., USSR) **Primenenie llogena dlya lecheniya konechnykh sostoyaniĭ shizofrenii s katatonicheskoi simptomatikoĭ.** [Use of lyogen for treatment of terminal states of schizophrenia with catatonic symptomatology.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1575-1578.—Presents results of the use of lyogen (40 mg/day) in treating 17 21-56 yr. old schizophrenics whose unfavorably developing psychosis of 6-32 yr. duration was terminally catatonic. 5 of the 10 with primary catatonia experienced a brief slight improvement. In 3 out of 7 with secondary catatonia, a distinct remission occurred which could be sustained with reduced dosage (8-10 mg/day). In the latter, the characteristic predominance of delusional over hallucinatory disorders throughout the course of the psychosis was observed—a fact which is taken as significant for understanding the therapeutic effect of lyogen. (English summary)—I. D. London.

1581. Kassoria, Irene. **For catatonia: Smiles, praise and a food basket.** *Psychology Today*, 1969(Jun), Vol. 3(1), 38-41.—Applied behavior modification principles to a catatonic and mute schizophrenic male who had not spoken in 30 yr. After 138 days of training the patient improved from giving essentially no responses to a 120 question verbal test to being able to answer correctly 75% of the time. A yr. after training ended the patient was still talking and working with occupational therapists.—E. J. Posavac.

1582. Katkin, Steven; Ginsburg, Marshall; Rifkin, Marilyn J., & Scott, James T. **Effectiveness of female volunteers in the treatment of outpatients.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 97-100.

—Investigated the effectiveness of female volunteer therapists to reduce hospital recidivism using female schizophrenic outpatients. 36 Ss were seen by the volunteers in supportive therapy and a comparable control group of 36 Ss received no supportive therapy. At the end of 1 yr., recidivism rates in the volunteer therapist group were significantly lower than in the control group. The majority of recidivists in both groups had returned by the 4th mo. This finding suggests that the 1st 4 mo. of the patient's stay out of the hospital may require special attention from outpatient treatment programs.—*Journal abstract.*

1583. Ko, Yung-ho. (U. Michigan) **The relationship between institutionalization and attention breadth in schizophrenia.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2991-2992.

1584. Kutsenok, B. M. & Zolotnitskiĭ, R. I. (Kiev Medical Inst., USSR) **Terapevicheskie rezul'taty i oslozhneniya pri primenenii llogena u dlitel'no boleyushchikh shizofreniĭ.** [Therapeutic results and complications in the use of lyogen in schizophrenia of long duration.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1578-1583.—Subjected 91 schizophrenics (for 75 of whom the duration of the psychosis exceeded 10 yr.) to treatment with lyogen, a phenothiazine derivative. No remissions of Type A were observed; Type B—17.6%; Type C—32.9%; Type D—45.1%; and no improvement—4.4%. If a positive effect was observed, it occurred in the 1st few days of treatment and was maximal in the 2nd and 3rd wk. 41.8% suffer complications (convulsive effects, allergic states, vascular disturbances, etc.). It is concluded that lyogen is an effective drug in the treatment of long-standing schizophrenia. However, the difference between therapeutic and toxic doses is so small that its use often entails neuropsychic complications. (English summary)—I. D. London.

1585. Lassner, Rudolf & Brassea, Margie. (Colorado State Hosp., Pueblo) **Family centered group therapy with chronic schizophrenic patients: A five-year follow-up study.** *Group Psychotherapy*, 1968(Dec), Vol. 21(4), 247-258.—For 12 mo., 7 hospital-habituated male schizophrenics were involved in conjoint, family-centered therapy. 5 yr. later, 6 are living in the community. Although other hospital factors were involved, it was felt that the therapy was crucial to this overwhelming success.—A. Krichev.

1586. Owen, Terry W. (U. Illinois, Urbana-Champaign) **The effects of social stimuli on schizophrenic performance and satisfaction.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3000.

1587. Ozola, M. Ya. (Riga Medical Inst., USSR) **Terapevicheskie patomorfizy shizofrenii, protekayushcheĭ s paranoïdnyimi rasstroïstvami.** [Therapeutic pathomorphosis of schizophrenia, proceeding with paranoid disorders.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 600-605.—Reports results of observations of 77 paranoid schizophrenics (34 with a continuous-progressive form of psychosis, and 43 with an attacklike form) in a study of the influence of neuroleptic therapy on the course of the psychosis, and a comparative evaluation of the therapeutic effectiveness of neuroleptics, e.g., aminazine (chlorpromazine), triphthazine, haloperidol, and majoetil, and insulin in paranoid schizophrenia. Neuroleptic therapy exerted no essential influence on the main patterns of development of the schizophrenic process. In the attacklike form.

however, neuroleptic therapy did exert some influence on the course and psychopathological disturbances of the psychosis, intensifying its characteristics. In the continuous-progressive course, neuroleptic therapy chiefly affected those disorders reflecting an intensification of the pathological progress (catatonic disorders and symptoms of psychic automatism). The major determinative symptoms (verbal hallucinations, delusions, and other disorders), however, were extremely resistant to neuroleptic therapy. Insulin-shock therapy was not as effective as neuroleptic therapy. (English summary) (34 ref.)—*I. D. London.*

1588. Prien, Robert F., Levine, Jerome, & Switalski, Richard W. (Veterans Administration Hosp., Central Neuropsychiatric Lab., Perry Point, Md.) **Discontinuation of chemotherapy for chronic schizophrenics.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 4-7.—In 2 experiments, an attempt was made to identify subgroups of chronic schizophrenics with a sufficiently low probability of relapse to warrant discontinuation of medication. In Exp. I, 60 men and 60 women were chosen from each of 7 public mental hospitals (total N=840). Ss were assigned to 1 of 4 groups, receiving either 300 or 2000 mg. of chlorpromazine per day, a placebo, or the physician's choice of medication and dosage. The clinical status of each S was assessed by overall psychiatric judgments of degree of improvement on the Global Change Scale and by specific psychopathology as rated by psychiatrists, nurses, and social workers. In Exp. II, 360 patients were randomly assigned to 1 of 3 groups receiving either 15 or 80 mg. of trifluoperazine per day or a placebo. In both studies, the placebo group had significantly higher relapse rates. Relatively few relapses (12%) occurred during the 1st 5 wk. on placebo. Relapse was found to be significantly related to the dose of tranquilizing medication the patient was receiving before he was put on placebo—the higher the dose the greater the probability of relapse. In both studies the difference in relapse rate between low dose and each of the other dose levels was significant at the .05 level. Results indicate that the large majority of schizophrenics who have been hospitalized for more than 15 yr. and who are receiving low doses of tranquilizing medication can remain off drugs for 6 mo. without deleterious effects.—*R. Sivley.*

1589. Skalny, V. V. (Volyn Provincial Psychiatric Hosp., USSR) **Ob effektivnosti lecheniya bol'nykh shizofreniei vitaminom B₁₂ odnovremennno s insulinom.** [On the effectiveness of simultaneous treatment of schizophrenics with vitamin B₁₂ and insulin.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1718-1721. Presents a clinico statistical analysis of the frequency of remissions with a duration of over 1 yr. in (a) 115 cases of schizophrenia, treated with small doses of insulin (8-16 units daily subcutaneously) in combination with vitamin B₁₂ (200 µg intramuscularly); and (b) 111 cases, treated only with insulin in the usual doses. Forms of schizophrenia which appeared in the experimental and control groups were: hallucinatory-paranoid, paranoid, simple, and catatonic. The duration of the psychosis was from 3 to over 5 yr. It is shown that the 1st of these methods of treatment has a higher degree of therapeutic effectiveness. (English summary)—*I. D. London.*

1590. Sobell, Linda C., Schaefer, H. H., Sobell, Mark B., & Kremer, M. Elise. (Patton State Hosp., Calif) **Food priming: A therapeutic tool to increase the per-**

centage of meals bought by chronic mental patients. *Behaviour Research & Therapy*, 1970(Nov), Vol. 8(4), 339-345.—In a motivating ward environment for schizophrenics, 3 methods of maximizing food as an effective reinforcer were tested. On the basis of pretreatment measures, patients were classified as "non-chronic meal misers" who served as control patients (Group A), "chronic meal misers" because they had no tokens (Group B), or "chronic meal misers" because they chose not to eat but had tokens (Group C). 1 of the following 3 experimental treatments was then administered when a patient missed a meal: (a) visual food priming (observing others eat), (b) oral food priming (sampling 1 teaspoon of each type of food for that meal), and (c) free meal (being offered a free meal when it was missed). Oral and visual food priming were found to be equally effective in increasing the percentage of meals bought by patients. A posttreatment follow-up for Group B found that this increase was even greater during the follow-up phase. The percentage of meals bought by the patients during the free meal condition of Group B decreased during the treatment phase but was significantly above pretreatment measures during the follow-up phase, suggesting that complete reinforcer sampling may also be an effective technique for increasing the percentage of meals bought.—*A. Barclay.*

1591. Wexler, Milton. (465 N Roxbury Dr., Beverly Hills, Calif.) **Schizophrenia: Conflict and deficiency.** *Psychoanalytic Quarterly*, 1971(Jan), Vol. 40(1), 83-99. It is suggested that the couch and free-association methods "are not only inappropriate but dangerous with psychotic patients. . . . Clinical experience with patients who decompensate in the course of psychoanalytic treatment points up a wide variety of symptoms closely associated with a loss of internal object representation and a variety of urgent institutional efforts. These reinforce Freud's thesis that schizophrenia is to be sharply differentiated from neurosis, with loss of object representation in the former and retention of such representations in the unconscious in the latter. These concepts clearly suggest specific technical approaches in the treatment of schizophrenic patients. They also raise the general question as to whether there is value in differentiating more sharply between conflict disorders and deficiency disorders."—*J. Z. Elias.*

PSYCHOSOMATIC DISORDER

1592. Cochrane, Raymond. (Michigan State U.) **High blood pressure as a psychosomatic disorder: A selective review.** *British Journal of Social & Clinical Psychology*, 1971(Feb), Vol. 10(1), 61-72. Reviews medical, psychological, and sociological studies of high blood pressure for criterion supporting the view that hypertension is a psychosomatic disorder. The enormous amount of literature produced to date supports the idea of a link between perceived stress in the environment, a personality overreactive to stress, and high blood pressure. The specific mechanisms involved have not as yet been clearly identified. The literature is reviewed in the areas of personality and hypertension, experimental elevation of blood pressure, environmental factors in hypertension, and explanations of high blood pressure (59 ref.)—*Journal abstract.*

1593. Fanai, F. (Municipal Hosp., Neurologic-Psychiatric Clinic Frankfurt, W. Germany) **Die Hochschulpneumonie und Probleme ausländischer**

Studenten: Eine Studie über die Häufigkeit und Pathogenese akuter funktioneller Beschwerden bei iranischen Studenten unter besonderer Berücksichtigung der Autoritätsproblematik. [Psychiatry at the university and problems of foreign students: A study on the frequency and pathogenesis of acute functional disturbances in Iranian students with special consideration given to authority problems.] *Psychiatria Clinica*, 1970, Vol. 3(6), 365-374.—Presents a report concerning the pathogenesis and the frequency of acute functional complaints referred to various organs in 64 "healthy" students from Iran. Particular attention was given to their authority conflicts. An attempt was made to show the causal connections between those complaints and fear of authority, itself brought about by an authoritarian upbringing. Autogenic training is suggested as suitable therapy. (27 ref.)—*English summary.*

1594. **Mason, J. W.** (Walter Reed Army Inst. of Research, Washington, D.C.) **Strategy in psychosomatic research.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 427-439.—Reviews the evolution of psychosomatic theory and the increasing need for interdisciplinary research at an increasingly sophisticated level.—*W. G. Shipman.*

1595. **Strojnowski, Jerzy.** **Szkic rozwoju ważniejszych teorii psychofizjologicznych od starożytności do oświecenia.** [Outline of the development of some important psychophysiological theories from Antiquity to the Enlightenment.] *Roczniki Filozoficzne: Annales de Philosophie*, 1969, Vol. 17(4), 33-52.—Outlines the development of knowledge of psychosomatic relationships from 600 B.C. until the present time. The question of dualism is still considered unresolved at the present time. 4 steps or trends are recognizable: (a) the cosmological approach of the old school, (b) the role of interrelationship between physical and material phenomenon, (c) evolutionary ideas of psychic development, and (d) the current status of the problem. (English summary) (34 ref.)—*I. Holowsky.*

CASE HISTORY

1596. **Lebedev, B. V., Mazaeva, I. V., & Mladkovskaya, T. B.** (USSR Academy of Medical Sciences, Inst. of Pediatrics, Moscow) **K voprosu diagnostiki sindroma "koshach'ego krika."** [On diagnosis of the "cat's cry" syndrome.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1571-1574.—Analyzed the case of a 3½ yr. old with chromosomal deficiency leading to the development of the syndrome "cri du chat." In the child were observed mental retardation, arrested physical development, microcephaly, a characteristic mewing cry, epicanthus, and other physical atypicalities. A karyological examination disclosed the lack of a major part of the short arms of Chromosome 5. Diagnosis should be attempted in early infancy since 1 of the most characteristic signs—cri du chat—sometimes disappears by the 1st yr. (English summary)—*I. D. London.*

1597. **Schwartz, B. A. & Escande, C.** (Inst. National Santé de la Recherche Médicale, Paris, France) **Sleeping sickness: Sleep study of a case.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 83-87.—Examined polygraphically a 66-yr-old patient with sleeping sickness 9 times in 4 mo. The 1st clinical symptoms of the disease had been observed 4 yr. previously. Throughout the study period wakefulness

and REM sleep were always normal while slow wave sleep (SWS) and intermediate sleep (Int. S) were always pathological. SWS was divided into 4 stages based on gradually increasing proportions of frontal delta waves as sleep deepened (from short bursts to continuous frontal delta waves). The majority of afternoon records and a night record showed early onset of REM sleep periods although clinically the S had no cataplectic or narcoleptic sleep attacks but continuous hypersomnolence. At certain moments hallucinations seemed to appear while the record showed Int. S. (French summary)—*Journal summary.*

1598. **Stinnett, James L. & Hollender, Marc H.** (U. Pennsylvania) **Compulsive self-mutilation.** *Journal of Nervous & Mental Disease*, 1970(May), Vol. 150(5), 371-375.—Self-mutilation as a compulsive act is rare; self-inflicted injury to the eyes, other than enucleation, is also rare. Only 2 instances of eye banging, similar to that of a 30-yr-old man whose history is presented, were found in the world literature. While S's disorder descriptively and psychodynamically was obsessive-compulsive, in terms of ego function it was that of a borderline state. An appraisal of the nature of ego function is considered more pertinent than an understanding of psychodynamics from the standpoint of therapy.—*Journal abstract.*

1599. **Vasquez, Julio.** (Hosp. Saint-Jean-de-Dieu, Montreal, Quebec, Canada) **Voyeurisme et photophobie: Un cas clinique.** [Voyeurism and photophobia: A clinical case.] *Interprétation*, 1970(Jan), Vol. 4(1-2), 165-186.—Summarizes a long and dynamic clinical study of a 49-yr-old voyeurist (a priest) who became photophobic prior to his admission to a Montreal hospital. Examples of his voyeurism throughout childhood, adolescence, and adulthood are progressively related. Factors contributing to his condition are described and include: a dominating mother, an intense fear of committing sin, a sexual obsession to see a woman with a penis, and extreme anxiety leading to fear of light, the sun, blindness, sleep, and madness. In addition to other indications contributing to a diagnosis of perversion and neurosis is the S's association of St. Thomas and St. Paul with voyeurism because they symbolize eternal happiness through beatific vision. It is concluded that the S recovered from his photophobia and became less active in his perversion after his treatment.—*S. Maze.*

MENTAL HEALTH & REHABILITATION

1600. **Calderón Narváez, Guillermo.** (Mental Health Dept., Mexico City, Mexico) **La salud mental en México: Antecedentes históricos y enfoque actual.** [Mental health in Mexico: Historical antecedents and present approach.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 234-239.—The history of psychiatry in Mexico goes back to the time before Cortés arrived; old codices describe that diseases like depression and epilepsy were considered as such, and not due to the spell of a malignant spirit. The importance of sociomedical aspects such as alcoholism, as well as their preventive and therapeutic approach, was also emphasized. After the conquest, the first psychiatric hospital in the continent was founded in Mexico City. At the present time, changes in mental health include the demolition of old asylums and the construction of new

institutions in accordance with modern psychiatric trends.—*English summary.*

1601. **Guernsey, Bernard G.** (Pennsylvania State U., Child & Family Consultation Center) **Alfred Adler and the current mental health revolution.** *Journal of Individual Psychology*, 1970(Nov), Vol. 26(2), 124-134.—Discusses the consonance of Adler's views with some of the current emphases in the mental health field, e.g., civil rights and poverty as mental health issues, rehabilitation to the community, prevention of mental health problems, nonprofessionals as psychotherapeutic agents, and democratic psychotherapeutic classrooms. (42 ref.)—*A. R. Howard.*

1602. **Hoxworth, David & Alsup, Theresa.** (Adams County Mental Health Center, Quincy, Ill.) **Group work with parents in a day care center.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 256-258.—Describes discussion groups for parents of children from various economic and social levels at a day care center. The role of the worker is explored, and it was found that after 7 mo. the parents were discussing many facets of mental health.—*B. A. Burkard.*

1603. **Krasik, E. D., et al.** (Tomsk, Psychiatric Hosp., USSR) **Opty differentsirovannoi reabilitatsii psikhicheski bol'nykh.** [An experience with differentiated rehabilitation of the mentally ill.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1707-1712.—Recounts a 3-yr experience (1967-1970) with the differentiated rehabilitation of mental patients in a large psychiatric hospital (948 schizophrenics, 195 epileptics, 101 oligophrenics, 58 chronic alcoholics, 139 with organic and traumatic lesions of the brain, 54 other psychotics). The different stages in the rehabilitation of such patients and the necessary changes in the structure, personnel, and activity of the hospital are reported. The different forms of sociovocational rehabilitation are analyzed and their effectiveness gauged. (English summary)—*I. D. London.*

1604. **MacDonald, A. P.** (West Virginia U., Rehabilitation Research & Training Center) **Internal-external locus of control: A promising rehabilitation variable.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 111-116.—Discusses the relationship between internal-external locus of control and attitude toward and reaction to disability relative to 3 major disability classes: (a) social disadvantage, (b) physical disability, and (c) emotional disorders. Research literature leads to the conclusion that (a) externally controlled persons are more threatened by physical disabilities; (b) internals, relative to externals, view emotional disorders as more debilitating than physical disabilities; and (c) social disadvantage and minority group membership are conducive to the development of external control orientations. Evidence is presented which suggests that remedial programs can change control orientations. (22 ref.)—*Journal abstract.*

1605. **Miller, George A.** (Rockefeller U.) **Psychology as a means of promoting human welfare.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 5-21.

1606. **Sens, Lee.** (Texas Woman's U., Denton) **Occupational therapy for chronic patients.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 380-381.—Describes the necessary elements of a dynamic treatment program for chronic regressed patients. These include recommendations that (a) the patient be ex-

pected to perform on an adult level, (b) initiative by the patient should be appreciated by the therapist, and (c) the patient should develop a sense of membership in a patient group having worthwhile goals.

COUNSELING & GUIDANCE

1607. **Anthony, William A.** (Southern Illinois U.) **A methodological investigation of the "minimally facilitative level of interpersonal functioning."** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 156-157.—13 counselors were cast in the helping role with a physically disabled client for approximately 35-40 min. The high facilitative counselors were favored for the client's depth of self-exploration, the counselor's level of immediacy after confrontation by the client, the counselor's use of experimental confrontation, and the counselor's attitude toward disabled persons score. It is suggested that distinction must be made between high and moderate counselors and that Level 3 is a behaviorally meaningful cutoff score. *E. J. Kronenberger.*

1608. **Ashbrook, James B.** (Colgate Rochester Divinity School, Rochester, N.Y.) **Characteristics of parish counseling.** *Pastoral Psychology*, 1970(May), Vol. 21(204), 27-38.—No other professional person has such access to the inner world of people and is so accessible to them than the clergyman. The parish setting provides a full range of contacts and resources for "being for others." The counseling pastor's ultimate purpose and the penultimate and communion with a human community of faith that transcends all barriers. *O. Strunk.*

1609. **Bonnell, George G.** (1st Presbyterian Church, Plainfield, N.J.) **The pastor's role in counseling the depressed.** *Pastoral Psychology*, 1970(Jan), Vol. 21(200), 38-46.—Discusses the origins of depression and the danger signs of depression. It is suggested that pastors should (a) avoid dealing with unconscious materials, (b) not paint bright colors where there are none to paint, (c) not overinterpret, and (d) not lapse into the mood of the client. Also discussed are transference, countertransference, feelings of anger, and feelings of perfectionism. *O. Strunk.*

1610. **Boutte, Margaret A.** (North Texas State U.) **Play therapy practices in approved counseling agencies.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 150-152.—A 3-page 21-item questionnaire was sent to 99 approved counseling agencies to obtain knowledge concerning play therapy practices. Play therapy was used in 4 of every 10 accredited counseling agencies. 16 trends are presented. Wherever possible, the results of the study were compared with those of a 1959 study on child therapy practices. Psychoanalytic and directive theoretical orientations had declined significantly. No significant differences existed between the 2 studies for the use of the psychological examinations. Children in accredited child guidance clinics were influenced less by the nature of the problem in using or not using play therapy than they were in the previous study. Caution is urged in using the data from the present study, and replication is suggested. *E. J. Kronenberger.*

1611. **Byers, A. P.** (Deaconess Hosp., Grand Forks, N.D.) **Something of value in counseling.** *Pastoral Psychology*, 1970(May), Vol. 21(204), 49-55.—In the counseling relationship there is a person reaching out for

a responsible encounter with another person who is capable of responding with deep meaning from the very ground of his being. This kind of encounter is like a meeting with God himself.—O. Strunk.

1612. **Carkhuff, Robert R.** (American International Coll., Center for Human Relations & Community Affairs) **Training as a preferred mode of treatment.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 123-131.—Develops the concept of training significant others or clients as the preferred mode of effecting changes in the client's functioning. The 2 principal modalities converging upon training as treatment are the client-centered and behavior modification approaches. Training as a preferred mode of treatment is defined by the training programs in the following areas: (a) the interpersonal skills and other skills needed to function effectively; (b) the methods for developing effective courses of action; and (c) the means to implement the resultant programs. (67 ref.)—*Journal abstract*.

1613. **Farnsworth, Kirk E., Lewis, Edwin C., & Walsh, James A.** (U. New Hampshire) **Counseling outcome criteria and the question of dimensionality.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 143-145.—107 college counseling staff members and advanced graduate students completed a 180-item inventory of client changes. A factor analysis extracted 6 factors: objective vs. subjective criteria, maturity, inner- vs. other-directed behavior, conventionality, energetic and socially-approved behavior, and ability to deal with reality. Replication is suggested.—E. J. Kronenberger.

1614. **Gordon, Edmund W.** (Teachers Coll., Columbia U.) **Perspectives on counseling and other approaches to guided behavior change.** *Counseling Psychologist*, 1970, Vol. 2(2), 105-114.—States that the field of counseling should be radically changed or eliminated. Convinced that a person's consciousness, attitudes, and feelings are products of environmental encounters, an ecological model of personality is proposed, calling for the abolition of counseling by incorporating it in a new profession called "human developmental ecology." The developmental-ecological model warrants consideration of multiple interactions as well as the individual, making "control and modification of the system crucial to the development of the individual." In guiding behavior change, the professional (counselor) must expand choice alternatives, optimize decision behavior, and facilitate development and movement toward the chosen objects. This system's implications for counseling include a shift from: (a) individual appraisal to environment; (b) behavior product assessment to behavioral process; (c) prediction to prescription; (d) traditional concern for discovering the talented few to developing talent in all; (e) didactic exhortation to discovery and modeling; (f) interpretation to environmental orientation; (g) counseling to consultation; (h) diplomacy to advocacy; and (i) socialization to politicalization.—W. S. Sahakian.

1615. **Lum, Doman.** (Salvation Army, Men's Social Service Center, Honolulu, Hawaii) **Training lay counselors for church and community mental health.** *Pastoral Psychology*, 1970(May), Vol. 21(204), 19-26.—Describes pilot projects demonstrating volunteer training, including college students as companions to mental patients in the state hospital, middle-aged women as mental health counselors in outpatient clinics, and college graduates as mental health workers for socio-environmental therapy. The present responsibility of

pastoral counseling is to widen its boundaries to include such laymen in a meaningful way.—O. Strunk.

1616. **McGowan, John F.** (U. Missouri) **Counseling's social response.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 67-72.

1617. **Smith, William D. & Martinson, William D.** (U. Cincinnati) **Counselors' and counselees' learning style on interview behavior.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 138-141.—Investigated the therapeutic relationships of the counselor and the counselee by isolating differences that occurred with various combinations of impulsive counselors and counselees, constricted counselors and counselees, and by employing the method of Interaction Process Analysis developed by R. F. Bales. Counselees were 16 undergraduates, and counselors were 4 counseling center staff members. Significant differences were found in directive behavior between impulsive counselors and constricted counselors when both were interviewing impulsive counselees. Other trends also emerged.—*Journal abstract*.

1618. **Strong, Stanley R.** (U. Minnesota, Student Life Studies) **Experimental laboratory research in counseling.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 106-110.—Laboratory-based experimental counseling research answers questions about counseling and avoids the ethical problems attending experimental research in the counseling office. Laboratory events differ from other events only in that laboratory events are created for research purposes. Implications to real counseling of the results of contrived laboratory research are a function of bridging counseling theories. Applications are a function of theory and the effects of the boundary conditions of counseling, which is a conversation between persons of unequal status, of some duration, in which 1 participant is motivated to change and may be psychologically distressed. Laboratory research which evaluates relevant hypotheses and attends to boundary conditions fills the gap between basic research and counseling practice. (22 ref.)—*Journal abstract*.

1619. **Swenson, Edwin A.** (School of Theology, Claremont, Calif.) **An examination of the effectiveness of counseling as a function of socio-economic status and goal congruence.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3011.

1620. **Wolf, Sidney.** (Catholic U. of America) **An investigation of counselor type, client type, level of facilitative conditions and client outcome.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3013.

Marriage & Family

1621. **Earle, Ralph H.** (School of Theology, Claremont, Calif.) **Family group therapy: A relevant model for the pastoral counselor.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2980-2981.

1622. **Hofman, Kees C.** (Michigan State U.) **Marital adjustment and interaction, related to individual adjustment of spouses in clinic and non-clinic families.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2987.

1623. **Horowitz, Darlene B.** (New York U.) **The relevance of individual interpersonal expectations, styles of response to provocation, and interaction factors, to interpersonal behavior and satisfaction in**

marriage. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2255-2256.

Social Casework

1624. Fuller, Theron K. (Dept. of Health, Education, & Welfare, Washington, D.C.) **Computer utility in social work.** *Social Casework*, 1970(Dec), Vol. 51(10), 606-611.—Social work has almost totally ignored the functional contributions the computer is able to make. For administrators, a centralized filing system has implications and substantial rewards. For caseworkers, the use of a remote access system could make intake a completely automated process. Computers could be programmed to take social histories. Present computer techniques bring research within range of almost every practicing social worker.—M. W. Linn.

1625. Silverman, Phyllis R. (Harvard Medical School, Boston, Mass.) **A reexamination of the intake procedure.** *Social Casework*, 1970(Dec), Vol. 51(10), 625-634.—17 low-income clients and their caseworkers were interviewed regarding their experiences during intake procedures. Clients represented those who dropped out after initial contact, those who began treatment, and those who completed treatment. There was little agreement among clients and workers about what was appropriate helping. Both behaved as a result of their own definitions of their roles.—M. W. Linn.

1626. White, Colby L. (Dept. of Health & Social Services, Roswell, N.M.) **Untangling knots in casework with the experiential approach.** *Social Casework*, 1970(Dec), Vol. 51(10), 612-617.—An experiential approach which utilizes aggressive, stimulating, reality-oriented therapy can put the client in closer touch with the real substance of a problematic situation. This approach emphasizes understanding the what and how of one's behavior as it occurs in the context of the here and now.—M. W. Linn.

PHYSICAL HANDICAP

1627. Cull, John G. & Hardy, Richard E. (Virginia Commonwealth U.) **Correlation between the Immediate Test and the Wechsler Adult Intelligence Scale verbal scale in the rehabilitation setting.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 203-205.—Administered the Immediate Test: A Quick Verbal Intelligence Test and the WAIS Verbal scale to 54 severely handicapped persons in a physical medicine and rehabilitation hospital. There was no significant difference between the mean IQ scores of the 2 tests. This, coupled with a correlation of .797 supports the hypothesis that the Immediate Test can be utilized for a quick assessment of intellectual functioning in the rehabilitation setting.—Author abstract.

Blindness & Visual Disorder

1628. Hare, Betty A., Hammill, Donald D., & Crandell, John M. (Temple U.) **Auditory discrimination ability of visually limited children.** *New Outlook for the Blind*, 1970(Nov), Vol. 64(9), 287-292.—Selected data from a pool of information on 85 visually limited and 77 sighted children from private residential and public schools in the greater Philadelphia area. Sound discrimination ability was measured by Form A of the

Irwin Sound Discrimination Test, in which the S indicates verbally whether or not pairs of words are the same or different. In order to demonstrate the relationship of sound discrimination to the other key input modality, a test of tactile-kinesthetic discrimination was administered individually to each S. The visually limited did not demonstrate superior sound discrimination ability. No relationship was found between visual acuity and sound discrimination ability. No significant relationship was found between auditory discrimination ability and tactile-kinesthetic skills.—S. R. Diamond.

1629. Harrison, A., Lairy, G. C., & Leger, E. M. (Inst. National de la Santé de la Recherche Médicale, Paris, France) **EEG et privation visuelle.** [The EEG and visual deprivation.] *Electroencephalography & Clinical Neurophysiology*, 1970(Jul), Vol. 29(1), 20-37.—Studied the EEGs of children with complete blindness or severe visual defects. Findings in 17 Ss who were blind or had only perception of light confirmed the classical findings: (a) marked changes in background rhythm, often with a rolandic or parietal distribution of an activity of alpha frequency; and (b) occipital foci of spikes, which occurred mainly in Ss over 5 yr. of age. In 100 Ss 18 yr. old Ss with significant visual defects but a useful residual acuity of 2/100-3/10, the EEG variables were studied in relation to age, residual acuity, and IQ; the etiology of the ocular condition was considered as well as the possibility of organic cerebral disease, independent or not of ocular lesion. Statistical investigation of Ss and the longitudinal study of some cases, support the conclusion that the interpretation of the EEG in blind or partially sighted children cannot be made in relation only to the quantitative loss of vision, but must also take account of the existing adaptation to the visual defect. (19 ref.)—English summary.

1630. Kalverboer, A. F., le Couteur, R., & Casier, P. (State U. Hosp., Groningen, Netherlands) **Implications of congenital ophthalmoplegia for the development of visuo-motor functions: Illustrated by a case with the Moebius syndrome.** *Developmental Medicine & Child Neurology*, 1970(Oct), Vol. 12(5), 642-654. Reports the case of a 12-yr-old boy with Moebius syndrome, with severely restricted horizontal and vertical eye movements but without other gross motor disturbances. He had a verbal IQ of 92, very poor performance on visuomotor tasks, yet normal reading, writing, and spelling ability. (23 ref.)—P. W. Pruyser.

1631. Nichols, W. H. (Nationwide Insurance Co., Columbus, O.) **Blind persons in data processing: The attitude of industry.** *New Outlook for the Blind*, 1970(Nov), Vol. 64(9), 293-296.—Presents the attitude of industry concerning the employment of blind in data processing from the viewpoint of top, middle, and line management. Top personnel officers tend to be very cautious about hiring the blind for these types of positions. Middle management is also very skeptical. The questions of line management are geared more to the practical aspects of the day-to-day operation. In the area of the technical understanding of the equipment, however, the blind programmers tend to have a better understanding than the sighted ones. Despite the resistance, the introduction of blind persons into the field of data processing is encouraging.—S. R. Diamond.

1632. Yates, James T. (U. Denver) **Loudness perception of the blind and sighted as described by equal-loudness contours.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2348.

Deafness & Hearing Disorder

1633. Alterman, Arthur I. (George Washington U.) Mediation of recall for language related sequences in the prelingually deaf. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2295-2296.

1634. Andrus, James W. (U. Washington) An experimental investigation of visual closure in selected severely hard-of-hearing subjects. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3051-3052.

1635. Cohen, Manuel M. & Schleifer, Annette B. (New York U.) Effect of age and interest time interval upon the initial and re-check speech discrimination test results of hearing aid users. *Journal of Auditory Research*, 1969(Oct), Vol. 9(4), 332-334.—Audiologic data were transcribed for 50 11-81 yr. old males and 50 10-90 yr. old females, selected from the files of a hearing aid clinic. Phonetically balanced word stimuli discrimination scores (DSs) were examined for effect of sex, age, and lapsed interval between initial hearing aid evaluation and a recheck up to 2 mo. and more later. There were no sex differences. Those Ss above the median (63.6 yr.) had significantly worse recheck DSs than younger Ss. Older Ss did significantly worse on recheck than on initial evaluation. Lapsed interval was significant: after 2 mo. DSs declined.—*Journal summary*.

1636. Hoemann, Harry W. (Catholic U. of America) The development of communication skills in deaf and hearing children. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3024-3025.

1637. Naiman, Doris W. (New York U.) The relation of verbal language ability to psychological differentiation in the adult deaf. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2261.

1638. Zakia, Richard D. & Haber, Ralph N. (Rochester Inst. of Technology) Sequential letter and word recognition in deaf and hearing subjects. *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-B), 110-114. Examined the processing of sequentially presented letters of familiar and nonsense words, especially among Ss of vastly differing experience on sequential tasks, 3 groups of Ss were tested on letters of words spelled sequentially on an alphanumeric display and on letters of words fingerspelled. Ss were 33 deaf and 19 hearing undergraduates, and 6 deaf and 6 hearing teachers who were highly proficient in finger spelling. Deaf Ss varied in their fingerspelling ability. Of principal interest was the finding that hearing Ss did better on nonsense letter recognition, while the deaf group did better on word recognition. Word length was important except to the staff Ss on fingerspelled words, which also suggests that concentration on fingerspelling proficiency forces attention to the whole word and not its component letters. Hearing Ss, who were the group faced with an unfamiliar task, seemed to attend to each letter and hence had more difficulty with recognition of the longer unit.—*Journal abstract*.

SPEECH DISORDER

1639. Borghi, Robert W. (U. Southern California) A study of the influence of wife-as-therapist on language progress with adult male dysphasics. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3053.

1640. Greenlaw, Ronald W. (U. Utah) A study of

speech and selected physiological correlates in young adult stutterers during chemically induced anxiety. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3054.

1641. Kovalev, V. V. & Kirichenko, E. I. (Central Inst. for Advanced Medical Training, Moscow, USSR) K voprosu o dinamike rechevykh i psikhicheskikh narushenii u detei i podrostkov s sindromom motornoi alalii. [On the dynamics of speech and mental disturbances in children and adolescents with the syndrome of motor alalia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1561-1565.—Presents results of observations of 123 8-17 yr. old children and adolescents with underdeveloped speech involving motor alalia. Analysis of the data disclosed a distinctive mental insufficiency, distinguishable from oligophrenia in both the degree and structure of the defect. A reexamination of obsolete views of alalia as being a consequence of "local damage [combined] with intactness of the intellect" is suggested. This form of speech pathology is not isolated, but interconnected with mental impairment, making it an aspect of a particular variety of mental retardation. The major symptoms of the mental defect in motor alalia are due to an overall deficiency in those forms of cognitive activity intimately connected with internal and external speech. In diagnosing this form of underdevelopment of speech, it is necessary to consider general mental underdevelopment, and differentiate symptoms due to underdevelopment from symptoms connected with organic damage and secondary social deprivation. (English summary) (21 ref.)—*I. D. London*.

NEUROLOGICAL DISORDER

1642. Al'perovich, P. M. & Rudaya, B. I. (Pirogov Medical Inst., Vinnitsa, USSR) Klinicheskie formy i techenie sovremennogo epidemicheskogo (letargicheskogo) entsfalita. [Clinical forms and course of contemporary epidemic (lethargic) encephalitis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Aug), Vol. 70(8), 1129-1134. Presents an analysis of materials on 250 cases of epidemic encephalitis observed over a 25-yr period (1944-1968). 4 clinical forms appear to be characteristic of contemporary epidemic encephalitis: lethargic, hyperkinetic, grippoid, and vestibular. The acute period in the 1st 2 forms presented a developing clinical picture which was much milder than during pandemic and was often abortive. Termination with parkinsonism was often observed, especially after the lethargic and grippoid forms. Parkinsonism developed much more often without a preceding acute period than during pandemic. (English summary) (25 ref.)—*I. D. London*.

1643. Bogan, Joseph B. (U. Oklahoma) The child rearing attitudes of parents of cerebral palsied children and their relationship to child adjustment factors in rehabilitative therapies. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2976-2977.

1644. Bogolepov, N. K., Arbatskaya, Yu. D., & Gaponova, Yu. G. (2nd Moscow Medical Progn Inst., USSR) Klinika i eksperimentizatsiya trudospobnostei bol'nykh s posttraumaticheskimi i postentsfaliticheskimi parkinsonizmami i voprosy differentsial'noi diagnostiki. [Clinical picture and evaluation of working capacity of those suffering from post-traumatic and postencephalitic parkinsonism and the problems of differential diagnosis.] *Zhurnal Nevropato-*

logii i Psikhatrii, 1970(Sep), Vol. 70(9), 1325-1333. —Presents the results of observations of 13 cases of posttraumatic parkinsonism and 70 cases of encephalitic parkinsonism, along with determinations of degree of disability and working capacity. Illustrative EEGs and EMGs are reproduced. (English summary) (24 ref.)—*I. D. London*.

1645. Bogolepov, N. K., Martynov, Yu. S., Malkova, E. V., & Tsvil'ko, V. S. (2nd Moscow Medical Inst., USSR) **Gepato-portal'naya entsefalomieliopatiya.** [Hepatoportal encephalomyelopathy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Apr), Vol. 70(4), 496-506.—Reports observations of 54 16-63 yr. old patients with different diseases of the liver and biliary ducts, culminating in the development of hepatoportal encephalomyelopathy: 26 with a predominance of cerebral disturbances, 13 of spinal disturbances, and 15 with both. The results of pathohistological examinations of the brain and spinal cord for 9 decreased 18-53 yr. old patients are presented along with those of histochemical studies of the brain tissue and liver for Cu. Hepatoportal encephalomyelopathy is characterized by the absence of Cu in the brain tissues and liver and by polymorphic neuropsychic disorders manifested in extreme irritability and psychomotor excitation, weakening of memory and attention, mental impairment, various pyramidal and extrapyramidal disturbances, symptoms of oral automatisms, etc. (English summary)—*I. D. London*.

1646. Curzon, G., Goodwin-Austen, R. B., Tomlinson, E. B., & Kantamaneni, B. D. (National Hosp., Inst. of Neurology, London, England) **The cerebrospinal fluid homovanillic acid concentration in patients with parkinsonism treated with L-dopa.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Feb), Vol. 33(1), 1-6.—The response of 8 patients with parkinsonism to treatment with L-dopa was studied and correlated with changes in the homovanillic acid (HVA) concentration in the cerebrospinal fluid. Before treatment HVA concentration was low or undetectable in all Ss but after treatment it rose to a level which correlated significantly with the dose of L-dopa. The lowest HVA levels after treatment were in the 2 Ss who showed no benefit. 1 S showed little therapeutic benefit but developed a relatively high HVA level. 2 Ss in whom clinical improvement was greatest had HVA levels intermediate between Ss who showed no response and those whose response was moderate or slight. It is suggested that increased brain synthesis of dopamine, as reflected by increased cerebrospinal fluid HVA levels, is necessary for a therapeutic response to L-dopa, but that increased brain dopamine synthesis does not necessarily lead to a therapeutic response. (22 ref.)—*Journal summary*.

1647. Dracheva, Z. N., Penek, N. V., & Shchurinov, L. A. (Kiev Medical Inst., USSR) **Vozrastnye osobennosti kliniki krovoizlivanii v golovnoi mozg.** [Age-specific features of the clinical picture of cerebral hemorrhages.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Jun), Vol. 70(6), 812-815.—42 30-75 yr. old patients were observed, in order to explicate the role of the age factor in the clinical picture of the acute period of hemorrhagic stroke, basically caused by high blood pressure. The 17 Ss in the younger group (30-45 yr.) exhibited general cerebral symptoms that were more marked, rapid development of comatose states, automatized gestures, hormetonia, oculomotor disorders, respiratory and cardiac disturbances. The 25 Ss in the older group (60-75 yr.) exhibited gradually developing

cerebral symptoms, which were not as pronounced as in the younger group. (English summary)—*I. D. London*.

1648. Filippycheva, N. A. & Faller, T. O. (Burdenko Research Inst. of Neurosurgery, Moscow, USSR) **Kharakteristika funktsional'nogo sostoyaniya golovnogo mozga pri gliomakh sredinno raspolozhennykh struktur bol'shikh polusharii.** [Characteristics of the functional state of the brain in gliomata of the medially placed hemispheric structures.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(May), Vol. 70(5), 646-654.—Studied the physiological features characterizing cerebral activity in the presence of tumors at 2 levels of the middle hemispheric structures: the 3rd ventricular and callosoperiventriculo-septal regions (with the absence of intracranial pressure and a clinical picture for 9 patients, involving the amnesic syndrome and gross disorders of consciousness). Chosen as indices of cerebral function were the states of brainstem-cortical relationships, central regulation of cerebral and peripheral circulation, and central regulation of voluntary movements. In these patients the brain functions under conditions of: (a) marked disturbance of the nonspecific afferent flow of excitation from the regions of the brainstem as a result of its partial blockade; (b) gross pathological influences from the brainstem; and (c) stable, sharply expressed disturbance of cerebral circulation, probably producing a state of chronic hypoxia. (English summary) (37 ref.)—*I. D. London*.

1649. Freidkov, V. I. & Edel'shtein, E. A. (Central Inst. for Advanced Medical Training, Moscow, USSR) **Entsefaliticheskie reaktsii u detei.** [Encephalitic reactions in children.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Oct), Vol. 70(10), 1462-1465.—Presents results of observations of 116 children with different infections (most frequently respiratory), accompanied by general cerebral disorders known as "encephalitic reactions": convulsive seizures with loss of consciousness and, less frequently, psychomotor excitation with delusions, hallucinations, and confused mental states. Data confirm the necessity of conducting anticonvulsive, desensitizing, and dehydrating therapy during the infection, and for sometime afterwards. In cases of repeated infections this therapy should also be undertaken prophylactically together with the administration of hypothermic drugs. This is especially necessary in cases where there are observed cerebral defect, compensatory hydrocephaly, and allergic tendency. (English summary)—*I. D. London*.

1650. Goldstein, Steven G., Kleinknecht, Ronald A., & Gallo, Anthony E. (U. Oregon, Medical School) **Neuropsychological changes associated with carotid endarterectomy.** *Cortex*, 1970(Sep), Vol. 6(3), 308-322.—A long-held belief that carotid endarterectomy was prophylactic in nature rather than offering any restoration of function was evaluated by the use of an extensive neuropsychological battery of tests. 6 patients admitted to a neurosurgery service for carotid endarterectomy were evaluated just prior to surgery and approximately 3 mo. following surgery. All patients had presented complaints of transient ischemic episodes lasting seconds to minutes and then clearing totally. Analysis of the results indicated changes in all patients in the direction of improved performance. It was felt that increases in intelligence tests scores were most probably a function of practice and/or prior exposure. Improvement in performance on other measures was too great to be explained as practice effect, however, and the general

impression was one of restoration of measured neuropsychological ability as a function of the surgical procedure. It was pointed out that the performance of all Ss postsurgery was still similar to persons with cerebrovascular difficulties.—*R. Gunter.*

1651. Golovkin, V. I. (Kirov Military-Medical Academy, Leningrad, USSR) **Nepolnye autoantitela k mozgu pri nekotorykh zabolevaniyakh nervnoi sistemy.** [Incomplete cerebral autoantibodies in some diseases of the nervous system.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jul), Vol. 70(7), 961-965.—Utilizing Steffens test ("the indirect reaction of antiglobulin fixation"), an attempt was made to disclose the presence of incomplete cerebral autoantibodies in the blood serum of 20 healthy Ss and 115 Ss with neurological diseases. Diagnostic groups of the latter included 32 with neuroses, 23 with vascular diseases, 33 with closed brain injury, 11 infected with lesions, 14 with multiple sclerosis and encephalomyelitis, and 2 with degenerative diseases. The findings provide evidence for the importance of the effects of autosensitization to the antigens of brain tissue in the pathogenesis of a number of diseases of the nervous system. "Incomplete antiglobulin-fixating free antibodies" exhibited a high organospecificity to nerve tissue and yielded reactions of various intensities to the antigens of the white and gray matter of the brain. (English summary)—*I. D. London.*

1652. Kalizhnyuk, E. S. (Serbskii Central Research Inst., Moscow, USSR) **K voprosu o zerkal'nom pis'me u detei s tserebral'nymi paralichami.** [On mirror writing in children with cerebral palsies.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1566-1571.—Observed 30 6-9 yr. old children with cerebral palsy (mainly dextral hemiparetics). In most Ss mirror writing occurred when the left hand was used; in 4 cases with both hands. No gross aphasic disorders or severe underdevelopment of cognitive activity were detected. Observations indicate that the elements of optospacial agraphy noted may be incorporated within Herstmann's syndrome (agraphy, alexia, digital agnosia, disturbed body conception, acalculia). "Compensatory-restorative" work, starting in early childhood, is indicated, with (a) emphasis on the training of the kinesthetic sensations; and (b) reliance on the child's visual perception of the spatial contours of the graphemes, promoted by a number of suggested methods. (English summary)—*I. D. London.*

1653. Khondkarian, O. A. (USSR Academy of Medical Sciences, Inst. of Neurology, Moscow) **Nekotorye aktual'nye voprosy problemy bokovogo amiotroficheskogo skleroza.** [Some high-priority questions concerning the problems of lateral amyotrophic sclerosis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Apr), Vol. 70(4), 527-531.—Reports on observations of over 400 patients. The data justify the division of the disease into bulbar, cervicothoracic, and sacrolumbar forms from the clinical and pathomorphological viewpoint. Evidence is presented in behalf of another form of the disease, i.e., the so-called "superior (cerebral)" form. The data indicate that not all cases of lateral amyotrophic sclerosis can be considered as hereditarily involved. Some probably have a genetic basis, but most cases should be assigned to the group characterized by "slow" infections of the nervous system. In each individual case constitutional factors should also be considered. (English summary) (15 ref.)—*I. D. London.*

1654. Konovalova, G. I. (Central Inst. for Advanced

Medical Training, Moscow, USSR) **K klinike i techeniyu epidemicheskogo entsefalita u detei.** [On the clinical picture and course of epidemic encephalitis in children.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1450-1452.—Observed 21 5-mo to 16-yr-old patients with Economo's disease. It is concluded that: sporadic cases of the disease are encountered in children of all ages. The acute phase begins with heightened temperature and catarrhal symptoms. Symptoms of lesion of the nervous system emerge in most cases in the acute phase in the course of the 1st 2 wk. and point to localization of the pathological process in the di- and mesencephalic structures. The symptoms of the chronic period provided evidence for primarily brainstem-subcortical localization of the pathological cases; stable characterological changes also appeared; and in about 1/2 the cases a chronically progressive course was observed with the development of parkinsonism. (English summary)—*I. D. London.*

1655. Lavy, S., Carmon, A., Abramsky, O., & Feldman, S. (Hadassah U. Hosp., Jerusalem, Israel) [Evaluation of the therapeutic effects of L dopa in Parkinson's disease.] *Harefuah*, 1970(Dec), Vol. 79(12), 547-549.—Evaluated the short-term therapeutic effects of L-dopa in Parkinson's disease in a group of 20 patients in different stages of the disease. The patients were evaluated clinically and tested for motor performance before and after 1 mo. of treatment. Clinical evaluation included a 5-point scaling of rigidity, akinesia, and tremor. Motor performance was tested by an alternating movement efficiency test. The results of treatment with 2.5-4 gm. daily doses showed marked clinical improvement, especially with regard to akinesia and rigidity. Alternating motor performance improved significantly in all patients. The only side effects observed were confusion or emotional disturbances in 3 cases. These side effects disappeared after reducing the dose of the drug.—*English abstract.*

1656. Litvak, L. B. & Nyagu-Belyaeva, A. I. (Kharkov Research Inst. of Neurology & Psychiatry, USSR) **O "lakunarnom sostoyanii" mozga v ateroskleroticheskoi faze gipertonicheskoi bolezni.** [On the "lacunar state" of the brain in the atherosclerotic phase of hypertension.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 801-808.—Reports results of clinico-pathomorphological examinations of 40 hypertensive cerebral atherosclerotics, and pathohistological examinations of 12 of them. A lacunar state of the brain was rather frequently detected, leading to the multiple development of lacunae, i.e., minute foci of cerebral destruction. The clinical picture included typical extrapyramidal motor disorders, pseudobulbar symptoms, gross memory impairment, and gross mental changes with emotional lability and progressive dementia. 2 periods of stroke-free progressive development of the pathology are discerned and described. This form of cerebral vascular pathology is rather widespread and not particularly confined to old age. (English summary)—*I. D. London.*

1657. Maumenko, A. I., et al. (1st Leningrad Medical Inst. USSR) **Ob izmeneniyakh vremeni provedeniya vzbuzhdeniya po dvigatel'nyim voloknam sredinnogo nerva pri sindrome zapyastnogo kanala.** [On changes in conduction-time for excitation along motor fibers of the median nerve in cases involving the carpal canal syndrome.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1656-1660.—Determined conduction-time (CT) for excitation along the motor

monosymptomatic narcolepsy the phase of "rapid" (paradoxal) sleep was absent from the structure of the attack; in polysymptomatic narcolepsy the attacks usually began with the "rapid" phase. Sometimes the "rapid" phase was accompanied by only some of its signs which, in turn, were combined with elements of "slow" sleep. It is suggested that the narcoleptic attack cannot be reduced to a paroxysm of "rapid" sleep and that its pathogenesis is considerably more complex. (English summary) (18 ref.).—*I. D. London.*

1664. Salzarulo, P. & Bergès, J. Au sujet des signes d'instabilité dans l'examen neurologique de l'enfant. [Signs of instability in the neurological examination of the infant.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Jan), Vol. 30(1), 37-47.—Neurological tests of 82 children with spontaneous postural instability indicated its important relationships with spontaneous motor instability, paratonia, limbs instability, and synkinesis. Different types of instability assume meaning in connection with modifications of neurological functions taken as a whole. Instability seems thus a way of approaching and investigating the theoretical problem of connections between motricity and psychomotricity.—*L. L'Abate.*

1665. Schachter, Mendel. (Committee of Child Defects, Marseille, France) Contribution à l'étude des accidents neurologiques et neuro-psychologiques consécutifs à des interventions sur la sphère orale (amygdaléctomies et adénoïdectomies). [Contribution to the study of neurological and neuro-psychological accidents subjected to surgical operations on the oral sphere (amygdaléctomies and tonsillectomies).] *Rivista di Psichiatria*, 1969(May), Vol. 4(3), 170-181.—The pathogenesis of 3 clinical cases is yet under discussion because of the relative scarcity of the published cases" despite the frequency of surgical intervention on this area in little children.—*N. De Palma.*

1666. Shefer, D. G., Skryabin, V. V., Myakoma, A. E., & Sakovich, V. P. (Sverdlovsk Medical Inst., USSR) Reoëntsefalografiya v diagnostike opukholei golovnogo mozga. [Rheoencephalography in diagnosis of brain tumors.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(May), Vol. 70(5), 680-684.—Reports results of rheoencephalographic examinations of 116 18-50 yr. old patients with brain tumors and 55 healthy controls. The changes in the rheoencephalograph during the 3 stages of the hypertensive syndrome (compensation, sub-, and decompensation) are discussed. It is shown that a correlation exists between the clinical stage of intracranial hypertension and amplitude-frequency characteristics in the rheoencephalographic recordings. (English summary) (33 ref.).—*I. D. London.*

1667. Siroechkovskaya, M. E., et al. (Central Inst. for Advanced Medical Training, Moscow, USSR) Klinika polisezonnykh pervichnykh virusnykh èntsefalitov u detei. [Clinical picture of polyseasonal primary viral encephalites in children.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Oct), Vol. 70(10), 1457-1462.—Observed 114 cases in the acute period from 1965-1969. Such encephalites are encountered not infrequently and are characterized by a varied clinical picture and course. Most of the time the onset of the disease is acute, and sometimes very fast. The major focus of lesion is located in the oral parts of the brainstem and the subcortical nodes. In some cases the pathological process is very widespread, embracing almost all parts of the brain and extending into the spinal cord. Brainstem and diffuse

forms of encephalitis are the most serious of the pathological process. In 10% of polyseasonal encephalitic cases it was possible to establish an enteroviral etiology (English summary)—*I. D. London.*

1668. Sirotkin, V. M., Tretyakov, V. P., & Speranskii, V. I. (Kazan Medical Inst. USSR) O lechenii nibufinom dvigatel'nykh vazomotornykh narushenii i rasstroistv chuvstvitel'nosti u bol'nykh siringomieliiei. [On nibufin treatment of motor and vasomotor disturbances and of disorders of sensitivity in those with syringomyelia.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Dec), Vol. 70(12), 1810-1814.—Reports results of treatment of 95 syringomyeliacs with daily im injections (for 10-15 days) of 1 mg of nibufin: a phosphoric acid preparation (paranitrophenyl ether of dibutylphosphoric acid), possessing anticholinesterase properties and capable of (a) direct stimulatory action on the cholinoreceptive structures, and (b) alteration of cerebral serotonin level. The treatment led to favorable changes in the ergographic, dynamometric and reflexometric indices (simple motor reaction, thermesthetic time, amplitudinal and temporal parameters of the patellar reflexes, thermic vasomotor reflex). The therapeutic value of nibufin as a means for the mediator treatment syringomyelia is confirmed along with its superiority to armine and proserpine. In the doses applied, nibufin produced no side effects. (English summary) (17 ref.).—*I. D. London.*

1669. Skryabin, V. V., Sakovich, V. P., Myakota, A. E., & Oranskii, I. E. (Sverdlovsk Medical Inst., USSR) Sulochnyi ritm pul'sovogo krovenapolneniya mozga u zdorovykh i bol'nykh s povyshennym vnutricherepnym davleniem. [Daily rhythm of cerebral pulse in normals and those with heightened intracranial pressure.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Aug), Vol. 70(8), 1182-1186.—39 Ss participated in a study of the daily variations of magnitude of cerebral pulse. The ohmic amplitudinal index for pulse waves in the rheoencephalogram (R-E-G) underwent daily rhythmic change in both normals and those with heightened intracranial pressure. This index attained its greatest values during daytime; its least during nighttime. In normals the index for R-E-G pulse waves, recorded on the left, in most cases exceeded that for waves recorded on the right. In the course of the day, the magnitude of interhemispheric asymmetry changed. It attained greater dimensions during daytime; lesser during nighttime. In normals, keeping to a semihospital regimen, a close correlation was observed between daily changes in the ohmic amplitude of R-E-G pulse waves and those in the transverse rheograms of the body. A like correlation was not observed in those with heightened intracranial pressure under analogous regimen (English summary) (16 ref.).—*I. D. London.*

1670. Skvirskaya, K. B. (USSR Health Ministry, Central Research Roentgeno-Radiological Inst., Moscow) K probleme nasledstvennosti siringomieliiei. [On the problem of the inheritance of syringomyelia.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Sep), Vol. 70(9), 1281-1286.—Presents clinical reports of familial syringomyelia (SM) in 5 families undergoing prolonged observation. Sporadic forms of SM are almost identical. An absence of similarity in the clinical picture of SM in the Ss' families is noted. It is suggested that the concept of status dysraphicus be reexamined, since it is not central to the problem of tracing SM hereditary transmission. In any case, SM may be considered as a

disease associated with a hereditary predisposition, responding to the influence of other genetic factors and environmental impact (traumata, infections). (English summary) (15 ref.)—*I. D. London.*

1671. Sosnovik, I. L. (Vitebsk Medical Inst., USSR) **Fenokopii nekotorykh nasledstvennykh zabolevani, svyazannykh s diéntséfal'noi patologiéi.** [Phenocopies of some hereditary diseases related to diencephalic pathology.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Sep), Vol. 70(9), 1312-1316.—Describes cases of a hereditary disease in 1 family, marked by the appearance of 3 syndromes: myoplegia, myopathy, and myotonia. Results of clinical observations on a number of patients for whom these 3 syndromes bear a symptomatic character are reported. These phenocopies of genetically engendered diseases were shown to be produced by different exogenic factors, e.g., infections, surgical intervention, etc. The 3 syndromes appear in combination with other signs of diencephalic pathology. (English summary)—*I. D. London.*

1672. Vainshtok, A. B., Polyukhov, A. M., & Oleinik, L. I. (Inst. of Gerontology, Kiev, USSR) **O sostoyanii zhiro-lipidnogo obmena pri ateroskleroticheskom parkinsonizme v pozhilom vozraste.** [On the state of fatty-lipid metabolism in atherosclerotic parkinsonism in later years.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jun), Vol. 70(6), 828-834.—Reports determinations of various indices of fatty-lipid metabolism and related indices in order to establish clinico-biochemical parallels in atherosclerotic parkinsonism in older people (60-74 yr.). (English summary) (24 ref.)—*I. D. London.*

Brain Damage

1673. Bobrov, A. S. (Central Research Inst. for Evaluation of Work Capacity & Trainability of the Disabled, Moscow, USSR) **K voprosu vozrastnoi dlinamiki otdalénnykh posledstvií zakrytoi cherepno-mozgovoi travmy.** [On the age-specific dynamics of remote sequelae of closed craniocerebral injury.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 641-644.—Reports observations of 30 41-60 yr. old patients with closed craniocerebral injuries sustained during World War II. A stable worsening of symptomatology may ensue, following a compensatory period of considerable duration. In such cases the clinical picture was characterized by a polymorphic asthenic symptomatology combined with affective disorders and the appearance of traits not previously characteristic, such as anxiety. Mental disorders seriously diminished the working capacity of these individuals. (English summary) (15 ref.)—*I. D. London.*

1674. Boll, Thomas J. (U. Washington) **Correlation of WISC with motor speed and strength for brain-damaged and normal children.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 169-172.—Presents an investigation using 35 normal and 35 braindamaged children comparing performance on the WISC to performance with each hand on the Halstead Finger Oscillation Test and the Smedley Hand Dynamometer. Correlations were low for both groups between the WISC performance subtests and the motor tests—with the exception of Block Design for the control group. Significant correlations between the motor tests and several WISC verbal subtests were found for each group.—*Journal summary.*

1675. Brink, Joyce D., et al. (Rancho Los Amigos Hosp., Downey, Calif.) **Recovery of motor and intel-**

lectual function in children sustaining severe head injuries. *Developmental Medicine & Child Neurology*, 1970(Oct), Vol. 12(5), 565-571.—In 46 2-18 yr. old patients with severe head trauma (all with more than 1 wk. of coma, 38 initially decerebrate or decorticate, 21 with skull fractures, 28 had emergency craniotomies), significant recovery of motor function was found in the majority of cases after from 1-7 yr. But severe intellectual deficits prevailed, particularly in those with early trauma. Degree of recovery of motor and intellectual functions was related to duration of coma.—*P. W. Pruyser.*

1676. De Renzi, Ennio; Scotti, Giuseppe, & Spinnler, Hans. (U. Milan, Clinica delle Malattie Nervose e Mentali, Italy) **Perceptual and associative disorders of visual recognition.** *Neurology*, 1969(Jul), Vol. 19(7), 634-641.—2 hemispheric groups were given 4 visuo-perceptual tests: overlapping figures, face identification, the Farnsworth 100 Hue, and objective-figure matching. The 1st 3 tests were assumed to be demanding at the apperceptive level, while the 4th was much simpler but required the comprehension of the meaning of the items. Right brain-damaged patients with visual field defects were found to be specifically impaired on the 3 apperceptive tests. Left brain-damaged patients, in turn, performed with lowest scores on the object-figure matching test. There was a highly significant correlation in the left group, but not in the right, between the performance on the matching test and that on the Weigl abstract thinking test. Almost all right hemisphere patients who achieved poor scores on the matching tests were also impaired on the apperceptive tests, while this was not the case for about 1/3 of the left hemisphere patients. These findings are suggestive of a differential specialization between the 2 hemispheres in the process of visual recognition. The bearing of these data on Lissauer's classification of visual agnosia into an apperceptive and an associative form is discussed.—*F. O. Triggs.*

1677. Dee, H. L. & Benton, A. L. (U. Iowa, Neurosensory Center) **A cross-modal investigation of spatial performances in patients with unilateral cerebral disease.** *Cortex*, 1970(Sep), Vol. 6(3), 261-272.—Semmes has recently suggested that there are disorders of spatial ability which transcend a single sensory modality and which are not determined by elementary sensory defect. It was hypothesized that (a) there are disorders of spatial ability which transcend a single sensory dimension; and (b) such disorders are related to hemispheric locus of lesion. 4 groups of patients with unilateral cerebral lesions (unilateral left and right hemisphere patients, 1/2 of whom did and 1/2 of whom did not show constructional apraxia) were given tests of visual and haptic perception. Failure on the constructional tasks was as closely related to perceptual dysfunction in the haptic as in the visuospatial sphere. This relationship was obtained in patients with lesions in either hemisphere. There was no essential relationship between failure on the constructional or perceptual tests and aphasia, motor or sensory defect, or visual field defect. The findings are interpreted as being consistent with Hypothesis a but not with Hypothesis b.—*R. Gunter.*

1678. Faverman, Ya. S. (Republic Hosp., Beltsy, USSR) **Toksiko-allergicheskie porazheniya gipotalamicheskikh tsentrov, vyzvannye ursolom.** [Ursol-induced toxico-allergic lesions of the

hypothalamic centers.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Dec), Vol. 70(12), 1784-1790.—Ss were 197 fur- workers, having contact with ursol (para-phenylenediamine) dyes and displaying disturbances of the nervous system (cases of simultaneous ursol-induced bronchial asthma excluded). Results of a number of special examinations (biochemical, capillaroscopic, allergological, etc.) are presented. It is concluded that the level of lesion is primarily hypothalamic and that such lesion has an allergic genesis. (English summary) (17 ref.)—*I. D. London.*

1679. Gordon, Musetta C. (Veterans Hosp., Des Moines, Ia.) **Some effects of stimulus presentation rate and complexity on perception and retention in brain-damaged patients.** *Cortex*, 1970(Sep), Vol. 6(3), 273-286.—Compared the short-term memory recall performance of 36 brain-damaged Ss with the performances of 36 mentally retarded Ss and 36 normal controls for both total responses correct and for order errors. Stimuli were presented to all Ss at 3 rates, 40, 60, and 120 significant units per minute, and at 3 levels of stimulus concept complexity, simple, compound, and complex, at each rate. The performance of brain-damaged Ss was similar to that of the control group. The brain-damaged group did not make significantly more order errors than the normal controls. This was not true for the retarded who made significantly more order errors than both brain-damaged and normal Ss under all conditions. A comparison of small groups of left- and right-hemisphere-damaged Ss disclosed no differences in their ability to recall aurally perceived verbal material. Mirror-image error scores were significantly and positively related to verbal order scores for the right-hemisphere-damaged Ss. This relationship did not exist between the scores for the left-hemisphere-damaged Ss.—*R. Gunter.*

1680. Johnson, James E., Hellkamp, David T., & Lottman, Thomas J. (Loyola U., Chicago, Ill.) **The relationship between intelligence, brain damage, and Hutt-Briskin errors on the Bender-Gestalt.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 84-85.—WAIS and Bender Gestalt scores were obtained on 240 hospitalized patients and an analysis of results was performed to investigate the effectiveness of the Hutt-Briskin scoring system for the Bender Gestalt in differentiating normal from organic Ss for various IQ ranges. "The results indicated that this scoring system is relatively effective in indicating organicity only when used with patients in the borderline or dull normal IQ range."—*E. J. Kronenberger.*

1681. Rosen, Harold. (Veterans Administration Center, Wood, Wis.) **A comparison of two scoring systems for the Memory-for-Design Test.** *Journal of Clinical Psychology*, 1971(Jan), Vol. 27(1), 79-81.—49 brain-damaged patients were compared with a control group of 49 nonpsychotic patients on the Memory-for-Design Test (MFD). The diagnostic accuracy of 2 cutting scores is presented in table form. By excluding psychotics, detection of brain damage was significantly improved. 43% of the brain-damaged patients remained undetected by MFD, and this result is analyzed and discussed.—*E. J. Kronenberger.*

1682. Scotti, Giuseppe & Spinnler, Hans. (U. Milan, Clinic for Nervous & Mental Disorders, Italy) **Colour imperception in unilateral hemisphere-damaged patients.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Feb), Vol. 33(1), 22-28.—Investigated (a) the

influence of the hemispheric side of lesion, of the presence or absence of homonymous visual field defect, and of the interaction of these 2 factors on color discrimination; (b) whether the failure of control and brain-damaged patients was specifically related to certain sectors of the color spectrum; and (c) possible differences between the profiles of different subgroups. 80 control Ss, 101 left hemisphere-damaged patients (65 without and 36 with visual field defects), and 63 right hemisphere-damaged patients (39 without and 24 with visual field defects) were given the Farnsworth-Munsell 100 Hue Test (FMT). Only right hemisphere-damaged Ss with visual field defects were significantly impaired in comparison to the other groups, which did not differ among themselves. The difference between the right hemisphere-damaged Ss with visual field defects and the other subgroups was quantitative and not qualitative, since green-blue discrimination was found to be equally difficult for all Ss. When Ss with extremely poor FMT scores were identified, they were found to be impaired also on other noncolor perceptual tests. (32 ref.)—*Journal summary.*

1683. Sparks, Robert; Goodglass, Harold, & Nickel, Barbara. (Veterans Administration Hosp., Boston, Mass.) **Ipsilateral versus contralateral extinction in dichotic listening resulting from hemisphere lesions.** *Cortex*, 1970(Sep), Vol. 6(3), 249-260.—Presents a striking difference between the effects on verbal dichotic listening performance of left vs. right hemisphere lesions and examines the bearing of this observation on the mechanisms producing asymmetry of report from the 2 ears. A study is presented of verbal dichotic listening by 28 left-brain-injured aphasic patients and 20 right-brain-injured nonaphasic patients. The total population of the study was right-handed. The results reveal that the right-hemisphere-damaged group demonstrated exclusive extinction of the signals received by the contralateral left ear. The left-hemisphere-damaged group was divided between those who demonstrated extinction of the contralateral right ear and a significant number of Ss who demonstrated what might appear to be paradoxical extinction of the ipsilateral left ear. This ipsilateral extinction is presented as being less paradoxical by a model which postulates the competition between signals received by both ears occurs in the left hemisphere. The signal from the right ear arrives there directly via the more important decussating route but the information from the right hemisphere by anterior commissural fibers. By this model only a left hemisphere lesion can affect the information from either the contralateral or ipsilateral ear.—*R. Gunter.*

Epilepsy

1684. Bein, B. N. & Gurevich, V. L. (Sverdlovsk Psychoneurological Hosp., USSR) **Aktivizatsiya EEG u bol'nykh visochnykh épilepsiei metodom giperventilyatsii i nekotorye dannye o mekhanizme ee deistviya.** [EEG activation in temporal epileptics by means of hyperventilation and some data on the mechanism of its action.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(May), Vol. 70(5), 698-702.—30 normal 18-30 yr. old Ss and 50 Ss suffering from temporal epilepsy participated in a study of the electrographic effect of hyperventilation. In 60% of the latter, epileptic activity in the cerebral biopotentials was elicited.

Recordings of EEG activation during hyperventilation were made before and after injection of aminazine (chlorpromazine) in order to block the ascending influences of the brainstem reticular formation. Hyperventilation following aminazine administration facilitated the appearance of epileptic discharges. The transformation of biopotentials in hyperventilation is attributed to developing hypoxia in the brain tissue. (English summary) (29 ref.)—*I. D. London.*

1685. **Bilkevich, T.** (Gdansk Medical Academy, Poland) **Psikhopatologiya visochnoi épilepsii.** [Psychopathology of temporal epilepsy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Sep), Vol. 70(9), 1353-1356.—Describes the chief psychopathological signs of the temporal syndrome and the most characteristic features of the seizures occurring, given an epileptic focus in the temporal lobe. Determination of the extent and kind of mental disturbances is essential for proper diagnosis. The following are discussed: psychomotor and psychosensory attacks, endogenic paroxysmal changes in mood, and attacks of obsessional ideas, reminiscences, etc. (English summary)—*I. D. London.*

1686. **Bogolepov, N. K., Burd, G. S., & Fedin, A. I.** (2nd Moscow Medical Inst., USSR) **Épilepticheski status i ego lechenie v usloviyakh statsionara.** [Status epilepticus and its treatment under hospital conditions.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Dec), Vol. 70(12), 1761-1771.—Observed 180 cases (mostly between 20-59 yr. of age) of status epilepticus. Symptomatic epilepsy was present in 119 cases; in the remaining 61 cases it was not possible to establish an epileptic etiology. The importance of a battery of examinations for establishing the etiological and pathogenetic factors in status epilepticus is emphasized. 4 variants of the course of this disease were distinguished, differing with respect to frequency of attacks, depth of comatose state, and resistance to treatment. The effectiveness of the treatment of patients with grave status epilepticus in the neuroanatomical division of the hospital is indicated. Data on the EEG and electroencephalogram during seizure and in the interattack period are presented. The earlier intensive therapy is begun, utilizing different contemporary drugs and methods, the better the prognosis. (English summary)—*I. D. London.*

1687. **Boldyrev, A. I.** (Research Inst. of Psychiatry, Moscow, USSR) **Struktura pervykh pripadkov pri épilepsii u detei i vzroslykh.** [Structure of first seizures in child and adult epilepsy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Jun), Vol. 70(6), 902-906.—100 children up to the age of 16 yr. and 300 16-40 yr. old adults with epilepsy of up to 3 yr. were observed in a comparative study of the characteristics of the 1st seizures in epileptics belonging to different age groups. In children small, visceromotor and psychomotor attacks, and nocturnal fears, sleep walking, abortive attacks, and tonic convulsions predominated. The predominance of these forms of attacks is attributed to the anatomic and functional dominance of the brainstem-diencephalic subcortical structure of the brain. In adults seizures connected with the primary cortical localization of the epileptic focus predominated: paroxysmal disorders of perception, thinking and speech, dreamy state, psychosensory attacks, etc. The clonic phase was dominant in the structure of the convulsive forms. Age-specific differences in seizures emerged with especial sharpness in children, thereby reflecting definite

stages in cerebral development. (English summary) (34 ref.)—*I. D. London.*

1688. **Corbella, T., Mamoli, A., & Rossi, L.** (Maggiore Hosp., Bergamo, Italy) **Motivi e ragioni che giustificano l'uso dell'ACTH nella terapia dell'epilessia.** [Reasons and results which justify the use of ACTH in the treatment of epilepsy.] *Rivista di Neurobiologia*, 1968(Apr), Vol. 14(2), 171-195.—ACTH and cortisone have unique effects on the brain. In various experiments with animals, these hormones lowered the convulsive threshold of the nervous cell. They were used to fight cerebral edema, and because of the favorable results, they were applied to epilepsy. The retention of sodium in the cell, the release of potassium, and the inactivity of the cellular membrane are at the base of convulsive attacks. ACTH modified the sum totality of these factors, thereby avoiding epileptic release. It dominates all types of epilepsy. 11 children (14 yr. and under) and 9 adults (17-46 yr.) were treated with ACTH. EEG findings show that in the course of the therapy, any type of paroxysmal activity diminished. ACTH modifies the water and electrolyte balance of the neuron cell membrane. (English summary) (22 ref.)—*A. M. Farfaglia.*

1689. **Dubikaitis, V. V.** (Polenov Research Neurosurgical Inst., Leningrad, USSR) **Dinamika polya potentsialov golovnogo mozga u zdorovogo cheloveka i bol'nogo s épilepticheskimi pripadkami tipa petit mal.** [Dynamics of the cerebral potential field in normals and epileptics with petit mal type of attacks.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Aug), Vol. 70(8), 1167-1171.—Presents a comparative EEG study of the dynamic characteristics of the cerebral potential field in normals and in those suffering from petit mal. The data show that in petit mal cases, the character of the dynamic picture of the EEG was distinct from that in normals. This distinction derived from the fact that, as pathological activity in the EEG grows, the trajectories of the excitatory field pass more often through planes which are close to the frontal plane of the brain, while during a petit mal attack they pass almost always through the frontal plane. Such a transformation of cerebral electrical activity not only is a specific expression of the pathological process, but is thought to play a definite role in the compensatory mechanism. (English summary)—*I. D. London.*

1690. **Kokina, E. A.** (Central Inst. for Advanced Medical Training, Moscow, USSR) **Klinicheskie osobennosti terapevticheskikh remisii pri épilepsii u detei i podrostkov v svyazi s zadachami sotsial'no-trudovoi adaptatsii.** [Clinical features of therapeutic remissions in epileptic children and adolescents in connection with the aims of social-work adaptation.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Oct), Vol. 70(10), 1541-1544.—Attempted to determine the factors leading to the onset of therapeutic remission (TR) in epilepsy. 102 1-16 yr. old hospitalized epileptics were observed from 1959-1961, followed by observations over an 8-10 yr. period as outpatients. The remissive clinical picture is described as it relates to the aims of "social-work adaptation." In 95 patients TR, lasting from 8-10 yr., occurred. 2 groups were discerned: (a) those with complete TR (absence of seizures for 7-8 yr. without supportive therapy), and (b) those with incomplete TR (considerably less frequency and the reduction of seizures with continuance of therapy). The degree of intellectual impairment is shown to have

special significance for "social-work readaptation." Criteria are listed for prognosis of the epileptic course in children and adolescents. (English summary)—*I. D. London.*

1691. **Leksin, E. N. & Osintseva, T. S.** (Izhevsk Medical Inst., USSR) **Znachenie likvorologicheskikh testov dlya differentsial'noi diagnostiki épilepsii travmaticheskogo i infektsionnogo geneza.** [Significance of cerebral spinal fluid tests for differential diagnosis of epilepsy of traumatic and infectious origin.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Aug), Vol. 70(8), 1155-1159.—Based on examinations of 235 epileptics, an attempt was made to develop cerebral spinal fluid (CSF) tests for the differential diagnosis of epilepsy in the residual period of closed brain injury and neuroinfections. Tests employed were pressure and composition of CSF, and permeability of the hemato-encephalic barrier for sugar and radioactive P^{32} . In the sequelae of closed brain injury and neuroinfections, evolving with epileptic attacks, the permeability of the hemato-encephalic barrier was usually moderately enhanced, and was not etiologically dependent. Some of the changes in composition and CSF pressure were due not so much to the major symptoms of the affection (epileptic attacks), as to its etiology; in conjunction with other symptoms these may be utilized in difficult cases of differential diagnosis of traumatic and infectious epilepsy. For epilepsy in the residual period of closed brain injury, reduction of CSF pressure and CSF chloride level was characteristic, along with increase in CSF sugar level and maintenance of normal blood sugar level. For epilepsy in the residual period of neuroinfections, increase in CSF pressure was characteristic, along with normal CSF protein, sugar, and chloride levels. (English summary) (19 ref.)—*I. D. London.*

1692. **Sal y Rosas, Federico.** **Indicios de la epilepsia en el Perú Antiguo.** [Incidence of epilepsy in ancient Peru.] *Revista de Neuro-Psiquiatria*, 1970(Mar), Vol. 33(1), 31-44.—Examines the history of Peruvian medical folklore to provide information on how epilepsy was regarded and treated in previous centuries. Epileptic attacks were originally called "heart disease" or "Sonko-Nanay" by the Incas. A survey of the nosographical and symptomatological history of Sonko-Nanay revealed an evolution in the attitudes toward the disease which parallels the development of human thought. Causes and origins, diagnoses, and treatments of Sonko-Nanay are considered in relation to the etiopathogenic fables, magic, and symbolic rites which they elicited in Peruvian history.—*P. Hertzberg.*

1693. **Strokina, T. I.** (Inst. of Experimental Medicine, Leningrad, USSR) **Elektroéntsefalograficheskii analiz vliyaniya nekotorykh neïtropnykh sredstv na mediatornye obrazovaniya golovnogo mozga u bol'nykh kozhevnikovskoi épilepsiei.** [Electroencephalographic analysis of the influence of some neurotropic drugs on the mediator structures of the brain in Kozhevnikov's epilepsy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Nov), Vol. 70(11), 1671-1678.—40 Ss with Kozhevnikov's epilepsy (KE), resulting from tick-borne encephalitis, underwent EEG examinations. The role of the cerebral mediator systems (CMSs) was studied in the functioning of the epileptogenic focus, utilizing pharmacological agents, interacting with the adreno-, choline-, and serotoninreactive structures, in order to gauge their influence on the activity of the epileptogenic focus. The following agents were used: phenamine and

phenatin (adrenergics), aminazine (chlorpromazine; adrenolytic), galanthamine (cholinergic), amizyl (central M-cholinolytic), iprazid (serotonergic), and liseryl (serotoninolytic). EEG analysis of the state of the CMSs establishes their involvement in structuring the syndrome of KE. The character of the emerging disturbances of the CMSs is expressed by way of their dys-, hypo-, and hyperfunction. Application of the indicated agents to the structures of the CMSs, by stimulating or depressing their effect on the latter, facilitates (a) normalization of the functional state of the CMSs, and (b) alteration of the course of the convulsive reactions in KE. (English summary) (28 ref.)—*I. D. London.*

1694. **Utin, A. V.** (Samarkand Medical Inst., USSR) **Obmen medi i znachenie étoho mikroélémenta v patogeneze épilepsii.** [Copper metabolism and the significance of this microelement in the pathogenesis of epilepsy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(May), Vol. 70(5), 721-727.—Reports results of examinations of 101 12-54 yr. old epileptics (6 mo.-25 yr. duration of affection) and a normal control group of 68 in a study of the state of Cu metabolism in epilepsy as correlated with the severity of the course of this affection, the dynamics of its attacks, and the features characterizing it. Significant correlations are disclosed and detailed. It is suggested that in epilepsy a Cu deficit, particularly in nervous tissue, having arisen secondarily as a consequence of neurodynamic and biochemical changes, may exert a considerable influence on the future course of the epileptic process, e.g., aggravating it. (English summary) (42 ref.)—*I. D. London.*

1695. **Yurkova, I. A.** (Moscow Research Inst. of Psychiatry, Moscow, USSR) **Psikhopatologicheskie osobennosti épilepsii, voznikshoi u detei doskol'nogo vozrasta.** [Psychopathological features of epilepsy arising in children of preschool age.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Oct), Vol. 70(10), 1533-1537.—Presents results of observations of 72 3-5 yr. old epileptics with no symptoms of gross organic lesion of the CNS. 3 groupings were discerned: (a) distinct psychopathological symptoms expressed in the form of a "psychoorganic syndrome" and in emotional disturbances (42); (b) predominance of an organic psychosyndrome with symptoms of feeble-mindedness (10); and (c) no anamnestic indications of gross predisposing exogenic conditions (20), while hereditary factors appear more frequently (14 out of 20). The psychopathological symptoms, observed in the emotional volitional sphere and mental activity of preschool epileptics, were close to those observed in the same areas in adult epileptics. These symptoms are shown to be a function of stage of the pathological process, and the character and severity of the etiological factors involved. (English summary)—*I. D. London.*

1696. **Zappoli, R.** (U. Florence, Nervous & Mental Illness Clinic, Italy) **Influenza dell scariche parossistiche e delle lesioni epilettogene temporali su risposte riflesso-condizionate nell'uomo.** [Influence of temporal paroxysmal EEG discharges and epileptogenic lesions on conditioned responses in man.] *Rivista di Neurobiologia*, 1968(Apr), Vol. 14(2), 289-299.—Studied the capability to produce CR responses in a group of 21 Ss who had unilateral epileptogenic lesions from which frequent paroxysmal discharges originated. In some Ss it was difficult, even impossible, to obtain good CR responses using sounds as conditioning signals. Epileptic discharges of brief duration, e.g., .5-1 sec., had

word served as a warning signal, preceding the other, which was an imperative signal for button-pressing. The warning signal evoked a greater number of GSRs in the normals than the imperative one; this was reversed for the retardates. GSR adaptation to signal words occurred at the same rate and level for both groups; but in adaptation to the nonsignal words the retardates maintained a higher level of GSR frequencies than the normals. The attentional deficit model of retardation is not supported by the findings. (15 ref.)—*Journal abstract.*

1706. House, Betty J. (U. Connecticut) **A decremental effect of redundancy in discrimination learning.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 403-412.—Results from 12 children at a training school (MA range, 4-7 yr.; IQ range, 37-68) indicate that pattern discrimination problems are more difficult with 2 different patterns on each stimulus card (double stimulus) rather than the usual 1. Performance on double stimulus problems having a single relevant dimension (color or form) was impaired if the 2 patterns on each card differed along the relevant dimension. Within-card differences along an irrelevant dimension did not reliably depress performance. Support was found for the general principle that additional relevant cues facilitate learning if they are attributes of a single stimulus, but retard learning if they are spatially separated cues from the same relevant dimension. It is suggested that double stimuli divide attention or overload memory unless perceptually integrated.—*Journal abstract.*

1707. Husted, John R. (St. Louis U.) **The effectiveness of social versus concrete reinforcers on the performance of mentally retarded children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2959.

1708. Lanzi, G., Aliprandi, M. T., & Ricotti de Paoli, M. P. (U. Pavia, Nervous & Mental Illness Clinic, Italy) **Il "test d'imitazione di gesti" di Bergès e Lézine in un gruppo di ragazzi oligofrenici.** [The "Gestures Imitation Test" of Bergès and Lézine on a group of oligophrenic children.] *Rivista di Neurobiologia*, 1968(Apr), Vol. 14(2), 210-223.—Measured the motor skills of a group of slow children and found the relationship between this and their intellectual development. The Bergès-Lézine Gestures Imitation Test was chosen to study the motor, spatial, and temporal functions. This is an imitation test consisting of a series of movements done by the examiner and repeated by the child. The 1st part consists of simple gestures performed with the hands and the arms; and the 2nd part consists of complex gestures performed with the fingers. To determine the intellectual level of the children, the WISC was chosen, because a more precise intellectual profile results from an analysis containing many different Ss. 53 6-11 yr. olds who attended the same school in the province of Pavia, were given the WISC and the Goodenough test. Their IQs ranged from 50-82. They were then given the Bergès and Lézine test, and there did exist a parallelism between intelligence and motor skills. The Gestures Imitation Test is also of clinical value, where it can be studied along with routine neurological tests. (English summary) (38 ref.)—*A. M. Farjaglia.*

1709. Moskowitz, Herbert & Lohmann, Werner. (California State Coll., Los Angeles) **Auditory threshold for evoking an orienting reflex in Mongoloid patients.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 879-882.—Obtained auditory intensity thresholds for

evoking an orienting reflex (OR) to a 1000-Hz tone from 15 male 18-35 yr. old Mongoloid retardates and 15 normal Ss. Mongoloids differed from normals both in the character of their OR and in requiring 30-40 db. greater intensity for evocation. Findings lend some support to the view that the apparent learning deficit is primarily a deficit in attention rather than in associative processes.—*Journal abstract.*

1710. Neeman, Renate L. & Phillips, Herbert E. (State U. New York, Buffalo) **Perceptual-motor survey of young adult mental retardates.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 1000.—Evaluated 36 mental retardates with the Purdue Perceptual-Motor Survey of E. G. Roach and N. C. Kephart. Correlations among test items occurred with greater frequency among Ss than in Roach and Kephart's normative population sample. It is suggested that this may reflect the high frequency of perceptual-motor dysfunction among retardates and might imply dysfunction syndromes as well as common constructs in different survey test items.—*Author abstract.*

1711. Ross, Dorothea. (Stanford U., Medical School) **The relationship between intentional learning, incidental learning, and type of reward in preschool, educable, mental retardates.** *Child Development*, 1970(Dec), Vol. 41(4), 1151-1158.—Studied the effect of type of reward (tangible, praise, and neutral comment) for intentional learning on the incidental learning of 36 young, educable, retarded children in social game situations in a Type II incidental learning paradigm. Modeling procedures were used to teach the intentional cues (rules of the game) and to demonstrate the incidental cues (player mannerisms). Results support an inverse relation between motivational level and incidental learning. Ss who were rewarded either tangibly or with praise learned more of the intentional and less of the incidental cues than Ss who were exposed to neutral comments.—*Journal abstract.*

1712. Wilcox, Stephen J. & Baumeister, Alfred A. (U. Alabama) **Transfer of verbal paired associates in mentally retarded individuals and normal children as a function of interlist similarity.** *Journal of Experimental Child Psychology*, 1970(Dec), Vol. 10(3), 277-286.—Utilized verbal paired-associates (PA) tasks to determine the specific effects of transfer for 60 4th-6th grade normal children and 60 retardates matched on MA. The degree of item similarity between original and transfer learning was varied. Performance of the children conformed to that previously observed with normal children. The retardates showed marked departure with respect to the C-B and A-B conditions of PA interlist similarity. A stage analysis was used to separate the response learning and associative hook-up phases of PA learning. Results suggest the importance of the response phase in predicting differences between normal and retardate performances in some aspects of PA transfer learning. The relatively great negative transfer displayed by the retardates under the A-B condition is attributable to associative interference. (19 ref.)—*Journal abstract.*

1713. Wright, Jack; Clayton, Jean, & Edgar, Clara L. (1st United Methodist Church, Burbank, Calif.) **Behavior modification with low-level mental retardates.** *Psychological Record*, 1970(Fal), Vol. 20(4), 465-471.—Trained ward technicians in a state residential institution to reinforce a set of positive behaviors with social reinforcers (verbal and physical attention) and to extinguish selected negative behaviors (by not attending

to them) in 15 severely retarded children. Changes were statistically significant with improvement on 11 of the positive behaviors and 12 of the negative behaviors. The training value to the technicians for general ward programs is noted.—*Journal abstract.*

Training & Vocational Rehabilitation

1714. Dybwad, Gunnar. (Brandeis U.) **Planning facilities for severely and profoundly retarded adults.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 392-395.—Describes the features desirable in facilities to be used for housing severely retarded adult patients. The report was occasioned by a plan to build small cottage units to replace 2 of the oldest buildings of a state school for the retarded.

1715. Song, R. H. & Song, A. Y. (Wisconsin State U., Whitewater) **Development of a vocational adjustment rating scale for the retarded.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 173-176.—Examines a pilot study which developed a vocational adjustment rating scale for the retarded using 113 15-44 yr. old mental retardates as Ss. It was hypothesized that retardates classified as better workers can be significantly different from those classified as poor workers in the scale ratings provided by their supervisors. The scale, composed of 52 brief items, showed high reliability and concurrent validity. Results support the hypothesis and warrant further research toward standardization of the scale.—*Journal abstract.*

PHYSICAL ILLNESS

1716. ———. **Placebo effects.** *British Medical Journal*, 1970(May), Vol. 2(5707), 437.—A study by Dr. Kurt Schapira and his colleagues shows that the response of patients to tablets of different colors is apt to vary. Patients with anxiety symptoms showed a more favorable response to green tablets, while the same preparation in a yellow tablet was more effective in relieving depression. While one report has suggested that 1/3 of Health Service prescriptions fall into the placebo category, there is little evidence to suggest that placebos are being employed in a systematic way. With both active and inert preparations symptomatic improvement varies considerably according to the expectation of patient and therapist. On many occasions an appropriately presented placebo will be less harmful and perhaps more beneficial than a complex and incompletely understood drug.—*S. R. Diamond.*

1717. Castles, Mary M. (St. Louis U.) **The behavior of the dying patient: Taxonomy and correlates.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2775.

1718. Hackett, Thomas P. & Cassem, N. H. **Psychological reactions to life-threatening illness: Acute myocardial infarction.** In H. S. Abram (Ed.), "Psychological aspects of stress." (See PA, Vol. 46: Issue 1) 29-43.

1719. Hagen, Richard L. (U. Illinois, Urbana-Champaign) **Group therapy versus biblio-therapy in weight reduction.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2985-2986.

1720. McDaniel, James W. (U. Colorado, Medical School, Denver) **Cognitive dysfunction with cardiovascular disease.** *Psychosomatic Science*, 1970(Sep), Vol. 20(5), 280-281. Recent investigations have suggested

that cerebral hypoxia due to cardiac insufficiency may produce cognitive impairment. Experimental evidence confirming cognitive dysfunction in persons having cardiovascular disease has, however, not been thoroughly developed. Cognitive and visual-motor impairment with cardiovascular disease in 20 men (mean age of 48.4 yr.), was confirmed in the present study; this is apparently related neither to aging nor to hypertension.—*Journal abstract.*

1721. Meynen, Grace E. (Illinois Inst. of Technology) **A comparative study of three treatment approaches with the obese: Relaxation, covert sensitization and modified systematic desensitization.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2998.

1722. Murphy, F., Srivastava, P. C., Varadi, S., & Elwis, A. (Northern General Hosp., Sheffield, England) **Screening of psychiatric patients for hypovitaminosis B₁₂.** *British Medical Journal*, 1969(Sep), Vol. 3(5670), 559-560.—Performed vitamin B₁₂ assays and inspection of peripheral blood films on 1004 consecutive new patients over 50 yr. old admitted to a mental hospital. The serum levels of vitamin B₁₂ were assayed by either the microbiological method, or an isotopic method. Peripheral films were examined for the presence of hypersegmentation of the neutrophils and macrocytosis. Results led to the discovery of pernicious anemia in only 2 cases. It is concluded that routine vitamin B₁₂ assays are justified only when fully automated techniques are available. (17 ref.)—*Journal abstract.*

1723. Rutter, Barbara A. (U. Minnesota) **Children's beliefs about the locus of control in illness situations.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3006.

1724. Weiss, Jonathan H., Martin, Charlan, & Riley, Jodi. (Children's Asthma Research Inst., Denver, Colo.) **Effects of suggestion on respiration in asthmatic children.** *Psychosomatic Medicine*, 1970(Jul), Vol. 32(4), 409-415.—16 chronic severe asthmatic children were told that they would be given a bronchial challenge test using a substance to which they were allergic whereas they really inhaled physiologic saline, in an attempt to replicate the findings of Luparello et al. on the effects of suggestion on airway reactivity. Of the 16 Ss, 1 responded with decreased flow rate and wheezing in the suggestion session. In a control session involving saline and no suggestion, the same response occurred. The other Ss failed to show any consistent response on any of the objective measures, although a number had subjective sensations of tightness.—*W. G. Shipman.*

COMMUNITY SERVICES

1725. Gottesfeld, Harry. (Roosevelt Hosp., Research & Evaluation, New York, N.Y.) **An information system for assessing community mental health projects.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 14-16. As more complex data requiring more complicated statistical analysis was required, an information system was developed. Information was gathered on 189 project variables using IBM cards that could be programed and analyzed by a computer. When variables to be studied were not so numerous, the Keysort system was found to be most useful. Each variable is coded with a 1-, 2-, or 3-digit number, and intercorrelations are computed, resulting in more than 17,000 correlations. The result of the more sophisticated coding system was

that the number of staff projects and time spent on such projects increased markedly.—R. Sivley.

1726. Grunebaum, Henry. (Ed.) (Harvard Medical School, Boston, Mass.) **The practice of community mental health.** Boston, Mass.: Little, Brown, 1970. xv, 837 p. \$15.

1727. Hammerschlag, Carl A., Parnes, Phyllis, & Tischler, Gary. (Div. of Indian Health, Phoenix, Ariz.) **A community-centered program for heroin addicts.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 16-18.—A mental health center program for heroin addicts, begun in October 1968, provided detoxification, use of methadone, and psychotherapy. Because of limited staff and beds, only 1 addict was treated at a time, and length of stay was 7-10 days. After concluding that the program was not successful, alterations in the program were made. The new program, in which rate of success has been markedly higher included increasing the length of inpatient treatment from 1-4 wk. and treating 4 addicts on the ward at one time. The addicts as a group took part in ward activities with other patients and received special group therapy as well as individual therapy while they were still on the ward. A review of the program reports marked gains for the revised methods.—R. Sivley.

1728. House, Joseph W. (Veterans Administration Hosp., Mental Hygiene Clinic, Buffalo, N.Y.) **Using volunteers in a day treatment program.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 391.

1729. Ingham, Ruth E. & Allgeyer, Jean M. (Los Angeles Psychiatric Service, Calif.) **Early access to clinic treatment.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(2), 387-388.

1730. Schulberg, Herbert C. & Wojcik, Susan C. (Harvard Medical School, Boston, Mass.) **A reanalysis of treatment at a changing mental hospital.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 19-23.—Studied the manner in which Boston State Hospital has evolved since 1965 from a large traditional public mental hospital into a community mental health center for its large urban area. Percentage of inpatients receiving various types of therapies was computed for the hospital population as a whole, for patients in various hospital units, and for patients at various age levels. For somatic therapy, for the hospital population as a whole, the increase was from 45-80%. For verbal therapy the increase was from 18-30%, but for activity therapy there was a decrease from 31-22%. The period of time studied was from 1963-1968. A central finding was reported to be that the increased administration of drugs to long-term patients is the single most significant factor in reducing the proportion of the hospital population receiving no specific therapy.—R. Sivley.

1731. Wilson, Wayne M. (Mendocino State Hosp., Alcoholism & Drug Abuse Services, Talmage, Calif.) **Hospitalized drug addicts aid public education.** *Hospital & Community Psychiatry*, 1968(Dec), Vol. 19(12), 379.—Describes a project of a state hospital drug-abuse program aimed at prevention and intervention through community education. Hospitalized patient addicts presented panel discussions on drug abuse to school groups and, in this way, helped to create new communication between students, parents, and teachers.

GERIATRICS

1732. Grewel, F. & Greene, M. C. (U. Amsterdam, Orthopedagogical Inst., Netherlands) **Diagnosis and**

treatment of speaking and language disorders following cerebral injury in old age. *Psychiatria, Neurologia, Neurochirurgia*, 1968(Nov), Vol. 71(6), 469-482.—Discusses the treatment of disorders of speaking, deterioration of the urge to speak, and disorders in the use of language in senile and presenile patients with cerebral deterioration. Speech therapy and its use in the rehabilitation of geriatric cases are discussed.

1733. Morozova, T. V. (USSR Academy of Medical Sciences. Inst. of Psychiatry, Moscow) **Korrelyatsionnyi analiz chastoty α -ritma v EEG zdorovykh pozhilykh lyudei bol'nykh psikhozami pozdnego vozrasta.** [Correlational analysis of α -rhythm frequency in the EEG of normal aging people and those with the psychoses of old age.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Nov), Vol. 70(11), 1667-1671.—Presents a comparative study of α -rhythm frequency (α -RF) in the EEG of 85 normals and 98 psychotics (both groups over 60 yr. old). Among the latter were 62 schizophrenics with a predominance of the paranoid continuous-progressive form of the psychosis and a clinical state characterized as hallucinatory-delusional. The remaining 36 represented cases of psychoses connected with vascular diseases of the brain (chiefly cerebral atherosclerosis). The latter bear an endoform character reminiscent of the hallucinatory-paranoid symptoms of late schizophrenia. A regular decrease in α -RF occurred with increase of age in the elderly. No difference was detected in average α -RF between the normal elderly and aging schizophrenics (regardless of whether the onset of the psychosis was early or late). No reliable r was found between α -RF and duration of the psychosis. In the vascular psychoses, average α -RF was lower than in normals of corresponding age. In these psychoses a negative r is established between age and duration of the psychosis, as well as α -RF. (English summary) (22 ref.) J. D. London.

1734. Wolff, Kurt. (Veterans Administration Hosp., Coatesville, Pa.) **Rehabilitating geriatric patients.** *Hospital & Community Psychiatry*, 1971(Jan), Vol. 22(1), 8-11.—The most important aspects of rehabilitating the elderly are conveying hope, reestablishing confidence, and overcoming an undue fear of death. The psychiatrist must be aware of the attitudes of elderly patients about death and dying and must handle those issues with special care and circumspection. An elderly person must have something to work for, live for, and hope for somebody or something.—R. Sivley.

EDUCATIONAL PSYCHOLOGY

1735. Allon, Nancy R. **Systems of classroom interaction analysis: A discussion of structural limitations.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 1-3.—The attempt to improve the quality of classroom instruction has spawned numerous systems of classroom behavior analysis. Each system which provides an analysis of classroom interaction between students and classroom teacher is structurally inadequate because it defines topographically similar behaviors as a single behavior, and describes these behaviors under a variety of conditions and often with different experimental Ss. These systems are of no functional value as instruments of classroom behavior analysis. They must be refined or defined again so that they are capable of specifying the rate of occurrence and

the conditions under which a single behavioral response occurs.—*Journal abstract.*

1736. Henderson, Ronald W. (U. Arizona) **Research and consultation in the natural environment.** *Psychology in the Schools*, 1970, Vol. 7(4), 335-341.—Summarizes some of the research conducted to identify environmental variables that are related to intellectual performance. It describes an environmental intervention program designed to manipulate these variables. This program is a component of the system of training and services that comprise the Tucson Early Education Model. (16 ref.)—H. Kaczowski.

1737. Lappin, Robert W. (St. Louis U.) **Meaningfulness, deviant achievers and personal adjustment.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2993-2994.

1738. MacKenzie, Norman; Eraut, Michael, & Jones, Hywel C. **Teaching and learning: An introduction to new methods and resources in higher education.** Paris, France: Unesco and the International Assn. of Universities, 1970. 209 p. \$3.50 (paper).

1739. Portal-Foster, C. W. (Canadian Welfare Council, Ottawa, Ontario) **An application of work-emotionality theory to adult education.** *Adult Education*, 1970(Win), Vol. 20(2), 67-87.—Examined the applicability of W. R. Bion's work-emotionality theory to the empirical study of adult instructional groups. The study was designed (a) to determine the nature of the relationships existing between and among the several qualities of emotion and types or levels of work orientation, and (b) to discern relationships and/or patterns of behavior which could be tested under laboratory conditions. 16 nursery school teachers met for 8 sessions of 2 hr. each. A Q-sort was administered at the initial session to determine preferences for an ideal group culture, and during the last session to ascertain perceptions of the culture experienced. Transcripts of the group interaction were evaluated. Analysis of a representative subgroup supports the practical framework of the work-emotionality theory. However, it is noted that Ss with an orientation toward I type of interaction may interact differently under group pressures. Changes in interaction patterns may be induced without the knowledge of members or it may be a voluntary act of members. (25 ref.)—*Journal abstract.*

1740. Rappel, Dorothy. (Catholic U. of America) **Teacher-pupil interaction at the elementary grade level and pupil creativity.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2965.

1741. Rowland, G. Thomas & Frost, Joe L. (New York U.) **Motivation: A structure-process interpretation.** *Psychology in the Schools*, 1970, Vol. 7(4), 375-383.—Presents the theoretical position for the structure process model for educational encounters. Demonstrates how a blend of hedonism, homeostasis, and drive theory can have functional value in an educational setting. (33 ref.)—H. Kaczowski.

1742. Sattler, Howard E. & Swoope, Karen S. (Arizona State U.) **Token systems: A procedural guide.** *Psychology in the Schools*, 1970, Vol. 7(4), 383-386.—Presents and discusses 10 procedural guidelines for implementing a token system in an educational setting.—H. Kaczowski.

1743. Stallings, William M., Wolff, Joseph L., & Machr, Martin L. (U. Illinois) **Fear of failure and the pass-fail grading option.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 87-91.—Compared 76

students enrolled for pass-fail (P-F) credit on test anxiety, grade utilities under chance and skill conditions, grades, and course loads with 83 taking course work under an A-F grading system. Only partial confirmation was found for a prediction that test anxiety should be negatively correlated with the difference between grade utilities under chance and under skill conditions. Other findings were that test anxiety and grade option were not significantly correlated, and that the P-F sample had significantly higher grades and heavier course loads.—*Journal abstract.*

1744. Stern, George G. (Syracuse U.) **People in context: Measuring person-environment congruence in education and industry.** New York, N.Y.: John Wiley, 1970. 402 p. \$13.95.

ATTITUDE & ADJUSTMENT

1745. Abramowitz, Stephen I. & Abramowitz, Christine V. (U. Colorado) **Birth order, sensitivity to socialization, and student activism.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 184-185.

—Hypothesized that, based on the rationale that over-attention given to 1st borns may make them more dependent and authority oriented and thus more prone to support existing social institutions than are later borns, (a) 27 1st borns would report less extensive engagement in activist-oriented activities than would 24 later borns, and (b) 1st borns would ascribe less importance to motivations which linked involvement in social action to cultural disaffection or to rebellion than would later borns. Results confirm neither hypothesis and fail to substantiate the notion that 1st borns are more sensitive than are later borns to the socialization efforts of authorities.—*Journal abstract.*

1746. Adinolfi, Allen A. (U. Rochester) **The characteristics of highly accepted, highly rejected and relatively unknown university freshmen.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2271.

1747. Astin, Alexander W. **Campus disruption, 1968-69: An analysis of causal factors.** In I. I. Korten, S. W. Cook, & J. I. Jacev (Eds.), "Psychology and the problems of society" (See PA, Vol. 46 Issue 1) 377-387.

1748. Blackwood, Ralph O. (U. Akron) **The operant conditioning of verbally mediated self-control in the classroom.** *Journal of School Psychology*, 1970, Vol. 8(4), 251-258. Tested the principles that precise control may be obtained by conditioning verbal behaviors through essay descriptions of consequences of target behaviors, to mediate between temptation and target responses as self-produced discriminative stimuli and to follow target responses as conditioned reinforcers. A controlled experiment was carried out with 12 8th and 9th graders who had been given traditional behavior modification treatment. Mediation training was given to 6 the other 6 serving as control Ss. During a 15-day posttreatment period, mediation trained Ss emitted fewer misbehaviors than controls. *Journal abstract.*

1749. Brerley, Elizabeth A. (Florida State U.) **Impulsivity and disruptive behavior in a normal elementary school classroom: A token reinforcement study.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2977.

1750. Broxton, June A. (U. Kentucky) **Interpersonal attraction factors involved in roommate satisfaction among college freshmen.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2252-2253.

1751. Cadiz Menne, Joy M. & Sinnett, E. Robert. (Kansas State U., Counseling Center) **Proximity and social interaction in residence halls.** *Journal of College Student Personnel*, 1971(Jan), Vol. 12(1), 26-31. Investigated the relationship of physical proximity to friendship and helping choices among 63 university students (32 male, 31 female) in 2 high-rise residence halls through the use of a sociometric questionnaire. The questionnaire was completed on 2 occasions, 6 wk. apart. It was hypothesized that the proximity of rooms is positively related to friendship and helping choices received. The measures of friendship and helping choices were reliable. Mutual choices or rejections were found to be a more meaningful social indicator than unreciprocated choices. "For reciprocated choices the proximity relationship holds, but for both number of helping and number of friendship choices received, there is no support for the proximity hypothesis."—R. H. Mueller.

1752. Chupikulchai, Sobha G. (U. Northern Colorado). **A descriptive analysis of the adjustment and socialization problems for Thai students attending colleges and universities in the Rocky Mountain states.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2953-2954.

1753. Ciccati, Samuel M. (United States International U., San Diego, Calif.) **Comparison of three methods of facilitating encounter groups in a college environment.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2954-2955.

1754. Damm, Vernon J. (U. Portland, School of Nursing) **Creativity and intelligence: Research implications for equal emphasis in high school.** *Exceptional Children*, 1970(Apr), Vol. 36(8), 565-569.

Examined the possible relationships among creativity, intelligence, and self-actualization in 208 high school students to determine whether or not consistent self-actualization scores existed for Ss high in the 1st 2 variables. Ss high in both creativity and intelligence had significantly higher scores in self-actualization than those obtained by Ss high in either creativity or intelligence. No significant difference in self-actualization was found between Ss high in creativity only and those high in intelligence only. Results indicate that educational systems should stress both intellectual and creative abilities to achieve the highest level of psychological well-being in students. (24 ref.)—*Journal abstract.*

1755. do Carmo de Avila, M. & Gillet, L. **Etude de l'attitude et de l'aptitude envers les mathématiques.** [Study of attitude to and aptitude for mathematics.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970(Jun), Vol. 19(2), 79-87.—Applied an attitude scale and aptitude test to 42 men and 120 girls in connection with entrance examinations at the Department of Philosophy, Science, and Literature of the University of Ribeirão Preto, Brazil. The scale was composed of items favorable and unfavorable to mathematics, and the aptitude test consisted of mathematical exercises borrowed from a statistical course. It is shown that the influence of the attitude (toward the teacher of the course, the textbooks, etc.) and the aptitude, respectively, shown in the scholarly results obtained in mathematics, are both highly significant and equally important, concerning success or failure. (English summary).—P. von Toul.

1756. Feather, N. T. (Flinders U. of South Australia, Bedford Park) **Value systems in state and church schools.** *Australian Journal of Psychology*, 1970(Dec),

Vol. 22(3), 299-313. Administered Rokeach's Value Survey to 283 senior boys from 2 secondary schools (state and church) and 114 ministers. Within each school 1 group of boys ranked their own values, the other group ranked the school values. The ministers ranked the values in terms of Christian education. There were differences between the schools in the relative importance assigned to particular values and differences within each school between own values and school values. Both schools were seen as emphasizing values involving achievement, control, and maturity more than the students did themselves, but the students placed more emphasis on values concerned with affiliative relationships, an absence of conflict and ill-feeling, and a flexible, adventurous, and self-reliant stance towards the world. The ministers ranked religious values as high and materialist values as low. There were marked similarities in average value systems between students in relation both to their rankings of own values and their rankings of school values.—*Journal abstract.*

1757. Hannah, William. (Project on Student Development in Small Colleges, Plainfield, Vt.) **Personality differentials between lower division dropouts and stay-ins.** *Journal of College Student Personnel*, 1971(Jan), Vol. 12(1), 16-19.—The Omnibus Personality Inventory (OPI) was administered to 2874 freshmen students at 13 colleges. Aptitude scores were also collected from the existing college records of these students. It was found that students who remain in college as compared with those who drop out differ on 6 of the 14 scales of the OPI. It appears that dropouts are more complex, more impulsive, more anxious, less personally integrated, less altruistic, and less willing to exert an effort to make a good impression on either their peers or their teachers. Significant differences were obtained on 6 scales between male persisters and male dropouts, while significant differences were found on 7 scales between female persisters and female dropouts. Also, differences in aptitude were found to be related to dropping out. These findings are consistent with previous research in this area.—R. H. Mueller.

1758. Harris, Theodore L., Kiefert, James J., & Darby, Merlin D. (U. Puget Sound) **Attitudes expressed by students toward a beginning course in educational psychology.** *Journal of Educational Research*, 1969(Apr), Vol. 62(8), 344-350. Developed a 21-item attitude inventory from representative statements made by 377 undergraduates concerning their expressed attitudes toward a beginning course in educational psychology in order to examine the stability of their attitudes between the midpoint and the end of the course. A t-test analysis of results revealed positive change toward the course from pre- ($n=340$) to posttest ($n=318$) for 16 items at or beyond the .05 level of significance. Of these 16 items, 14 were at or beyond the .01 level and 13 were at or beyond the .001 level. The rationale and procedures used in the latter 2 of the course which appeared to influence such changes are described, and 5 implications for the teaching of beginning courses in educational psychology are suggested.—*Journal abstract.*

1759. Healy, Charles C. (U. California, Los Angeles) **Reducing error variance attributable to social desirability.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 132-137. Tested the hypothesis that instructing the S about social desirability and asking him to avoid it would increase the validity of self-ratings by determining whether Ss who rated themselves for

guidance (assumed not to be influenced by social desirability) would rate themselves differently from Ss who rated themselves for science (expected to be influenced by social desirability). $\frac{1}{2}$ of each group received social desirability instruction and $\frac{1}{2}$ did not. Differences among the ratings of 87 male undergraduates suggest that instruction improved validity; differences among the ratings of 83 females did not permit rejection of the null hypothesis. (17 ref.)—*Journal abstract*.

1760. Heist, Paul. (U. California, Berkeley) **Activist students challenge the social scientists.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 395-405.

1761. O'Leary, K. Daniel; Kaufman, Kenneth F., Kass, Ruth E., & Drabman, Ronald S. (State U. New York, Stony Brook) **The effects of loud and soft reprimands on behavior of disruptive students.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 145-155.—Selected 2 children in each of 5 2nd and 3rd grade classes for a 4-mo study because of their high rates of disruptive behavior. During a base-line condition the frequency of disruptive behaviors and teacher reprimands was assessed. Almost all teacher reprimands were found to be of a loud nature and could be heard by many other children in the class. During the 2nd phase of the study, teachers were asked to use primarily soft reprimands which were audible only to the S being reprimanded. With the institution of the soft reprimands, the frequency of disruptive behavior declined in most of the Ss. Then the teachers were asked to return to the loud reprimand and a consequent increase in disruptive behavior was observed. Finally, the teachers again used soft reprimands, and again disruptive behavior declined.—*Journal abstract*.

1762. Peterson, Richard E. (Educational Testing Service, Berkeley, Calif.) **The student protest movement: Some facts, interpretations, and a plea.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 388-394.

1763. Smith, M. Brewster. (U. Chicago) **Comments on the symposium "Factors underlying student unrest."** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 406-407.

1764. Vaughn, Joseph H. (Illinois Inst. of Technology) **The effect of increased teacher involvement on low self-concept children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2970-2971.

1765. Weller, Joshua. (Columbia U.) **Sex differences and sex-role identity differences in attitudes of college students towards parenthood.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2270.

1766. Wilcox, Anne H. & Fretz, Bruce R. (U. Maryland) **Actual-ideal discrepancies and adjustment.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 166-169. Examined relationships between self and environmental actual-ideal discrepancies and adjustment. With a sample of 43 male undergraduates, self-ideal-self discrepancies were significantly related to some adjustment scales but were independent of the environmental (college and hometown) actual-ideal discrepancies. The 2 environmental discrepancies shared a common variance but were not significantly related to the adjustment scales. Repression-sensitization was

examined as a potential moderator variable but no relationship was found. (15 ref.)—*Journal abstract*.

1767. Withycombe-Brocato, Carol J. (United States International U., San Diego, Calif.) **The mature graduate woman student: Who is she?** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2973-2974.

TESTING

1768. Bennett, George K. (Psychological Corp., New York, N.Y.) **Response to Robert Williams.** *Counseling Psychologist*, 1970, Vol. 2(2), 88-89.—Essentially a vindication against the charge lodged by R. L. Williams (see PA, Vol. 45:4932) that conventional psychological tests, e.g., Stanford Binet, Wechsler, Scholastic Aptitude Test, Stanford Achievement, Iowa Test of Basic Skills, Graduate Record Examination, and Miller's Analogies Test, "are unfair and improperly classify Black children." Bennett offers the following defense: (a) the educational deficit suffered by the culturally deprived is revealed by these tests; (b) the tests measure the ability to perform tasks or display acquired knowledge, but do not measure intelligence; (c) no test is designed to discriminate against sex, religion, or race; and (d) tests attempt to elicit the best performance of the testee. To reduce anxiety, the following are provided: tape-recorded familiarization program, "culture-laden" verbal and numerical measures, and "CAST" equipment, i.e., 3 tape-cartridges containing well-paced, clearly given test instructions.—*W. S. Sahakian*.

1769. Boren, John J. & Brady, Joseph V. (American U.) **A student self-grading technique for increasing the didactic value of the classroom exam.** *Psychological Record*, 1970(Fal), Vol. 20(4), 443-444.—Describes a technique which permits students to grade their own exams immediately after the exam is completed. The technique prevents cheating, allows rapid confirmation of correct answers (relative to conventional grading practices), and saves the instructor considerable work.—*Journal abstract*.

1770. Clemans, W. V. (Science Research Assoc., Chicago, Ill.) **A note in response to a request by the Editor to comment on R. L. Williams' article entitled "Black pride, academic relevance, and individual achievement."** *Counseling Psychologist*, 1970, Vol. 2(2), Vol. 45:4932 article, Clemans agrees that blacks do not have inferior intelligence, nor are test scores absolute. Differences between immediate and long-term potential are the sources of confusion. Testing a Frenchman to translate English, when he knows no English would result in a 0 rating for his English intelligence, and it would be unthinkable to require that the test be 1st translated into French, but not when the long-term potential is under consideration. The same holds for whether or not a non-English-speaking student should be admitted to an American medical school. "No perfect measuring instrument is available to identify those with undeveloped but good long-term potential." Distinctions should be made between ability and achievement.—*W. S. Sahakian*.

1771. Hansen, Richard A. (Columbia U.) **The influence of variables other than knowledge on probabilistic tests.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2254-2255.

1772. Kooker, E. W. (North Texas State U.) **The relationship between performance in a graduate course in statistics and the Miller Analogies Test and the Watson-Glaser Critical Thinking Appraisal.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 165-169.—Correlated examination scores in a graduate course in statistics with scores on the Miller Analogies Test (MAT) and the Watson-Glaser Critical Thinking Appraisal. 69 graduate students served as Ss. Since not all Ss had had their application to the doctoral program acted upon, it was anticipated that there would be greater than usual variability on the MAT. However, even with a somewhat larger semantic differential, a nonsignificant r (.21) between the MAT and test scores was obtained. The r between the Watson-Glaser and test scores was significant (.37), $p = .01$.—*Author abstract.*

1773. Logiudice, Joseph F. (St. John's U.) **The relationship of self-esteem, test anxiety and sixth grade students' arithmetical problem solving efficiency under variant test instructions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2995-2996.

1774. Messick, Samuel & Anderson, Scarvia. (Educational Testing Service, Princeton, N.J.) **Educational testing, individual development, and social responsibility.** *Counseling Psychologist*, 1970, Vol. 2(2), 80-88.—Argues that responsible standards exist for the adequate evaluation of tests for their specific uses, yet occasionally these standards are not applied. Considered are the issues of bias and validity, the social consequences of testing, in addition to the expansion of the meaning of tests to engulf "assessment." The sources of poorer performance by disadvantaged children may be attributable to: (a) the test's measuring different things for different groups, (b) the test's entailment in irrelevant difficulty (items may be more germane to one group than another, testing conditions creating an anxious or alienated condition, and individuals differing in their test-taking strategies or "test wiseness"), and (c) the test's accurate reflection of ability or achievement levels. Fairness must be exercised in test applications as well as an appropriate proposed purpose of the selected test. (20 ref.).—*W. S. Sahakian.*

1775. Munday, Leo A. (American College Testing Program, Iowa City, Ia.) **Measurement for equal opportunity.** *Counseling Psychologist*, 1970, Vol. 2(2), 93-97.—Unless tests aid the student, providing the college with differential student guidance and instruction, they are inadequate. Measures should provide the college with guidelines determining the instruction most beneficial, interesting, and instructive to the student. Verbal talent has been overemphasized to the exclusion of other types of talent. A test should indicate not how a student would fare under the present educational system, but what type of instruction he should have. An educator ought to address his tests and attention to the student's educational development and the solution of human problems. Traditional testing must give way to tests that are relevant to members of the American culture as a whole and not a selected segment for an all-too-limited purpose. Diverse kinds of data should be considered. (20 ref.).—*W. S. Sahakian.*

1776. Osipow, Samuel H. & Kreinbring, Inese. (Ohio State U.) **Temporal stability of an inventory to measure test anxiety.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 152-154.—Tested 97 undergraduates on a modification of an anxiety scale based

on the Alpert and Haber Anxiety Test and the Sarason Test Anxiety Scale during the 1st wk. of the academic quarter and retested them in subgroups at intervals of 5, 6, 7, 8, and 9 wk. The test anxiety instrument was stable over that time on both emotionality and cognitive worry scales despite situational differences in anxiety-provoking events. This suggests the potential usefulness of the instrument as a criterion to measure effects of treatments designed to reduce test anxiety.—*Journal abstract.*

1777. Peters, Donald L. & Messier, Victor. (Pennsylvania State U.) **The effects of question sequence upon objective test performance.** *Alberta Journal of Educational Research*, 1970(Dec), Vol. 16(4), 253-265.—Administered a 76-item 4-alternative multiple-choice test to 41 graduate students in a basic research course. In addition, an internal-external scale, an achievement anxiety scale, a dogmatism scale, and an ambiguity scale were also administered. 3 quizzes and a final examination were given in 1 of 2 ways: sequential ordering of the material as it was presented in class, or random ordering. Although there were no significant differences between the 2 orderings, Ss who took the sequential form 1st performed significantly more poorly on the random form. A highly significant interaction revealed that those scoring high on debilitating anxiety performed less well on the random order than on the sequential order. Ss performing low on the pretest, scored higher on a subsequent sequential than on a random format.—*N. M. Chansky.*

1778. Ramsey, Phillip H. & Vane, Julia R. (Hofstra U.) **A factor analytic study of the Stanford Binet with young children.** *Journal of School Psychology*, 1970, Vol. 8(4), 278-284.—Found 7 factors as the result of a factor analysis of Year IV-6 Year VI of the 1960 Revision of the Stanford Binet Intelligence Test. No factor had a sufficient number of high loadings to justify interpretation as "g," a general intelligence factor. The test protocols used were of 152 children from 3 7 yr. old who attended a university nursery school or Head Start day care centers. The group included 107 white and 45 Negro children who had been tested as part of a routine intellectual evaluation. The socioeconomic level, as measured by occupation of the parent, was higher than that of the standardizing population of the Binet, as was the mean IQ (109.4 ± 14.7). Results are compared with the logical analysis of M. M. Meeker and M. Bonsall based upon J. P. Guilford's factors of the intellect, and with R. E. Valett's profile analysis.—*Journal abstract.*

1779. Sommer, John. **Response to Robert Williams.** *Counseling Psychologist*, 1970, Vol. 2(2), 92.—Sommer asserts that R. L. Williams' (see PA. Vol. 45:4932) article does not point to racism in tests, and agrees in substance with Williams' comment on the improper use of tests. It is suggested that tests are tools, and that there should be better education for the tool users, rather than the elimination of the tools.—*W. S. Sahakian.*

1780. Thorpe, Joanne & West, Charlotte. (Southern Illinois U.) **Estimation of validity for a test of game sense.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 933-934.—Ranked 73 female undergraduates on skill by means of a ladder tournament in badminton. Regression analyses indicate the game sense test score was not effective in predicting rank on the ladder tournament. Intercorrelations of the 10 subtests of the game sense test ranged from $-.01$ to $.67$ but were generally nonsignificant. It is concluded that the game sense test is invalid by the approach utilized.—*Journal abstract.*

SPECIAL EDUCATION

1781. Benton, Arthur L. (U. Iowa) **Language learning: Perceptual bases.** *Proceedings of the Annual Reading Institute*, 1968(Mar), Vol. 7, 23-31.—Considers the nature, functions, and early development of language. Language consists of the use of symbols for purposes of communication. When language is defective, thinking is not totally destroyed, but it is hampered. Language arises and develops on the basis of audition. Knowledge of the perceptual bases of language learning is derived for the most part from the study of the rather cruel "experiments of nature" provided by the occurrence of organic diseases and sensory deficit in children. The evidence furnished by investigations of language development in children suffering from congenital deafness and from deficiencies in vision is reviewed. The condition known as specific reading disability is discussed. Since there is no basic understanding of the factors causing it, it is not possible to undertake truly rational treatment of the disability.—S. Diamond.

1782. Forness, Steven R. & MacMillan, Donald L. (U. California, Mental Retardation Center, Los Angeles) **The origins of behavior modification with exceptional children.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 93-100.—Attempts to put present day behavior modification programs in historical perspective. The formal beginnings of the movement are noted in the 1st quarter of this century, but its origins and techniques are traced to much earlier periods, e.g., Greco-Roman practices, and the work of J. Itard and E. Seguin in the 19th century. The efforts of several behavior modification practitioners in and peripheral to the field of special education are described from 1920-1967. (44 ref.)—*Journal abstract*.

1783. Gonzalez, Ann H. (U. Houston) **Academic achievement and progress status associated factors in minimally brain injured children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2984-2985.

1784. Lovitt, Thomas. (U. Washington, Coll. of Education) **Behavior modification: The current scene.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 85-91.—Defines current concepts of behavior modification as (a) a decelerating tactic for undesired behavior, and (b) an accelerating technique for fundamental behaviors and complex processes. Operant conditioning, behavior modification, and precision teaching are described as comprising 3 principles: direct observation, continuous measurement, and systematic manipulation. Controversy over methodology in each of these areas is noted. It is concluded that generally, "the behavior modifier (a) is committed to individual diagnosis, treatment, and analysis; (b) is concerned with observable events and the direct measurement of their occurrence; (c) obtains several measures of a designated behavior before arriving at a decision or adjusting the environment; and (d) if change is warranted, manipulates systematically some aspect of the environment in order to reliably evaluate the effects of that variable."—S. Knapp.

1785. Lovitt, Thomas. (U. Washington, Coll. of Education) **Behavior modification: Where do we go from here?** *Exceptional Children*, 1970(Oct), Vol. 37(2), 157-167.—Outlines major trends in behavior modification. The growing discrimination between change and measurement is noted as establishing base lines for

currently unchangeable behaviors and normal behavior. The current interest in academic performance, as opposed to classroom behavior, may lead to a definition of the skills and materials necessary to the acquisition of academic skills. Research in this area may eventually answer the questions of how to evaluate (a) educational techniques and procedures, (b) the identification and arrangements of behaviors in a given process, and (c) proficiency and mastery levels. Studies of multiple measurement and change, generalization, parametric or component analysis, and pupil management are described and their importance to education noted.—S. Knapp.

1786. Macek, Karel & Záhorová, Alena. **Zvláštní školy internátní středočeského kraje.** [Special residential schools in central Bohemia.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(3), 249-270.—Discusses the situation of residential special schools which have become special centers for children with social problems and academic underachievers. 162 pupils of 6 residential special schools were investigated in 1967. The sample consisted of newly accepted pupils and Ss with educational, character, and health problems. A team, consisting of social worker, pediatrician, psychologists, and child psychiatrist, collaborated in the investigation. Data suggest some peculiarities when compared to a population of normal children. Occupational maturity was often the cause of failure when placement of the Ss in a job or a social welfare institution was attempted. Possibilities of solutions are suggested and the need is stressed of establishing protected work places. Moreover, it appears to be necessary to afford further social protection to juveniles who, after leaving the special residential school, do not get adequate support in a properly functioning family. (Russian summary) (16 ref.)—*English summary*.

1787. Rigault, Geneviève & Gnyot, Yves. (Higher Normal School of Saint-Cloud, Lab. of Psychopedagogy, France) **Contribution à l'étude de l'organisation pré-linguistique chez le dyslexique.** [Contribution to the study of pre-linguistic organization and dyslexia.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(4 5), 254-267.—Groups of dyslexic and nondyslexic pupils varying in age, sex, intelligence, and pathological involvement were examined for their reading, spelling, and word-association abilities. The nondyslexic group formed associations predominantly on the basis of semantics (83%), while the dyslexic group formed semantic associations to a much lesser degree (32%). 59% of their associations were formed on the basis of sound rather than meaning. Clinical aspects as well as certain hypotheses involving prelinguistic development, genetic factors, and the role of the school are discussed. R. E. Smith.

1788. Roth, Jay. (Newark State Coll.) **An intervention strategy for children with developmental problems.** *Journal of School Psychology*, 1970, Vol. 8(4), 311-314.—Describes a program for primary grade children with developmental and perceptual difficulties. 124 children met daily with specially trained teachers in their own schools to form a consistent meaningful group while they continued as members of their regular classes. To combat the destructive negative self-image of such children, the teacher and group stressed acceptance, openness, informality, and success. This, plus the program's esteem in the eyes of the child, seemed to affect the child's sense of his own worth. Continual

in-service training and sharing of teacher experiences were stressed. The teachers' facility for relating to the child was considered to be more relevant than the technique utilized.—*Journal abstract.*

1789. Seaman, Janet A. (Ventura Coll.) **Attitudes of physically handicapped children toward physical education.** *Research Quarterly*, 1970(Oct), Vol. 41(3), 439-445.—Describes an attitude scale to sample attitudes of orthopedically and neurologically handicapped secondary school children toward physical education. A self-rating scale and personal questionnaire were also used as criteria by which the validity of the attitude inventory could be checked. The 3 instruments were administered to 2 groups of orthopedically and neurologically handicapped children, 1 of which participated in a regular physical education program (N = 48), while the other took part in an adapted physical education program (N = 67). It was discovered that there was a significant difference in attitudes between means of the 2 groups. Ss in the regular physical education program had a more favorable attitude toward physical education than those in the adapted program. It was also found that the attitude scale was a highly reliable instrument with these Ss. There was a significant relationship between the attitude inventory score and the S's self-rated opinion of his attitude. Ss expressing the most favorable attitudes participated significantly more in physical activities outside the school than did the latter group.—*Journal abstract.*

Gifted

Remedial Education

1790. Thommes, Martin J. (United States International U., San Diego, Calif.) **Changes in values, perceptions, and academic performance of college freshmen underachievers in a remedial program.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2969-2970.

1791. Wolf, Montrose M., et al. (U. Kansas, Bureau of Child Research) **The timer-game: A variable interval contingency for the management of out-of-seat behavior.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 113-117.—Demonstrated that the timer-game is a practical and effective procedure for managing out-of-seat behavior of elementary school children in a remedial classroom. The game allowed the Ss (N = 16) to earn token reinforcement by being in their seats whenever the bell of a kitchen timer rang. The bell rang once every 20 min. In a 2nd experiment, peer reinforcement was applied in conjunction with the timer-game to manage 1 S's out-of-seat behavior. Results indicate the peer reinforcement condition to be more effective than the individual points condition (i.e., the timer game).—*Journal abstract.*

Sensory & Physical Handicaps

1792. Hartung, Joseph E. (Georgia State U.) **Visual perceptual skill, reading ability, and the young deaf child.** *Exceptional Children*, 1970(Apr), Vol. 36(8), 603-608.—Evaluated visual perceptual skills of beginning readers. Greek and English trigrams were presented tachistoscopically to 30 orally trained deaf and 30 normally hearing children to test their ability to

recognize single symbols and recall trigrams. The performance of the 2 groups was essentially the same on recognition tasks, but normally hearing Ss performed significantly better on the recall task. Results suggest different processing strategies by the 2 groups of Ss. (16 ref.)—*Journal abstract.*

1793. Haskell, Simon H. & Anderson, Elizabeth M. (U. London, Inst. of Education, England) **The education of physically handicapped children in ordinary schools.** *Irish Journal of Education*, 1969(Sum), Vol. 3(1), 41-54.—Contrasts special education in Britain which favors the special school for the education of the handicapped with that in Sweden, where integration is now the key-word. The rationale underlying alternative systems (special school and special class) is considered; particular attention is given to the role of the boarding school in the education of the physically handicapped. It is concluded that without further research and the establishment of effective criteria, useful judgments about the relative merits of alternative systems of special education cannot be made. (17 ref.)—*Journal abstract.*

1794. Miller, William H. (Virginia School for the Deaf & Blind, Staunton) **Manifest anxiety in visually impaired adolescents.** *Education of the Visually Handicapped*, 1970(Oct), Vol. 11(3), 91-95.—Used the Anxiety Scale for the Blind to ascertain differences in anxiety levels between partially sighted and totally blind adolescents, and between students in special classes and those in Grades 9-12. No significant differences in levels of anxiety were found between partially sighted and totally blind Ss, or between Ss in special classes and those in regular classes. However, the anxiety level of students in the 11th and 12th grades was significantly greater than that for 9th and 10th grade students.—S. Appelle.

1795. Morse, John L. (Perkins School for the Blind, Watertown, Mass.) **The adaptation of a non-verbal abstract reasoning test for use with the blind.** *Education of the Visually Handicapped*, 1970(Oct), Vol. 11(3), 79-80. Blind 9th grade Ss were given adapted test items from the Abstract Reasoning subtest of the Academic Promise Tests to determine the feasibility of adapting this nonverbal abstract reasoning test for use with visually handicapped individuals. It is concluded that the "adapted test was reliable and possessed predictive validity... [and] performance on the adapted test was a function of the amount of vision and track placement of the Ss."—S. Appelle.

1796. Rawls, Rachel F. (North Carolina State U., Raleigh) **Training for increased comprehension with accelerated word rates in auditory reading media (compressed speech).** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2263-2264.

1797. Tarjan, George. (U. California, Los Angeles) **Handicapped children in school: Reflections of a psychiatrist.** *California Mental Health Research Digest*, 1969, Vol. 7(2), 51-58.—Discusses the influence of a physical or intellectual handicap on the personality development of a handicapped child and the emotional reactions of his parents. The family environment and parental defense mechanisms have an important effect on the handicapped child's self-concept and emotional well-being as well as his school learning and performance. Desirable personality traits and attitudes of the special teacher of the handicapped are outlined. It is proposed that "an educational diagnostic system that would classify children according to their learning ability

the group, behavioral techniques, and setting.—*M. W. Linn.*

1802. **Hunter, Edna J.** (United States International U., San Diego, Calif.) **Habituation of electrodermal responses in children with specific reading disability.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2988.

1803. **Lit, Jack.** (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Emotional Influences in learning disability.** *Proceedings of the Annual Reading Institute*, 1968(Mar), Vol. 7, 107-114.—Reviews the organic bases of learning disability, and then develops at length the functional bases. Any reduction or restriction of a function may be classified as an inhibition of it. "Whether an emotionally based learning disorder is viewed as the reflection of a symptom or as a simple inhibition is purely an academic matter since the resolution requires the same approach—psychotherapy to understand and work through the block and educational therapy to aid in new learning." "In contrast to inhibitions, symptoms always involve the pathological process." 2 of the more common factors in learning disability rest with the child's anger and rebellion and his passive-aggressive way of handling this, and with the Oedipal conflict of the boy. The case history of a 15-yr-old boy, who was failing in school and experiencing attacks of anxiety at school, is presented.

1804. McGrady, Harold J. & Olson, Don A. (Northwestern U.) **Visual and auditory learning processes in normal children and children with specific learning disabilities.** *Exceptional Children*, 1970(Apr), Vol. 36(8), 581-589.—Compared the psychosensory functioning of 68 8-9 yr. old normal children and 31 8-9 yr. old children with specific learning disabilities. Each S was given an automated battery of 13 psychosensory tests representing various combinations of auditory and visual intra- and intersensory conditions for verbal, nonverbal-nonsocial, and nonverbal-social stimuli. On the psychosensory evaluation the learning disability groups made significantly more errors on the verbal psychosensory functions, regardless of the sensory conditions. The learning disability group also performed these tasks more slowly than normal Ss in nearly every comparison. (23 ref.)—*Journal abstract.*

1805. Wentland, Thomas J. (U. Wisconsin) **A test of conceptual categorization.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2347-2348.

Emotional Disorder

1806. Cohen, Boaz & Jones, Howard L. (St. Joseph's Hosp., Children's Day Treatment Program, Syracuse, N.Y.) **Establishing a science curriculum for aggressive children.** *Science Teacher*, 1969(Nov), Vol. 36(8), 61-63.—Discusses the special needs of the aggressive child as a basis upon which to structure the teaching of science. Objectives of the curriculum should include: (a) appropriate success measures; (b) channeling aggressive impulses into positive learning experiences; and (c) selection of science concepts, principles, and skills which emphasize order and balance in the universe to compensate for deficits in senses of order, routine, responsibility, and planning. It is proposed "that the foundation of science education for aggressive children be teacher-pupil-initiated, pupil-performed, and pupil-actualized success-producing tasks that enhance

the child's self-concept and promote his ego growth."

—P. Zell.

1807. **Husaini, Bagar A.** (Wayne State U.) **An evaluation of nursery school experiences in a project for emotionally disturbed children.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 59-65.—Reports upon the effectiveness of nursery school experiences provided for 38 preschool siblings of emotionally disturbed children in a special program. Results of a multiple comparison design indicate a significant gain in the language and nonlanguage IQ scores for the experimental Ss. These gains were particularly noticeable in such areas as logical and numerical reasoning, verbal concepts, and memory. Interpretation of the results and their significance relative to curricula for deprived children at the preschool level are presented.—*Journal abstract*.

1808. **Thomas, Elizabeth C. & Yamamoto, Kaoru.** (U. Virginia) **Emotionally disturbed children and their school related perceptions.** *Exceptional Children*, 1970(Apr), Vol. 36(8), 623-624.—Investigated the differential perceptions of 3 age levels of emotionally disturbed children concerning people and curriculum. 46 10-17 yr. old Ss in a school within a psychiatric institution (representing elementary, and junior and senior high levels) rated 4 people concepts (classmates, parent, teacher, and myself) and 4 curriculum concepts (social studies, language, science, and mathematics) on semantic differential scales. A factor analytic study identified 2 curriculum factors (vigor and certainty) and 3 people factors (movement, security, and merit). Results show no over-all significant differences among the age groups on any of the people or curriculum factors, with the exception of elementary Ss, whose ratings on "myself" were consistently higher than those of the 2 older groups. Reasons for the uniformity in ratings are discussed.—P. McMillan.

COUNSELING & GUIDANCE

1809. **Andrews, W. R.** (Queen's U., Kingston, Ontario, Canada) **Behavioral and client-centered counseling of high school underachievers.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 93-96.—Compared 2 treatments as to their effectiveness in reducing anxiety and raising achievement. A combination of desensitization and reinforcement was given for 10 interviews to 1 treatment group of 16 high-anxious high school matriculation boys who showed above average intelligence and below average marks. Client-centered counseling was given to a similar group of 16 Ss. Using an analysis of variance, pretreatment and posttreatment normalized T scores were compared for treatment and control (N=16) groups on 2 anxiety scales and 4 academic marks. Significant anxiety reduction occurred in the behavioral group. Immediately following treatment, no improvement in achievement had occurred. Some implications are discussed. (16 ref.)—*Journal abstract*.

1810. **Baer, Donald M.** (U. Kansas) **The consultation process model as an irrational state of affairs.** *Psychology in the Schools*, 1970, Vol. 7(4), 341-344.—Summarizes the papers by J. R. Bergan, J. R. Barclay, R. J. Wetzel, D. R. Curry, and R. W. Henderson (see PA, Vol. 46:Issue 1) presented at a symposium entitled Practice and Training with a Consultation Process Model given at the 1969 Annual Meeting of the American Psychological Association.—H. Kaczkowski.

1811. **Bergan, John R.** (U. Arizona) **A systems**

approach to psychological services. *Psychology in the Schools*, 1970, Vol. 7(4), 315-319.—Describes the "Computer-Assisted Psychological Services System (CAPS)" that is being implemented as part of the Follow Through Implementation Program of the Arizona Center for Early Childhood Education." The focus of CAPS is on knowledge and skills in system components rather than in individual practitioners. Objectives, components, and functions are discussed.—H. Kaczkowski.

1812. **Cornfeld, Charlotte & Goldstein, Albert.** (Los Angeles Valley Coll.) **Group counseling with college students: A cooperative project.** *Journal of Jewish Communal Service*, 1970(Fal), Vol. 47(1), 64-69.—Describes the results of the efforts of a college, Hillel Council, and a family service agency in integrating their services to offer personal counseling to college students. These efforts were prompted by a recognition of the dearth of professional services for college students with emotional problems. Counseling was begun with 10 students. The cocounselors were a case-worker from a university and a social work student from the same school. 11 sessions were planned, though some of the students did not make all the sessions. The feedback was favorable. The students said they would recommend the counseling to their peers, the Director of Student Activities indicated significant personality changes in the students, and the social work students emphasized their own increased understanding. The main themes of the case-worker were emancipation from home, heterosexual relationships, and vocational goals. S. R. Diamond.

1813. **Curry, Dal R.** (U. Arizona) **Case studies in behavior modification.** *Psychology in the Schools*, 1970, Vol. 7(4), 330-335.—Implementation of the Computer-Assisted Psychological Services consultation process model is in 4 stages: problem identification, problem analysis, intervention, and evaluation. 2 case studies are presented to illustrate the consultation process. In the 1st case, lack of progress in learning to read by an 8-yr-old girl was improved in 6-mo time by the use of interventions which attempted to reduce "the attention lavished upon her by the concerned adults in her environment." In the 2nd case, aggressive and disruptive behavior in a 6-yr-old boy was successfully controlled by arranging his "environment so that inappropriate behavior would result in the removal of a positive reinforcer." —H. Kaczkowski.

1814. **Dore, Russell L.** (U. Washington) **Self concept and interests related to job satisfaction of managers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2338.

1815. **Fenix, Yolanda.** (U. Manila, Philippines) **Correlates of counseling appropriateness in Manila college students.** *Philippine Journal of Psychology*, 1969(Dec), Vol. 2(2), 23-34.—Attempted to identify the counselor's role as perceived by 235 college students. This role is defined in terms of the problems seen as appropriate to discuss with a counselor at a counseling center. Vocational problems were considered most appropriate to discuss with a counselor by both male and female Ss. In addition, an attempt is made to identify the personal-social variables of college students related to their perceptions of counseling appropriateness. The personal-social variables found to be significant were mother's education, knowledge of the guidance office, amount of self-disclosure, sex, and counseling experience. (24 ref.)—*Journal abstract*.

1816. **Fiman, Byron G.** (New York U.) **An inves-**

ligation of the relationships among supervisory attitudes, behaviors, and outputs: An examination of McGregor's theory Y. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2338.

1817. Ford, Blake & Koziey, P. W. (Red Deer Junior Coll., Alberta, Canada) **Differential perceptions of the school counselor's role.** *Alberta Journal of Educational Research*, 1969(Dec), Vol. 15(4), 245-253.—Hypothesized that significant differences exist among students, counselors, and counselors' perceptions of students' perceptions regarding types of problems considered appropriate for counselor-student discussions. 434 11th grade students and 46 high school counselors responded to a questionnaire on which they rated 73 items on 4 scales (personal, social, educational, and vocational) for their degree of appropriateness for counsel-student discussion. The counselor also rated each item as he thought students would rate it. Analysis of variance results confirm the hypothesis. However, while counselors perceived all 4 types of problems to be more appropriate for counselor involvement than did students, differences on the educational and vocational scales were slight as compared with differences on the personal and social scales. The degree to which counselors were not aware of students' perceptions is considered 1 of the most significant findings. It is concluded that results support the argument that the nature of the counselor's work is determined more by role expectations than by the training and competence he possesses, and that the counselor must recognize a responsibility to make the public aware of his competencies and the areas in which he is prepared to use them.—M. Maney.

1818. Gredler, Gilbert. (Temple U.) **The school psychology program at Temple: Projects undertaken by students: The contribution of a training program to the public school.** *Psychology in the Schools*, 1970, Vol. 7(4), 351-355.—Reviews a number of projects undertaken by students in school psychology to enhance their utility in a school setting. The examples help "demonstrate that students in a training program in school psychology can combine their talents with the needs of the school district to aid in implementing the educational objectives of our society."—H. Kaczowski.

1819. Haase, Richard F. (U. Massachusetts) **Canonical analysis of the Vocational Preference Inventory and the Strong Vocational Interest Blank.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 182-183.—Performed a canonical correlation analysis on the responses of 176 male undergraduates to Holland's Vocational Preference Inventory (VPI) and the SVIB. 6 canonical roots were extracted and correlations between the original VPI and SVIB variables and the canonical roots were obtained. The 6 dimensions were interpreted and assigned conceptual labels suggested by the primary contributing VPI and SVIB variables. Common features underlying the 2 scales are discussed.—*Journal abstract*.

1820. Houston, B. Kent. (U. Kansas) **Sources, effects, and individual vulnerability of psychological problems for college students.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 157-165. Reviews research on the sources and effects of psychological problems for college students and on identifying students who are particularly vulnerable to the adverse effects of their problems. As expected, the general academic area is the most consistent problem area. College students' problems may adversely affect their psychological adjustment and/or academic performance. Use of

MMPI scales appears promising for identifying students who are currently having difficulty or are likely to have difficulty in the future with psychological adjustment. Anxiety measures may be related to current or future academic performance in some complex, as yet unclear, fashion. Measures of psychological adjustment appear to be better predictors of future than concurrent academic performance. (54 ref.)—*Journal abstract*.

1821. Hurst, James C. & Morrill, Weston H. (Colorado State U.) **Personal versus general requests for client feedback in evaluating counseling services.** *Journal of College Student Personnel*, 1971(Jan), Vol. 12(1), 32-35.—Attempted to determine whether or not the content and percentage of responses would differ between former clients of a counseling center who received personal vs. general letters to a posttermination questionnaire. A total of 282 former clients received the Counseling Services Assessment Blank (CSAB) which attempts to evaluate client's perceptions of counselor helpfulness, satisfaction with services received, and resulting therapeutic growth in relation to the problems they perceive themselves as having. 3 criteria (i.e., perceived counselor helpfulness, expressed satisfaction with counseling, and client-perceived therapeutic growth) were used to assess differential effects that personal and general requests for feedback from clients might have on responses to the CSAB. Results indicate that "post-termination questionnaires sent under personal cover letters elicit responses that are not systematically different from those sent under a general cover letter."—R. H. Mueller.

1822. Kraft, Arthur. (Long Beach, Unified School District, Calif.) **Time out.** *Journal of School Psychology*, 1970, Vol. 8(4), 291-295.—Recommends that the school psychologist conduct 5-min discussions with entire classes with the teacher present. Discussions should be partially or wholly unstructured so that students can speak freely. Student comments are received non-judgmentally but with empathy. Students and teacher gain an appreciation of others' ideas and feelings. Excerpts from a tapescript of a session with a 4th grade class are included. The psychologist could help the teacher conduct sessions on his own. The procedure seems adaptable to the secondary level.—*Journal abstract*.

1823. Krienke, John W. (U. Florida) **Cognitive differentiation and occupational-profile differentialiation on the Strong Vocational Interest Blank.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2961.

1824. Lubetkin, Barry S. (Kent State U.) **Televised analysis of communication (TACOM): It's relation to counseling change: A methodological study.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2287.

1825. Perdomo, Roberto. (U. Valle, Medical School, Cali, Colombia) **Utilización del servicio psiquiátrico estudiantil en la Universidad del Valle.** [Use of the Students' Psychiatric Services in the University del Valle.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Sep), Vol. 16(3), 286-293.—Describes epidemiological data of the students attending to the Students' Psychiatric Services of the University del Valle. The main finding is that a statistically significant greater number of students from the Faculty of Medicine attended to the Services. This is interpreted as indicating that medical students had a greater contact with the psychiatric

service (because it is a branch from Medicine, and it is located in the same building) and hence had a greater possibility to attend to it.—V. A. Colotla.

1826. **Pierce, Richard M. & Schauble, Paul G.** (Michigan State U.) **Follow-up study on the effects of individual supervision in graduate school training.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 186-187.—Followed up 14 counselor-trainees who had been part of an earlier study assessing the effects of high- and low-functioning supervisors on their supervisees. Results indicate that (a) the supervisees of the high-level supervisors continued to function more effectively on the measured dimensions than the supervisees of the low-level supervisors; and (b) neither the supervisees of the high-level or low-level supervisors tended to change significantly on the measured dimensions.—*Journal abstract*.

1827. **Schwartz, Joseph.** (Richmond Coll., City U. New York) **Comment on "Expert" and "Inexpert" counselors.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 180-181.—Subjects L. D. Schmidt and S. R. Strong's (see PA, Vol. 44:9304) data on student ratings of the expertness of counselors vs. training and experience of the counselors to a least-squares test. Data indicate that expertness as judged by 37 male students is not correlated in any simple way with experience but rather that Ss liked 1 of the counselors, disliked another, and thought the remaining 4 were about the same.—*Journal abstract*.

1828. **Sharp, W. Harry & Marra, Herbert A.** (U. Wyoming) **Factors related to classification of client problem, number of counseling sessions, and trends of client problems.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 117-122.—Attempted (a) to determine if clients seen at a university counseling and testing center were representative of the total student population; (b) to study the relationship between certain descriptive variables, classification of client problem areas, and number of counseling interviews; and (c) to ascertain trends in problems presented by 594 clients during an 8-yr period. In terms of the variables studied, the client sample differed significantly from the student population only in terms of age, with more younger Ss using the service. 5 modal patterns were evident when clients were considered by number of counseling interviews and by problem-goal areas. Over an 8-yr period, the proportion of clients classified by problem-goal area shifted significantly.—*Journal abstract*.

1829. **Siegel, Alan E.** (Boston U., School of Education) **Relationships among uni- and multi-dimensional alienation constructs and social interaction/behavior variables: A survey of college freshmen.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2969.

1830. **Stahmann, Robert F.** (U. Iowa) **Test review.** *Journal of Counseling Psychology*, 1971(Mar), Vol. 18(2), 188-192.—Reviews (a) the Kuder Preference Record—Occupational (Form D)—developed for use with male high school and college students and adults, which provides separate scores for specific occupations or occupational groups; (b) the Kuder General Interest Survey (Form E) for use in Grades 6-12; and (c) the Kuder Occupational Interest Survey (Form DD) which is scored on occupations and college majors for men and women.—M. West.

1831. **Stamps, Louis W.** (Ohio State U.) **The effects of intervention techniques on fear of failure behav-**

ior. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2267-2268.

1832. **Stephenson, Norman L.** (U. Minnesota) **Some empirical relationships of an actuarial pattern analysis of basic scales of the Strong Vocational Interest Blank.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3011.

1833. **Thomas, Charles W.** (Center for the Study of Racial & Social Issues, Los Angeles, Calif.) **Black-white campus issues and the function of counseling centers.** In F. F. Kortan, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 420-426.

1834. **Westman, Jack C.** (U. Wisconsin Hosp., Madison) **Psychiatric contributions to school health programs.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 258-260.—Discusses the need for psychiatric consultation to be available to schools. Many psychiatrists see "the school as a potential mental health resource and as the principal screening device for early detection of emotional problems in children." Various ways a psychiatrist functions in a school system and the unique contributions he can make are detailed.—B. A. Burkard.

PERSONNEL

1835. **Barclay, James R.** (U. Kentucky) **Evaluating behavior changes in school psychologists.** *Psychology in the Schools*, 1970, Vol. 7(4), 320-324.—Presents "in summary form some of the major findings of research of 2 institutes for school psychologists" sponsored by the National Defense Education Act. The focus is on techniques and types of measurements used. It "is felt from analysis of the data and from feed-back from teachers, psychologists and school districts that these 2 experiences effected considerable change in the methods and procedures used in psychologist-teacher consultation. Not only was the social learning model of school psychology practice field-tested in a rigorous manner, but evidence from a variety of statistical and empirical sources suggests that these evaluation techniques yield strong support for this type of in-service training and consultation. Finally, the use of closed-circuit television joined to intensive didactic experience appears to be a potent teaching method."—H. Kaczkowski.

1836. **Bluestein, Venus W. & Milofsky, Charles A.** (U. Cincinnati) **Certification patterns and requirements for school psychologists.** *Journal of School Psychology*, 1970, Vol. 8(4), 270-277.—Sent a questionnaire to 50 state superintendents of public instruction and to directors of education in 5 United States territories. Information was requested relevant to state certification for school psychologists, including minimal academic, teaching, and internship requirements. 55 questionnaires were returned. 44 states and territories indicated certification standards which are subsequently discussed in detail. Trends noted are: more states requiring certification for school psychologists, higher academic requirements, increasing levels of certification, and a shift away from a mandatory teaching certificate for state certification as a school psychologist.—*Journal abstract*.

1837. **Friesen, D. & Bumbarger, C. S.** (U. Alberta, Edmonton, Canada) **An experiment in attitude change.** *Alberta Journal of Educational Research*,

1970(Dec), Vol. 16(4), 211-216.—Administered a pretested semantic differential test to 45 school superintendents, school board members, and school board personnel to assess their attitudes toward data processing in education. All personnel attended a conference. The difference between pre- and posttest scores indicate a change toward favoring data processing. A follow-up of 40 of the participants, however, revealed a reversion to the pretest attitude level.—*N. M. Chansky.*

1838. Pielstick, N. L. (Northern Illinois U.) **The appropriate domain of the school psychologist.** *Journal of School Psychology*, 1970, Vol. 8(4), 317-321.—Argues that efforts to delineate the roles and functions of school psychologists for the purpose of establishing national guide lines are useless. The "appropriate domain" is a function of the competencies and interests of the psychologist, the characteristics of the situation in which he works, and the effects of their interaction. Preparation in basic areas of behavior and psychological methodology are advocated as essential for adaptability to changes and development of leadership in this field. Efforts should be devoted to increasing effectiveness in the use of psychological knowledge and methods in the school setting.—*Journal abstract.*

1839. Rowitch, Jerome. (Los Angeles County Dept. of Mental Health, Calif.) **Group consultation with school personnel.** *Hospital & Community Psychiatry*, 1968(Aug), Vol. 19(8), 261-266.—Describes a school consultation program in which the consultants, many of whom were from private practice, worked with 2 groups: specialty and integrated. Specialty group consisted of principals, counselors, speech therapists, etc. Totally integrated groups included authority figures, and were considered more effective than the partially integrated groups. Various phases which evolved in consultation with specialty groups are defined. For teachers there were 3 phases: case-oriented discussion, general concepts and teachers' attitudes, and program and philosophy of the school system. In the case of administrators, Phase 1 concerned general problems in the school organization, Phase 2 was case-oriented, and Phase 3 included program and philosophy. Consultation techniques were explored and their application is illustrated in a discussion of work with school personnel in children's centers.—*B. A. Burkard.*

1840. Wetzel, Ralph J. (U. Arizona) **Behavior modification techniques and the training of teacher's aides.** *Psychology in the Schools*, 1970, Vol. 7(4), 325-330. "5 trainee groups, each composed of a teacher and 2 or more aides and volunteers, participated in the 4-wk training program . . . 7 Ss were Negro, 5 Mexican-American, and 2 Anglo . . . The following are illustrative of principles used in the instructions to the trainers": teaching observing behavior, modeling by the training staff, providing corrective feedback, and discussing behavior. Discussed briefly are "data from 4 training assessment procedures used with" the program, video tapes, behavioral measures of training effects, a behavioral task, and attitude measure.—*H. Kaczowski.*

1841. Zach, Lillian. (Yeshiva U.) **Training psychologists for the urban slum school.** *Psychology in the Schools*, 1970, Vol. 7(4), 345-350. Describes a re-training program for school psychologists which "requires each trainee to spend 1 full day a week in a city school during the 3 yr. of his study before embarking on his internship." The 2 goals were a rapprochement between educators and psychologists themselves who

were to be directly in the milieu of the disadvantaged child in the urban slum school . . . As simple as our projected goals may have seemed, we have learned that implementation of programs to achieve them is a complicated and difficult task, particularly when carried out in a societal framework that is changing so rapidly.—*H. Kaczowski.*

Teachers & Teacher Training

1842. Anderson, D. S. & Western, J. S. (Australian National U., Canberra) **State differences in authoritarian attitudes.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 261-264.—An international study of teacher roles has reported Queensland teachers as being more authoritarian and less child-centered than teachers in other Australian states. Similar differences were found between Victoria and Queensland on the same items for university students intending to become teachers. Scores on an Attitude Inventory taken by the same teacher trainees and other students in engineering, law, and medicine in several states at the commencement of their courses suggest that the attitudes predate training and that relative "authoritarianism" is characteristic of Queensland university students generally.—*Journal abstract.*

1843. Biggs, J. B. (U. Alberta, Edmonton, Canada) **Personality correlates of certain dimensions of study behaviour.** *Australian Journal of Psychology*, 1970(Dec), Vol. 22(3), 287-297.—Investigated study strategies which appeared in an analysis of a previous study by J. B. Biggs on the general natures of the tasks facing science and art students. These strategies were embodied in a questionnaire and correlations with performance and personality measures were obtained. Correlations were found between the strategies and certain personality characteristics, including extreme response set, dogmatism, neuroticism, extroversion, and divergence. Results support both the earlier interpretations of particular strategies, and the hypothesis that such strategies mediate between particular personality variables and the task. (19 ref.)—*Journal abstract.*

1844. Currie, Billye R. (U. Southern Mississippi) **The teacher as a variable in the use of operant techniques in the classroom.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2254.

1845. Hartley, James & Holt, Janet. (U. Keele, England) **A note on the validity of the Wilson-Patterson measure of conservatism.** *British Journal of Social & Clinical Psychology*, 1971(1 Feb), Vol. 10(1), 81-83.—Describes the application of the 1st of the G. D. Wilson and J. R. Patterson (see PA 43-15017) measure of conservatism on undergraduates, graduate students, teachers, college administrators, and teacher counselors. Scores of different S groups were correlated with other items. This included 28 teachers who were also given the authors' teacher attitude questionnaire. Results show that there was more discrimination between teachers with the latter. It is concluded that social desirability can affect questionnaires employing the Wilson and Patterson technique.—*P. Hertzberg.*

1846. Richek, Herbert G. (U. Oklahoma) **Jung's typology and psychological adjustment in prospective teachers: A preliminary investigation.** *Alberta Journal of Educational Research*, 1969(Dec), Vol. 15(4), 235-243.—Investigated the difference between Jungian, Freudian, and other theories of personality as to whether

extroversion/introversion is related to psychological adjustment. The Myers-Briggs Type Indicator (MBTI) and the Bown Self-Report Inventory (SRI) were administered to 365 female undergraduates applying for admission to teacher certification programs. On the basis of the MBTI scores, Ss were classified as extroverts ($N = 229$) or introverts ($N = 136$) and then further categorized as extreme or moderate. It was found that (a) extroverts scored higher on the SRI measures of psychological adjustment, while extreme introverts scored lower than moderate introverts; and (b) extroverts showed more positive perceptions of children than introverts, while the extremes did not differ from the moderates in either category. Limitations of the study are discussed. It is concluded that "even if it were definitely established that extroverts in youth are psychologically healthier than introverts, it would not necessarily follow that introverts make less effective teachers." (16 ref.)—S. Knapp.

1847. Wiechel, Lennart. (Pedagogico-Psychological Inst., Malmö, Sweden) *Ett rollspel i lärarutbildningen: En variansanalytisk studie jämte principer för metodval och konstruktion av utbildningsspel*. [Role-playing in teacher training: An analysis of variance and an outline of means in constructing educational games.] *Pedagogisk-Psychologiska Problem*, 1970(Apr), No. 108, 78 p.—Following a brief review of literature pertinent to the use of educational games, a study is described which shows the effects of a role-playing situation on the teaching attitudes of Swedish student teachers. Analysis of variance shows that the role-playing experience influenced participants in the direction of a more sympathetic yet critical teaching attitude. Techniques in the use of educational games in training student teachers are also described, with emphasis on problems in content analysis, implementation, and evaluation of results. (3 p. ref.)—D. W. Scott.

SCHOOL LEARNING & ACHIEVEMENT

1848. Asch, Harvey. (New York U.) *An investigation and attempted modification of classificatory style among disadvantaged preschool children*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2949.

1849. Bayuk, Robert J., Proger, Barton B., & Mann, Lester. *Organization of meaningful verbal material*. *Psychology in the Schools*, 1970, Vol. 7(4), 365-369.—Tested Ausubel's "organizer" concept on 123 high school juniors and seniors from 6 English classes using a 2700-word article on instincts and motivation. The results from a $2 \times 2 \times 2 \times 3$ analysis of variance design indicate that the mode of the organizer is differentially effective over 3 levels of ability. The discussion reflects some of the problems inherent in testing the organizer concept.—H. Kaczowski.

1850. Bloomer, Richard H. (U. Connecticut) *Reading patterns of the rejected child*. *Reading Teacher*, 1969(Jan), Vol. 22(4), 320-324, 340.—Results indicate that the teacher is far more important than the method. It is further suggested that (a) a methodology which relies exclusively on the components of any one, specific instructional approach should be abandoned, and (b) it would be desirable to modify kindergarten programs for disadvantaged children where such programs are concerned mainly with fostering social and emotional growth. CRAFT results have shown a significant

relationship between teacher satisfaction with a method and her results with it.—P. D. Leedy.

1851. Breton, Gabriel R. (U. Michigan) *The influence of interaction between personality and environment on educational outcomes*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2953.

1852. Costin, Frank. (U. Illinois) *Hostility and learning in an introductory psychology course*. *Psychology in the Schools*, 1970, Vol. 7(4), 370-374.—Tested the relationship between hostility and learning with 50 men and 51 women in a beginning psychology course. Results indicate a significant negative correlation between hostility and achievement. The correlations were higher for men than women.—H. Kaczowski.

1853. Gopal Rao, D. (V. M. National Inst. of Co-operative Management, Poona, India) *A study of some factors related to scholastic achievement*. *Indian Journal of Psychology*, 1970(Jun), Vol. 45(2), 99-120.—Establishes the effect of factors, e.g., individual intelligence of the pupils and of their scholastic achievement. 500 8th grade boys of Higher School were selected at random. The following independent variables were selected: individual intelligence, study habits, socioeconomic status, and school attitude; the dependent variable was scholastic achievement expressed in grade marks. Intelligence was measured by using the CIE group intelligence test; the socioeconomic status was expressed numerically by using B. Kuppaswamy's Socioeconomic Status Scale. Study habits were determined by asking a series of prepared questions and using a rating scale. Measurement of school attitude was based on the Likert technique of attitude scale construction. Achievement was measured by using the Jamia Achievement Test Battery and taking the cumulative score on social studies, general science, and mathematics. The techniques of multiple correlation and multiple regression were applied, and correlation coefficients, regression equation, and its coefficients were determined. It was found that the student's intellectual level was the predominant factor which determined his scholastic achievement. 64% of the variations in achievement are accounted for by variations in intelligence ($r = .8$). Socioeconomic status was related to intelligence ($r = .45$); no substantial relationship existed between study habits or school attitude and intelligence. (20 ref.)—I. Halev.

1854. Hogan, Thomas P. (Forham U.) *Socioeconomic community variables as predictors of cognitive test performance of school children*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2959.

1855. Kakkar, S. B. (State Coll. of Education, Patiala, India) *Family conflicts and scholastic achievement*. *Indian Journal of Psychology*, 1970(Jun), Vol. 45(2), 159-164.—Explores the hypothesis that the IQ and scholastic achievement of children is influenced by interparental conflicts. The sample consisted of 125 pairs of suburban parents and their 3rd-5th grade children (total $N = 214$), about $\frac{2}{3}$ of whom participated in the study. Interparental differences were scored in accordance with the answers supplied by a distributed questionnaire. The children were subdivided into 3 groups: "small," "average," and "big." The "small" group corresponded to the lowest parental differences score, etc. Criteria of IQ and scores for children were found through Lorge-Thorndike Intelligence Test-Form A, Level 3, and scholastic achievement scores were found from school records of the children. It was found that the

IQ and scholastic achievement of children were in an inverse relationship to the parental differences. IQ and scholastic achievement were not affected by the child's sex. It is suggested that a study be made of child's behavior as influenced by interparental conflicts.—*I. Halev.*

1856. Lesiak, Walter J. (Ohio State U.) **The relationships of the internal-external locus of control dimension to scholastic achievement, reflection-impulsivity and residence in priority areas.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2285-2286.

1857. Liem, Glenn R. (U. Rochester) **The effects of decision-making power on performance and task-related attitudes.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2286.

1858. Lin, Yi-Guang; McKeachie, Wilbert J., Wernander, Marilyn, & Hedegard, James. (U. Michigan) **The relationship between student-teacher compatibility of cognitive structure and student performance.** *Psychological Record*, 1970(Fal), Vol. 20(4), 513-522.—Describes 4 studies testing P. J. Runkel's hypothesis that compatibility of cognitive structure between teacher and students would facilitate student learning and performance. Ss were 110, 201, 65, and 60 undergraduates in each study, respectively. Results using Runkel's collinearity method failed to support the hypothesis and produced a greater reduction of confidence in the method than in the hypothesis.—*Journal abstract.*

1859. Margenau, Eric A. (New York U.) **The effect of a Job Corps rehabilitation program on the occupational aspirations of a group of disadvantaged youth.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2259-2260.

1860. Marion, Tovah S. (Boston U., School of Education) **An adaptation of the Tasks of Emotional Development (T.E.D.) Test for black lower class children, and its relationship to academic achievement.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2997.

1861. May, John R. (U. North Carolina, Chapel Hill) **An exploration of family systems in relation to children's school performance.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2997-2998.

1862. Russo, William J. (St. John's U., Jamaica, N.Y.) **Relationship between dogmatism and academic achievement among male academic high school students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2966.

1863. Schwartz, David J. (Juvenile Probation Dept., Hillcrest Mental Health Unit, Belmont, Calif.) **The reality of illusion and the illusion of reality.** *Science Teacher*, 1969(Sep), Vol. 36(6), 29-31.—Defines the nature of learning as a process of interaction and change based on pleasure or pain stimulation. It is suggested that in the Western Judeo-Christian tradition, pain has become the primary educational stimulus, with fear and become the primary educational derivatives. The painful stimulation may arise from uncertainty about the future, worry in the anticipation of change, fear resulting from sudden change, or boredom from lack of stimulation or challenge—as in contemporary education. A child becomes conditioned through interaction by religion, science, and tradition, to associate change and learning with pain and control. It is concluded that teachers "will have become true educators or change agents when the

children perceive us as not being bored with our own lives; know that we are not afraid to change, feel that we can give up our need to control them.... They want to use us as models but not out of fear, not because of our control, but by their own choice."—*P. Zell.*

1864. Tagatz, Glenn E., Lemke, Elmer A., & Meinke, Dean L. (Marquette U.) **The relationship between conceptual learning and curricular achievement.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 70-75.—Examined the relationship between performance on concept attainment tasks and information processing tasks and performance on selected curricular achievement tests through factor analytic procedures. 20 males and 20 females from the 7th-9th grades served as Ss. Results indicate that information processing of exemplar information and concept attainment of exemplar information are highly related to curricular factors. Other specific information processing factors, i.e., science and spelling, were only moderately related to curricular achievement. From these relationships, there is probably a high relationship between exemplar information processing and concept attainment of exemplar information with curricular factors generally and that more liberal generalizations of research results from tightly controlled experimental settings to conventional learning situations seem justified.—*Journal abstract.*

Prediction

1865. Brothers, Cassandra T. (U. Houston) **The construction, validation, analysis, evaluation and comparison of scales for predicting academic success in college.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2953.

1866. Keogh, Barbara K. & Smith, Carol E. (U. California, Los Angeles) **Early identification of educationally high potential and high risk children.** *Journal of School Psychology*, 1970, Vol. 8(4), 285-290.—Investigated early identification of educationally high potential and high risk children by following the same children (N = 49) from kindergarten entrance through Grade 5 of a regular school program. Kindergarten predictive measures were the Bender Gestalt Test and teachers' evaluations; follow-up measures were yearly standard achievement test results. Analyses revealed consistently high and significant relationships between teachers' ratings and subsequent school achievement. Teachers were surprisingly accurate in early identification of both high risk and high potential children. The Bender Gestalt was more accurate for identification of high potential than high risk children. Findings support the use of these measures for initial screening children entering formal school programs. Specification of dimensions of teachers' evaluations may provide clues to understanding the complexities of school readiness.—*Journal abstract.*

1867. Rardin, Donald R. & Moan, Charles E. (U. Florida) **Frustration tolerance and college grade point average.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 1003-1006. Presented 22 male and 22 female undergraduates with an insoluble finger maze as a measure of frustration tolerance. Simple and multiple correlations of frustration tolerance, School and College Achievement Test (SCAT) scores, and GPA showed frustration tolerance to be a relevant factor in the prediction of college GPA for males but not for females

and when in combination with SCAT Quantitative scores for both sexes.—*Journal abstract.*

1868. **Rose, Harriett A.** (U. Kentucky) **Prediction and prevention of freshman attrition.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2264.

1869. **Shouksmith, George.** (Queen's U., Belfast, Ireland) **Validity studies with a test of high-level reasoning.** *Irish Journal of Education*, 1969(Win), Vol. 3(2), 117-122.—Employed a measure of high-level reasoning, the Canterbury Reasoning Test (CRT), employed in 2 studies, aimed at establishing its construct and predictive validity. Data from a factorial study with 50 undergraduates provide evidence for the construct validity of the test as a measure of 2 basic aspects of high-level reasoning: (a) logical reasoning, and (b) pure associative reasoning. A practical study carried out for the New Zealand Forest Service, using 34 forester cadets, suggests that the CRT has some validity as a predictor of success in university studies.—*Journal abstract.*

1870. **Simpson, Robert L.** (California State Coll., Fullerton) **Reading tests versus intelligence tests as predictors of high school graduation.** *Psychology in the Schools*, 1970, Vol. 7(4), 363-365.—Compared the effectiveness of individual intelligence tests (WISC and WAIS) to that of individual reading achievement tests (Wide Range Achievement Test and Gilmore Oral Test) in predicting success for low achievers. The sample consisted of the 183 graduates and 197 dropouts. Of these 380 Ss, 208 were in regular classes and 172 were in special classes for the educable mentally retarded. "The individual reading tests surpass individual intelligence tests in ability to predict successful graduation from regular school classes for low-achieving students. Verbal IQ has moderate value as a predictor of ability to graduate in regular classes, but Performance IQ is practically worthless for this purpose."—*H. Kaczowski.*

1871. **Spiegel, Don & Keith-Spiegel, Patricia.** (Veterans Administration Center, Los Angeles, Calif.) **Multiple predictors of course grades for college men and women.** *Journal of College Student Personnel*, 1971(Jan), Vol. 12(1), 44-48.—Investigated the relationship between intellectual, attitudinal, and personality variables and academic success for 76 college students (45 male, 31 female) by using a stepwise multiple regression method. The tests and scales used were the MA scale, the Custodial Mental Illness Ideology Scale, the California F Scale, the 15-item short form of the Over-all Agreement Scale, the Dogmatism Scale, the Security-Insecurity Inventory, the Internal-External Control Scale, the Institute of Living Scale Vocabulary and Abstractions subtests, the Picture Differences Test, and the Spiegel Personality Inventory. Results indicate that grade points were best predicted by a different combination of variables for males and females. Support is provided for the notion that personality and attitude information may be useful in combination with intellectual factors in predicting achievement in at least some academic settings. (22 ref.)—*R. H. Mueller.*

1872. **Stroup, Atlee L. & Eft, John H.** (Coll. of Wooster) **The CPI as a predictor of college academic success.** *Alberta Journal of Educational Research*, 1969(Dec), Vol. 15(4), 191-194.—Administered the CPI to 1938 college freshmen during the 1st wk. of school. Ss' GPAs at the end of the 1st semester and the 1st yr. were then correlated with the CPI scales. Results show that 9 scales correlated significantly for females and 11 for males. Responsibility and achievement via independence

were most highly correlated, and in both cases the correlation was higher for males. Socialization, tolerance, achievement via conformity, and intellectual efficiency were also highly correlated with GPA for both sexes.—*M. Maney.*

Overachievement & Underachievement

1873. **Fisher, Robert J. & Wass, Hannelore.** (Eastern Michigan U.) **What price excellence?** *College Student Survey*, 1970(Win), Vol. 4(3), 89-92.—It has been common knowledge that frequently children with high educational achievement in the elementary grades later become mediocre performers. Research has indicated that high achievers frequently have personality characteristics assigned to low achievers. 4th-8th graders were grouped on factors of self-esteem, value orientation, perceptions of the teachers and learning conditions, mental health aspects, and peer relationships. 3 groups of clusters were identified: high, low, and mixed achievers. In the mixed group both high and low achievers regarded themselves unfavorably, lacked motivation, had low values on education, and unfavorably perceived the teachers, their peers, and the emotional climate of the classroom. Ss' self-esteem decreased with upward progress irrespective of academic achievement. Apparently, "academic excellence does not preclude a pupil's need for help in the personal-social aspects of his functioning." It is concluded that the overemphasis on achievement may be at the expense of the student's self-esteem and value orientation.—*A. J. Ter Keurst.*

1874. **Srivastava, Akhilesh K.** (Patna Coll., India) **Reading ability and underachievement.** *Indian Educational Review*, 1969(Jan), Vol. 4(1), 116-122.—Attempted to discover whether reading ability is related to underachievement. The sample was comprised of 4 groups of 150 boys, each representing the 4 categories of achievers—under, over, high, and low. 3 reading tests, measuring speed, vocabulary and spelling, were administered to all Ss. It was found that reading ability, which correlated significantly with achievement, emerged as a factor related to the differential achievement patterns of these groups. (20 ref.)—*Journal abstract.*

CURRICULUM & PROGRAMS

1875. ———. **Vocational exploration for city youth.** *Science Teacher*, 1969(Dec), Vol. 36(9), 30-31.—Outlines 3 programs designed to acquaint urban youth with career opportunities in technical areas. 2 programs emphasize actual technical training and employment during high school for Negro urban students.

1876. **Allen, K. Eileen; Turner, Keith D., & Everett, Paulette M.** (U. Washington, Child Development & Mental Retardation Center) **A behavior modification classroom for Head Start children with problem behaviors.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 119-127.—Applied behavior modification techniques to 12-15 children with problem behaviors enrolled in a demonstration Head Start class. The goals of the demonstration project were: (a) to provide remedial services, (b) to provide Head Start teachers and related personnel with in-service training in behavior modification techniques, and (c) to conduct applied research based on the behavioral analyses of Teacher \times Child interactions. 2 case studies are presented of an aggres-

sively disruptive child and a child whose total behavioral repertoire consisted of bizarre and maladaptive behaviors.—*Journal abstract.*

1877. Bereiter, Carl. (Ontario Inst. for Studies in Education, Toronto, Canada) **Designing programs for classroom use.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 204-207.

1878. Bono, James D. (Miami U.) **Languages, humanities and the teaching of values.** *Modern Language Journal*, 1970(May), Vol. 54(5), 335-347. —Attempts to "diagnose the failure of language and humanities classes in the secondary schools." The goals for instruction in the secondary schools are confused because of the tendency for American educational thinking to center on the teaching of values. Values are practically unteachable, yet truly educational goals are sacrificed for the sake of an orientation toward values. The result is very low educational standards and a dilettantism in education in which students do not master any discipline. The high rate of attrition in the languages is a salient example. Good students cannot develop properly because of the comprehensive high school and its emphasis on leveling. The real goal of education, the development of an intellectual approach to life, is missed. This compares unfavorably to the situation in European schools. Some practical suggestions are presented for improvement, which emphasizes the need for establishing sequential programs.—S. R. Diamond.

1879. Clark, Kenneth B. (City Coll., City U. New York) **Alternatives to urban public schools.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 115-120.

1880. Dreyer, Albert S. & Rigler, David. (U. Connecticut) **Cognitive performance in Montessori and nursery school children.** *Journal of Educational Research*, 1969(May), Vol. 62(9), 411-416.—Measured cognitive performance in 14 pairs of children, matched in social class, CA, sex, and IQ, selected from a Montessori and from a "traditional" nursery school. No differences were found between the parents in these schools on measures of social and parental attitudes and behavior, e.g., achievement orientation, traditional family ideology, dogmatism, anomie, parental control behavior, or task oriented vs. person oriented values. The nursery school Ss were significantly more creative on a measure of nonverbal creativity, were more socially oriented, and less task oriented than the Montessori Ss. Style of approach to tests was felt to be a critical outcome of the approach to tests was felt to be a critical outcome of the 2 educational environments. The Montessori Ss used significantly more physical characteristics to describe commonplace objects, whereas significantly more functional terms were used by the nursery school Ss in their descriptions. Montessori Ss' drawings had people present significantly less often and geometric forms significantly more often than the nursery school Ss' drawings. (27 ref.)—*Journal abstract.*

1881. Fine, Marvin J. (U. Kansas, School of Education) **Some qualifying notes on the development and implementation of behavior modification programs.** *Journal of School Psychology*, 1970, Vol. 8(4), 301-305.—Reviews 3 aspects of program planning in terms of the value issues involved. These include the manipulation of both antecedent and consequent events to the behavior, the inclusion of the child in program

planning, and teacher resistance to the program. (15 ref.)—*Journal abstract.*

1882. Gray, Susan W. & Klaus, Rupert A. (George Peabody Coll for Teachers) **The early training project: A seventh-year report.** *Child Development*, 1970(Dec), Vol. 41(4), 909-924.—Reports findings at the end of the 4th grade, 3 yr. after all experimental intervention had ceased at a preschool intervention project for children from low-income homes designed to investigate whether progressive retardation could be offset in elementary school. Special experiences provided for the 44 experimental children were based upon variables associated with attitudes and aptitudes conducive to school achievement. The Stanford-Binet, the Peabody Picture Vocabulary Test, and the Metropolitan Achievement Test were used as measures. Intensive work was done for 3 summers; in the remaining months there were weekly home visits. Over the years experimental Ss remained significantly superior to the 44 controls on intelligence tests. On measures of language and achievement, trends still remained, but differences were no longer significant by the end of 4th grade. There was a slight but parallel decline across groups. Evidence is presented on younger siblings.—*Journal abstract.*

1883. Grieger, Russell N., Mordock, John B., & Breyer, Norman. (Ohio State U.) **General guidelines for conducting behavior modification programs in public school settings.** *Journal of School Psychology*, 1970, Vol. 8(4), 259-266. Presents tentative guidelines for initiating behavior modification programs. Discussion focuses on (a) the importance of initial introduction of these procedures to teachers, (b) the relation of teacher personality variables to technique selection, (c) factors to consider when evaluating children for modification, and (d) suggestions for on-going participation and withdrawal of the psychologist as an active agent in such programs. (45 ref.)—*Journal abstract.*

1884. Heaps, Richard A. (U. Utah) **Self- and physical fitness attitudes following a contrived fitness test.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2255.

1885. Karnes, Merle B., Teska, James A., Hodgins, Audrey S., & Badger, Earledeen D. (U. Illinois) **Educational intervention at home by mothers of disadvantaged infants.** *Child Development*, 1970(Dec), Vol. 41(4), 925-935. Describes a program of early educational intervention implemented by 20 mothers over a 15-mo period to prevent the developmental deficiencies characteristic of disadvantaged children by the age of 3 or 4. Postintervention scores on the Stanford-Binet Intelligence Scale and the Illinois Test of Psycholinguistic Abilities of the 15 13-27 mo. old children whose mothers completed the program are compared with the performances of 15 children of similar family backgrounds who received no intervention. Also the scores of 6 experimental children are compared with those obtained by their siblings prior to the mothers' enrollment in the training program. The performances of experimental children were significantly superior to those of both control groups.—*Journal abstract.*

1886. Kessen, William. (Yale U.) **Early learning and compensatory education: Contributions of basic research.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 200-203.

1887. Lamb, Douglas H. (Florida State U.) **The effects of public speaking of self-report, physio-**

logical, and behavioral measures of anxiety. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2284.

1888. Lipton, Edward D. (Madison Coll.) **A perceptual-motor development program's effect on visual perception and reading readiness of first-grade children.** *Research Quarterly*, 1970(Oct), Vol. 41(3), 402-405.—Reports on a program in perceptual-motor development and determines changes in, and assesses relationships between, changes in perceptual-motor development on visual perception and reading readiness of 92 1st grade children. 4 classes were equated on the variables age, height, sex, and weight. 2 of the classes (experimental) were exposed to the perceptual-motor program for 12 wk. and the other 2 classes (control) took part in the conventional physical education program. All students participated in their regular classroom activities. All Ss were evaluated in perceptual-motor development, visual perception, and reading readiness prior to and immediately following the program. F ratios for the 3 variables tested were all significant beyond the .01 level in support of the perceptual-motor program.—*Journal abstract*.

1889. Losen, Stuart. (Public Schools, New Canaan, Conn.) **The Special Services Aide in the schools: A new approach to an old problem.** *Psychology in the Schools*, 1970, Vol. 7(4), 392-396.—Describes the use of 8 volunteer mothers from the community who functioned as Special Service Aides in the New Canaan, Connecticut, school system. The primary functions and limitations as listed by the aides were observing, tutoring, counseling, testing, and community liaison. Active supervision by teachers and a Special Service staff is considered the key to the success of the program.—*H. Kaczkowski*.

1890. Lyman, Bernard. (Simon Fraser U., Burnaby, British Columbia, Canada) **Performance of introductory psychology students in an Historical Foundations course in an Historical Foundations and a standard introductory final examination.** *Journal of the History of the Behavioral Sciences*, 1970(Oct), Vol. 6(4), 354-357.—The performances of 592 students, mostly 1st-semester freshmen, taking a problem-oriented Historical Foundations introductory psychology course were compared on a specially designed final examination and a final examination designed for a "standard" introductory course. The ensuing data suggest that students taking such a Historical Foundations course do as well in examinations designed for "standard" introductory courses as in an examination specially designed for this course. It is further concluded that "the Historical Foundations introductory course is at least as broad as the customary introductory psychology course."—*C. M. Franks*.

1891. McFadden, Hugh B. & Pasewark, Richard A. (U. Wyoming) **High school psychology in the Rocky Mountain region.** *Journal of School Psychology*, 1970, Vol. 8(4), 306-310.—Over 40% of the high schools in a 5-state Rocky Mountain region reported offering courses in psychology. A significant portion of students entering college classes have had such courses. With but 15% of teachers claiming a major in psychology and the rest scattered through 20-some other subjects, adequacy of teacher preparation is questioned. Areas for effort are suggested to enhance teacher preparation and to develop high school courses which might be appropriate to advanced placement or enriched introductory study at the college level. These developments should have added

benefits for psychology's recruitment efforts and the spread of public knowledge about psychology.—*Journal abstract*.

1892. Messick, Samuel. (Educational Testing Service, Princeton, N.J.) **Evaluation of educational programs as research on the educational process.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 215-220.

1893. Miller, James O. (U. Illinois) **Disadvantaged families: Despair to hope.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 179-197.

1894. Morgan, John M. (U. Arizona) **Self-modeling versus other-modeling versus practice in the reduction of public speaking anxiety.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2289.

1895. Morrisett, Lloyd N. **Early learning and compensatory education.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 198-199.

1896. Pettigrew, Thomas F. (Harvard U.) **The metropolitan educational park.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 133-139.

1897. Pyecha, John. (Research Triangle Inst., Research Triangle Park, N.C.) **Comparative effects of judo and selected physical education activities on male university freshman personality traits.** *Research Quarterly*, 1970(Oct), Vol. 41(3), 425-431.—Compared the effects of physical education courses in Judo I and II, handball, badminton, basketball, and volleyball on certain personality traits of male college freshmen. Ss used were randomly selected and assigned to the experimental (Judo I and II, N = 73), Control 1 (handball and volleyball, N = 34), and Control 2 (badminton and basketball, N = 42) groups. Personality trait measures on all Ss were obtained through repeated administrations of 16 PF, 1962 Edition of Form A; i.e., pretreatment, 8- and 16-wk measures. Using pretreatment measures as covariates, analysis of variance techniques indicates that the judo experimental group became more warmhearted, easygoing, and participating than did either of the control groups. *Journal abstract*.

1898. Schlungs, M. (U. Liège, Inst. of Psychology & Science of Education, Belgium) **L'influence du milieux pédagogique et sportif sur le développement de l'enfant.** [Influence of pedagogic and sportive half-times on child development.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970(Jun), Vol. 19(2), 88-90.—Suggests an almost even division of school time between intellectual activities (in the morning) and physical education (in the afternoon) and its influence on the intellectual and physical development of children is discussed, based on the previous experiences in France. The new experimental schedule assigned 19½ hr/wk to intellectual class work and 7½ hr/wk to physical culture, in comparison with the 26½ and 3½ hr/wk, respectively, which are standard in French schools. Results are definitely positive. Much higher passing grades were earned by the children studying under the new schedule, and the children were more relaxed, balanced, assiduous, and concentrated at home and school. It is concluded that this method is applicable to all school levels, and is recommended for a long and healthy psychosomatic evolution, both physiologically and intellectually.—*P. von Toal*.

1899. Sontag, Marvin; Sella, Adina P., & Thorndike,

Robert L. (Teachers Coll., Columbia U.) **The effect of Head Start training on the cognitive growth of disadvantaged children.** *Journal of Educational Research*, 1969(May), Vol. 62(9), 387-389.—Measured the effects of Head Start on the cognitive development of preschool children by comparing 43 pairs of Head Start children with children of similar ages who were registered for Head Start but had not begun the program. The assumption made in the selection of the latter group for comparison purposes, was that the family background and other variables that make for a particular child being enrolled in this voluntary program would be controlled. Ss were given the Stanford-Binet Intelligence Test and the Caldwell-Soule Preschool Inventory (CSPI). No significant differences ($p > .05$) in IQ were found. Significant differences (approximately $\frac{1}{2}$ of a standard deviation) were found on the CSPI.—*Journal abstract*.

1900. Spano, Bartolo J. (U. Florida) **Casual thinking, adjustment and social perception as a function of behavioral science concepts in elementary school children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3009-3010.

1901. Stephenson, Richard W. (Public Schools, New Canaan, Conn.) **Community involvement in the Special Services Aide program: A key to more effective service.** *Psychology in the Schools*, 1970, Vol. 7(4), 386-392.—Reviews the development of a Special Service Aide program in the New Canaan, Connecticut, school system.—H. Kaczkowski.

1902. Stern, Carolyn & Bryson, Juanita. (U. California, Los Angeles) **Competence versus performance in young children's use of adjectival comparatives.** *Child Development*, 1970(Dec), Vol. 41(4), 1197-1201.—Attempted to determine whether disadvantaged preschoolers can be taught to produce comparatives. 12 50-60 mo. old children (previously given the Peabody Picture Vocabulary Test) were given 3 12-min programed lessons using rule-given vs. echoic instructional treatments. Each of 10 paired pictures presented an adjective and its comparative (e.g., fat pig, fatter pig). The criteria included a selection and a labeling task. The mean score on the selection pretest was over 85%; on the labeling the score was less than 10%. After training, both treatments made significant gains (.01 level), scoring 85% or better on the labeling posttest. This gain was retained over a 6-mo period.—*Journal abstract*.

1903. Willmon, Betty. (Florida State U.) **Parent participation as a factor in the effectiveness of Head Start programs.** *Journal of Educational Research*, 1969(May), Vol. 62(9), 406-410.—Investigated the effects of parental participation in a Head Start program on the academic achievement of students as measured by the Metropolitan Reading Readiness Test. Ss were 485 Negro children and 56 white children of similar mental ability and socioeconomic background living in Florida. Ss were divided into 3 groups according to parental participation and involvement in the program. The mean participation readiness score of the active parental participation group was higher than that of the no parental participation group ($p > .05$). The mean reading readiness score of the highly active group was higher than that of the no parental participation group ($p > .01$). Findings indicate that for this population the influence of highly active parental involvement in Head Start appeared to serve as an intervening variable which influenced academic motivation. (16 ref.)—*Journal abstract*.

1904. Young, Jay A. (Carleton Coll., Ottawa, Ontario,

Canada) **Behavioral definitions of "understand" and "think."** *Science Teacher*, 1969(Nov), Vol. 36(8), 59-60.—Outlines behavioral educational objectives for secondary school and undergraduate education, i.e., that each student: (a) demonstrate understanding of his major field and related fields; (b) seek to teach himself and achieve understanding of voluntarily chosen topics; and (c) display an ability to see relationships, draw inferences, and generate hypotheses as parts of the larger process of thinking.—P. Zell.

Teaching Methods & Teaching Aids

1905. Boiarsky, Carolyn. (Southwest Regional Lab., Los Angeles, Calif.) **Updating education in Appalachia.** *Audiovisual Instruction*, 1968(Dec), Vol. 13(10), 1096-1098.—Describes a network of educational cooperatives, employing the communications media, which are being designed by the Appalachia Educational Laboratory to solve the problems of inadequate facilities, personnel, and curricula facing Appalachian schools. The use of TV and radio telelecture would link the local schools to a central facility from which relevant and comprehensive programs would emanate, and mobile facilities would carry special equipment and personnel to the schools.—P. McMillan.

1906. Dwyer, Francis M. (Pennsylvania State U., Div. of Instructional Services) **Effect of knowledge of objectives on visualized instruction.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 219-221. Investigated the relative effectiveness of 8 types of visual illustrations used to complement programed instruction when Ss, prior to receiving the instruction, were told specifically the types of information they were expected to obtain from the instruction. 295 undergraduates were randomly assigned to 1 of 9 treatment groups. Each S received the Otis Quick Scoring Mental Ability Test (Form FM), participated in his respective instructional presentation, and received 4 individual criterion measures. Results indicate (a) all types of visuals are not equally effective in facilitating S achievement of different learning objectives, and (b) the use of specific instructions to focus Ss' attention on relevant learning cues in the more realistic illustrations is not an effective instructional technique for increasing S achievement.—*Author abstract*.

1907. Forness, Steven R. (U. California, Los Angeles) **Behavioristic approach to classroom management and motivation.** *Psychology in the Schools*, 1970, Vol. 7(4), 356-363. Reviews behavior modification strategies that have direct application in the classroom, e.g., classroom reinforcements, teacher attention, high frequency behaviors used to reinforce low frequency behaviors, teacher as researcher, and desensitization. (22 ref.)—H. Kaczkowski.

1908. Gaasholt, Marie. (U. Oregon) **Precision techniques in the management of teacher and child behaviors.** *Exceptional Children*, 1970(Oct), Vol. 37(2), 129-135. Presents a practical method of evaluating teaching skills through precision teaching techniques. Specific topics include (a) measuring teacher contacts with various pupils, (b) measuring the effects of teacher behavior on pupil performance, and (c) establishing proficiency levels in writing and arithmetic. Examples of the techniques and procedures are described in the teaching of 25 children referred to an experimental school for behavior problems and academic underachievement.—*Journal abstract*.

1909. Grotelueschen, Arden. (U. Illinois, Center for Instructional Research & Curriculum Evaluation) **Structure and sequence in teaching number bases to adults.** *Adult Educational*, 1970(Sum), Vol. 20(4), 195-205.—Studied the effects of differentially structured introductory materials on conceptually related learning tasks which were differentially sequenced. 96 23-53 yr. old Ss unfamiliar with number bases were randomly assigned to 4 introductory material (history of measurement, Base 10, Base 7, or principles of number bases) and 3 learning task (random, partial, or complete) conditions within 4 intelligence and 2 sex categories. Ss were individually presented the Base 4 task in paired associate form after they had received the programmed introductory material. The effect of the introductory material appeared to be greater for Ss with superior intelligence. The completely sequenced learning task resulted in a more rapid acquisition of the learning task. Reliable differences among the intelligence categories and between sexes were also observed. Findings suggest that the complexity of the learning topic is a variable to consider in ascertaining the extent to which introductory materials facilitate learning.—*Journal summary*.

1910. Hansen, Duncan N. & O'Neill, Harold F. (Florida State U.) **Empirical investigations versus anecdotal observations concerning anxiety in computer-assisted instruction.** *Journal of School Psychology*, 1970, Vol. 8(4), 315-316.—Offers empirical data gathered from systolic blood pressure and A-State scale scores of the State-Trait Anxiety Inventory as counter evidence to the negative criticisms of computer-assisted instruction systems as anxiety producing situations.—*Journal abstract*.

1911. Harris, Larry A. (Indiana U.) **Interest and the initial acquisition of words.** *Reading Teacher*, 1969(Jan), Vol. 22(4), 312-314, 362.—Learning research supports the effects which have been made in developing reading materials of high interest. If individual words selected on the basis of their appeal were found to be acquired and retained more readily than other words, a strong case for their inclusion in reading materials could be made. The study found, however, that interest loading of words is unrelated to acquisition among low socioeconomic children. Kindergarten children from low economic status facilities do not retain for even a short time words which they have acquired. Interest loading was not demonstrated to be important in the acquisition and retention of words by low socioeconomic kindergarten children.—*P. D. Leedy*.

1912. Hauserman, Norma N. (U. Maryland) **The effects of fading and shaping techniques and concrete reinforcement in acquisition of early reading behaviors in primary grade high-risk reading failures.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3024.

1913. Havighurst, Robert J. (U. Chicago) **Minority subcultures and the law of effect.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 275-288.

1914. Hunkins, Francis P. (U. Washington) **Effects of analysis and evaluation questions on various levels of achievement.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 45-58.—Investigated whether a dominant use of analysis and evaluation questions in social studies text-type materials would improve various levels of 6th grader's social studies achievement. 260 6th grade pupils in 11 classes were randomly assigned by

class to either experimental Condition A or B. During a 4-wk experimental period, pupils in each condition used specially prepared materials. Condition A's materials contained a dominant emphasis of analysis and evaluation questions (47.53%), while Condition B's materials utilized primarily knowledge questions (87.38%). At the experiment's termination, an achievement test was administered that provided 6 subscores, 1 for each level of B. S. Bloom's taxonomy of educational objectives. Analysis of covariance was the principal method of analysis. Students in Condition A achieved significantly better in the area of evaluation than did students in Condition B. Reading significantly affected all subscores with better readers performing at higher levels than poorer readers. The use of analysis and evaluation questions produced significantly greater scores in the area of evaluation than did the use of knowledge questions. Better readers in both conditions achieved significantly higher than did poorer readers in all 6 areas of the achievement test.—*Journal abstract*.

1915. Jones, Rodney M. & Hick, Thomas L. (State U. New York, Child Study Center, New Paltz) **Two sequence factors in programmed instruction.** *Journal of Experimental Education*, 1969(Win), Vol. 38(2), 66-69.—Tested pupil performances due to variation of step size (texture) and block size in programmed instruction in a 2-factor (3 × 3) experimental design. A 60-item addition drill was prepared in 3 different sequences of item difficulty and each sequence was presented via computer in 3 different block sizes (15, 30, and 60 items block). 36 bright 8th graders were randomly assigned to the resulting 9 sequences. Analysis of variance of posttest performance data based on response latency showed no significant differences due to texture, block size, or interaction. Control of performance data for initial differences in ability did not significantly improve experimental precision.—*Journal abstract*.

1916. Lesser, Gerald S. (Harvard U., Lab. of Human Development) **Designing a program for broadcast television.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 208-214.

1917. Mollod, Ruth W. (Columbia U.) **Pupil-tutoring as part of reading instruction in the elementary grades.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2260-2261.

1918. Paige, Joseph C. (Federal City Coll., Washington, D.C.) **Problems in teaching science to the urban child.** *Science Teacher*, 1969(Oct), Vol. 36(7), 27-32.—Hypothesized that (a) the domination of the decision hierarchy, (b) teacher education programs, and (c) profit orientation of the textbook publishers and resulting inferior textbook content used as the sole basis of instruction are the major obstacles encountered in teaching science to urban children. It is suggested that the weaknesses of the educational establishment present a greater problem than the child's cultural disadvantage. An instructional strategy is proposed, composed of 7 strata based on process. Stratum I—symbol and meanings—consists of theoretical and qualitative symbols in 4 educational situations. These symbols are perceived in Stratum II, which delineates cultural determinants of perception. Stratum III classifies the modalities of the inference process. The memory function, Stratum IV, based on neurological, biochemical, and electrochemical factors, is combined with the former 3 strata to determine cognitive style or

Stratum V. In reaction to the various cognitive styles, Stratum VI outlines teaching, administrative, and counseling styles to be adapted to the individual student's needs. Stratum VII consists of systems analysis and decision making to provide feedback on the effectiveness of the educational system.—P. Zell.

1919. Suppes, Patrick & Morningstar, Mona. (Stanford U., Inst. for Mathematical Studies in the Social Sciences) **Technological Innovations: Computer-assisted instruction and compensatory education.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 221-236.

1920. Taylor, Norman P. (Jackson Public Schools, Mich.) **Science among the bricks and mortar: Reaching the inner-city child.** *Science Teacher*, 1969(Dec), Vol. 36(9), 27-28.—Proposes that approaches to the teaching of science to inner-city children should be dependent upon the degree of cultural disadvantage and ego damage suffered by the child. To prevent further frustration, the teacher should create a climate of activity-orienting learning, with emphasis on rewarding success and ignoring failure. Principles of operant conditioning and assistance of trained teachers' aides are suggested to stimulate and maintain maximum attention and interest.—P. Zell.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

1921. Borgen, Frederick H. (U. Minnesota) **Taxonomic analysis of occupational environments: A comparison of two grouping methods.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2951-2952.

1922. Hall, Douglas T. (Yale U.) **A theoretical model of career subidentity development in organizational settings.** *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 50-76.—Presents a framework of psychological and sociological research on careers, and a model for describing a phenomenon largely unexplored in the psychological career literature—identity changes during the course of a person's occupational career experiences. In this model the individual's total identity is viewed as a number of subidentities, with each subidentity representing the person's image of himself in a particular social role. The model examines the development of the career subidentity, the person's conception of himself in his career role. Growth in the career subidentity and career commitment is seen as a series of cycles of challenging goal setting, independent effort, success, subidentity growth, and increased career self-esteem and commitment, leading to further goal setting. (71 ref.) —Journal abstract.

1923. Karnes, Edward W., Thomas, J. Kirby, & Loudis, Leonard A. (Martin Marietta Corp., Denver, Colo.) **Recreational preferences in potential space crew populations.** *Human Factors*, 1971(Feb), Vol. 13(1), 51-58.—Surveyed leisure-time preferences in 3 populations which are potential sources for future space crews. A questionnaire designed to provide rating space measures of preferences for various spacecraft recreational equipment items, leisure-time activity cat-

egories, content within activity categories, and various kinds of snack items, was administered to 44 test pilots, 37 military pilots, and 53 aerospace engineers and scientists. Statistical analyses of the obtained data indicate that preferences for types of spacecraft leisure-time equipment were similar in the 3 populations. However, certain significant differences were obtained among the populations in terms of the amount of time spent in earthbound leisure-time activities. Implications for space mission off-duty concepts are discussed. —Journal abstract.

1924. Singh, Narayan P. (Bhagalpur U., India) **Risk taking, achievement imagery, and personnel functions in entrepreneurship: A psychological analysis.** *Indian Journal of Psychology*, 1970(Jun), Vol. 45(2), 121-139.—Discusses the psychology of the entrepreneur. 3 aspects are considered: awareness of the risks to be taken, the motivation factor, and the personnel function in entrepreneurship. The entrepreneur resembles the gambler, but the entrepreneur does not invest more than he can afford, learns from defeats, and is able to stop when the proper time comes. The approach to investing varies individually: (a) the "non-gambling" type stops after having made a sufficient fortune, (b) the "small speculator" takes small risks, and usually sustains cumulative losses; and (c) the "big speculator" takes great risks with provisions, e.g. avoidance of instabilities and of social disgrace. An entrepreneur is driven by a desire to achieve success and not to fail in business. He is motivated with a "3 stages motivational intensity: wish fulfillment, push toward reality, and defense." Personnel functioning in entrepreneurship should be of a "thrusting" and not of a "sleeping" type. It is suggested that (a) provisions should be made for an effective management, for a broad assessment of the firm and its future, and (b) regular control of the firm should be exercised and attention paid to research and development. —Haley.

VOCATIONAL CHOICE & GUIDANCE

1925. Johansson, Charles B. & Campbell, David P. (Macalester Coll.) **Stability of the Strong Vocational Interest Blank for men.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 34-37. Inspection of test-retest reliability studies for the SVIB revealed that 2 factors were important when considering the stability of this instrument. Ss' initial test ages and length of test-retest intervals. To further investigate these 2 factors, median test-retest correlation coefficients were computed for over 1400 college educated males who had been tested with the SVIB at various ages and retested at varying intervals. Greater stability resulted the older the S at initial testing and the shorter the time lapse to retesting. —Journal abstract.

1926. Johnson, Richard W. (U. Wisconsin, Counseling Center) **Comparability of old and revised forms of the Strong Vocational Interest Blank for Women.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 50-56.—Administered the old and revised forms of the SVIB for Women (W) to a volunteer sample of 124 female Ss aged 15-66 yr. old. The scores on the 29 occupational scales common to both forms of the SVIB-W were highly related (Median $r = .83$) for most of the scales. The level of scoring on some of the scales changed markedly, however, largely dependent upon the year of sampling of the original occupational group members. Because of the

latter, correlations between individual profiles for the 2 forms were only moderately high (Median $r=.71$). Conclusions based upon profile analyses of the old form should not be generalized to the new form. A short form of the Basic Interest Scales, scorable on the old SVIB-W, may serve as a bridge between the old and new SVIB-W for use in longitudinal research projects.—*Journal abstract.*

SELECTION & PLACEMENT

1927. Bayroff, Abram G. & Fuchs, Edmund F. **The Armed Services Vocational Aptitude Battery.** U. S. Army BESRL Technical Research Report, 1970(Feb), No. 1161, 40 p.—Research was undertaken to develop a common aptitude battery for use by all the armed services as well as to provide an overall measure for the Armed Forces Qualification Test (AFQT). The Army and the Behavioral Science Research Laboratory, as lead service, participated with the Navy, Air Force, and Marine Corps in a study to determine comparability of the classification tests used by the several services and, from those tests found to be interchangeable, to develop shortened forms to constitute an alternate interservice battery. The new battery derived (Armed Services Vocational Aptitude Battery—ASVAB) was standardized on a 3000-man sample of Selective Service registrants, again stratified on AFQT. 7 sets of tests were identified as interchangeable: Word Knowledge, Arithmetic Reasoning, Space Perception, Mechanical Comprehension, Shop Information, Automotive Information, and Electronics Information. The Army Coding Speed Test was selected as a measure of clerical aptitude on the basis of separate validity studies. An 8th test, Tool Knowledge, was added to provide AFQT scores. The ASVAB tests, currently in use to test potential recruits in their senior year of high school, may also be used as service classification batteries, supplemented as needed by tests unique to a given service.—A. J. Drucker.

1928. Carlson, Robert E. (Life Insurance Agency Management Assn., Hartford, Conn.) **Effect of interview information in altering valid impressions.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 66-72.—Presents the results of a study extending some of the variables of impression formation to a simulated employment interview setting. Life insurance agency managers evaluated 8 hypothetical job applicants 9 different times based on 9 different sets of information varying in favorability. 3 treatment conditions appear to have affected interviewers' evaluations: (a) valid test results (14%), (b) favorability of subjective personal history (12%), and (c) a combination of different types and amounts of information (11%). A primacy effect was found for unfavorable but not favorable information; unfavorable information had a recency effect when presented with favorable. Thus, the effect of subjective interview information in altering valid impressions is dependent on the amount, kind, and order in which it is presented. (30 ref.)—*Journal abstract.*

1929. Hampton, Robert E. **Testing and equality of career opportunity.** In F. F. Korten, S. W. Cook, & J. I. Lacey (Eds.), "Psychology and the problems of society." (See PA, Vol. 46:Issue 1) 289-294.

1930. Larson, Emilie E. & Kristiansen, Donald M. **Prediction of disciplinary offense early in Army service.** U. S. Army BESRL Technical Research Note, 1969(Apr), No. 210, 16 p.—Attempted to determine the

effectiveness of a written instrument to identify persons likely to become offenders early in Army service. Focus was on the disciplinary record during initial training, approximately the 1st 16 wk. of military service. Of special interest was the possibility of predicting disciplinary offenses among the low mental ability men admitted to the Army under the new lower standards. 3 measures derived from the Personal Opinion Study and an Overall Acceptability measure representing the best written predictor of Army disciplinary record resultant from previous research were obtained for a large sample of men tested at Reception Stations. The findings, together with similar conclusions on earlier disciplinary prediction research, should discourage efforts to predict disciplinary offenses on the basis of individual characteristics on entry to military service. The most effective predictor, the Overall Acceptability measure, would screen out an undue number of nonoffenders in order to identify a small number of potential early offenders.—A. J. Drucker.

1931. Miller, James. (George Washington U.) **Selecting computer programmers: A multivariate approach to the determination of predictors using an improved criterion for on-the-job success of male and female computer programmers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2341-2342.

1932. Pesci, Michael L. (U. Minnesota) **Psychological differences between research, development and product engineers and their implications for placement decisions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3048.

TRAINING

1933. Baldwin, Thomas S. & Bailey, Larry J. (U. Illinois) **Readability of technical training materials presented on microfiche versus offset copy.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 37-41.—Attempted to develop psychometric instruments of known reliability and content validity for measuring an individual's ability to process each of several types of information through the visual modality, and to conduct an experimental study in which the instruments developed were used as the dependent variable. 12 reading tests were constructed using each of 4 types of technical training materials. 3 forms of each test master were reproduced: offset copy, positive image microfiche, and negative image microfiche. Men in the Air Force served as Ss. A control group received the offset copy form, and positive and negative image forms were administered to the 2 experimental groups (N=45, 43, and 45, respectively). An analysis of variance revealed statistically significant differences in favor of offset copy for 3 of the 12 subtests.—*Journal abstract.*

1934. Hellebrandt, E. T. & Stinson, John E. (Ohio U., Div. of Research) **The effects of T-group training on business game results.** *Journal of Psychology*, 1971(Mar), Vol. 77(2), 271-272.—Studied the impact of laboratory training in intact groups and fragmented groups on the operating effectiveness and cohesiveness of 5 man companies participating in a business game. Ss were 75 seniors and graduate students who participated in the business game as a part of a regular course. 5 companies (25 Ss) participated in laboratory training as intact work groups, 5 as fragmented groups, and 5 served as controls. Business game performance indicates that

intact trained groups were significantly more cohesive and significantly less effective in operations than fragmented trained groups.—*Author abstract.*

1935. Yeager, Joseph C. (U. Pittsburgh) **The effectiveness of a training program in human relations.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2344.

TASK & WORK ANALYSIS

1936. Eschenbrenner, A. John. (McDonnell Douglas Corp., St. Louis, Mo.) **Effects of intermittent noise on the performance of a complex psychomotor task.** *Human Factors*, 1971(Feb), Vol. 13(1), 59-63.—Investigated manual image-motion compensation, a complex psychomotor task involved in certain photographic activities from orbit, as a function of the temporal pattern (aperiodic, periodic, or continuous) and intensity level (50, 70, or 90 db.) of white noise. Ss were 24 male aircraft engineers and engineering students. Performance was measured in terms of the total amount of time image motion was held at or below a 40-microadians/sec criterion for specific blocks of trials. Results show that white noise had a detrimental effect on image motion compensation performance, and that the magnitude of the decrement varied as a function of both the temporal pattern and intensity level of this noise.—*Journal abstract.*

1937. Fogli, Lawrence; Hulin, Charles L., & Blood, Milton R. (U. California, Berkeley) **Development of first-level behavioral job criteria.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 3-8.—Carried out a procedure for the development of behaviorally anchored rating scales in order to establish reliable job criteria for grocery clerks. Examples of checker behavior were obtained by interviewing staff personnel of a large Western grocery chain. Dimensions of the job were defined, and the grocery staff allocated each behavioral example to the dimension in which it belonged. Items with high agreement of dimension allocation were retained and then rated on a scale of desirability. Final scale reliabilities of items ranged above .97. These procedures provide information with implications for policy development and worker training throughout the organization.—*Journal abstract.*

1938. Mecham, Robert C. (Purdue U.) **The synthetic prediction of personnel test requirements and job evaluation points using the Position Analysis Questionnaire.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2341.

PERFORMANCE & JOB SATISFACTION

1939. Armstrong, Thomas B. (IBM Corp., Systems Manufacturing Div., Kingston, N.Y.) **Job content and context factors related to satisfaction for different occupational levels.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 57-65.—Tested the theory proposed by F. Herzberg, B. Mausner, and B. Snyderman (see PA, Vol. 34:4849) using J. G. Darley and T. Hagenah's rationale relative to occupational level. Ratings of satisfaction and importance for the job content and context factors and overall job satisfaction were obtained from 200 engineers and 153 assemblers. The proposed job factor dichotomy was not supported. However, satisfaction with the content factors made the greatest contribution to overall job satisfaction, regard-

less of occupational level. Conversely, ratings of job factor importance were a function of occupational level; content aspects were most important for engineers, and context for assemblers. Several demographic variables failed to influence the findings. It is concluded that both theories represent oversimplifications. (29 ref.)—*Journal abstract.*

1940. Bernstein, Donald S. (Illinois Inst. of Technology) **Mediational influences of personality on the effect of social interaction.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3042.

1941. Chalmers, Elden M. (U. Tennessee) **The relationship between personality characteristics and performance in the Seventh-Day Adventist ministry.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3043.

1942. De Milk, Gary H. (U. Utah) **Job performance prediction of the disadvantaged worker.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3043.

1943. Grigaliunas, Benedict S. & Herzberg, Frederick. (Case Western Reserve U.) **Relevancy in the test of motivator-hygiene theory.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 73-79. Compared sequence of events and item rating and ranking as methodologies in replication of motivator-hygiene (M-H) theory predictions of job attitudes. A measure of relevance was obtained in order to determine its effect in producing the empirical inconsistencies. Results show that ratings and rankings of items measuring job attitudes are heavily contaminated by irrelevancy. In addition to irrelevancy, the failure of rating and ranking of items to replicate M-H theory predictions seems to be further due to the biases produced by social desirability, value systems and misinterpretations or reinterpretation of items by the respondents. (16 ref.)—*Journal abstract.*

1944. Gunter, Thomas H. (Georgia State U.) **An analysis of the backgrounds of textile salesmen by means of a biographical inventory: A study to determine if factual data can distinguish between relative degrees of success.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2339-2340.

1945. Kuipers, H. & van der Vlist, R. (Inst. of Preventive Medicine TNO, Groningen, Netherlands) **Sociaal-psychologische facetten.** [Social-psychological facets.] *Mens en Onderneming*, 1970(Nov), Vol. 24(6), 373-383. Discusses the effects of automation on the psychological adjustment of workers. The process of automated production on the part of the worker is described as being simple in nature, highly repetitive, and operating under specific time limits. The worker requirements include a high degree of manual dexterity and eye-hand coordination. The automated factory is usually controlled by a set of "watch-dog" electric panels, operated by workers who are conditioned to respond almost automatically to emergencies. It is observed that the intrinsic aspects of the job do not develop a clear identification between the worker and his task. The resulting boredom on the part of the worker plus the adverse working conditions, such as an excess noise level, reduce his motivation. Means to reduce the loss of motivation include job rotation, development of a democratic social climate in the factory, and a more flexible personnel organization in the management. The social psychological facets of the employment situation are identified by flexibility of personnel assignment and mutual consideration among the workers. A J Ter Keurs.

1946. Mandel, Kay. (U. Utah) **The predictive validity of on-the-job performance of policemen from recruitment selection information.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2996.

1947. Melville, Norbert T. (Illinois Inst. of Technology) **Interaction of biographical data item weighting and scale weighting methods.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3046-3047.

1948. Swanson, John B. (Purdue U.) **The prediction of rated performance of airmen using information derived from their preceding position assignments.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2342-2343.

1949. Swasey, Allan V. (U. Tennessee) **An investigation of corporate image as a correlate of employee satisfaction.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2343.

1950. Valenzi, E. R. & Andrews, I. R. (Bowling Green State U.) **Effect of hourly overpay and underpay inequity when tested with a new induction procedure.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 22-27.—Tested J. S. Adams' (see PA, Vol. 40:8736) inequity theory with an induction which did not challenge the workers' job qualifications, eliminating devalued self-esteem as a confounding variable. 31 workers were hired for an hourly pay clerical task in a real job situation and assigned to 1 of 3 groups—overpay, underpay, and control—in a before-after design. Contrary to inequity theory predictions and to previous inequity theory experiments, there were no significant work performance differences among the 3 groups, but 3 of 11 underpay Ss quit the job while no other Ss quit. It is concluded that the results of this experiment combined with the results of other experiments strongly suggest that inequity effects previously reported are probably due to the self-esteem variable. It is suggested that research on wage inequity should focus more on variables, e.g., turnover, satisfaction, and recruitment rather than solely on work performance.—*Journal abstract*.

1951. Vroom, Victor H. & Deci, Edward L. (Carnegie-Mellon U.) **The stability of post-decision dissonance: A follow-up study of the job attitudes of business school graduates.** *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 36-49. Describes a follow-up study of V. H. Vroom's (see PA, Vol. 41:5111) experiment which provided evidence of the phenomenon of postdecision dissonance reduction among graduate students in a school of industrial administration who were engaged in the process of choosing organizations in which to begin their managerial careers. The attitudes of those Ss toward their organizations 1 yr. (N=39) and 3 1/2 yr. (N=37) after graduation were examined. It was found that the changed orientations toward the chosen organization exhibited immediately following choice (i.e., increased attractiveness and greater perceived instrumentality for goal attainment) were no longer in evidence after implementation of the choice. Both the attractiveness of the organization and its perceived instrumentality for the attainment of goals decreased markedly during the 1st yr. and remained at a low level for at least the next 2 1/2 yr. The processes underlying the apparent disillusionment on the part of Ss are examined. Implications of results for the phenomenon of post-decision dissonance are also considered. *Journal abstract*.

1952. Waters, L. K. & Roach, Darrell. (Ohio) **Relationship between job attitudes and two forms of withdrawal from the work situation.** *Journal of Applied Psychology*, 1971(Feb), Vol. 55(1), 92-94.—Correlated attitudes concerning the job in general and specific aspects of the work situation with termination decisions and recorded frequency of absences during the following administration of job attitude questionnaire. 160 nonsupervisory female employees. Overall satisfaction and satisfaction with several intrinsic aspects of the work situation were significantly related to the termination criterion. None of the extrinsic variables were related. For the frequency of absence criterion, attitudes toward specific aspects of the work situation showed no consistent relationships when nonattitudinal variables were partialled out, but overall satisfaction was significantly related.—*Journal abstract*.

MANAGEMENT & ORGANIZATION

1953. Anderson, Karl R. (United States International U., San Diego, Calif.) **Can bureaucracy be humanized?** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3041-3042.

1954. Buckley, Harry A. (Purdue U.) **Organizational congruence in perceptions of leader effectiveness.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2337.

1955. Cohen, Barry M. (U. Tennessee) **A comparison of the optimal skill mix patterns of line and staff supervisors at the lower management level.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-B), 2337-2338.

1956. Donaldson, Robert J. (Case Western Reserve U.) **Validation of the internal characteristics of an industrial assessment center program using the multitrait-multimethod matrix approach.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3043-3044.

1957. Hawkins, Roger E. (Illinois Inst. of Technology) **Need-press interaction as related to managerial styles among executives.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3044-3045.

1958. Ledbetter, Roger B. (United States International U., San Diego, Calif.) **Current attitudes held by selected top corporate management regarding the role of women as executives.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2961-2962.

1959. Lennéröf, Lennart. (U. Lund, Sweden) **Supervision: Situation, individual, behavior, effect.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3046.

1960. Meyers, Lawrence C. (United States International U., San Diego, Calif.) **Some effects of facilitator training on the attitudes and performance of people in leadership positions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 2962-2963.

1961. Moore, Michael L. (U. Michigan) **Managerial learning and socialization.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-B), 3047.

1962. Payne, R. L. & Pheysey, D. C. (U. Aston, Industrial Administration Research Unit, Birmingham, England) **G. G. Stern's Organizational Climate Index: A reconceptualization and application to business organizations.** *Organizational Behavior & Human Performance*, 1971(Jan), Vol. 6(1), 77-98.—Describes how the items in G. G. Stern's Organizational Climate Index

were recently realized according to the concepts appropriate to the business organization—the instrument has been called the Business Organization Climate Index (BOCI). The resulting 24 scales were submitted to 400 analyses and tested for split-half reliability on a sample of 120 senior managers from more than 100 different companies. Factor analysis of the scales revealed 2 main factors, organizational progressiveness and negative control. The reconceptualization was compared with Stern's conceptualization of the items. The construct validity of BOCI was tested by comparing the climate in 3 organizations contrasted in terms of their organization structure. The conclusion presents 12 possible types of data that can be collected about positive and their environments and indicates how the BOCI and Stern's measures fit into such a scheme. (21 ref.)—*Journal abstract*

1963 Pence, Jerry R. (U. Michigan) Effects of selected organizational variables on the behavioral style of the industrial supervisor. *Dissertation Abstracts International* 1970(Nov), Vol. 31(5-B), 3047-3048.

1964 Richards, Steven A. (U. Tennessee) The effects of the supervisor's race upon his performance ratings and the group interaction in a simulated organization. *Dissertation Abstracts International* 1970(Nov), Vol. 31(5-B), 3049.

1965 Ruda, Edward S. (Purdue U.) The effect of interpersonal similarity on management performance. *Dissertation Abstracts International* 1970(Oct), Vol. 31(4-B), 2342.

1966 Taylor, Ronald N. (U. Minnesota) The development and evaluation of an instrument to examine individual differences in managerial decision-making styles. *Dissertation Abstracts International* 1970(Nov), Vol. 31(5-B), 3049-3050.

1967 Tetmeyer, Donald C. (Ohio State U.) The influence of partial models and criterion measurement scales on consideration of incommensurate criterion variables in a complex decision. *Dissertation Abstracts International* 1970(Oct), Vol. 31(4-B), 2343.

SPECIAL ENVIRONMENTS

1968 Andersen, Søren & Christensen, Hans I. (Malmö Hs. Acoustical Investigation, Sweden) Underwater sound localization in man. *Journal of Acoustical Research* 1970(Oct), Vol. 9(4), 315-364. Directional hearing under water was examined in 7 skindivers at 1, 2, 4, 8, and 16 keps. The experiment was performed twice in a free field station and once in a bathyscaphe. Divers indicated the direction of the sound by the median plane of a photograph of the vessel, coming from 1 of 2 transducers placed at angles of 10, 15, 20, 30, 45, and 60°. The results showed great individual variation. Directional hearing under water seems to work on the same parameters as in the air, with differences for the longer wavelength in water. At 1 keps, time/phase cues were effective, and above 4 keps directional hearing is supported by intensity differences. Performance improved with increasing frequency from 2-16 keps. (21 ref.)—*Journal summary*

1969 Brandt, John F. & Hollien, Harry. (U. Florida Communication Sciences Lab.) Underwater hearing thresholds in man as a function of water depth. *Journal of the Acoustical Society of America* 1970, Vol. 46(4, Pt. 2), 893-894.—Obtained thresholds of

human hearing under water depths of 10, 20, and 30 ft. by using 6000 cycles/sec. of varying intensities. Learning, practice, and time limitations were not factors. No significant effect of frequency was noted. Directional shifts (90°) for the 3 conditions of underwater hearing were consistent with those previously reported.

1970 Harvey, Donald E. (U. Kansas) Cross-cultural stress and adaptation in global organizations. *International Journal of Management* 1970, Vol. 1, 110-120.

1971 McLaughlin, L. J. Psychological reactions to the stresses of outer space. In *Psychological Aspects of Space*. New York: McGraw-Hill, 1969.

ADVERTISING & CONSUMER PSYCHOLOGY

1972 Vahzi, E. R. & Andrews, L. R. (U. Illinois State U.) Effect of price information on product quality ratings. *Journal of Consumer Psychology* 1972, Vol. 1, 1-10. The effect of price information on product quality ratings was examined in a laboratory experiment. A group of subjects was presented with a list of products and their prices. The subjects were then asked to rate the quality of each product. The results showed that price information had a significant effect on quality ratings. Products with higher prices were rated as higher quality than products with lower prices. This effect was more pronounced for products with higher prices.

ENGINEERING PSYCHOLOGY

1973 Kralj, Jack A. Human factors and bio-technology: A status survey for 1968-69. In *Science and Civil Engineering*. Moscow & Novosibirsk, 1973.

1974 McCormick, Ernest J. Human factors engineering. New York: McGraw-Hill, 1974.

1975 Shneiderman, Richard W. & Hersh, C. Stephen. (Western Michigan U.) Psychophysical assessment of whole body vibration. *Journal of Human Factors* 1975, Vol. 4, 1-10.

The purpose of this study was to determine the psychophysical response of human beings to whole body vibration. The study was conducted in a laboratory setting. The subjects were exposed to various levels of vibration and their responses were recorded. The results showed that the response to vibration was highly individual and that the response was more pronounced at higher frequencies. The study also found that the response to vibration was affected by the duration of exposure and the intensity of the vibration.

The study was conducted in a laboratory setting. The subjects were exposed to various levels of vibration and their responses were recorded. The results showed that the response to vibration was highly individual and that the response was more pronounced at higher frequencies. The study also found that the response to vibration was affected by the duration of exposure and the intensity of the vibration.

judgments against 9-Hz vibration at .08, .26, and .46 g_z. Equal intensity curves derived from the magnitude estimation data show the same general shape and comparable levels as corresponding curves determined experimentally using the intensity matching procedure. These methods provide more systematic and quantitative characterizations of subjective response to vibration than previous approaches which have relied heavily on qualitative descriptions.—*Journal abstract.*

Displays & Controls

1976. Reynolds, H. N. (Cybernetics Research Inst., Washington, D.C.) **The visual effects of exposure to electroluminescent instrument lighting.** *Human Factors*, 1971(Feb), Vol. 13(1), 29-40.—Describes 2 experiments, using 12 male undergraduates in each, with electroluminescent aircraft instrument lighting. In Exp. I, white electroluminescent, green electroluminescent, red incandescent lighting were compared for their effects on dark-adapted, scotopic absolute, and acuity thresholds, using a simulated T-38 instrument panel for light exposure. In Exp. II, white, green, and yellow electroluminescent and red incandescent light were compared in terms of legibility of a transilluminated letter-acuity chart. Exposure to red incandescent lighting at .05 ft-l produced the lowest absolute and acuity thresholds, with white and green electroluminescent producing higher thresholds in that order. Although threshold differences between lighting colors were statistically significant, the absolute differences in visual sensitivity were small for practical purposes. Luminances required for equal legibility of transilluminated letters of various sizes were about the same for red incandescent, and white, green, and yellow electroluminescent lamps. (44 ref.)—*Journal abstract.*

DRIVING & SAFETY

1977. Carlson, William L. & Klein, David. (U. Michigan, Highway Safety Research Inst.) **Familial vs. institutional socialization of the young traffic offender.** *Journal of Safety Research*, 1970(Mar), Vol. 2(1), 13-25.—Analyzed the driving records, academic performance, and police contacts of 8094 male undergraduates at a large state university, and compared each S's history of traffic convictions and crashes with that of his father. The positive correlation found between fathers' and sons' conviction incidence supports the hypothesis that driving behavior is learned more through familial than through institutional socialization and that delinquent familial socialization results in delinquent traffic behavior. This is further supported by the findings that the S with numerous traffic convictions was delinquent in other respects; (a) his academic performance was poorer than that of his conviction-free

peers and poorer than his own capabilities, and (b) he was involved in more nonvehicular offenses than his student without traffic convictions. (16 ref.)—*Journal abstract.*

1978. Finkle, Bryan S. (Santa Clara County Lab Criminalistics, San Jose, Calif.) **Drugs in drinking drivers: A study of 2,500 cases.** *Journal of Safety Research*, 1969(Dec), Vol. 1(4), 179-183.—Reports study of more than 10,000 routine drinking driver investigations from 1966-1968. Approximately 2,500 cases involving 2,700 drug occurrences were noted. Salient facts from a breakdown of the cases are presented including the tabulation of occurring drugs according to their physiological action and number of dangerous drugs encountered. Analytical data were compiled from the fraction of the total cases in which blood alcohol was less than .15% and Ss exhibited definite symptoms of intoxication. These data are evaluated. A distribution by age and sex of those individuals in which drugs were detected was made and the administrative usefulness and judicial outcome of the cases is noted as a guideline in selecting future cases for analysis.—*Journal abstract.*

1979. Johansson, Gunnar & Rumar, Kåre. (Uppsala, Sweden) **Drivers' brake reaction times.** *Human Factors*, 1971(Feb), Vol. 13(1), 23-27.—Attempted to determine the distribution of brake RT which can be expected from drivers who have to brake suddenly and unexpectedly in traffic situations. The experiments were carried out as follows: (a) Brake RT was measured on 321 drivers in an anticipated situation on the road (Brake RT 1). (b) 5 drivers were repeatedly tested in the same way (Brake RT 2), and in a surprise situation (Brake RT 3). (c) The ratio of Brake RT 3 to Brake RT 2 was used as a correction factor and applied to Brake RT 1. The corrected median of the resulting distribution was .9 sec.; 25% of the group was estimated to have a brake RT longer than 1.2 sec.—*Journal abstract.*

1980. Marjanac, Antun, et al. (Hygienic-Epidemiologic Dept., Sarajevo, Yugoslavia) **Epidemiološko izučavanje traumatizma u vojsci.** [Epidemiological study of traumatism in the army.] *Vojnosantitarni Pregled*, 1970(Sep), Vol. 27(9), 377-381.—Investigated the occurrence of physical injury in the army on a sample of 1920 soldiers (1140 recruits and 780 soldiers). In 1 yr. medical examinations due to injury were performed on 574 soldiers (333 recruits and 241 soldiers). The greatest number of injuries by mo. occurred in Jan. and the least in February; by days the greatest number of injuries occurred on Tuesday. On Sunday, when soldiers had no training, the number of injuries was as high as on Friday and Saturday. Presented are types of injuries by the organs of the body, causes of injuries, and days of sick leaves due to certain kinds of injuries. (French & Russian summaries)—*English summary.*

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This index supplements the classification of abstracts given in the Table of Contents and is designed to lead the reader to subjects that are more specific than the general categories in the classification. When many abstract numbers are listed under a heading, the reader may find it helpful by matching the numbers found under the two or more headings that specify his particular interest.

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217, 247, 259, 260, 264, 271, 292, 294, 303, 305, 308, 313, 316, 317, 320, 325, 340, 342, 346, 355, 364, 378, 404, 506, 562, 606, 647, 725, 728, 810, 849, 1542, 1545, 1712
- Internal-External Control** (SEE Control/Internal-External)
- International Relations**
969, 978, 1170
- Interpersonal Attraction**
925, 929, 1047, 1048, 1069, 1070, 1072, 1074, 1078, 1088, 1107, 1119, 1124, 1133, 1750, 1751
- Interpersonal Influence**
926, 1016, 1101, 1105, 1108, 1724
- Interpersonal Perception** (SEE Social Perception)
- Interpersonal Processes** (see also Interpersonal
- Attraction, Interpersonal Influence, Group, Social Processes, Family Relations)**
397, 938, 969, 975, 1004, 1007, 1045, 1052, 1054, 1058, 1059, 1063, 1065, 1066, 1067, 1071, 1073, 1077, 1079, 1080, 1083, 1084, 1085, 1086, 1087, 1089, 1090, 1092, 1093, 1095, 1096, 1097, 1098, 1099, 1110, 1114, 1126, 1132, 1134, 1126, 1202, 1205, 1231, 1250, 1299, 1322, 1331, 1370, 1466, 1523, 1607, 1611, 1614, 1623, 1698, 1735, 1746, 1751, 1908, 1935, 1960, 1965
- Interresponse Interval** (SEE Interval/Time)
- Intersensory Processes**
63, 73, 93, 98, 131, 328, 506, 895
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87, 89, 110, 111, 112, 237, 309, 607, 714, 754, 1545, 1556, 1635, 1679
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57, 81, 118, 272, 298, 328, 337, 344, 376, 526, 647, 715, 718, 724, 764, 1041, 1085
- Interview & Interviewing** (see also Counseling, Guidance/Educational, Guidance/Vocational, Psychotherapy)
1274, 1300, 1331, 1617, 1625, 1928
- Introversion** (SEE Extraversion-Introversion)
- Intuition** (SEE Thinking, Cognition)
- Inventory** (see also Questionnaire, Survey)
1207, 1210, 1211, 1213, 1776, 1944
- Isolation** (see also Alienation)
82, 323, 552, 768
- Israel**
843, 902
- Item** (see also Test & Testing, Testing Methods)
252, 1207
- Japan**
- Jew** (SEE Religion, Ethnology)
- Job** (SEE next headings, Occupation, Personnel-Industrial, Work & Work Analysis)
- Job Evaluation** (SEE Occupation, Work & Work Analysis)
- Job Performance**
1930, 1931, 1940, 1941, 1942, 1944, 1946, 1947, 1948, 1950, 1955, 1956, 1961, 1964, 1965
- Job Satisfaction**
1258, 1814, 1816, 1939, 1940, 1943, 1945, 1949, 1951, 1952, 1961
- Judgment**
64, 210, 351, 381, 398, 816, 927, 946, 1076, 1266, 1393
- Judgment/Perceptual** (see also Perception, the various senses)
65, 66, 67, 68, 74, 87, 123, 128, 160, 180, 298, 487, 906
- Junior College** (SEE College)
- Junior High School** (SEE School, Student/Junior High School)
- Juvenile Delinquency** (SEE Delinquency Juvenile)
- Kibbutz/Israel** (SEE Israel)
- Kindergarten** (SEE Childhood/Preschool)
- Kinesithesis** (see also Movement)
186, 187, 314, 820, 1628
- Kinship** (SEE Family, Culture)
- Knowledge of Results** (SEE Feedback, Reinforcement, Information)
- Korsakov's Psychosis** (SEE Alcoholism, Brain Disorder)
- Labor Relations** (SEE Personnel/Industrial, Management)
- Language** (see also next headings, Communication, Information, Speech, Psycholinguistics, Verbal Behavior)
290, 683, 797, 869, 961, 967, 1141, 1145, 1146, 1147, 1148, 1473, 1633, 1637, 1639
- Language Development**
836, 866, 874, 884, 1781, 1787, 1882, 1902

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869, 886, 1140, 1144, 1149, 1150, 1152

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Laterality
65, 138, 163, 222, 235, 415, 436, 702, 795, 843, 1683

Latin America
977, 1156, 1460, 1600, 1692

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18, 19, 1008, 1010, 1459, 1836, 1946

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1016, 1062, 1075, 1080, 1094, 1095, 1391, 1816, 1935, 1954, 1957, 1959, 1960, 1963

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184, 230, 231, 232, 233, 234, 235, 238, 240, 243, 274, 280, 284, 290, 307, 369, 373, 375, 401, 431, 544, 548, 683, 684, 744, 771, 1141, 1152, 1448, 1738, 1906, 1961

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114, 236, 279, 710, 744, 1504

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114, 235, 239, 243, 251, 305, 310, 374, 396, 477, 567, 725, 848, 855, 1066, 1712

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237, 246, 249, 404, 457, 469, 628, 630, 690, 725, 728, 731, 1328

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242, 253, 261, 279, 396, 442, 620, 700, 701, 708, 710, 711, 714, 751, 848, 851, 852, 1706

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428, 552

Liberalism (SEE Political Behavior, Personality Trait)

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82, 91, 94, 99, 103, 110, 119, 149, 245, 502, 533, 556, 660, 727, 1976

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1188, 1401, 1404, 1413

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Animal)

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141, 150, 157, 500, 1968

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Luminance (SEE Brightness, Environment)

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Lysergic Acid Diethylamide
563, 1154, 1157

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401, 1253, 1631, 1738, 1814, 1816, 1924, 1935, 1937, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967

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Manic-Depressive Psychosis (SEE Depression, Psychosis)

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Marijuana
1154, 1159

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1074, 1292, 1622, 1623

Marketing & Marketing Research (SEE Consumer Behavior)

Marriage (see also Family, Sexual Behavior)
987, 1001, 1004, 1005, 1006, 1007, 1017, 1096, 1184, 1259, 1489, 1622, 1623, 1639

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80, 85, 99, 110, 152, 156, 158, 161, 175, 177

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Mass Behavior (SEE Group, Social Behavior-Human)

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651, 655, 778

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34, 70, 872, 1755, 1909

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58, 232, 238, 258, 265, 271, 273, 299, 304, 315, 317, 357, 820, 1142, 1143, 1151, 1448, 1737

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36, 133, 413, 611, 1151, 1744

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Mediation
269, 272, 277, 701, 853, 1633, 1748

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817, 994, 1244, 1249, 1274, 1416, 1445, 1716

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48, 235, 266, 275, 283, 284, 285, 287, 288, 289, 290, 291, 292, 294, 295, 296, 297, 298, 299, 300, 302, 303, 304, 307, 309, 311, 312, 319, 322, 323, 350, 377, 418, 470, 548, 562, 594, 625, 628, 641, 645, 792, 793, 822, 870, 919, 953, 1284, 1291, 1448

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34, 163, 295, 308, 320, 321, 322, 323, 324, 325, 326, 328, 331, 332, 333, 334, 335, 337, 338, 340, 342, 343, 344, 346, 347, 348, 349, 420, 506, 565, 601, 681, 851, 854, 858, 1542, 1679

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Menstruation (SEE Biological Rhythms)

Mental Deficiency (SEE Mental Retardation)

Mental Development (SEE Development)

Mental Disorder (see also Neurosis, Psychosis, specific disorders)
918, 1228, 1239, 1272, 1273, 1311, 1312, 1320, 1327, 1416, 1419, 1423, 1424, 1433, 1459, 1479, 1481, 1482, 1484, 1485, 1486, 1487, 1488, 1492, 1495, 1537

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987, 995, 1222, 1224, 1256, 1257, 1352, 1353, 1441, 1600, 1601, 1602, 1605, 1615, 1725, 1726, 1727, 1730, 1834, 1839

Mental Hospital & Hospitalization (see also Hospital & Hospitalization, Institution & Institutionalization)
1222, 1247, 1254, 1273, 1281, 1309, 1379, 1380, 1384, 1387, 1388, 1389, 1392, 1394, 1420, 1421, 1426, 1437, 1571, 1582, 1730

Mental Hospital/Programs in
1310, 1353, 1354, 1378, 1381, 1382, 1383, 1385, 1386, 1390, 1391, 1395, 1396

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831, 976, 1278, 1407, 1513, 1650

Mental Retardation (see also next headings, Learning, Learning Disorders)
1246, 1533, 1596, 1641, 1697, 1698, 1699, 1700, 1702, 1703, 1708, 1798, 1805

Mental Retardation/Diagnosis of
1701, 1710

Mental Retardation/Education in (SEE Education/Special Mental Retardation)

Mental Retardation/Learning in
1362, 1704, 1705, 1706, 1707, 1709, 1711, 1712, 1713

Mental Retardation/Treatment of
1340, 1362, 1713

Mental Retardation/Vocational Rehabilitation & Training in
1603, 1714, 1715

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Metabolism
475, 543, 569, 574, 1645, 1672, 1694, 1699

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20, 31, 55, 263, 958, 1018

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Migration (SEE Social Processes)

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955, 1930

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Minnesota Multiphasic Personality Inventory (MMPI)
638, 934, 1171, 1175, 1180, 1208, 1209, 1212, 1259, 1276, 1420, 1431, 1432, 1434, 1436, 1437, 1452, 1467, 1468, 1820, 1832, 1884, 1946

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MMPI (SEE Minnesota Multiphasic Personality Inventory)

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Model (see also Imitation)
20, 27, 32, 33, 34, 70, 151, 191, 229, 366, 379, 385, 386, 387, 391, 399, 401, 564, 1049, 1060, 1061, 1162, 1199, 1213, 1289, 1741, 1810, 1922, 1967

Money
1041, 1082, 1122, 1297, 1340, 1395, 1950, 1972

Mongolism (SEE Mental Retardation)

Monitoring (SEE Detection, Attention)

Monkey

27, 416, 433, 436, 437, 441, 444, 453, 463, 484, 488, 520, 644, 645, 702, 765, 777, 779, 781

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437, 681, 685, 708, 712, 749, 757

Mood (SEE Emotion)

Morale (SEE Job Satisfaction, Attitude, Emotion)

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Mother (see also Maternal Behavior, Mother-Child Relations, Parent)

937, 940, 952, 1002, 1018, 1205, 1267, 1285, 1321, 1340, 1498, 1602, 1703, 1801, 1885, 1889

Mother-Child Relations (SEE Parent-Child Relations, Child Rearing)

Motion (SEE Movement)

Motion Pictures (SEE Film)

Motivation (see also next headings, Achievement Motivation, Incentive, Reinforcement)

196, 197, 199, 200, 201, 649, 659, 662, 703, 797, 820, 856, 893, 915, 931, 948, 1051, 1055, 1122, 1123, 1172, 1180, 1198, 1237, 1538, 1567, 1619, 1741, 1907, 1940, 1943

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484, 649, 667, 680, 690

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641, 1238, 1364, 1668

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111, 215, 325, 509, 890, 892, 1438, 1674, 1704, 1710, 1798, 1936

Motor Processes (see also Learning/Motor, Muscle)

71, 182, 200, 415, 436, 587, 608, 610, 674, 681, 725, 760, 763, 809, 862, 912, 1526, 1630, 1657, 1675, 1708

Motor Skill (SEE Motor Performance)

Mouse

456, 457, 469, 485, 530, 549, 552, 573, 575, 578, 583, 586, 587, 588, 595, 596, 600, 603, 620, 628, 629, 630, 631, 651, 662, 676, 731, 768, 770, 782

Mouth (SEE Body)

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77, 102, 103, 113, 127, 146, 157, 218, 325, 375, 486, 509, 523, 535, 673, 813, 1130, 1376, 1700, 1936, 1975

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486, 492, 586, 588, 605, 617, 619, 627, 635, 1337, 1346, 1371

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172, 890, 1153, 1356

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Narcosis (SEE Sleep, Drug Therapy)

Narcotics (SEE Drugs, Drug Addiction)

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966, 1957

Need Achievement (SEE Achievement Motivation)

Negro

17, 24, 821, 846, 905, 942, 948, 980, 981, 984, 1034, 1095, 1103, 1128, 1195, 1282,

1468, 1749, 1768, 1770, 1779, 1833, 1860, 1875, 1879, 1903, 1964

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758, 802, 803, 1377, 1446

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423, 573

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427, 454, 588, 632, 635, 1373

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57, 489, 494, 564, 635, 636, 1242, 1373

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549, 1234, 1239, 1242, 1630, 1642, 1643, 1645, 1646, 1648, 1651, 1652, 1653, 1654, 1655, 1657, 1658, 1659, 1661, 1663, 1664, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1691, 1789

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416, 425, 426, 480

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50, 126, 163, 190, 235, 411, 415, 416, 418, 420, 492, 494, 495, 533, 536, 540, 544, 548, 640, 831, 843, 1148, 1234, 1507, 1573, 1657, 1664

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417, 422, 424, 448, 467, 503, 507, 508, 544, 570, 572, 573, 577, 584, 586, 588, 589, 590

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983, 1189, 1275, 1323, 1346, 1438, 1480, 1486, 1498, 1499, 1502, 1503, 1504, 1505, 1509

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Noise (see also Audition, Sound)

100, 127, 139, 155, 158, 159, 224, 673, 727, 732, 1936

Nondirective Therapy (SEE Psychotherapy/Methods in)

Nonsense & Nonsense Syllables (SEE Association, Learning/ Paired Associate, Word)

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Noradrenalin (SEE Hormone)

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109, 238, 345, 398, 896, 1909

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59, 365, 650, 771, 859, 924, 1528

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1333, 1339, 1401, 1497, 1502, 1503, 1574, 1598

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21, 985, 987, 989, 1046, 1631, 1922, 1929, 1931, 1932, 1939, 1941, 1944, 1946, 1947

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1875

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1249, 1746, 1814, 1819, 1823, 1830, 1832, 1859, 1875, 1925, 1926, 1932

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185, 466, 467, 605, 1053, 1054, 1180

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1175, 1453, 1512, 1539, 1550, 1561, 1568, 1586, 1587

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1436, 1445, 1490, 1716, 1717

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83, 97, 136, 140, 333, 434, 500, 518, 523, 709, 822, 1706, 1936

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68, 69, 70, 71, 75, 190, 1679, 1710

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76, 105, 137, 139, 141, 210, 291, 292, 792, 847, 898, 899, 905, 911, 1798

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67, 120, 122, 123, 125, 127, 129, 907

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104, 120, 128, 441, 795, 894, 1677
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76, 81, 82, 83, 84, 897
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189, 255, 789, 967, 976, 1028, 1106, 1129, 1181, 1224, 1454, 1565, 1959
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1275
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634, 789, 835, 1173, 1177, 1179, 1180, 1201, 1592, 1819, 1843, 1873, 1940
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- Personality Disorder** (SEE Emotional Disturbance, Neurosis)
- Personality Inventory** (SEE Personality Measurement)
- Personality Measurement**
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1163, 1192, 1194, 1846
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497, 934, 951, 997, 1020, 1024, 1063, 1067, 1112, 1124, 1165, 1166, 1167, 1170, 1171, 1176, 1178, 1182, 1203, 1204, 1211, 1233, 1410, 1474, 1493, 1509, 1518, 1617, 1749, 1856
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- Personality/Childhood** (SEE Childhood/Personality in)
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1252, 1253, 1924, 1929, 1949
- Personnel/Industrial**
1678, 1937, 1938, 1939, 1942, 1945, 1950, 1956
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266, 369, 955, 1206, 1923, 1927, 1930, 1933, 1940, 1948, 1967, 1980
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20, 21, 1084, 1099, 1247, 1256, 1257, 1353, 1382, 1384, 1388, 1390, 1728
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1050, 1604, 1607, 1627, 1793
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991, 1249, 1252, 1260, 1416, 1487, 1825
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93, 494, 534, 538, 788
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244, 330, 375, 875, 920, 964, 1128, 1135, 1136
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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

A cumulative index issue contains: Table of Contents for the six-month volume; complete list of all journals regularly searched by PA; list of volunteer abstractors; list of abbreviations used in the abstracts; the cumulative author index for the six-month volume; list of subject index heading terms; and cumulative subject index for the six-month volume, which consists of index heading terms, descriptive phrases for each abstract, four-letter abbreviations indicating languages other than English and abstract numbers.

Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA, e.g., an issue of the *Journal of Psychology* may include 20 relevant articles; abstracts for 17 of these articles may appear in the May issue of PA, the other 3, in the June issue.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenal tone increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.)—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.
2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., (*Parapsychology*).

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable

at time of publication. When only the issue number is given,

one must consult the Author Index of the PA issue noted in

order to determine the abstract number for the author and

article cited.

8—Summaries included in the primary source are listed when

in language(s) other than that of the article.

9—Number of references is included when 15 or more. May

also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title

5—Place of publication.

6—Publisher's name

6a—Year of publication

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) The stages of sleep. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA

issue noted in order to determine the abstract number for the

Editor of the book.

4a—Editor's name

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this volume are listed in alphabetical order in the following tables.

AA	= Alcoholics Anonymous
AC	= alternating current
ACTH	= adrenocorticotrophic hormone
AM	= ante meridiem
amp.	= ampere
bpm	= beats per minute
C	= centigrade
¢	= cents
CA	= chronological age
cc	= cubic centimeter
CER	= conditioned emotional response
CFP	= critical flicker frequency
CNS	= central nervous system
cps	= cycles per second
CR	= conditioned response (or reflex)
CRF	= continuous reinforcement
CRT	= cathode ray tube
CS	= conditioned stimulus
CVC	= consonant-vowel-consonant
db.	= decibel
DC	= direct current
DL	= differential limen
DNA	= deoxyribonucleic acid
DRL	= differential reinforcement of low rates

E	= experimenter
ECS	= electroconvulsive shock
EEG	= electroencephalogram (or -graphy)
EKG	= electrocardiogram
EMG	= electromyogram
ESP	= extrasensory perception
Exp.	= experiment

F	= Fahrenheit
ft-c	= footcandle
ft-L	= foot-lambert

g	= gravity
gm	= gram(s)
GPA	= grade point average
GSR	= galvanic skin response

Hz.	= Hertz
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ICS	= intracranial stimulation
im	= intramuscularly
ip	= intraperitoneally
IQ(s)	= intelligence quotient(s)
ITI	= intertrial interval
iv	= intravenously

kc.	= kilocycle
kg.	= kilogram
kg/m	= kilogram per meter
kHz.	= kilo-Hertz

LD	= lethal dose
LSD	= lysergic acid diethylamide

m.	= meter
M	= mean
M	= mole or molar
ma.	= milliamperes
MA	= mental age
MAO	= monoamine oxidase
ml.	= milliliter
mm.	= millimeter
mph	= miles per hour
msec.	= millisecond(s)

N	= number
NREM	= nonrapid eye movement

O	= observer
---	------------

p	= probability
%	= percent

PM	= post meridiem
pps	= pulses per second
PRF	= partial reinforcement effect
PSE	= point of subjective equality
ps	= pounds per sq. in.

r	= product-moment correlation
R	= roentgen
REM	= rapid eye movement
rms	= root mean square
RNA	= ribonucleic acid
rpm	= revolutions per minute
RT	= reaction time

S	= subject
SEU	= subjectively expected utility
SPL	= sound pressure level

TV	= television
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UCR	= unconditioned response
UCS	= unconditioned stimulus
UHF	= ultrahigh frequency

V	= volt
VHF	= very high frequency
vs.	= versus

YMCA	= Young Men's Christian Association
YWCA	= Young Women's Christian Association

Test abbreviations include:

California E Scale	(Ethnocentrism)
California F Scale	(Fascism)
CMA scale	= Children's Manifest Anxiety scale
CPI	= California Psychological Inventory
CTMM	= California Test of Mental Maturity
I PPS	= I dwards Personal Preference Schedule
MA scale	= (Taylor) Manifest Anxiety scale
MMPI	= Minnesota Multiphasic Personality Inventory
MMI	= Maudsley Personality Inventory
16 PF	= Cattell's 16 Personality Factor Questionnaire
SVB	= Strong Vocational Interest Blank
TAT	= Thematic Apperception Test
WAIS	= Wechsler Adult Intelligence Scale
WISC	= Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn.	= association
Assoc.	= associates
Co.	= company
Coll.	= college
Corp.	= corporation
Dept.	= department
Div.	= division
Inst.	= institute
Hosp.	= hospital
Lab.	= laboratory
Inc.	= incorporated
U.	= university
Ave.	= avenue
Bldg.	= building
Blvd.	= boulevard
Ct.	= court
Dr.	= drive
Ft.	= fort
Mt.	= mount
Pkwy.	= parkway
Pl.	= place
PO	= post office
Rd.	= road
St.	= street
N, S, E, W	= North, South, East, West
U.S.	= United States
USSR	= Union of Soviet Socialist Republic

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GENERAL

OBITUARIES

HISTORY

1981. D'Alessandro, August J. (2705 Paseo Dr., Rancho Cordova, Calif.) **An historical review of "Die Symbolik des Traumes": Chapters I-VI.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 337-343.—G. H. von Schubert, a 19th century romanticist, wrote the *The Symbolism of Dreaming* in 1814. The purpose of this review is to show that pre-Freudian views on dreaming, symbolism, superego, etc., did indeed exist, and that some of these ideas resemble in an unrefined manner some present-day concepts.—D. Prager.

PHILOSOPHY

1982. **Commenator, George E.** (Boston Coll.) **The phenomenology of love in Max Scheler.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2967-2968.

1983. Donaldson, George L. (Syracuse U.) **Hume's theory of relations.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2969.

1984. Garai, László. (Hungarian Academy of Sciences, Inst. of Philosophy, Budapest) **Az ember "szubsztanclonális" és "funkcionális" szükségleteiről.** [The "substantial" and the "functional" needs of man.] *Pszichológiai Tanulmányok*, 1967, No. 10, 131-137.

1985. Heil, John F. (Vanderbilt U.) **The identity theory of mind.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2973.

1970 (Dec), Vol. 31(6-A), 2915.
1986. Lapointe, François H. (Georgia Coll.) **Psicología fenomenológica de Husserl y Sartre.** [The phenomenological psychology of Husserl and Sartre.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(3), 377-385.—Husserl reduced the natural human ego to the "transcendental ego," the realm of transcendental, phenomenological self-experience. This transcendental ego is not a part of the natural world, but rather it constitutes the world by being the source of its meaning and objectivity. Sartre's disagreement with Husserl centers in the transcendental ego. For Sartre the ego is neither formally nor materially in consciousness: it is outside, in the world. It is a being in the world, like the ego of another. Sartre has no need for the transcendental ego as the unifier of the contents of consciousness, for consciousness has no contents.—*Journal abstract.*

1987. Lardner, Mary D. (Boston Coll.) The notion of person as self-transcendence in Bernard Lonergan's philosophy. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-A), 2974-2975.

1988. Parfit, Derek. (All Souls Coll., Oxford, Eng-
land) **Personal identity**. *Philosophical Review*, 1971(Jan).

Vol. 80(1), 3-27.—If a man's brain could be divided and each $\frac{1}{2}$ housed in a new body and if the 2 newly constituted bodies survived, would the new persons be identical with one another and with the original? This question cannot be answered, but nothing important is lost as a result. What matters in the continued existence of a person are for the most part relations of degree. It is concluded that the language of identity should be given up.—*H. Ruja.*

1989. Sasso, James J. (Boston U., Graduate School)
Value consciousness for Friedrich Nietzsche. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-A), 2978.

1990. Tarantino, Santo J. (Florida Atlantic U.) On solipsism and social regression. *Psychology*. 1970(Nov). Vol. 7(4), 51-57. The philosophical problem of solipsism and the psychological phenomena of social regression are treated in an attempt to close the gap between and to explicate the relationship between philosophical assumptions and psychological processes. A brief survey of the treatment of the problem of solipsism is presented and then compared to the concept of social regression. The main points are developed on the basis of conceptualizations from systems theory, information theory, and psychoanalytic theory. The view developed is that viable organisms must be open systems and that lesser order systems must come under the control of higher order systems. It is argued that in human systems reason is the ordering principle that allows for the integration of the various subsystems of the human organism. The moral implications of such a view are briefly treated.—J. A. Blazer.

1991. Várkonyi, Dezso H. Az általánosításról. [On generalization.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 462-476.—Reports on the status of the concept of generalization in the philosophy of science. (English & Russian summaries)—*M. Moore.*

1992 Walsh, Dorothy. (Smith Coll.) **Knowing by living through.** *Philosophy & Phenomenological Research*, 1970(Dec), Vol. 31(2) 265-272. Contrasts humanistic knowledge with scientific knowledge. It is claimed that knowledge by living-through constitutes a distinctive mode of knowing. This mode of knowing affords knowledge as realization. Such knowledge, different from simple awareness, allows a person to transcend himself and enter into the situation of another. *J. Cantoni.*

PARAPSYCHOLOGY

1993 Bazak, Jacob. (Magistrates Court, Jerusalem, Israel) **ESP and Judaism.** *Parapsychology Review*, 1970(Sep), Vol. 1(4), 9-13. The Talmud and various historical commentators recognize magic and psychical powers. Maimonides' extreme views against astrology and sorcery were directed toward superstitions and naïve beliefs of his day, not toward ESP phenomena. But in using psychical powers for practical purposes, it must be

recognized that they are often in error and could cause harm. Thus, use of clairvoyants to gain information regarding future events is not allowed although their help in finding lost objects is permissible, as are experiments for the purpose of studying ESP.—*P. F. Grim.*

1994. **Chauvin, Rémy.** (Les Sources, Mitaiville, France) **To reconcile psi and physics.** *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 215-218.—Proposes that although the facts of parapsychology do not fit in with the physics of today, it cannot be said they do not fit in with long-range physics since the inventory of nature's forces is so far from complete. It cannot even be said that psi contradicts modern physics, only that they are difficult to reconcile. The future of parapsychology could reveal the location of the psi ability in the brain, thus making it susceptible to measurement and control, or psi could be found to be beyond space and time and therefore not be comparable with other natural phenomena.—*Journal abstract.*

1995. **Freeman, John A.** (Inst. for Parapsychology, Durham, N.C.) **Ten-page booklet tests with elementary-school children.** *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 192-196.—Administered a 10-page ESP test booklet which had given significant results with junior high school and high school Ss to 35 elementary school children. This booklet was designed to differentiate between positive and negative scoring, depending on the kinds and arrangements of targets. Some of the pages in the booklet were made up of trials based on 5 different words, on 1 word repeated 5 times, on 5 different symbols, or on 1 symbol repeated 5 times. As predicted, girls had more hits on trials made up of targets which were all alike (both symbols and words) than they did on those trials made up of 5 different targets, and boys did the reverse. Contrasting the expected positive trials for both boys and girls with the expected negative trials yielded 140 runs with a difference of 49 hits ($p < .02$).—*Journal abstract.*

1996. **Grace, Roy E.** (Beverly Hills United Presbyterian Church, Upper Darby, Pa.) **Parapsychology and biblical religion.** *Pastoral Psychology*, 1970(Sep), Vol. 21(206), 8-12.—The work in parapsychology provides a base for a counteraction to the dogmatism of the crass materialism of much recent religion.—*O. Strunk.*

1997. **Haraldsson, Erlendur.** (Inst. for Parapsychology, Durham, N.C.) **Subject selection in a machine precognition test.** *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 182-191.—Attempted (a) to replicate a precognition experiment carried out by H. Schmidt (see PA, Vol. 44:4322) using ordinary Ss, (b) to test a method of selecting high-scoring Ss, and (c) to compare 2 different degrees of feedback. Ss faced 4 colored lamps, guessed precognitively which 1 would light up next, and pressed the corresponding button. The button triggered an electronic device which made a random selection of the target lamp. S received limited feedback in $\frac{1}{2}$ the runs and full feedback in the other $\frac{1}{2}$. In a preliminary series with 74 Ss, results were not significant. The 11 best qualified Ss were selected for testing in the main series. The 100 runs of this series were significant at the level of $p = .0005$, which was taken as evidence that the method of selecting the Ss was highly successful. The feedback comparison did not yield any significant differences.—*Journal abstract.*

1998. **Krippner, Stanley & Davidson, Richard.** (Maimonides Medical Center, William C. Menninger Dream Lab., Brooklyn, N.Y.) **Religious implications of para-**

normal events occurring during chemically induced "psychedelic" experience. *Pastoral Psychology*, 1970(Sep), Vol. 21(206), 27-34.—"Whether one accepts, or rejects the experimental evidence for ESP is inconsequential; the critical fact is that subjective impressions and anecdotal reports of telepathy, clairvoyance, and precognition are associated with many religious phenomena." Students of religion need to examine seriously these relationships.—*O. Strunk.*

1999. **Krippner, Stanley & Ullman, Montague.** (Maimonides Medical Center, Menninger Dream Lab., New York, N.Y.) **Telepathy and dreams: A controlled experiment with electroencephalogram-electro-oculogram monitoring.** *Journal of Nervous & Mental Disease*, 1970(Dec), Vol. 151(6), 394-403.—Tests the hypothesis that telepathic communication can appear in dreams. An "agent" spent the night concentrating on a picture. S was awakened after each REM period and reported his dreams. This pattern was followed for 8 nights. S and an outside judge later matched pictures and dream protocols. Correct matchings by both judges achieved high levels of statistical significance. Illustrative data are presented.—*R. A. Denis.*

2000. **Osli, Karlis.** (American Society for Psychical Research, New York, N.Y.) **Informal methods of research in psychic phenomena for religious believers.** *Pastoral Psychology*, 1970(Sep), Vol. 21(206), 35-40.—Outlines informal parapsychological experiments which can be carried out by churchmen and pastors.—*O. Strunk.*

2001. **Otani, Soji.** (Japan Defense Academy, Yokosuka) **The history of parapsychology in Japan.** *Parapsychology Review*, 1970(Sep), Vol. 1(4), 4-5. Discusses the men and books which have been influential in Japanese parapsychology from the 1820s to the 1st Annual Convention of the Japanese Society for Parapsychology in 1967.—*P. F. Grim.*

2002. **Schmeidler, Gertrude R.** (City Coll., City U. New York) **Studying individual psi experiences.** *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 197-209.—Outlines the areas of analysis which are needed for an understanding of psi. A sociology of psi, its patterns in different cultures and social groups; life history data for causes of changes in an individual's psi ability; research on the conditions which affect psi in short periods like a single experimental session; and a careful examination of the individual psi experience are necessary. The latter is particularly difficult for several reasons: (a) The duration of the individual experience is unknown but probably very brief; (b) any 1 hit in an ESP experiment may be due to chance, not to psi; (c) psi is often given imperfect information; and (d) psi is not ordinarily under conscious control. Suggestions for coping with these difficulties are examined. An ongoing experiment is described which investigates EEG changes related to the individual psi experience while attempting to teach Ss to identify and control psi success.—*Journal abstract.*

2003. **Schmidt, Helmut.** (Inst. for Parapsychology, Durham, N.C.) **A PK test with electronic equipment.** *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 175-181.—Tested 18 Ss for their psychokinetic (PK) ability. A random number generator (RNG) connected with a display panel produced random sequences of 2 numbers which were determined by a simple quantum process. The display panel was a circle of 9 lamps which lighted 1 at a time in the clockwise (+1) direction or the

counterclockwise (-1) direction depending on which of the 2 numbers the RNG produced. Ss chose either motion and tried by PK to make the light proceed in that direction. There were 4 runs/sessions, each made up of 128 "jumps" of the light. In a preliminary series of 216 runs, Ss had a negative deviation of 129 hits. The main series was expected to give negative scores, and a negative attitude was encouraged among the Ss. 15 Ss carried out 256 runs, with a significant negative deviation of 302 hits ($p=.001$).—*Journal abstract.*

2004. Schmidt, Helmut. (Inst. for Parapsychology, Durham, N.C.) A quantum mechanical random number generator for psi tests. *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 219-224.—Recent experiments in ESP and psychokinesis have been based on the use of large numbers of randomized targets provided by electronic number generators. The detailed circuitry of an easy to build generator, using radioactive decays as a source of randomization is described.—*Journal abstract.*

2005. Schmidt, Helmut. (Inst. for Parapsychology, Durham, N.C.) The psi quotient (PQ): An efficiency measure for psi tests. *Journal of Parapsychology*, 1970(Sep), Vol. 34(3), 210-214.—A comparison of the psi scoring rate of Ss in 2 different experiments is possible when both experiments involve the same probability of making a hit, e.g., if 1 experiment involved a choice between heads or tails, and the other, a black or red card. The need for a standard measure of efficiency for comparisons when the probabilities of getting a hit are different and the samples of data are of unequal size is emphasized. The "psi quotient" (PQ) is equal to 1000 times the square of the critical ratio (CR) divided by the number of trials (N): $PQ=1000 CR^2/N$.—*Journal abstract.*

2006. Wolf, Manfred. (San Francisco State Coll.) Existential psychology and a romantic poem. *Psychiatric Quarterly Supplement*, 1968, Vol. 42(C), 297-302.—The healthy person can at times forget himself in order to grasp the essence of the other. Only a healthy personality can free itself from its own isolation and enter into a relationship which may temporarily destroy it as an entity. Self-consciousness is the enemy of awareness just as fear is the enemy of self-realization. It is suggested that the satisfaction of the self's absorption into a relationship will someday be studied by neurologists in the laboratory.—*D. Prager.*

THEORY & SYSTEMS

2007. Dahl, Hartvig. (New York U., Research Center for Mental Health) *Relatos de mesas redondas de la Asociación Psicoanalítica Americana: La teoría psicoanalítica de los impulsos instintivos en relación con desarrollos recientes.* [Roundtable discussion reports of the American Psychoanalytical Association: The psychoanalytic theory of instinctive drives in relation to recent developments.] *Revista de Psicoanálisis*, 1970(Jan), Vol. 27(1), 149-175.—Reconsiders Freud's psychoanalytic conception of drive in the light of recent advances in fields such as neurophysiology and experimental and physiological psychology. Research discussed includes: (a) physiological confirmation of Freud's suggestion of generation of libido by the action of sex hormones on certain parts of the brain; (b) the concept of physiological drive activity during REM states; (c) drive gratification during self-stimulation in experimental animals; (d) electric stimulation of the

hypothalamus inducing drive activity in satiated animals; (e) problems related to energy discharge during REM states; (f) application of the psychoanalytic oscillation model to the question of whether or not nonconsummatory appetitive behavior, e.g., thumb-sucking in infants, reflects drive activity, or whether or not prolonged abstinence itself causes an increase in sexual excitement, or fasting causes an intensification of hunger; (h) changes in brain metabolism following liberation of neurotransmitters in the excitatory and inhibitory synapses and postsynaptic membrane potential changes, as related to mental states; and (i) relations of external stimuli to drive intensity.—*T. N. Wehr.*

2008. Hall, Elizabeth Hebb on focus focus: A conversation. *Psychology Today*, 1969(Nov), Vol. 3(6), 20-28.—This interview concerned Hall's early education and his views on genetic, sexual, and racial differences, educational reform, mental illness, the function of theory, religion, and Freudian interpretations of literature.—*E. J. Posner.*

2009. Jacobson, Edmund. *Psychology and the integrative action of the nervous system.* *Acta Symbolica*, 1970(Fal), Vol. 1(2), 31-35.—Distinguishing as distinctly different acts such mental activities as perception, attention, recall, and imagination is erroneous because of the integrative action of the nervous system. Psychology must deal with mental activity as a yet unified system of signals and meanings, with at least 20 different modalities of sensory experience giving rise to different codes which are decoded in terms of action, incipient or overt. (15 ref.)—*M. Cogan.*

2010. Krantz, David H. & Tversky, Amos. (Michigan) Conjoint measurement analysis of composition rules in psychology. *Psychological Review*, 1971(Mar), Vol. 78(1), 1-16.—Decision composition rules as theories that describe the relationships among several measurable variables. Conjoint measurement provides methods for analyzing psychometric information only. This analysis is applied to a case of 4 composition rules in Tversky's $A \succ B \succ C$, $A \succ B \succ C$, $P(A) \succ P(B) \succ P(C)$, which have been widely employed in different areas of psychology. It leads to the formulation of observable rational properties that can be used to test and diagnose soundness of the rules if they are appropriate for a given set of data. (47 ref.)—*Journal abstract.*

2011. Moody, Dick L. (Case Western Reserve U.) A comparative study of organization in physical science and social science. *Journal of General Psychology*, 1971(Dec), Vol. 77(4), 331-341.

2012. Rudas János. *A pszichológia a tudományok rendszereben.* [Psychology in the system of sciences.] *Psychologica Hungarica*, 1969, Vol. 12, 1-14.

2013. Smith, Ronald A. B. *The relationship between the type theory and the personality growth theory of Carl Jung and the helping relationship theory of Carl Rogers.* *Humanistic Approach to Psychology*, 1969, Vol. 1, 43-44.

EDUCATION & TRAINING

2014. Howe, M. A. Training of psychologists in a government department. *Australian Psychologist*, 1969(Nov), Vol. 4(3), 101-114.—Discusses the course designed to train psychologists for positions in the Department of Labour and National Service in Aus-

tralia. Course objectives are listed, and outlines of the original 5-phase course and a revised 3-phase course are presented.—*R. Wiltz.*

2015. **Lubin, Bernard & Eddy, William B.** (U. Missouri, Medical School, Kansas City) **The laboratory training model: Rationale, method, and some thoughts for the future.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 305-339.—"The history of laboratory training in the United States is predominantly the history of the NTL [National Training Laboratory] Institute for Applied Behavioral Science. We have drawn to a large extent from the published material by the NTL Institute and its faculty who are based in various universities . . . there is more than 1 T-group in the laboratory model, multiple groupings are used, multilevel learnings (personal, interpersonal, and, in some laboratories, group and organizational) are sought, prior staff planning attempts to match client learning needs with a large group of technologies, conceptualization of experience is encouraged, and opportunity for integration and discussion of transfer of learning to back-home situations is provided. Also, laboratory training is defined as an educational rather than a therapeutic procedure." The differences in process and outcome between the T-group, group psychotherapy, and encounter group are discussed. Because of the anticipated increase in the variety and number of social problems to which laboratory training will be applied, a training center to develop applied behavioral scientists was announced by the NTL Institute: The New University for the Applied Behavioral Sciences to be located in the Washington, D.C., area. "Major organizational units of the university are: The NTL Institute, The College of Applied Behavioral Science, and the Institute for a Voluntary Society." (48 ref.)—*I. Linnick.*

2016. **Wellner, Alfred M. & Simon, Ralph.** (State Dept. of Mental Hygiene, Baltimore, Md.) **A survey of associate-degree programs for mental health technicians.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 166-169.—"By September 1968 there were 26 mental health training programs in community colleges, and another 35-50 in some stage of development." The training programs emphasize interviewing skills, counseling and psychotherapy, community resources, and techniques of behavior modification and research skills. Job skills and degree of acceptance and integration into the mental health system must be assessed before new programs are institutionalized.—*B. A. Burkard.*

PROFESSIONAL DEVELOPMENTS

2017. **Brody, Eugene B.** **The concerns of transcultural psychiatry.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 179-182.—Presents a joint statement by the committees of the American and Canadian Psychiatric Associations, setting forth concerns of the field termed "transcultural psychiatry." Both investigation and clinical work are included. 12 problems and areas of application are noted. Members of the committee issuing the statement are listed.—*H. Roemmich.*

2018. **Foss, B. M. (Ed.)** **Psychology in Great Britain.** *Bulletin of the British Psychological Society, Supplement*, 1969, 48 p.—This commemorative supplement, on the occasion of the 19th International Congress of Psychology, held in London in 1969, includes 19 articles covering clinical, educational, occupational, engineering, medical, and physiological psychology, as well as

research on aging, child development, psycholinguistics, and animal behavior and ethology in Great Britain. Also presented are reports on British psychological societies, national institutes, child guidance clinics and school service, chairs of psychology in British universities, and financing psychological research. A list of journals published in Great Britain and a summary of all International Congresses from 1889-1966 are provided.—*V. S. Sexton.*

2019. **Hogan, John D.** (Ohio State U.) **A survey and interpretation of article characteristics: The "Journal of Genetic Psychology" 1945-1969.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4314.

2020. **Landauer, Ali A.** (U. Western Australia, Perth) **The SI (new metric system) in psychological research and reporting.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 175-181.—Describes the basic aspects of the new metric system (SI) which has recently been adopted by the Council of Editors of the journals published by the American Psychological Association. The 6 basic SI units are defined in terms of physical quantity, name of unit, and symbol for unit. Examples of derived SI units which are frequently used in experimental psychology are provided, and a table for converting some of the more frequently used non-SI values into SI units is presented.—*R. Wiltz.*

INTERNATIONAL PSYCHOLOGY

2021. **Sipos, István.** (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A Magyar nyelvű pszichológiai irodalom kezdetei.** [Beginnings of Hungarian psychological literature.] *Pszichológiai Tanulmányok*, 1967, No. 10, 817-825.

GENERAL BOOKS & REFERENCE WORKS

2022. **Epstein, William & Shontz, Franklin.** (U. Wisconsin) **Psychology in progress.** New York, N.Y.: Holt, Rinehart, & Winston, 1971. xiv, 428 p.—An introductory college text designed to present students with a sampling of content and method rather than encyclopedic coverage. Certain specific problems that interest modern investigators are examined in depth, including perception, memory, cognition, regulatory centers, sleep and dreams, stress, aggression, decision, naturalism, behavior control, body experience, individual differences, and schizophrenia.—*A. M. Cawley.*

METHODOLOGY & RESEARCH TECHNOLOGY

2023. **Fletcher, F. Garth; Stoddard, Lawrence T., & Sidman, Murray.** (Massachusetts General Hosp., Boston) **A system for unlimited repetitive presentation of auditory stimuli.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 165-169.—Outlines procedures for recording auditory stimuli for repetitive presentation. Most procedures produce wear and tear on the recording and playing apparatus. An alternative system is described in detail which utilizes 2 tape recorders and a tape loop. The resulting loop ensures identical and evenly spaced repetition with minimal depreciation of the master tape and recorder.—*S. Knapp.*

2024. Sawyer, Jack. (Northwestern U.) Measurement and prediction, clinical and statistical. *Studies in Personnel Psychology*, 1970(Oct), Vol. 2(2), 74-99.

2025. Thompson, John W. (U. London, Inst. of Education, England) **Discussion: Polarity in the social sciences and in physics.** *Philosophy of Science*, 1968(Jun), Vol. 35(2), 190-194.—Discusses the tendency of social scientists to overlook directionality in measurement and to be insufficiently aware of problems of polarity. This is felt to be especially true of psychologists who often employ unidirectional instead of bipolar measurement. These problems of measurement are compared to the problems of measuring space and time in the realm of physics. It is concluded that empiricism in physics and the social sciences is deficient unless supported by a rational philosophy which considers many problems of polarity. (21 ref.).—P. McMillan.

MODELS & MATHEMATICAL MODELS

2026. Brink, Nicholas E. (Pennsylvania State U.)
Effect of item discrimination in the Rasch model.

Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6(Pt. 1), 101-102.—Item discrimination is a parameter not provided for in the Rasch model. The effect of this parameter in measuring ability was examined using simulated data. 2 effects were noted: (a) increases in item discrimination decreases the unit of measure of the ability, (b) increases in item discrimination decreases the number of items that contribute to the measurement of a particular level of ability thus increasing the standard error of that level of ability. Increases in the density of items at points along the ability continuum decrease the standard error of ability estimates at those points. *Author abstract.*

2027. **Brink, Nicholas E.** (Pennsylvania State U.) **Overview of the Rasch model.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 95-96. Presents topics that tie the Rasch model to other more commonly understood topics, thus clarifying its position in the area of measurement and research. This model produces ability estimates that are independent of the sample of Ss and the set of items used, thus it is a latent trait model. The simplicity of this 2-parameter model allows this objectivity or independence within the model to occur. Yet this makes the model more restrictive as to the characteristics of items that compose the test—items need to be of equal discrimination. Because of the advantages of objectivity, refinement of items to fit this model seems called for. *Author abstract.*

2028. **Dalrymple-Alford, E. C.** (American U., Beirut, Lebanon) **A model for assessing multiple-choice test performance.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 199-203. Describes a model, essentially a formulation of a hypothesis by B. B. Murdock, developed for the case where an S is presented with N alternatives from which he has to choose the single correct 1. It is assumed that the S randomly selects an alternative from a subset consisting of from 1 to N of the alternatives presented. For a given set of alternatives the size (i) of this choice set will depend on S's knowledge, which consequently may be measured by some suitable function of i, or, alternatively, of (N - i). 2 measures are considered, which require a modification of the usual test procedure, so that Ss are allowed repeated attempts until the correct

alternative is selected. The model is shown to be successful in predicting performance in the n -alternative case from N -alternative performance ($N \gg n$). — *Journal abstract.*

2029. Erlebacher, Albert & Sekuler, Robert. (Northwestern U.) **Response frequency equalization: A bias model for psychophysics. *Perception & Psychophysics* 1971(Mar), Vol 9(3-A), 315-320**—Derived a model for response bias in psychophysics. Of the model's 2 aspects, 1 is concerned with the generation of sensory states and the other with rules for transforming sensory states into responses. The model incorporates the bias rule that Ss tend to use available responses with equal frequency. Applications to experiments which use the method of constant stimuli are discussed. Despite the contrary claims of F. Restle and M. Levinson (see PA, Vol 42:16441), the model not only predicts their data quite well but also, under certain conditions, does so better than the theory of adaptation level used by Restle and Levinson themselves. *Journal abstract*

2030. Jöreskog, Karl G. (Educational Testing Service, Princeton, N.J.) **Estimation and testing of simplex models.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol 23(2), 121-145. Formulates various statistical models for simplex structures in terms of the Wiener and Markov stochastic processes. A distinction is made between a perfect simplex and a quasimplex. For each model, problems of identification, estimation of the parameters, and testing the goodness of fit are considered. All models can be estimated by a general method for covariance structures developed by K. G. Jöreskog. Simplex methods which may be used in some cases are also presented (17 ref.) *Journal abstract.*

2031. Treisman, Michel. (U. Reading, England) **Brightness contrast and the perceptual scale.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol 23(2), 205-224. Presents a model for brightness contrast which assumes 2 processes: an initial "perceptual" transformation of visual intensity information, followed by lateral inhibitory interactions which can be represented linearly. The model has been applied to appropriate data and it appears to provide a satisfactory account of both brightness enhancement and depression for homogeneous areas under stable conditions of viewing. This application of the model also provides evidence on the form of the function relating the relevant perceptual correlate of stimulus intensity to the physical values. This appears to be consistent with previous evidence that this relation is a power function with an exponent lying within a range about unity. (37 ref.)—*Journal abstract.*

2032 Zinser, Otto. (Texas Christian U.) A computer model of the initial stages of mammalian pattern processing. *Dissertation Abstracts International*. 1970(Dec). Vol. 31(6-B). 3743

MATHEMATICS & STATISTICS

2033 Boruch, Robert F., Larkin, John D., Wolins, Leroy, & MacKinney, Arthur C. (American Council on Education, Washington, D.C.) **Alternative methods of analysis: Multitrait-multimethod data.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 833-853. Factor analysis and analysis of variance models are contrasted in a multitrait-multimethod design. The data used were personnel ratings. Rater bias was

considerable. The several models produced similar results. "Maximum likelihood estimates of factor loadings provide information on . . . error, trait and method variance." Factor analyses consider measure reliability but solutions are indeterminate.—*N. M. Chansky.*

2034. **Bruni, Piero.** (U. Florence, Inst. of Education, Italy) **Presentazione delle tavole di Payne & Anderson per i livelli di significatività del Kuder-Richardson Formula 20.** [Presentation of the Payne and Anderson tables for the levels of significance of Kuder-Richardson's Formula 20.] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 77-90.—Studied the Payne and Anderson Tables as a means of comparison for controlling the theoretic probability of a coefficient of internal consistency. Kuder-Richardson's coefficient is listed among indispensable information regarding a test in the *Standards for Educational and Psychological Tests and Manuals*, and is 1 of the most frequently used indices used to demonstrate the homogeneity of the items. According to the *Standards*, this index should always accompany any measurement presented as a unidimensional example. r_{20} expresses the proportion of variance due to the 1st factor extracted from the intercorrelation of the items. Often with tests in the experimental stage or translated tests and with the majority of personality tests, r_{20} is the only guarantee that the test measures something.—*A. M. Farfaglia.*

2035. **Clark, James A. & McQuitty, Louis L.** (U. Missouri) **Some problems and elaborations of iterative, intercolumnar correlational analysis.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 773-784.—Explicates a method of intercolumnar correlational analysis of association of objects in the determination of types. Matrices which do not converge to positive or negative ones are interpreted in terms of systems, quasi-types, and types. Among the special instances discussed are 3 separable variables in 2-dimensional space and identical off-diagonals with a set of +1s and -1s.—*N. M. Chansky.*

2036. **Cohen, Jacob.** (New York U.) **Approximate power and sample size determination for common one-sample and two-sample hypothesis tests.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 811-831.—Explains the interdependence of alpha, N, power and population effect. A table is presented for determining power given alpha and the hypothesized effect. Illustrative examples for determining power are given. Sample size is discussed. The null hypothesis is often erroneously said to be proved because insufficient attention has been paid to power.—*N. M. Chansky.*

2037. **Cooper, Lee G.** (U. California, Los Angeles) **A procedure for metric multidimensional scaling.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 87-88.—Developed a new solution to the additive constant problem in metric multidimensional scaling. This solution determines, for a given dimensionality, the additive constant, and the resulting stimulus projections on the dimensions of a Euclidean space, which minimizes the sum of squared discrepancies between the formal model for metric multidimensional scaling and the original data. A modification of Fletcher-Powell style functional iteration is used to compute the solution. A scale free index of the goodness of fit is developed to aid in selecting solutions of adequate dimensionality from multiple candidates.—*Author abstract.*

2038. **Davies, M. G.** (U. Liverpool, England) **The**

performance of the linear discriminant function in two variables. *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 165-176.—Presents the discriminant function in unnormalized and in normalized form. For the 2-variable case, certain parameter-dependent features are discussed. Sampling features (expectations and variances of various statistics) are detailed. The usefulness of the discriminant function for classification is noted.—*Journal abstract.*

2039. **Demaree, Robert G. & Jernigan, Larry R.** (Texas Christian U.) **Equiloading component of a set of measures.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 91-92.—The equiloading component of a set of measures is the linear combination with respect to which the measures have the same loading. Although the relation of this component to the p inverse scores is discussed, emphasis is placed on a reduced-rank, least-squares solution for obtaining the combinatorial weights. Applications of the equiloading component are considered, and an illustrative example is given.—*Author abstract.*

2040. **Eberhard, Kurt.** (Hans Zulliger Haus, Psychiatric-Psychologic Dept., Berlin, W. Germany) **FM-Ein Mass für die Qualität einer Vorhersage aufgrund einer mehrklassigen Variablen in einer k-2-Felder-Tafel.** [A measure of prediction quality for multiple class variables in a $k \times 2$ matrix.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(4), 592-599.—Proposes a new measure of prediction error, FM, applicable for multiple variables and dichotomized criterion. A nominal scale for the variables is sufficient. Comparison with various other error measures is used as aid in interpreting FM. (English & French summaries)—*W. J. Koppitz.*

2041. **Erviti, Vivian F.** (New York U.) **An investigation of the effect of non-normality on the biserial correlation using a Monte Carlo technique.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4309-4310.

2042. **Hayes, Donald P., Meltzer, Leo, & Wolf, Gerritt.** (Cornell U.) **Substantive conclusions are dependent upon techniques of measurement.** *Behavioral Science*, 1970(May), Vol. 15(3), 265-268.—Describes 2 methodological difficulties which may hinder research in the development of formal analyses of sequential social behavior. Trivial decisions, e.g., how to operationally define one's unit of observation or how often to observe the units so defined, may have profound effects on the conclusions drawn from the data. The formal model chosen as best fitting the data may be rejected or found adequate depending upon the measurement decisions adopted. 2 empirical analyses are cited to support this contention: it is shown (a) how closely predictions of behavior based on past performance are dependent upon the level of complexity of the units utilized in the analyses, and (b) that a Markov model of sequential dependencies in conversational speech was supported using 1 set of observational sampling rates but rejected when different rates were used.—*Journal abstract.*

2043. **Holthouse, Norman D.** (Ohio U.) **An empirical analysis of selected procedures for testing the equality of variance-covariance matrices.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2756.

2044. **Joe, George W.** (Texas Christian U.) **Relationships among several sets of partial regression**

weights. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 93-94.—Presents a method of investigating the relationships among sets of partial regression weights. The basis of this investigation is the covariance matrix for the several sets of partial regression weights. Likelihood ratio tests for testing independence among the several sets of partial regression weights or for testing a hypothesized covariance matrix among the sets of partial regression weights is considered as a possible means for modeling the underlying structure of the covariance matrix. Canonical correlation is considered as an alternative tool.—*Author abstract.*

2045. Kennedy, John J. (Ohio State U.) **The eta coefficient in complex ANOVA designs.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 885-889.—It is shown that the formulation of eta squared due to Kerlinger, i.e., between SS/Total SS, is an effective descriptive statistic usable as an ex post facto measure of association in complex studies. Unlike the Cohen and the Friedman statistic, η^2 , F/η^2 , f^2/η^2 , it is unaffected by the "nature and number of variables in the design of a study."—*N. M. Chansky.*

2046. Kristof, Walter & Wingersky, Bary. **A generalization of the orthogonal Procrustes rotation procedure to more than two matrices.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 89-90.—Where 2 factor matrices derived from different data bases are to be compared the orthogonal Procrustes procedure is frequently used. A method for comparing more than 2 factor matrices, obtaining an "average" factor matrix and a set of orthogonal matrices rotating this "average" factor matrix toward the given factor matrices is presented. A computer program implementing the method is available.—*Author abstract.*

2047. Maxwell, A. E. & Everitt, B. S. (U. London, Inst. of Psychiatry, England) **The analysis of categorical data using a transformation.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 177-187.—Draws attention to the advantages, from the viewpoint of interpretation, of analyzing multiway contingency tables by fitting constants to the marginal frequencies. It is then shown how the constants may be fitted by the method of maximum likelihood and estimates of their variances obtained. The procedure is illustrated by a worked example of a survey into normal drinking habits, with 403 male and 508 female Ss. (16 ref.)—*Journal abstract.*

2048. Miller, Don M. (Virginia Polytechnic Inst.) **Empirical Bayes estimators of queueing parameters.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4390.

2049. Mukherjee, Bishwa N. (York U., Toronto, Ontario, Canada) **Likelihood ratio tests of statistical hypotheses associated with patterned covariance matrices in psychology.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 89-120.—Proposes a number of statistical tests for testing whether an observed covariance matrix is consistent with an expected covariance matrix deduced from an assumed composition of the variates. This aspect of multivariate analysis has no univariate analog and, as yet, has not received proper treatment in the statistical literature. The general method proposed has been called "structural analysis" and its role in multivariate hypothesis-testing is discussed. 2 different types

of patterned covariance matrices arising out of various linear models are considered. The "reducible pattern," composed of covariance matrices which can be diagonalized by pre- and postmultiplication by a known matrix, and covariance matrices which can be transformed to a tridiagonal form (e.g., the Guttman quasisimplex, and the "aristocratic" matrices), are discussed and illustrated with empirical data. Likelihood ratio tests for both classes of patterns have been constructed, and in each case the estimation procedure has also been tackled. (64 ref.)—*Journal abstract.*

2050. Murray, Linda T. (State U. New York, Albany) **Robustness with respect to the assumption of normality in a Bayesian one-way analysis of variance.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2742.

2051. Pollack, Irwin. (U. Michigan) **Methodological examination of the PEST (parametric estimation by sequential testing) procedure: II. Perception & Psychophysics**, 1971(Feb), Vol. 9(2-B), 229-230.—Finite-state Markov sequences were constructed by a small digital computer, translated to interval-coded electrical pulse trains, and converted to sound. An adaptive stimulus programming procedure of variable step size, PEST, was employed to obtain interstate interval thresholds as a function of restrictions upon the internal structure of the sequences. These thresholds are not independent of the exit criterion for the adaptive procedure. An interactive approach is suggested for determining the exit criterion in order to protect the data against arbitrary decisions made by the E.—*Journal abstract.*

2052. Rendleman, Paula; Rose, Richard M., & Teller, Davida Y. (U. Washington) **Statistical properties of Pollack's PEST procedure.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 208-212.—Studied the bias and variability of threshold estimates produced by Pollack's parametric estimation by sequential testing (PEST) procedure by means of repeated computer simulations of PEST runs. The influence of the size of the exit criterion, the bumping-into-zero rule, and 3 methods for obtaining the estimate from the data are discussed. Pollack's PEST procedure is found to result in a highly variable number of trials/run, and to be approximately as good as a simpler staircase procedure in terms of the bias and variability of the estimates obtained. *Journal abstract.*

2053. Richards, Bernard L. & Thornton, Carl L. (Kent State U.) **Quantitative methods of calculating the d' of signal detection theory.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 855-859.—Describes a new scoring technique for signal detection. The deviations of several scoring methods from the least squares fit are given.—*N. M. Chansky.*

2054. Rock, Donald A., Linn, Robert L., Evans, Franklin R., & Patrick, Cathleen. (Educational Testing Service, Princeton, N.J.) **A comparison of predictor selection techniques using Monte Carlo methods.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 873-884.—4 methods of predictor selection are contrasted: (a) the predictor with the largest loading on the vector associated with the smallest latent root is eliminated after each principle component analysis, criterion independent; (b) elimination of the predictor most closely approximates linearity, criterion dependent; (c) forward; and (d) backward. 2 conditions were studied: high and low intercorrelations. Results indicate that the forward and backward methods were as efficient

as the criterion independent methods. The forward selection procedure, however, was the more economical and was especially useful with small size N . The danger is emphasized of adding too many variables when sample is in relation to the number of predictors.—*N. M. Chansky.*

2055. Rouanet, H. & Lépine, D. (National Center of Scientific Research, Lab. of Experimental & Comparative Psychology, Paris, France) **Comparison between treatments in a repeated-measurement design: ANOVA and multivariate methods.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 147-163.—Investigates several methods available for testing comparisons between treatments in a repeated-measurement design, within the framework of the general multinormal model. Various ratios are considered, and the weakest assumptions required for the validity of each F ratio are presented. When several F ratios are valid, power considerations are introduced for purposes of choice. Methods enabling the testing of validity assumptions are also presented, together with alternative multivariate statistics which can be used when no F ratio is valid. All procedures are illustrated by a numerical example of an RT experiment of temporal uncertainty using 9 Ss.—*Journal abstract.*

2056. Shepherd, Donald O. & Winiewicz, Casimer S. (U.S. Naval Examining Center, Great Lakes, Ill.) **The compleat formula for the standard error of the mean.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 97-98.—Presents a compleat formula for the standard error of the mean and other formulas which are special cases of the compleat formula.—*Author abstract.*

2057. Sirotnik, Ken. (U. California, Los Angeles) **An analysis of variance framework for matrix sampling.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 891-908.—Proposes an analysis of variance approach to matrix sampling where examinees are in the rows and items in the columns. The algebra is due to Hooke who used symmetric polynomials of elements in a matrix. Assumptions to be met are random sampling of rows and columns. Because negative variances may obtain, several procedures were proposed to deal with them. The most promising was treating all estimates in multiple matrix sampling alike regardless of sign. Proofs of the theorems are presented.—*N. M. Chansky.*

2058. Stoloff, Peter H. (U. Rochester, Center for Naval Analyses) **Correcting for heterogeneity of covariance for repeated measures designs of the analysis of variance.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 909-924.—Homogeneity of covariance is assumed, though often violated, in repeated measures analysis of variance. Several methods have been suggested for dealing with heterogeneous covariances: Hotelling's T^2 and Box' adjustment of the degrees of freedom by epsilon. A Monte-Carlo procedure generated a $K \times N$ matrix with zero mean, unit variance, and zero covariance. The F test was found to be robust with respect to violations of homogeneity of covariance. The Box adjustment of degree of freedom results in a relatively unbiased F test.—*N. M. Chansky.*

2059. Stone, Leroy A. & Coles, Gary J. (U. North Dakota) **Reliability of a correlational similarity matrix.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 78.—Attempted to formulate a logic for estimating the reliability of the key construct—correlational similarity

—of the Stone-Coles new methodological revision of the multidimensional scaling method-model. A scheme is presented "whereby the reliability of any set (a matrix) of correlational similarities can be estimated."—*P. McMillan.*

2060. Stone, LeRoy A. & Shepel, Lawrence F. (U. North Dakota) **Multidimensional scale analysis of work-tasks.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 117-118.—5 male and 5 female undergraduates estimated similarity (on a 0-100 scale) for pair-comparisons of 20 different work-tasks. These judgmental data were analyzed using the new Stone-Coles methodological modification of Ekman's method of similarity analysis. Separate male and female judgmental stances were identified by a points-of-view analysis. Both judgmental stances were each associated with 5 extracted evaluation dimensions (some monopolar and some bipolar) which accounted for large portions of the judgmental variances (77 and 80%). Almost all of these dimensions were readily interpretable, i.e., they were psychologically meaningful.—*Author abstract.*

2061. van Naerssen, R. F. (U. Amsterdam, Psychological Lab., Netherlands) **Een noot bij de logistische kromme.** [A note on the logistic curve.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 615-617.—*A. J. Ter Keurst.*

2062. Wells, Donald G. & Fruchter, Benjamin. (U. Tennessee, Martin) **Correcting the correlation coefficient for explicit restriction on both variables.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 925-934.—Presents formulae for correcting the correlation coefficient when (a) the predictor is restricted and the restricted S_x and r and unrestricted S_y are known; (b) the predictor is restricted and the restricted S_x and r and unrestricted S_y are known; and (c) both predictor and criterion are known and r and the restricted and unrestricted S values are known. An example illustrates the use of the methods.—*N. M. Chansky.*

Factor Analysis

2063. Gorsuch, Richard L. (George Peabody Coll. for Teachers) **A comparison of biquartimin, maxplane, promax, and varimax.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 861-872.—Compares several factor analytic rotational techniques. Criteria were simplicity, measurement ease, and replicability. Data were the ratings by 517 college students of "God" on a 91-item questionnaire. The correlations were factor analyzed using 4 rotational procedures. All procedures produced similar solutions. Oblique procedures produced more simplicity, ease, and generalizability than did varimax. The most efficient oblique procedure was the promax.—*N. M. Chansky.*

2064. Nesselroade, John R. & Balties, Paul B. (West Virginia U.) **On a dilemma of comparative factor analysis: A study of factor matching based on random data.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 935-948.—Several approaches to the study of factor invariance have been proposed. Recently, an attempt was made to examine the sampling distributions of 1 such statistic, the similarity coefficient. In the present study, a computer generated the similarity coefficient. In an analysis of variance design these were studied as a function of sample size, number of extracted

factors, and number of variables. Strength of association was determined by omega squared. Number of extracted factors became stronger with decreasing similarity, and number of variables became stronger with increasing similarity. Thus, similarity coefficients from real data may be contrasted with those from random data until a stronger test is devised.—*N. M. Chansky.*

COMPUTERS & PROGRAMING

2065. Bernstein, Noel. (U. Pennsylvania, Moore School of Electrical Engineering) **Quintupling the speed of the PDP-8 DF32 disk system for real-time use.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 92-94.—Notes inefficiencies in the operation of the DF32 hardware/software disk system on the PDP-8. While such inefficiencies are not significant when the disk is used only as a store for programs which are called into core from the keyboard, they become important when the disk is used as a real-time backup for core. Some of the problems, rules for avoiding them, and a description of how the system software was modified to obey these rules are noted. The speed of the modified system is noticeable even when SAVEing and CALLing programs from the keyboard: successive blocks can be transferred between disk and core in $\frac{1}{5}$ the previously required time.—*Journal abstract.*

2066. Cancro, Robert & Slotnick, Daniel L. (U. Connecticut, Hartford) **Computer graphics and resistance to technology.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 461-469.—Discussed the scientific importance in interpreting computer output. The value of graphics could not be seen in an effective man-machine relationship. It is hypothesized that the man-machine relationship is a stressful situation and that man's psychological needs are involved. Evidence is presented to suggest that the use of graphics played an anxiety reducing role. Although graphics may eventually demonstrate scientific value, a definite need to reduce the anxiety level exists. Only then will an effective man-machine interworking be established.—*C. O'Donnell.*

2067. Churchill, Stacy; Naess, Lars, & Olivier, William P. (Ontario Inst. for Studies in Education, Toronto, Canada) **CAN-4, an advanced author language for CAI, computer-based testing and psychological experimentation: PDP-9 implementation.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 95-99.—The effective use of computers for tutorial (programed instruction) teaching and on-line testing requires that curriculum authors have powerful special-purpose languages. 1 such language, CAN-4, has been designed and implemented to run on the PDP-9. The language includes advanced scoring, data recording, computation, timing, and file control facilities. The language and its implementation are described in relation to the instructional problems which the facilities are designed to meet.—*Journal abstract.*

2068. Cox, Brad. (U. Chicago) **Simulation of neural sets.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 81-84.—Describes a program written for the PDP-8/I computer which simulates the behavior of 64 model neurons which may be connected together to form a functional neural net. The simulation includes provisions for studying the possible mechanisms of learning in real systems. Operation of the net requires

inputs from either a robot or a robot simulator program and output from the net serves as input to such a robot, so that the entire system investigates the behavior of an organism and its brain in interaction with an environment.—*Journal abstract.*

2069. Eaves, L. J. (U. Birmingham, England) **The genetic analysis of continuous variation: A comparison of experimental designs applicable to human data: II. Estimation of heritability and comparison of environmental components.** *British Journal of Mathematical & Statistical Psychology*, 1970(Nov), Vol. 23(2), 189-198.—Applied a method of computer simulation for comparing the relative efficiencies of alternative experimental designs to the study of the efficiency with which broad heritability can be estimated and the 2 main sources of environmental variation separated in data from human populations. 2 minimal sets of data (each composed of 3 groups of related pairs of individuals: monozygotic twins reared together and apart and full siblings reared together) were compared with respect to these criteria, and the effects of varying the proportions of the groups of relatives comprising a set were investigated. The relationship between efficiency, the level of broad heritability and the degree of dominance is noted, and results related to those of a previous study.—*Journal abstract.*

2070. Kertész, Imre & Arató, Mátyás. (Home Dept., Budapest, Hungary) **Kibernetikai módszerek alkalmazásának lehetőségei a kézírás vizsgálatában.** [The range of application for cybernetic methods in examining handwriting.] *Pszichológiai Tanulmányok*, 1967, No. 10, 701-705.

2071. Kletsky, Earl J. (Syracuse U., Lab. of Sensory Communication) **A six-channel PDP-8 interface for nerve impulse data.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 85-87. Presents an interface operating on the input output (I/O) bus of the LINC-8, which accepts up to 6 channels of nerve impulse data simultaneously at rates up to 4000 pps. By means of a 100-kHz clock and a 17-bit counter, the time of occurrence of each nerve impulse is strobed into 1 of 6 17-bit buffer registers. The strobe causes a program interrupt to occur. 2 I/O instructions are used to read the buffers into the PDP-8 accumulator. Additional instructions for skipping on data or overflow, enabling the counter, clearing the overflow flag, and clearing the counter are available. *Journal abstract.*

2072. Kuehl, Frederick W. **Evaluation of a multiplicative generator of pseudo-random numbers.** *U.S. Army BESRI, Technical Research Note*, 1969(Sep), No. 215, 24 p.—Reports on the development and testing of a pseudo-random number generator which would be able to rapidly supply the SIMPO-1 entity models with numbers meeting essential tests for random qualities. The generator developed is a power residue or multiplicative generator, the simplest of the many generators based on the linear congruential method. In addition to an acceptable generator, the work accomplished resulted in a compilation of statistical tests which have wider application for evaluating generators used on other computer systems. The tests are described, and essential mathematical formulations are presented. *A. J. Drucker.*

2073. Lauer, George. (North American Rockwell Corp., Science Center, Thousand Oaks, Calif.) **A real-time multiuser foreground, single-user background system for the PDP-9 computer.** *Behavior Research*

Methods & Instrumentation, 1971(Mar), Vol. 3(2), 103-105.—Describes a software system for a PDP-9, with fixed head disk, developed to allow up to 16 remote laboratories to use the central PDP-9 facility for their experimental data acquisition and control needs. Time-sharing is performed on a "demand" basis, using the hardware automatic priority-interrupt option. The real-time acquisition and control aspects are separated from the data reduction in the foreground by using a batch process foreground mainstream. The background is used primarily as a systems device for program updates and communications with a Control Data Corporation (CDC) terminal connected to a CDC 6600 computer. The philosophy, both software and hardware, developed for this heterogeneous user environment is discussed.—*Journal abstract*.

2074. Lewis, J. L., Boies, S. J., & Osgood, G. W. (U. Oregon) **Zoroaster: A multiprogramming system for psychological research.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 106-107.—The development of a multiprogramming system for psychological research was undertaken on a PDP-9 computer with 8K memory. The needs of the users and the time demands on the computer raised several important questions: (a) Can a practical-timesharing system be developed with only 8K memory? (b) Can critical timing functions be maintained? (c) Can easy access be provided (e.g., FORTRAN) to all experimental devices? (d) Can a system be designed which will take advantage of and be compatible with most of the standard DEC-provided software (e.g., FORTRAN compiler, loader)? The system was successfully developed by using a rapid within-core swapping technique, standard input/output routines, many general-purpose handlers and subroutines, and fully utilizing available core.—*Journal abstract*.

2075. Lidorenko, N. S. **Fizicheskie modeli évristsicheskogo programmirovaniya v kibernetike.** [Physical models of heuristic programming in cybernetics.] *Vestnik Akademii Nauk SSSR*, 1970(Nov), Vol. 40(11), 53-58.—Discusses theoretical and experimental studies in the electronics of the liquid body, and the construction of instruments and devices with ionic carriers of information. These studies show great promise for the development of rational methods to create physical models of the adaptive self-organizing elements and schemata of cybernetics—models which respond optimally to the heuristic method of image-recognition whereby useless solutions are weeded out and useful information is introduced into the program.—*J. D. London*.

2076. Michie, Donald. (U. Edinburgh, Experimental Programming Unit, Scotland) **Future for integrated cognitive systems.** *Nature*, 1970(Nov), Vol. 228(5273), 717-722.—Describes the present and projected capabilities of machine (computer) intelligence and compares the information handling powers of brain and computer. Designs and applications of intelligent computer systems are described. It is argued that limitations in computer intelligence lie more in the "inadequate understanding of mathematical-logical and programming principles . . . than in hardware speeds or storage capacities." (24 ref.)—*S. Appelle*.

2077. Schwenn, Peter T. (U. Wisconsin, Medical Center) **"Time," a time sharing monitor for the DEC LINC-8, PDP-8, and PDP-12.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 100-102.—A

system is available for an 8K, or larger, LINC-8, PDP-8, or PDP-12 with RF/RS08 disk(s), to allow virtually simultaneous execution of any mix of PDP-8 and/or LINC programs. The programs need little or no modification to run within "Time," and up to 8 may be in the mix at a given time. Time also incorporates a file system with access and write protection. The system is intended to be used with conversationally oriented programs. Time is in the public domain.—*Journal abstract*.

2078. Scott, D. E. & Dzendolet, E. (U. Massachusetts) **The PDP-8/I as a CAT.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 79-81.—Describes a programed algorithm to compute a weighted ensemble average on a set of output signal realizations. Thus programed, the PDP-8/I can recover output signals, which are due to periodic input signals, from a noisy system. Arbitrarily, large enhancement of signal-to-noise ratio is attainable. The configuration used is a 4K PDP-8/I with AD08-B analog-to-digital converter.—*Journal abstract*.

2079. Singleton, James W. & Drutz, Aaron. **Interface: Man and machine: Two scientists look ahead.** *Perspectives in Defense Management*, 1969(Jun), 27-35.—Distinguishes between the fundamental attributes of man and machine. Technological developments and future possibilities are discussed. The myths of depersonalization, society as a homogenized mass, and man's volitional control over the environment are discussed. Order, precision, and consistency are necessary in man's relationship with computers. Machine utilization is emphasized. It is concluded that "the problem is feeding the machine" the correct up-to-date data. The use of computers in military operations is presented.—*G. Steele*.

2080. Thomas, P. A. & Balatoni, N. (U. Windsor, Ontario, Canada) **A hardware multiplier/divider for the PDP 8S computer.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 89-91.—Outlines the design of a multiplier/divider being developed for the PDP-8/S. The unit will carry out the required function on 2 12-bit signed numbers (using 2's complements for negative numbers) and produce a correctly signed result. All data transfers will be through the programed input/output (I/O) channel, no data break facility being required. The estimated time taken for the operations is 96 microsec. for multiplication and 176 microsec. for division, which is considered reasonable in comparison to the I/O times of 38 microsec. The total material cost is estimated at \$1500. Some variations of the basic unit are also discussed.—*Journal abstract*.

TESTING

2081. Blumetti, Anthony & Satz, Paul. (U. Florida) **Cost efficiency and test prediction: A reformation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 107-108.—Points out the limitations of Rimm's cost efficiency formula for use in test prediction by the fact that the formula assumes that classification by base rates alone always leads to false negative errors. A new cost efficiency formula is generated to be used in those cases in which false positive errors ensue by the use of base rates for prediction. Examples are given which demonstrate quantitative differences between the formulas which could lead, in certain conditions, to costly decision errors in clinical prediction.—*Author abstract*.

2082. Garvin, Alfred D. (U. Cincinnati) **Non-chance results from a pure-chance test: A study in response-position selection set.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 99-100.—Investigated response-position selection set in multiple-choice (MC) and true-false (TF) tests. 73 undergraduates simply guessed the "answers" to a nonexistent test comprising 25 5-choice MC items and 10 TF items. Responses were "scored" against a key that was quasi-random for the MC items but contrivedly counterintuitive for the TF items, e.g., F, F, T, F.... Response-position selections on MC items departed markedly from a rectilinear distribution. TF response-position selections generally conformed to a hypothesized sequence, i.e., T, T, F, T... resulting in a TF subtest mean of 3.71 vs. an expected 5.00. ($p < .001$). The importance of random response-position test keying is discussed.—*Author abstract.*

2083. Hambleton, Ronald K., Rovinelli, Richard, & Gorth, William P. (U. Massachusetts) **Efficiency of various item-examinee sampling designs for estimating test parameters.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 103-104.—Systematically investigated the effect of number of items, number of subtests, number of examinees, total number of observations, and the shape of the test score distribution on the accuracy of estimating test parameters for a population of examinees. The study was conducted using artificially generated data. Results suggest that the number of observations is particularly important. Also, apparently the shape of the test score distribution has no effect on the usefulness of various item-examinee sampling designs. Finally, it would appear that for a fixed number of observations it may be possible to improve the accuracy by trading off items for more examinees.—*Author abstract.*

2084. Koson, D., Kitchen, C., Kochen, M., & Stodolosky, D. (U. Michigan, Mental Health Research Inst.) **Psychological testing by computer: Effect on response bias.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 803-810.—68 paid college student volunteers were randomly selected to rate possible questionnaire items ($n = 20$), to respond to the questionnaire in the presence of E ($n = 16$), to respond verbally to the questionnaire read by E ($n = 16$), and to respond to a cathode ray tube, connected to a computer in the presence of no one ($n = 16$). Results indicate no significant differences in scores between the methods for honesty scores, threat scale; defensiveness scores, K scale; or neutral scores, threat rating or proportion of true scores.—N. M. Chansky.

2085. Reckase, Mark D. & Gardner, Eric F. (Syracuse U.) **Comparisons of the stability of Thurstone's absolute scaling method and Flanagan's system of scaled scores.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 113-114.—Made 3 comparisons between Thurstone's method of absolute scaling (TMAS) and Flanagan's method of absolute scaling (FSSS) using 2 subscales of the Stanford Achievement Test. The comparisons were between (a) stability of derived scales when the equating percentile equating base test was varied, (b) stability of derived scales when the number of groups used was varied, and (c) a plot of the derived scales against raw scores for the 2 methods. TMAS was found to be more stable on Comparison a, no substantial differences were

found on b, and c showed that the derived scales for TMAS and FSSS were generally similar.—*Author abstract.*

2086. Walker, Elaine. (Sydney Technical Coll., New South Wales, Australia) **Prediction Index Scores.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 187-192.—Asserts that to be effective as a predictive device, a test must classify individuals more accurately than the base predictive rate. The algorithm developed for Prediction Index Scores (PIS) by P. I. Meehl and A. Rosen is discussed in relation to "cost of treatment" (economic or ethical) and the choice, by psychologists of a cutting score which would increase the proportion of valid positives and negatives with classification based on 1 cutting score. PIS "quantify the proportion of correct classifications in a population with known base rate if a cutting score on a test is placed immediately below the lower limit of the class interval on the test." This procedure is applicable in an educational setting in that the costs to the community involved in training, or failing to train, individuals may be more accurately determined. It is suggested that PIS be included with validity coefficients and other data in all test manuals. A computer program for computation of PIS is currently available.—B. A. Stanton.

Construction & Validation

2087. Barron, Bruce A., Hirsch, Jules, & Glucksmann, Myron. (Rockefeller U.) **The construction and calibration of behavioral rating scales.** *Behavioral Science*, 1970(May), Vol. 15(3), 220-226.—Describes heuristic methods which provide measures of use in the construction and calibration of a rating scale, when used by 2 Os, where there is only 1 opportunity for measurement of the characteristic. Results of these procedures permit an empiric evaluation to be made of the scale as used by the raters. A score is suggested that attempts to evaluate the interchangeability of 1 set of scores with those obtained by another O. These methods provide a basis upon which to initially structure such measuring instruments (16 ref.).—*Journal abstract.*

2088. Boor, Myron V. (Southern Illinois U.) **The construct validity of four measures of intraindividual variability.** *Dissertation Abstracts International*, 1971.(Jan), Vol. 31(7-B), 4326-4327.

EXPERIMENTATION & OBSERVATION

2089. Meuwese, W. (Technological U. Eindhoven, Netherlands) **Een vergelijking van twee methoden van beoordeling van verbale stimuli.** [A comparison of two methods of judging verbal stimuli.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 594-603.—Names of 15 fields of science were judged pair wise in terms of similarity by 44 mature Ss at a technical school. The similarity of pairs of stimuli were judged on an 11 point scale ranging from "no difference" to "very different." Then the sciences were rated on 21 7-point qualitative scales by adjectives, such as "superficial-profound." The similarity judgments were analyzed by Kruskal's method. The nonmetric multidimensional analysis consisted of 4 dimensions: humanistic-materialistic, difficult and exact-easy and inexact, alpha (history and literature)-beta (biology and mathematics), and practical-mental. The adjective scales were analyzed by a 3-mode factor analysis: evaluative,

utility, and "exactitude." Structures of these analyses were related by canonical and multiple regression. Apparently the structure developed by the adjective scales was highly predictable from the similarity structure. Also the mean ratings on the adjective structure were predictable from the projections of the stimuli on the dimensions of the similarity structure. (English summary)—*A. J. Ter Keurst.*

2090. Neulinger, John & Stein, Morris I. (City Coll., City U. New York) **Personality characteristics of volunteer subjects.** *Perceptual & Motor Skills*, 1971-(Feb), Vol. 32(1), 283-286.—2 personality types, the socially oriented and the intellectually oriented, represented among 549 female college undergraduate volunteers, showed differential rates of volunteering in favor of the intellectually oriented type. The personality dynamics of these types accord well with findings reported in the literature regarding the characteristics of volunteers and nonvolunteers. The need for a systematic consideration of personality bias in sampling was pointed to.—*Journal abstract.*

2091. Restle, Frank & Levison, Moshe. (Indiana U.) **Method of constant stimuli: Invalidity to the third power.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 312-314.—A description of deficiencies in the method of constant stimuli, published by M. Levison and F. Restle (see PA, Vol. 42:16441), was criticized as logically invalid by R. Sekuler and A. Erlebacher, who then interpreted the findings as the result of a tendency to use available responses equally often. Sekuler and Erlebacher erroneously thought that the comparison adaptation-level (CAL) theory described the frame of reference for judgments. Correctly interpreted, the theory presents no logical difficulties. An experiment with 49 undergraduates compared this frame-of-reference interpretation of CAL with the Sekuler-Erlebacher response-bias theory. Results agree in detail with CAL theory and are in direct opposition to the response-bias interpretation. Although the Sekuler-Erlebacher hypothesis is logically possible, it does not seem to be empirically true.—*Journal abstract.*

2092. Sekuler, Robert & Erlebacher, Albert. (Northwestern U.) **The invalidity of "invalid results from the method of constant stimuli": A common artifact in the methods of psychophysics.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 309-311.—Demonstrates that a description by M. Levison and F. Restle (see PA, Vol. 42:16441) of deficiencies in the method of constant stimuli is logically in error. Their data, as well as those from other experiments, are interpretable in terms of a response bias that may distort data in a variety of psychophysical studies. This bias is the tendency of Ss to use available responses with equal frequency. (15 ref.)—*Journal abstract.*

2093. Suboski, Milton D. & Tait, Robert W. (Queen's U., Kingston, Ontario, Canada) **The relationship between classical conditioning and sensory preconditioning.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 31-32.—Review of the evidence reveals extensive similarities between classical conditioning and sensory preconditioning (SPC) in terms of the effect of comparable experimental manipulations. Classical conditioning and SPC are similar in acquisition and extinction, interstimulus interval functions, effects of partial reinforcement and discrimination conditioning, and in several other respects. The operational definition

of classical conditioning requires that the UCS reliably elicit a response whereas SPC occurs whether an effective UCS is used in preconditioning or not. Thus, SPC is clearly a more general phenomenon which includes classical conditioning as a special case.—*Author abstract.*

APPARATUS

2094. Elias, Merrill F., Blenkarn, G. Douglas; Simmerman, Scott J., & Marsh, Gail R. (Duke U., Medical School, Center for the Study of Aging & Human Development) **Administration of inhalation anesthetics to small animals: Some problems and solutions.** *Behavior Research Methods & Instrumentation*, 1971-(Mar), Vol. 3(2), 70-71.—Discusses problems inherent in administering inhalation anesthetics to small laboratory animals in studies of memory consolidation. A simple and inexpensive apparatus which has been designed to eliminate some of these problems is described and its use illustrated through an experiment with male mice anesthetized once/day for 30 consecutive days.—*Journal abstract.*

2095. Rugh, John D. (U. California, Santa Barbara) **A telemetry system for measuring chewing behavior in humans.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 73-77.—Describes a system for detecting and recording human chewing behavior. A small transmitter mounted in the side frame of eyeglasses was used to detect muscle movement associated with chewing in 4 undergraduates. The transmitter signal was received and converted to a DC voltage which varied at a rate proportional to the S's chewing movement. Exploratory data are presented which suggest that individuals chew at about the same rate/sec, but vary in the total number of chews emitted to consume the same amount of foodstuff.—*Journal abstract.*

EXPERIMENTAL PSYCHOLOGY

2096. Balogh, Jenő. (National Academy of Fine Arts, Budapest, Hungary) **Az érzéki ítélet pszichológiája és helye az emberi gondolkodásban és cselekvésben.** [The psychology of sensual judgment and its place in human thinking and action.] *Pszichológiai Tanulmányok*, 1967, No. 10, 173-174.

2097. Brown, L. B. & Fuchs, A. H. (Victoria U., Wellington, New Zealand) **The letters between Sir Thomas Hunter and E. B. Titchener.** *Victoria University of Wellington Publications in Psychology*, 1969, No. 23, 4-60.—Experimental psychology had an early start in New Zealand, but the process of separating it from philosophy, of founding a laboratory, attracting students, and developing a research tradition, was gradual. In the development, experimental psychologists had to overcome the attitudes of philosophers and the antagonism of the nonexperimental tradition in Britain. Course changes that were contrary to prevalent British views had little chance of approval. Curriculum revision was also difficult. Sir Thomas Hunter's role as pioneer consisted of introducing laboratory work to the teaching of psychology, and working toward experimental psychology as a separate discipline. He devoted much energy to clearing the obstacles which stood in his way, and worked within the University system for reform, which was eventually implemented. E. B. Titchener

encouraged Hunter's efforts in a lengthy correspondence. He was sympathetic to Hunter's difficulties, since he had himself reacted against the British tradition in psychology. His own stance and experience constituted a model for Hunter, and in this way Titchener contributed to the spread of experimental psychology, beyond simply bringing Wundtian psychology to America. (3 p. ref.)—*Journal summary.*

2098. Nagy, György. **A hangsúlyosság törvénye és alkalmazása a filmlélektan alapjainak vizsgálatában.** [The law of stress and its application: Inquiry into the fundamentals of film psychology.] *Pszichológiai Tanulmányok*, 1967, No. 10, 497-501.

2099. Popper, Péter. (Medical U. of Budapest, Childrens' Clinic, Hungary) **Kísérlet az identifikáció vizsgálatára.** [An experimental test of identification.] *Pszichológiai Tanulmányok*, 1967, No. 10, 761-765.

2100. Sagal, A. A. (Inst. of Evolutionary Physiology & Biochemistry, Moscow, USSR) **O rasshirenii oblasti opredeleniya chuvstvitel'nosti.** [Widening the scope of sensitivity determination.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 195(6), 1476-1478.—To widen the scope of sensitivity determination it is enough to assume that sensitivity exists whenever experimental determination of the conditional random values of a stimulus takes place, if these values are determined by the particular experimental methodology and the stimulus is producing any type of response caused by some underlying physiological process. In distinction from the classical psychophysical thresholds, thresholds calculated by taking into account this assumption are called generalized thresholds. Data are presented showing analogous sensitivity and information gain curves for qualitatively different situations: recognition of simple signals, simple classical conditioning, and identification of complex auditory signals. The concept of the generalized threshold permits a unified study of higher nervous activity and the quantitative comparison of 2 of its characteristics, sensitivity and information transmission, under a variety of experimental conditions. *L. Zuse.*

2101. Sher, Monroe A. (U. Cincinnati) **Pupillary dilation during recall and following interruption of recall.** *Dissertation Abstracts International*, 1971(Jan). Vol. 31(7-B), 4372.

PERCEPTION

2102. Davidson, Elmer H. & Robertson, Colin L. (U. North Carolina, Wilmington) **Perceptual search time as a function of association value with practice effects controlled.** *Psychonomic Science*, 1970(Dec). Vol. 21(6), 317-318.—Investigated the effects of association value (AV) on perceptual search time in a design to control practice effects. 40 undergraduates were each exposed to 4 lists of trigrams (field) with instructions to find a particular 1 (target). No S experienced more than 1 level of each factor of the $2 \times 2 \times 4$ design. There were 2 AV levels of the target trigrams, 2 AV levels of the field list of trigrams, and 4 target positions. As expected, perceptual search time increased as the target was moved down the list. Results support the hypothesis that AV reduces perceptual search time when the field and target have different AV. It is concluded that practice effects and perhaps S's failure to retain the targets of low AV during his search had influenced the results of previous studies.—*Journal abstract.*

2103. Nemessuri, Mihály; Nagy, Tibor, & Szász, István. (National Medical Inst. for Physical Education & Sport, Budapest, Hungary) **Sportképek, fény- és hangingerek reprodukciójának vizsgálata.** [Experiments testing stimulus perception and reproduction.] *Pszichológiai Tanulmányok*, 1967, No. 10, 505-512.

2104. Pálhegyi, Ferenc. **Háromdimenziós formák tagolódása vizuális és taktilis észlelésben.** [Articulation of three-dimensional forms in visual and tactile perception.] *Pszichológiai Tanulmányok*, 1967, No. 10, 659-669.

2105. Reynolds, Richard E. & Giambra, Leonard M. (Miami U.) **Information transmission in bidimensional stimuli as a function of degree of correlation between nonintegral dimensions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 75-76.—Investigated the hypothesis that increasing the dimensionality of stimuli in a perfectly correlated manner can increase information transmission when dimensions are nonintegral and perceptually independent. 40 Ss served in 1 of 3 experimental groups and a control group. Each S made 500 absolute judgments of 20 unidimensional stimuli and 500 judgments of 20 bidimensional stimuli. Dimensions in the bidimensional stimuli were (a) perfectly linearly correlated, (b) partially linearly correlated, or (c) uncorrelated. Increased dimensionality, even if the correlation between dimensions is perfect, increases information transmission, but type of correlation is not shown to be important.—*Author abstract.*

Illusion

2106. Dockstader, Steven L. (Denver U.) **Comparison of cupulometric and psychophysical thresholds for perception of rotation and the oculogyral illusion.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3 A), 299-302. Compared thresholds for angular acceleration derived by subjective cupulometry and by a staircase method. Thresholds for the perception of rotation and the oculogyral illusion were determined for 10 male 21-40 yr. old Os who were rotated about their vertical axis. The cupulometric thresholds were significantly higher, more variable and not predictable from the staircase thresholds. Furthermore, cupulometry failed to distinguish between the thresholds for the perception of rotation and the oculogyral illusion, although both indicators functioned according to the prediction of the underlying linear model. Individual differences support the conclusion that cupulometric thresholds bear no relationship to the sensory threshold derived in a classical psychophysical manner (16 ref.) *Journal abstract.*

2107. Luccio, Riccardo. **Il massimo temporale dell'illusione di Ponzo negli adulti.** [The temporal maximum of Ponzo's illusion in adults.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 55-61. Studied 18-22 yr. old undergraduates, who were divided into 4 groups of 16 and tested with a tachistoscope. Each group tried only once with both ascending and descending series. The distance between Ss and stimulus was 26 cm. The time allotted was .05, .04, .02, and .01 sec. The temporal maximum of optical geometrical illusions. The results and in the understanding of the optical geometric illusions, which can not be considered a particular case of the perception of space but which

may help in understanding the general laws which govern it. (English & French summaries)—*A. M. Farfaglia*.

2108. Luccio, Riccardo & Massimini, Fausto. **Costanza di grandezza e illusioni ottico-geometriche.** [Constancy of magnitude and optic-geometric illusions.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 63-90.—Reviewed the literature related to the theory of the constancy of magnitude in A. Gregory's optic geometric illusions. Reference is made also to the ecological theory of M. Segall, D. Campbell, and M. Herskovits. Gregory distinguishes between 2 different processes: primary and secondary constancy scaling. It is concluded that in the discussion by others of Gregory's theory, the evolutionary factors were not considered; thus, the theory appears less simple, but also less complete than expected. (English & French summaries) (5 p. ref.)—*A. M. Farfaglia*.

2109. Pressey, A. W. (U. Manitoba, Winnipeg, Canada) **An extension of assimilation theory to illusions of size, area, and direction.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 172-176.—2 postulates, 1 concerning assimilation and 1 concerning attentive fields, are employed to explain the Ponzo, Poggendorff, Wundt, and Hering illusions. Several new configurations are predicted from the theory. In addition, changes in the magnitude or direction of illusion which result from alterations of the basic illusion are explained.—*Journal abstract*.

2110. Quina, Kathryn & Pollack, Robert H. (U. Georgia) **Parametric investigation of the Ponzo illusion under conditions of tachistoscopic exposure.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 77-78.—Studied the influence of the Ponzo wedge tachistoscopically by presenting a test line at different positions relative to its apex to 2 trained Ss. Lines at positions near the apex were overestimated, and lines further out were underestimated. Results suggest that the classical Ponzo illusion is made up of 2 separate illusions, an overestimation caused by dominant assimilation forces and an underestimation due to dominant contrast effects.—*Author abstract*.

Time

2111. Adorjáni, Csaba. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A valószínűségi modellezés néhány kérdéséről az invariáns mozzanatok percepciójában.** [Some problems of probability models in the perception of invariant moments.] *Pszichológiai Tanulmányok*, 1967, No. 10, 101-119.

2112. Fillenbaum, Samuel. (U. North Carolina, Chapel Hill) **Syntactic locus as a determinant of judged pause duration.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 219-221.—Attempted to determine if the syntactic location of a speech pause might affect its apparent duration. 67 undergraduates listened to a continuous discourse, being required to attend to its content as well as to make judgments, now and then, as to the duration of particular pauses. For pauses all actually of the same length, it was found that those falling at a minor within-sentence break, as syntactically defined, were characteristically judged to be longer than those falling at a major within-sentence break or at a between-sentence break, with no difference between the 2 latter cases. These results, obtained in a perceptual task

involving a minimum of extraordinary or disruptive features, are taken as evidence for the power of syntactic variables in affecting attention during listening to speech.—*Journal abstract*.

2113. McConchie, Richard D. & Rutschmann, Jacques. (U. Paris, Medical Faculty, France) **Human time estimation: On differences between methods.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 319-336.—Using the same 8 standard intervals (ranging from 300-1000 msec. in 100-msec steps), 16 males made reproductions, verbal estimates, and productions in randomized blocks of trials according to a fixed complex order (sequence of methods, presentation of anchors). After presentation of anchors, significant differences between methods were still in evidence with respect to accuracy, and intra- and inter-S variability. The reliability of verbal estimates and of productions was decreased upon presentation of anchors, but in all methods, reliability increased over blocks of trials. Reliability of estimations and productions was significantly correlated with relative inter-S variability. As to association between judgments, verbal estimates and productions showed negative correlation while inter-correlations involving reproductions were not significant. A method involving a random-per-trial sequence of methods and standards is proposed for further studies.—*Journal abstract*.

VISION

2114. Baumstirler, Y. & Parrot, J. (Centre National de la Recherche Scientifique, Centre d'Etudes Bioclimatiques, Strasbourg, France) **Stimulus generalization and spontaneous blinking in man involved in a voluntary activity.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 95-102.—Presented 10 male undergraduates with a multiple-choice paced task. The occurrence of spontaneous blinks was studied in its temporal relation with onset of the stimulus and achievement of the motor response. An inhibition of blinking appears to be set up before onset of the stimulus. In most cases, this inhibition is released by the achievement of the motor response. When a stimulus is transformed into a negative 1 by addition of an inhibition instruction, response times show a generalization of the inhibition. The same law of generalization is followed by spontaneous blinking, the inhibition of which is more important when the stimulus is nearer to the negative 1. (20 ref.)—*Journal abstract*.

2115. Dewar, Robert. (U. Calgary, Alberta, Canada) **Adaptation to displaced vision: Variations on the "prismatic-shaping" technique.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 155-157.—Measured adaptation to displaced vision using 3 variations on Howard's "prismatic shaping technique." Ss were male volunteers from a Canadian jail. Over a series of 40 trials, a lateral displacement of 11.3° was introduced either gradually or suddenly. Both the amount of adaptation (negative aftereffect) and the accuracy of target localization at the completion of 40 trials were found to be directly related to the "suddenness" with which the displacement was introduced.—*Journal abstract*.

2116. Earle, D. C. & Lowe, G. (U. Hull, England) **Channel, temporal, and composite uncertainty in the detection and recognition of auditory and visual signals.** *Perception & Psychophysics*, 1971(Feb), Vol.

9(2-A), 177-181.—In a 2AFC detection task, channel and temporal uncertainty were separately shown to produce decrements in the detectability of auditory and visual signals. The observed effect of channel uncertainty suggests that Ss are capable of using an "attentional" or "performance-compensation" strategy. This finding is discussed in relation to a "multiple-observation" model for channel uncertainty. Recognition measures were taken where appropriate and gave some support to the hypothesized attentional strategy. Under composite uncertainty conditions both types of uncertainty were presented simultaneously; results indicate that any interaction effect was small, relative to the separate effects of channel and temporal uncertainty.—*Journal abstract.*

2117. Finn, John P. & Lit, Alfred. (Southern Illinois U.) Effect of photometrically matched wavelength on simple reaction time at scotopic and photopic levels of illumination. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 5-6.—RT responses were obtained from 3 normal Ss over a wide illumination range for white and colored stimuli photometrically matched at each level. RT vs. retinal-illumination curves for white and colored stimuli showed that at low levels, RT was high, but, with increasing illumination, RT progressively decreased to reach a final low asymptotic value. Each curve showed a discontinuity at about $-1.25 \log I$. Curves representing different wavelengths essentially overlapped throughout the entire scotopic and photopic range, at mesopic levels. RT to red stimuli tended to yield lower responses than to any other wavelength. These data are interpreted in terms of the relative activity of the rod and cone systems at each illumination level.—*Author abstract.*

2118. Haines, Richard F. (Ames Research Center, NASA Moffet Field, Calif.) The retinal threshold gradient in the presence of high luminance target and in total darkness. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 197-202. Measured the retinal threshold along the horizontal meridian for the dark-adapted eye and for the same retinal region light-adapted by stray light from a small foveally fixated high luminance target. This was done to quantify the irradiation phenomenon in the foveal-parafoveal boundary region. 2 target luminances were investigated (8531 and 13,000 ft-L). 7 Ss made threshold settings using a variable-intensity test spot whose retinal image was located at various angular separations from the foveal center as far as 10° in the temporal field. Threshold slopes were steeper for test spots imaged from $15'$ to 1° of arc from the foveal center than for spots imaged from 1° to $15'$ of arc from the foveal center for the illuminated target conditions. The angular distance between the fovea and the intersection of the steep component with the shallow component of each threshold curve tended to shift toward the target's edge with an increase in target luminance. These data are interpreted as an indication that a dynamic neural mechanism is involved in producing the irradiation phenomenon (39 ref.)—*Journal abstract.*

2119. Kelly, D. H. (Stanford Research Inst. Menlo Park, Calif.) Theory of flicker and transient responses: I. Uniform fields. *Journal of the Optical Society of America*, 1971(Apr), Vol. 61(4), 537-546.—Explains photopic flicker data in terms of a theoretical model of 2 retinal processes. The 1st is a linear diffusion process (presumably in the receptors), with a large

dynamic range ($\sim 10^5$). The 2nd is a nonlinear inhibiting network (neural feedback at the synapses of the plexiform layers) that adaptively controls the sensitivity and time constants of the model. The importance of its transfer function fits the flicker data quantitatively at all frequencies, over a wide range of adaptation levels. The corresponding small-signal impulse responses are also calculated. Their latencies and leading edges (associated with receptor activity) are invariant with adaptation level; the remaining phases of these transient waveforms (associated with the graded potentials of secondary neurons) adapt strongly, in accord with current findings and microelectrode findings (17 ref.)—*Journal abstract.*

2120. Smith, Gudmund J. & Spohlm, Lena. (Inst. Psychological Lab., Sweden.) Projected afterimages after manipulation of cognitive schemes in adults. *Psychological Research Bulletin*, 1971, Vol. 10(15), 12 p.—Presented different afterimage (AI) theories to 14 pairs of 21-yr-old males matched for general intelligence and educational background. 1 S in each pair was told that AIs are almost exclusively determined by subjective factors, and the other S was told that AIs are controlled by the environment, and that they scarcely differ from test objects. In a subsequent experiment with a projection distance 1.5 times the stimulation distance the latter S reported smaller AIs than Emmert size and positive hues, whereas the former S, i.e., the one who had been told that AIs are almost exclusively determined by the environment, reported larger AIs from the surrounding physical reality. It was concluded that the AIs obtained were affected by the Ss' conceptions of these phenomena in relation to himself and the outside world.—*Journal abstract.*

2121. Tong, J. L. & Ground, D. (All. of Psychology, Ontario, Canada) Rigidity and instructions in relation to two-flash fusion measures. *Psychonomic Science*, 1970(Dec), Vol. 21(6), 355-356.—It has been suggested that scores from constant-stimuli procedures with signal-detection analyses may be influenced by a response-alternation variable termed "rigidity." To test this in connection with the discrimination of two parallel, vertical lines, 16 high- and 16 low-rigidity undergraduates were given both facilitating and inhibiting instructions with the 2-flash fusion task. Signal detection analysis indicated significantly higher threshold measures under both conditions for low-rigidity Ss. Inhibitory instructions raised both threshold and criterion levels for both groups; the low-rigidity group showed the greater criterion shift.—*Journal abstract.*

Perception

2122. Borjesson, Erik H. (Uppsala, Sweden.) Properties of changing patterns evoking visually perceived oscillation. *Perception & Psychophysics*, 1971(Mar), Vol. 10(3A), 173-181. The visual properties of changing patterns evoking visually perceived oscillation were investigated with 20 normal subjects. By using patterns of varying complexity it was found that the amount of perceived oscillation was directly related to the number of elements associated with the direction of change. The rate of perceived oscillation was an apparent function of the complexity of the pattern, and the rate of change was an apparent function of the complexity of the pattern. It was further found that patterns evoking straight edges perpendicular to the axis of movement

with this axis displaced from the middle of the pattern, and patterns with a gradient of texture density were perceived to oscillate more than similar patterns without these properties. Perceived oscillation of ellipses are discussed, and it is concluded that perceived oscillation was a consequence of perceived orientation, which is determined by stimulus properties. (18 ref.)—*Journal abstract*.

2123. Coltheart, Max. (U. Waterloo, Ontario, Canada) **Visual feature-analyzers and aftereffects of tilt and curvature.** *Psychological Review*, 1971(Mar), Vol. 78(2), 114-121.—Explains the aftereffect produced by viewing a line tilted in the frontal plane in terms of the adaptation of orientation-specific units in the visual system. This explanation is more successful than explanations based on "normalization" or "satiation." Aftereffects of curvature or median-plane tilt can be explained in analogous ways, although the visual system units necessary are in this case mainly hypothetical, since experiments capable of demonstrating the existence of these types of units have not yet been performed. (43 ref.)—*Journal abstract*.

2124. Faw, Terry T. & Nunnally, Jum C. (U. California, Los Angeles) **The influence of stimulus incongruity on the familiarity effect in visual selection.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 150-154.—A consistent finding in the literature concerning visual selection is that a stimulus exposed to S subsequently loses some of its potential to elicit looking responses. Studies examining the familiarity effect in visual selection have not systematically examined the influence on that effect of various stimulus characteristics possessed by the familiarized stimulus. The present experiments (Ns = 72 undergraduates in Exp. I, and 48 in Exp. II and III) examined the relationship between the magnitude of the familiarity effect and the level of incongruity represented by the familiarized stimulus and found it to be increasing and monotonic. In addition, Exp. III examined the generality of reports that familiarized stimuli are "liked" less than their unfamiliarized counterparts. The ease of explaining the results of the experiments using an "affect change" model of the familiarity effect and an "information-conflict resolution" model of that effect are discussed.—*Journal abstract*.

2125. Kinchla, R.A. (Princeton U.) **Visual movement perception: A comparison of absolute and relative movement discrimination.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 165-171.—It is proposed that there are 2 types of visual movement perception, absolute and relative. The former occurs when an object is seen to move in an otherwise homogeneous (or at least locally homogeneous) visual field. Relative judgments occur when 1 object is seen to move with respect to another, i.e., the separation between them is seen to change. Quantitative models for both processes are developed, and an experiment reported for which the models seem appropriate. The results appear relevant to a theory of size of length perception as well as to the general perceptual issue of absolute and relative judgments.—*Journal abstract*.

2126. Lester, Gene. (State University Coll. New York, Buffalo) **Subjects' assumptions and scores on the Rod-and-Frame Test.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 205-206.—50 undergraduates were tested on the Rod and Frame Test (RFT) and given a

questionnaire about the test. Uncertainty about the purpose and procedure of the RFT was associated with high error scores.—*Journal abstract*.

2127. Link, S. W. & Tindall, A. D. (McMaster U., Hamilton, Ontario, Canada) **Speed and accuracy in comparative judgments of line length.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 284-288. Presents an extension of V. A. Henmon's finding that RT decreases as the difficulty of discriminating a difference between 2 line segments decreases. Ss were 4 right-handed undergraduates. Results indicate that when an F-RT deadline is imposed on the experimental task, RT remains constant with respect to changes in discrimination difficulty, but that correct response probability increases with increasing difference between 2 line segments. Data are examined in terms of current theories for the speed-accuracy trade-off. (18 ref.)—*Journal abstract*.

2128. Lloyd, Van V. (Wilson Coll.) **Factors affecting the operation of Kundt's rule.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 175-189.—3 Ss were used to investigate the importance of various factors affecting the operation of that portion of Kundt's rule which says that, under conditions of monocular observation, an individual, in bisecting a horizontal line, will tend to locate the "bisector" somewhat to the nasal side of the true center. The variables studied included eye used, horizontal dimension of stimulus, and figure height or form (straight line, rectangle, or square). An analysis of variance showed that the different orders of judgments, Ss, eye used, and various interactions were significant sources of variation. The horizontal dimension of the stimulus and figure height or form yielded nonsignificant F ratios, although in the prior case, it is concluded that there was a real effect of the variable which is, however, hidden by the particular statistical analysis employed. Some of the data of individual Ss provide evidence for the existence of either an improvement or a deterioration in performance, as the judgmental process continued. Various possible explanations of the findings are discussed and evaluated. (21 ref.)—*Journal abstract*.

2129. Long, Gerald M. & Mo, Suchoon S. (U. Detroit) **Interaction of arousal and task difficulty upon perceptual restriction.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 259-264.—70 unpaid volunteers were required to perform both central and peripheral perceptual tasks presented simultaneously by means of 200-msec tachistoscopic flashes. The central task, requiring the discrimination between 2 lines on the basis of length, was progressively increased in difficulty from Test I to Test III. Peripheral task performance required the estimation of the number of black dots surrounding the central task. This number varied randomly between 1-8.1/2; the Ss in each test performed these tasks under stress (hand in ice water); the other Ss under no stress. A significant interaction ($p < .01$) was found; the stress group was inferior to the no-stress group on the peripheral task when the central task was relatively easy (Test I) but was superior to the no-stress group when the central task was extremely difficult (Test III). The results were interpreted in terms of the dependence of the "range of cue utilization" upon the degree of difficulty of the perceptual material as well as arousal level. (24 ref.)—*Journal abstract*.

2130. Lowenhaupt, S. Belinda & Rinalducci, Edward J. (U. Virginia) **Temporal factors in photopic dark**

findings uninterpretable. An example of such a study is given and evaluated, and a replication of that study ($N=3$ graduate and 1 undergraduate student), using a spatial forced-choice methodology, is reported in detail. The results of this replication are shown to contradict the critical findings of the earlier study; furthermore, it is suggested that any ambiguities in the results of this replication can be interpreted in terms of methodological and procedural factors, rather than in terms of higher-order neurological constructs. A further test of this methodological interpretation is proposed. (24 ref.)—*Journal abstract.*

Size & Distance & Depth Perception

2141. Coltheart, Max. (U. Waterloo, Ontario, Canada) **The effect of verbal size information upon visual judgments of absolute distance.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 222-223.—When an O views a blank triangle of light under completely reduced conditions, he is able to make use of verbally conveyed information about the size of this stimulus when he is attempting to judge the absolute distance of the stimulus. Although between-Os variance is rather large in this situation, group mean distance estimates are highly veridical. This is further evidence for the view that, when the O is given a retinal subtense, any kind of information about size enables him to make a judgment of absolute distance, just as information about distance enables him to make a judgment of absolute size. Ss in this study were 46 undergraduates.—*Journal abstract.*

2142. Hagino, Genichi. (Hiroshima U., Japan) **Effect of size cue on perceived distance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 73-74.—Conducted 2 experiments to investigate the effects of the relative size difference between 2 binocularly viewed white discs and that of the lateral separation between them on the perceived distance. The Os were 4 adults, and the method of constant stimuli was used. As the lateral separation increases, standard deviation (SD) and the amount of the displacement of the point of subjective equality, i.e., the size cue effect, increases. The amount of SD depends only on the lateral separation and not on the difference of the size. High correlation between the amount of displacement and SD was found.—*Author abstract.*

2143. Lee, David N. (U. Edinburgh, Scotland) **Binocular stereopsis without spatial disparity.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 216-218.—Binocular stereopsis has traditionally been studied mainly under static viewing conditions. There has consequently been the tendency to view binocular stereopsis only in terms of the pickup of purely spatial (time-frozen) disparity. However, whenever there is movement of objects or the O, the structure of the light entering each eye undergoes continuous change, and so a different type of disparity—kinetic disparity—is made potentially available to the binocular system. That kinetic disparity can, in fact, be picked up is shown by the present experiment, in which there was no spatial disparity information available about the 3-dimensional motion path of an object; only kinetic disparity information was available. This suggests that a clear distinction should be made between binocular-static and binocular-kinetic space perception.—*Journal abstract.*

2144. Mather, James H. (Bryn Mawr Coll.) **Visual**

direction and parameters of binocular space. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4367.

2145. Pálffy, Zoltán. **A térlátás minőségi szintjeiről.** [On the qualitative levels of stereoscopic vision.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 421-435.—Human stereoscopic vision is organized at various qualitative levels. (English & Russian summaries)—*M. Moore*

Color Vision

2146. Rósás, Bálint. **Hipotétikus színelmélet körvonalazása színpárokkal létrehozott látszatmozgási és téri effektusok vizsgálata alapján.** [Outlines of a hypothetical colour-theory based upon examination of pseudo-motion and spatial effects produced by colour-pairs.] *Pszichológiai Tanulmányok*, 1967, No. 10, 139-146.

2147. Schall, Lawrence R. (Indiana U.) **The influence of the expressive meanings of color on form, interpreted in terms of a sensory-tonic theory of perception.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-B), 3737-3738.

2148. Siegel, Michael H. & Siegel, Anne B. (Albion Coll.) **Color name as a function of surround luminance and stimulus duration.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 140-144.—A color-naming experiment was performed with 3 Os in which both surround luminance and exposure duration were varied. The data showed substantial effects from these changes; however, none could be interpreted to indicate the presence of a Bezold-Brücke shift or tritanopia.—*Journal abstract.*

2149. Tánecz, Zsolt & Adorjáni, Csaba. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Az ingerlés idő- és intenzitás tényezőinek szerepe színeffektusok (szubjektív színek) előállításában.** [The role of stimulus time and intensity in producing colour effects (subjective colours).] *Pszichológiai Tanulmányok*, 1967, No. 10, 85-93.

Form & Pattern Discrimination

2150. Aiken, Leona S. & Brown, Donald. (Temple U.) **Feature utilization of continuously varying attributes in a visual pattern classification.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 145-149.—Examined feature utilization of continuously varying attributes in the context of classification of random polygons, the collection of which contained no a priori classes based upon physical features. 10 Os sorted 60 8-sided patterns into 2-9 groups. 1 wk. later, each O repeated 3 sorts and then placed 30 new patterns into the groups of his previous 5-group sort. Comparison of groups across sessions primarily showed repetition of initial classification. Stepwise discriminant analyses were performed on Os' classes, predictors being physical measures of various pattern attributes. Significant predictors of all classifications were found, the 2 most prevalent predictor types being measures of compactness and jaggedness. LDFs based on original pattern classes showed generality to new patterns. (29 ref.)—*Journal abstract.*

2151. Aiken, Leona S. & Brown, Donald R. (Temple U.) **A feature utilization analysis of the perception of pattern class structure.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 279-283.—Patterns were computer-generated about 2 prototypes to form schematic clusters of 3 diameters about the cluster centroids. In a schematic concept-formation task, recovery of a priori

introduced between monocular and binocular viewing, but when the arrangements were otherwise approximately the same as those of Hochberg and Beck, their results could not be observed. Exp. III ($N = 12$ undergraduates) demonstrated that the monocularly observed trapezoids did appear slanted.—*Journal abstract.*

AUDITION

2162. Emmerich, David S. (State U. New York, Stony Brook) Cueing signals in auditory detection and frequency discrimination experiments. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 129-134.—Investigated the effects of presenting a cueing signal during the warning interval initiating a trial in 2-interval forced-choice detection and frequency-discrimination experiments. It was expected that the cueing signal would reduce the uncertainty of Ss about the stimuli being presented in these experiments. In general, it was found that performance tended to improve as the experiments progressed, both in conditions in which cues were presented and in control conditions in which no cues were presented. The improvement observed in control conditions is not usually found in similar experiments in which cues are not employed. Though performance generally improved, it was found that for some stimulus conditions the cues tended to depress average performance below the level attained without such cues.—*Journal abstract.*

2163. Pollack, Irwin. (U. Michigan) Discrimination of restrictions upon auditory sequentially encoded information: Block parity. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 253-256. Finite-state sequences were generated by a digital computer, converted to interval-coded pulse sequences, and transduced to sound by means of earphones. Within each block of B successive intervals, (B-1) intervals were randomly selected and the Bth interval was selected to achieve a fixed parity sum over the block. Discriminability among the sequences—as measured by interstate interval thresholds—reflects both the specific form and the extent of the sequential restrictions introduced by parity. Parity restrictions upon interval-coded sequences may be discriminable through modification of distribution of runs.—*Journal abstract.*

2164. Smiarowski, Richard A. (Northwestern U.) Relations among temporal resolution, forward masking, and simultaneous masking. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4373.

Perception

2165. Chapman, A. J. & Cumberbatch, W. G. (U. Leicester, England) Relative loudness judgments of non-shadowed material presented dichotically. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 79-82.—In a nonshadowing dichotic loudness judgment task, 20 male university students matched speech and white noise intensities at 60, 70, 80, 90, 100, and 110 db. Above 70 db., Ss judged speech to be louder than white noise, at 70 db. they were judged to be equally loud, but at 60 db. white noise was considered to be louder than speech. These findings are discussed in terms of the attenuability of different types of material.—*Journal abstract.*

2166. Collins, Mary J. (U. Iowa) Temporal auditory integration in narrow band noise. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3500.

2167. Divenyi, Pierre L. (U. Washington) The rhythmic perception of micro-melodies: Detectability by human observers of a time increment between sinusoidal pulses of two different, successive frequencies. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4358-4359.

2168. Green, David M. & Luce, R. Duncan. (U. California, San Diego) Detection of auditory signals presented at random times: III. *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 257-268. Measured RTs of 3 Ss to a pure tone in noise. Throughout, the time from the warning signal to the reaction signal was exponentially distributed, and the signal was response terminated. Response criterion, signal intensity, and mean foreperiod wait were varied. A model that assumes a Poisson sensory transduction, a pulse-activated decision process, and an additive bounded residual process, was tested. It is concluded that the assumed decision process was in error. Among the empirical results, the dependence of mean RT on signal waits was shown to depend largely on the average wait, not the actual 1, and that this relationship between mean RT and average stimulus wait increased for strong signals and decreased for weak ones.—*Journal abstract.*

2169. Guzy, Lawrence T. & Axelrod, Seymour. (State U. New York, Buffalo) Synchronization of unimanual and bimanual responses with monotic and dichotic clicks. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 161-164.—In experiments requiring subjective judgments, the apparent rate of rapidly presented dichotically alternating clicks has consistently been shown to be slower than that of clicks presented monotically. The 1st of the present studies ($N = 20$ male undergraduates) asked (a) if slowing of dichotic clicks would be observed when the listener's task was to "follow" the clicks with overt motor responses (unimanual keypresses) rather than to make psychophysical judgments, and (b) if following of dichotic clicks could be improved by providing 2 response channels (alternating bimanual presses). Both answers were affirmative. The 2nd study ($N = 8$ male undergraduates) asked if the improvement obtained in the bimanual condition reflected increased perceptual capacity. Results indicate that it did not, but was attributable to an increase in response ceiling.—*Journal abstract.*

2170. Molino, John A. (Columbia U.) Simulation of the localization of distant sound sources by earphones. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3733.

2171. Patterson, James H. (U. California, San Diego) Perception of transient signals having identical energy spectra. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3734.

Speech Discrimination

2172. Strange, Winifred & Halwes, Terry. (U. Minnesota) Confidence ratings in speech perception research: Evaluation of an efficient technique for discrimination testing. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 182-186.—Discriminability of voice onset time was determined for 4 naive Ss in order to evaluate the relative efficiency of a testing procedure which utilized confidence ratings along with the conventional oddity task. Ss rated their judgments on oddity trials as "very very sure," "somewhat sure," or "just guessing." Each S's discrimination scores were given

weights according to his ratings, yielding functions that were compared with those computed using unweighted percent correct scores. The confidence-rating technique produced readily interpretable results with about $1/2$ as many judgments as are needed when the conventional procedure is used. Possible problems with the interpretation of the functions and the generalizability of the technique are discussed.—*Journal abstract.*

Audiometry

2173. Heuer, Reinhardt J. (U. Oregon) **Auditory threshold determinations with tone-light pairing during summed evoked response audiometry.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4384-4385.

2174. MacMillan, Neil A. (U. Pennsylvania) **Change detection: A model and some experiments on the perception of changes in auditory intensity.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3732.

CHEMICAL SENSES

2175. Henion, Karl E. (U. Texas) **Psychophysical scales of the olfactory pleasantness of homologous alcohols.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 234-236.—A category, a ratio estimation, and 3 magnitude scales were constructed from the observations of 10 Os who judged the pleasantness of a homologous series of n-aliphatic alcohols. Magnitude scaling indicated that pleasantness generally varied inversely with chain length, which is consistent with the findings of earlier investigators who used different methods; ratio estimation also indicated an inverse relationship. Stable magnitude scales resembled power functions with exponents of $-.262$ to $-.587$; the adjusted ratio estimation's was $-.138$. Pleasantness seemed to be unexpectedly prothetic, some evidence of which had also been reported in an earlier study involving a more diverse set of odorants. Yet in the present study the hedonic range was small and in the earlier, large. More than the size of range appears to account for the puzzling prothetic evidence.—*Journal abstract.*

SOMESTHESIA

2176. Clark, W. Crawford & Mehl, Louis. (New York State Psychiatric Inst., New York) **Values of d' obtained by various SDT procedures are not equal when thermal stimuli are judged.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 9 10.—Signal detection theory was used to determine thermal sensitivity (d') for stimuli separated by 25 mcal/sec/cm², over the range from detection (0-25) to painful (400-425). 4 Ss served for 34 sessions each. The forced-choice and binary-decision d' s did not differ from each other, but were significantly higher than d' s obtained from the magnitude rating procedure ($p < .01$) or the certainty rating procedure ($p < .05$). The 2 rating procedures did not differ. These results suggest that Ss find it difficult to maintain multiple criteria in a consistent fashion when judging thermal stimuli.—*Author abstract.*

2177. McFarland, Richard A. (California State Coll., Fullerton) **Enhancement of thermal estimates by concomitant pressure stimulation.** *Journal of Ex-*

perimental Psychology, 1971(Apr), Vol. 88(1), 20-25.—Presented simultaneously stimuli that varied in both temperature and pressure to the same spot on the forearm. 32 male and 32 female undergraduates estimated the magnitude of the temperature decreases. Magnitude estimates of the temperature decreases were reliably larger, the larger the concomitant pressure. Other experiments indicated that the effect was not completely dependent upon the pressure and temperature changes overlapping spatially and temporally. It is concluded that the effect of pressure upon temperature sensations may be mediated by several different neural pathways. In all cases, compared with the effect of temperature upon the judgments, the effect of the pressure was small and limited mainly to differences between the 2 lowest levels of pressure. (26 ref.) *Journal abstract.*

2178. Varjas, Edit. (U. Agricultural Sciences, Gödölő, Hungary) **A vestibuláris apparátus szerepe az emberi végtagmozgásokban, speciálisan a mozgásteljesítmény-ekvivalenciában.** [The role of the vestibular apparatus in the movements of the human limbs, specifically in motion-achievement equivalence.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 436-442.—The effectivity of certain motion achievements may be affected by movements of the trunk, where the vestibular apparatus is considered as the primary factor. (English & Russian summaries)—*M. Moore.*

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

2179. Arkin, Arthur M., Toth, Max F., Baker, Julia, & Hastey, John M. (City Coll., City U. New York) **The degree of concordance between the content of sleep talking and mentation recalled in wakefulness.** *Journal of Nervous & Mental Disease*, 1970(Dec), Vol. 151(6), 375-393. Compared the content of 166 sleep speeches uttered by 28 paid chronic sleep talkers in the laboratory to the content of wakeful mentation reports elicited shortly after utterances. Concordance between the 2 in varying degrees was discernible in 79.2% of REM period, 45.8% of Stage II, and 21.1% of Stages III-IV speech report pairs. Concordance tendencies were also studied on several varying experimental conditions. (16 ref.)—*Journal abstract.*

2180. Arkin, Arthur M., Toth, Max F., Baker, Julia, & Hastey, John M. (City Coll., City U. New York) **The frequency of sleep talking in the laboratory among chronic sleep talkers and good dream recallers.** *Journal of Nervous & Mental Disease*, 1970(Dec), Vol. 151(6), 369-374.—Reports data from a series of experiments aimed at establishing base-line measures of the degree to which "sleep utterance" is associated with REM period and the 4 accepted NREM stages of sleep. Data presented include findings for chronic "sleep talkers," good dream recallers, during interrupted and uninterrupted sleep. Marked individual differences were noted and discussed.—*R. A. Denis.*

2181. Backeland, Frederick. (State U. New York, Downstate Medical Center, Brooklyn) **Effects of pre-sleep procedures and cognitive style on dream content.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 63-69. Examined the REM period dream reports of 2 groups of Ss with different kinds of presleep

experiences with respect to laboratory references, overt references to E, pleasantness and unpleasantness of content, self-representation of the dreamer in his dreams, and dream recall. Group 1 included 17 Ss who were not exposed to any special presleep procedure. Group 2 was composed of 27 Ss who underwent a 1/2-hr presleep association period under conditions of partial sensory isolation which were anxiety provoking and focused Ss' attention on laboratory procedures. Group 2 had more dreams related to the laboratory situation (lab dreams) and more unpleasant dreams. They were more often participants in their dreams and they recalled them less well than Group 1. Cognitive style was also a determinant of lab dreams and the participant-O dimension of dream content. (17 ref.)—*Journal abstract.*

2182. Ekstrand, Bruce R., Sullivan, Michael J., Parker, David F., & West, James N. (U. Colorado) **Spontaneous recovery and sleep.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 142-144.—Investigated the hypothesis, suggested by B. R. Ekstrand (see PA, Vol. 41:14689), that spontaneous recovery observed following sleep is related to REM or Stage-4 sleep. 5 groups of 20 undergraduates learned 2 paired-associate lists (A-B, A-C) and were tested for A-B recall either immediately, 20 min., or 7 hr. after A-C learning. The 7-hr groups slept in the laboratory during the retention interval while EEG, electrooculogram, and EMG recordings were made. 1 group was deprived of REM sleep, 1 was deprived of Stage-4 sleep, and the 3rd was a pseudodeprivation control. Results indicate no difference among any of the 5 conditions. The 2 control conditions produced results suggesting spontaneous recovery over 20 min. Findings suggest that the recovery found by Ekstrand probably had occurred before his Ss actually fell asleep.—*Journal abstract.*

HYPNOSIS & SUGGESTIBILITY

2183. Engstrom, David R. (U. Southern California) **The enhancement of EEG-alpha production and its effects on hypnotic susceptibility.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4334.

2184. Graham, Kenneth R. (Inst. of the Pennsylvania Hosp., Unit for Experimental Psychiatry, Philadelphia) **Optokinetic nystagmus as a criterion of visual imagery.** *Journal of Nervous & Mental Disease*, 1970-(Dec), Vol. 151(6), 411-414.—Reexamined the use of optokinetic nystagmus as a criterion of vivid, hypnotic imagery. A slowly moving stripe was used to induce nystagmus. Eye movements were recorded while S observed the stimulus and then imagined it, in the waking state and as a hypnotic hallucination. A nystagmus-like pattern was observed in all 3 cases, but eye movements during imagery contained significantly more saccades than eye movements during actual observation. There was no significant difference between waking imagery and hypnotic hallucinations.—*Journal abstract.*

2185. Hais, Géza. (Medical U. of Budapest, Psychiatric Clinic, Hungary) **Adatok a pszichés indukció kérdéséhez.** [Data concerning psychic induction.] *Pszichológiai Tanulmányok*, 1967, No. 10, 623-629.

2186. Johnson, Richard F. (Brandeis U.) **The essence of hypnosis: A study of trance logic.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3691-3692.

2187. Konezewski, G. **L'autohypnose organisée et**

le comportement instinctif. [The mechanism of se hypnosis and instinctive behavior.]—A number provocative notions are advanced regarding artificial dreams as intermediary between hypnosis and the subconscious, comparing hypnosis to an interiorized seance, and the organization of the unconscious as organized somnambulism.—K. J. Hartman.

MOTIVATION & EMOTION

2188. Barkóczi, Ilona. (Eötvös Lóránd U., Budapest Hungary) **A kutasó manipuláció egyes jellemzőinek változása ingerdús és izolált szituációban.** [Change in certain characteristics of exploratory manipulation as a function of stimulus richness or stimulus deprivation.] *Pszichológiai Tanulmányok*, 1967, No. 10, 357-361.

2189. Baron, Robert A. (U. South Carolina) **Aggression as a function of magnitude of victim's pain cues, level of prior anger arousal, and aggressor-victim similarity.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 48-54.—Hypothesized that (a) under conditions of high aggressor-victim similarity, feedback from the victim would be highly effective in reducing the level of attacks directed against this individual, both in the presence and absence of prior instigation to aggression; and (b) under conditions of low aggressor-victim similarity, pain cues from the apparently suffering victim would be successful in inhibiting subsequent aggression only in the absence of prior anger arousal. Results with 80 male undergraduates indicate that contrary to b, signs of pain and suffering on the part of the victim produced significant decrements in the strength of the attacks against this person under all experimental conditions.—*Journal abstract.*

2190. Deci, Edward L. (U. Rochester) **Effects of externally mediated rewards on intrinsic motivation.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 105-115.—Conducted 2 laboratory and 1 field experiment with 24, 24, and 8 undergraduates to investigate the effects of external rewards on intrinsic motivation to perform an activity. In each experiment, Ss performed an activity during 3 different periods, and observations relevant to their motivation were made. External rewards were given to the experimental Ss during the 2nd period only, while the control Ss received no rewards. Results indicate that (a) when money was used as an external reward, intrinsic motivation tended to decrease; whereas (b) when verbal reinforcement and positive feedback were used, intrinsic motivation tended to increase. Discrepant findings in the literature are reconciled using a new theoretical framework which employs a cognitive approach and concentrates on the nature of the external reward. (26 ref.)—*Journal abstract.*

2191. Diciaula, Peter J. (Illinois Inst. of Technology) **Relationship of persistence to varying success and other relevant variables.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3688.

2192. Fredericks, Richard S., & Groves, Marion H. (Illinois Inst. of Technology) **Pupil change and stimulus pleasantness.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 371-372.—Tested the hypothesis that pleasant pictorial stimuli elicit pupil dilation responses and unpleasant pictorial stimuli elicit constriction responses. Pupil responses for 45 males to 25 affective stimuli were compared to stimulus ratings of both experimental Ss and independent judges. Pupil change classified by both

stimulus cards in 2 experiments with 24 undergraduate and graduate students in each. Stimuli were constructed from 2 dichotomous dimensions, used either alone or perfectly correlated. The lack of evidence for a selective serial processing (SSP) strategy (in which S sorts by his most preferred dimension whenever the dimensions are correlated) in a similar study by W. R. Garner and G. L. Felfoldy was thought to be due to Ss' failure to notice that the dimensions were correlated, and thus that SSP would be effective. Ss in the present experiment therefore received either implicit instructions concerning the existence of the correlated deck (by seeing only decks in which there were just 2 different stimuli), or explicit instructions that on some trials the 2 dimensions would be correlated and S could sort by any means he preferred. When dimensions of size of circle and angle of diameter were of unequal discriminability, implicit instructions produced partial use of the SSP strategy, while explicit instructions produced nearly total use of SSP by all Ss. When the Munsell dimensions of value and chroma were varied in 2 separate color chips and were equally discriminable on the average, evidence for a small amount of SSP was found in both the implicit and explicit conditions. With neither pair of dimensions did implicit or explicit instructions regarding the correlated task produce integration of information.—*Journal abstract*.

2207. Franken, Robert E., Poole, Glen G., & Grauer, Leslie. (U. Calgary, Alberta, Canada) **Pacing stimulus predifferentiation in detection of change.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 279-282.—Attempted to evaluate (a) whether gradually adding new information to a display (pacing) is an efficient way to teach Ss to identify a complex display, and (b) whether pacing would produce greater stimulus predifferentiation as measured by more accurate detections of a change when the change was made in a display containing the same material. The results for 16 male college students indicate there is positive transfer between steps in the pacing procedure and that pacing produces more accurate detection of change. It may be that an independent skill is acquired as the result of pacing which is responsible for the improved ability to detect change.—*Journal abstract*.

2208. Gross, Steven J. (U. Cincinnati) **An empirical study of cognitive style in selective perception.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4362.

2209. Kahn, Howard P. (U. Rochester) **Do pure measures of a psychophysical observer's sensitivity and criterion exist?** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4365.

2210. Keleman, Kenneth S. (San Diego State Coll.) **Note on looking time: Experimenter and instruction effects.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 224.—Discusses the results of B. T. Leckart, L. Gehren, and G. Thornton (see PA, Vol. 44:19844) whose report that E's presence inhibited Ss' looking time was interpreted as Ss' fear that long looking times might be self-intimidating to the E. The demonstrations by D. D. Thiessen (see PA, Vol. 39:1039) and J. J. Christian and D. E. David (see PA, Vol. 39:7106) of the presence of other organisms increasing arousal at the infrahuman level are extended to the human level, and it is concluded that "E's presence should be reflected in a looking time decrease." Studies by R. B. Zajonc (see PA, Vol. 39:16348) and R. B. Zajonc and S. M. Sales (see PA, Vol.

40:8799) indicate that "the presence of others increases dominant or high-probability responses, and inhibits subordinate or low-probability ones." It is concluded that looking at slides is a low-probability response, and therefore "E's presence should reduce the duration of looking behavior."—P. McMillan.

2211. Peterson, Mari A. & Peterson, Rein. (Cornell U.) **Information processing and strategy.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 365.—Conducted a replication of U. Neisser's visual scanning experiment using 3 male graduate students as Ss. An attempt to control for difficulty of target letters in relation to one another, as well as to the background letters, was only partially successful. Several strategies of scanning different conditions were reported during debriefing of Ss.—*Journal abstract*.

2212. Purcell, Dean G. & Stewart, Alan L. (New School for Social Research) **U-shaped backward masking functions with nonmetaccontrast paradigms.** *Psychonomic Science*, 1970(Dec), Vol. 26(1), 361-363.—As the interval from the onset of a target letter to the onset of a masking stimulus is increased, target recognition 1st becomes worse and then improves under some conditions. Previously, these U-shaped functions have been documented only when metaccontrast masking paradigms have been used. In the present studies with 4 highly-trained Os, U-shaped functions were found with nonmetaccontrast paradigm. Using pattern mask, U-shaped functions were found when the target energy was greater than the mask energy. Moreover, a set of parameters was found that produced U-shaped functions when no contours were present within the masking field.—*Journal abstract*.

2213. Robinson, David O. (U. Oxford, England) **The limits of selective attention in DAF shadowing.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 325-327.—12 naive male undergraduates with normal hearing read a passage of English prose at their own speed, and this was tape-recorded and used as the irrelevant message in a dichotic-listening shadowing task. The primary message to which the Ss attended was 1500 words long, and after the 1000th word, the irrelevant message was switched noiselessly to delayed auditory feedback (DAF). Finally, Ss read a 1000-word passage while experiencing DAF. Results confirm previous findings that the limits of selective attention are exceeded when DAF is the nonattended message and suggest the importance of immediate auditory feedback in a speech-production mechanism that involves specific delays within the system which are associated with a normal speaking rate for each individual.—*Journal abstract*.

2214. Smith, Russell L. (U. California, Los Angeles) **An investigation of determinants of the vigilance decrement.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4373.

2215. Tolin, Philip. (Central Washington State Coll.) **Instruction effects on watch keeping in a "simple" vigilance task.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 227-228.—2 experiments (Ns=22 undergraduates in Exp. I, and 60 in Exp. II) were conducted to determine the effect of variation in pretask instructions on performance on a simple vigilance task. In both experiments 1 group was told that the task would be challenging (Group C) and the other group, that the task would be monotonous (Group M). In Exp. I time-related decrements were found in the percentage of correct

signal detections and in the number of incorrect responses. The results of Exp. II indicate time-related decrements, but no group differences, in percentage of correct detections. Group M also made progressively fewer false alarms, while false-alarm rates for Group C did not change over time. Differences in mechanisms underlying performance decrements are discussed.—*Journal abstract.*

2216. Uleman, James S. & Reeves, Jeanine. (Michigan State U.) **A reversal of the Stroop interference effect, through scanning.** *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 293-295.—Interference on the Stroop test has been explained on the basis of a stronger habit (word reading) interfering with a weaker 1 (color naming) on an incongruous color-word (CW) card. Since scanning for words is slower (weaker) than scanning for colors, it was predicted that making the Stroop a scanning task would produce more interference with scanning for words rather than colors on the CW card. This prediction was confirmed in an experiment with 60 undergraduates. Analyses of individual differences offered some support for differential habit-strength theories of Stroop interference. However, differences between the standard and scanning Stroop tests suggest that some kind of information-processing analysis would be more fruitful.—*Journal abstract.*

2217. Warner, Harold D. & Heimstra, Norman W. (U. Missouri, Rolla) **Effects of intermittent noise on visual search tasks of varying complexity.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 219-226. 4 noise ratios were utilized: 0, 30, 70, and 100% noise on-time in successive 5-sec intervals. The task required that Ss search a display for a single letter located among a larger background of letters which were all the same but different from the single letter. Task complexity was varied by changing the number of background letters. 2 difficulty levels were utilized: 8- and 32-letter displays. 22 male college students were tested under all conditions specified by the Task Complexity \times Noise Ratio matrix. Detection speeds for the 32-letter task condition were faster for any ratio of noise than in the control condition but for the 8-letter condition only the 30% noise ratio was faster than the control. The speeds for the 70 and 100% ratios were slower for the 8-letter condition. The order of the 30, 70, and 100% ratios, however, without the control comparison indicated that the relative differences between noise effects were the same for both levels of task complexity. The order of conditions beginning with fastest was: 30, 100, and 70%.—*Journal abstract.*

2218. Williges, Robert C. & Streeter, Harrison. (U. Illinois) **Display characteristics in inspection tasks.** *Journal of Applied Psychology*, 1971(Apr), Vol. 56(2), 123-125.—Tested 8 female undergraduates on detection of pin-hole defects in a visual scanning task. Display type (static vs. dynamic) and display arrangement (random vs. ordered) were combined factorially in a within-S design. Static (inspector-paced) displays yielded more defect detections and fewer false alarm errors, whereas, display arrangement did not effect detections or false alarm errors. It is concluded that inspector-paced displays seem to be more beneficial than externally paced displays when rapid scanning rates are required.—*Journal abstract.*

MOTOR PERFORMANCE

2219. Boswell, John J. (U. Missouri, St. Louis)

Effects of three levels of interpolated activity on the acquisition of a simple motor skill. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 35-42.—96 male students performed for 20 min. on a pursuit rotor with either the preferred hand (P) or nonpreferred (Np) hand. Practice was either massed (M), spaced (Sp), or switched (Sw) which required S to switch hands during alternate 30-sec practice periods. The results show an overall difference between hands ($P > Np$) and among practice conditions ($Sp > Sw > M$), but the observed intermediate position of Sw was uninterpretable since either dissipation of inhibition or transfer of training could have produced this effect (17 ref).—*Journal abstract.*

2220. Illyés, Sándor. (Training School for Special Education, Budapest, Hungary) **A mozgás közben kifejtett izomer és a mozgás sebességének átlagos szabályozása.** [Voluntary control of muscular strength and speed in the course of motion.] *Psychológiai Tanulmányok*, 1967, No. 10, 121-130.

2221. Munz, David C., Ruffner, John W., & Criss, John F. (St. Louis I.) **Reduction of noise annoyance through manipulation of stressor relevance.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 55-58.—In order to test the merit of considering noise from an informational viewpoint, 30 undergraduates were randomly assigned to either a high task involvement (HTI) or low task involvement (LTI) instruction group and performed pursuit rotor tracking under 3 conditions of moderate noise stress: task-related noise, task-irrelevant noise, and no noise. No performance effects were evidenced. However, HTI Ss reported experiencing greater psychological discomfort under task-irrelevant noise as compared with the other 2 noise conditions. Moreover, comparisons of postexperimental ratings of working condition preference supported this finding.—*Journal abstract.*

2222. Nagy, György. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Jatekintelligenciával kapcsolatos vizsgálatok női kézilabdázóknál.** [Examinations bearing on the game intelligence in female handball players.] *Psychológiai Tanulmányok*, 1967, No. 10, 519-524.

2223. Rosenquist, Henry S. **A comparative study of the photoelectric rotary pursuit.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pl. 1), 83-84.

REACTION TIME

2224. Bernstein, Ira H. & Clark, Mark H. (U. Texas, Arlington) **Intersensory effects in the psychological refractory period.** *Perceptual & Psychophysics*, 1971(Feb), Vol. 9(2-A), 135-139.—2 experiments examined RT to each of 2 stimulus events separated by short interstimulus intervals (ISIs). The experimental conditions were: RT to the 2nd visual signal (R2) in auditory-visual (AV) vs. visual-visual (VV) sequences. With response critical pairings in Exp. I ($N=2$ undergraduate pairs), a significant effect appeared, demonstrating a sensory channel process was tested. RT was generally faster for AV as opposed to VV sequences especially when Ss were uncertain as to the sequence that would occur. At the 1st ISI the R1 difference between responses in AV and VV sequences was the R1 difference between RT to AV sequences and the R1 difference between RT to VV sequences in Exp. II ($N=3$ also observed with 60 vs. 30 pairings in Exp. II) ($N=3$ undergraduates) when the initial event was a 2nd signal. However, the R1 difference disappeared upon

error correction, making the RT, sequence difference of questionable relevance to the hypothetical single-channel process. RT₁ was more rapid following a null no-go signal when the no-go signal was contrasted with a visual as opposed to auditory go signal. The latter effect was independent of error and is consistent with channel-switching theory.—*Journal abstract.*

2225. Downing, Bruce D. (Kent State U.) **Response probabilities and "same-different" reaction times.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 213-215.—A "same-different" RT task with multi-dimensional stimuli was used with a 50:50 and a 75:25 proportion of "different" to "same" response (Ss were 8 undergraduates). The "different" RTs to each dimension were similar for the 2 proportions. However, the "same" RT in the 50:50 condition was faster than the "same" for the 75:25 condition and faster than the slowest "different" RT. Interpretations of the results in terms of response bias and processing criteria are offered.—*Journal abstract.*

2226. Henderson, Leslie. (U. Guelph, Ontario, Canada) **Simple reaction time, statistical decision theory, and the speed-slowness tradeoff.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 323-324.—Measured simple auditory RT at 3 stimulus intensities under both speed and accuracy instructions in an experiment with 6 male undergraduates with normal hearing. The slope of RT over intensity was greater for accuracy criteria, as predicted by statistical decision theory. Speed criterion performance was not attributable to a shift in pre-programmed anticipatory responses.—*Journal abstract.*

2227. Ollman, Robert T. (U. Pennsylvania) **A study of the fast guess model for choice reaction times.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3733-3734.

2228. Pöppel, Ernst; Aschoff, Jürgen C., & Giedke, Henner. (Max-Planck Inst. for the Behavior of Physiology, Seewiesen über Scarnberg, W. Germany) **Tagesperiodische Veränderungen der Reaktionszeit bei Wahrreaktionen.** [Changes of reaction time in selection tasks due to varying test schedules during the day.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(4), 537-552. Investigated the effect of disturbing the natural rhythm of sleep and wakefulness on RTs to visual and acoustic stimuli. Variations are greatest when sleeping Ss are awakened for the tests. Staying awake during the night results in a decrease of variability compared to tests during the day. Motivation and repetition of tests are factors which have to be controlled in studies of this kind. (English & French summaries) (35 ref.)—*W. J. Koppitz.*

2229. Sanford, A. J. (U. Dundee, Scotland) **Rating the speed of a simple reaction.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 333-334.—In an experiment with 6 enlisted men, it was shown that in an auditory simple reaction task Ss can rate their RTs with regard to speed. Furthermore, reactions to quiet signals are generally rated as being slower than reactions to loud signals. This observation does not support the view that RT-intensity effects are totally mediated through peripheral or predetection lags.—*Journal abstract.*

2230. Swenson, Richard G. & Edwards, Ward. (Bell Telephone Lab., Inc., Holmdel, N.J.) **Response strategies in a two-choice reaction task with a continuous cost for time.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 67-81.—Each trial of a 2-choice task rewarded S for a correct response, but charged a

cost proportional to his response time. 7 of the 8 Ss in 3 experiments violated predictions of the random-walk model and confirmed those of the fast-guess model by using only 2 response strategies in all conditions. These Ss either responded accurately or made a detection response when the stimulus appeared, accepting chance-level error rates to respond in 20 or 45-70 msec. faster (for 2 different types of stimuli). Stimulus frequency and payoffs primarily determined which strategy S would adopt. Data were ambiguous for only 1 S, equally well fit by the random-walk model and by assuming that he intermittently guessed on some proportion of trials. (17 ref.)—*Journal abstract.*

2231. Symington, Lawrence E. (U. California, Santa Barbara) **Reaction time and timekeeping accuracy.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3741.

LEARNING

2232. Belgard, Maria R. & Min, Leo Y. (Stanford U.) **Optimizing the learning process through a TL network model: An operations research approach.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 63-64.—Introduces a teaching-learning (TL) network model to optimize the learning process. The learning task is sectioned into TL elements which are sequenced according to an optimization rule. A student's flow through the learning process is controlled by the TL element increment loop and the optimal path updating loop. A mathematical programming model of "assignment problem" type is developed and solved by the "direct solution method." Since the optimal path has 2 cost coefficients, a theorem is constructed and proven which states that no single optimal solution can be found unless the 2 optimal solutions are combined according to the averaging method or the constraint addition method, both of which are developed. The TL network model makes scientific individualized optimization of the learning process a reality.—*Author abstract.*

2233. Du Charme, Wesley M. & Schum, David A. (Rice U.) **Human multistage probabilistic inference.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 65-66.—Compared human inferences based on unreliably perceived events with the inferences of an optimal, multistage model. The model is a form of Bayes' theorem which uses likelihood ratios adjusted for data unreliability. 15 paid Ss observed sequences of binomial data under conditions of perfect and imperfect reliability. They revised odds about which binomial population had generated the sequences and they also made estimates of the diagnostic impact associated with each datum. Under conditions of imperfect reliability both odds revisions and estimates of diagnostic impact were excessive when compared to the optimal model.—*Author abstract.*

2234. Fennell, Geraldine. **Selective attention and incidental learning.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3726.

2235. Fitz, Robert J. (Catholic U. of America) **The differential effects of praise and censure on serial learning as dependent on locus of control and field dependency.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4310.

2236. Fitzgibbons, David J. & Goldberger, Leo. (Inst. of Living, Hartford, Conn.) **Task and social orientation: A study of field dependence, "arousal," and**

memory for incidental material. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 167-174.—Tested a conceptualization of field dependence-independence as a motivational orientation reflected in attentional selectivity and autonomic activity using an incidental learning paradigm. 60 female graduate and undergraduate students assigned to a structured or unstructured condition were exposed to social and neutral incidental material; basal skin resistance was recorded. Results indicate that field-dependent Ss reflect social motivation by high nonspecific "arousal" and by learning incidental material of a social nature. Field-independent Ss reflect task motivation by becoming "aroused" in response to specific task requirements and by learning task-relevant incidental material. (17 ref.)—*Journal abstract*.

2237. Lachman, Sheldon J. (Wayne State U.) **Telephone identification learning: Letter-exchange versus all-digit designations.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 17-18.—College students practiced and were tested for recall with a 12-unit list, each unit consisting of the subscriber's name and a letter-exchange designation. Another group practiced and was tested for recall of an identical list, except that equivalent all-digit designations were substituted for the letter-exchange designations. On the average about 88% more was learned of letter-exchange phone designations over comparable all-digit designations. Hypotheses involving isolation, interference, earlier experience, and meaningful linkages are proposed to account for the superiority of letter-exchange learning over all-digit learning.—*Author abstract*.

2238. Lahey, Benjamin B. (U. Tennessee) **Effects of verbal response consequences on fixed-trial choice learning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4366.

2239. Levine, Marvin. (State U. New York, Stony Brook) **Hypothesis theory and nonlearning despite ideal S-R-reinforcement contingencies.** *Psychological Review*, 1971(Mar), Vol. 78(2), 130-140.—Hypothesis theory generates a few theorems about adult humans failing to reach criterion in discrimination-learning tasks: (a) their performance should match behavior on tasks which are intrinsically insoluble but otherwise comparable to the normal tasks; and (b) for certain stimulus sequences, performance on both the unsolved and insoluble problems should be below the chance level. Data confirm both of these predictions. The theory also stipulates the conditions for producing nonlearning by motivated Ss. According to the theory, as long as S is sampling from a set of incorrect hypotheses (i.e., a set lacking the solution) he will show no learning. No response strengthening will occur in this circumstance even if the solution consists in the simplest contingencies (e.g., E says "right" when S says "A," and "wrong" when S says "B"). A series of experiments validated the prediction. The relation of these results to random-prediction, the awareness controversy, and the feedback effects, the awareness controversy, and the Einstellung phenomenon is discussed. (34 ref.)—*Journal abstract*.

2240. Rankin, William C. (Texas Christian U.) **Transfer of schema learning to schematic concept formation.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-B), 3735.

2241. Reynolds, Donald & Atiyah, Steven K. (U. Oklahoma) **Extinction in probability learning as a function of schedules of reinforcement during**

acquisition. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 69-70.—4 studies related resistance to extinction and schedules of reinforcement during acquisition of a probability learning task. Ss were undergraduates. Study I showed no differential extinction resistance resulting from reinforcement scheduling. Study II extinguished differentially reinforced Ss with presence absence of stimuli present during acquisition. Study III established mean acquisition trials for each reinforcement group. Study IV replicated Study II with acquisition trials per Study III. Stimulus onset effects dominated extinction, while schedules of verbal reinforcement had negligible effects. It was hypothesized: (a) Ss relied on light onset rather than verbal reinforcement during acquisition; (b) generalization decrement accounts for certain extinction effects.—*Author abstract*.

2242. Sticht, Thomas G. (Human Resources Research Organization, Monterey, Calif) **Failure to increase learning using the time saved by the time compression of speech.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 55-59. Used time-compressed tape recordings to determine if presenting new information in the time saved by the compression process would improve overall performance on a criterion listening comprehension test. 75 high- and 75 low-aptitude 18-25 yr. old men served as Ss. Results indicate that learning of new material presented in the time saved by the compression process did occur, but overall learning did not surpass that obtained by listening to the uncompressed, unelaborated material.—*Journal abstract*.

2243. Tempone, Vincent J., Capehart, Jack, & Decker, Larry. (U. Arizona) **Attentional processes in overtraining.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 127-132.—Examined the effects of overtraining using 2 dependent variables, choice response and eye fixations. Although an overtraining reversal effect was not found using choice-response, examinations of a number of eye fixations both before and after reversal suggest that the introduction of reversal training produces greater shifts in attention in the overtrained ($n = 6$ undergraduates) as opposed to the criterion trained group ($n = 6$). Results are interpreted as supporting a theory of discrimination learning which proposes that S is developing a plan in which inputs are tested or compared against some centrally organized process.—*Journal abstract*.

2244. Williams, Carl D., Hartley, Raymond E., Taylor, James L., & Harrington, Richard T. (U. Miami) **Path dependence in probability learning.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 71-72.—Applied a previously untested stimulus sampling model and a cognitive model to data from 5 2-choice, uncertain-outcome experiments. Undergraduates served as Ss ($N = 300$ in Exp. I, 100 each in Exp. II, III, and IV, and 160 in Exp. V). Both models were found to predict sequential choice behavior with considerable accuracy. Each model includes a mechanism that enables different subsequences of events to be mastered at separate rates. The path dependent feature shared by these models enables stimulus sampling theory to predict the negative recency phenomenon as a function of the event sequence.—*Author abstract*.

Conditioning

2245. Allen, John A. (North Carolina State U.)

Relationships between orienting response level, conditioners, and voluntary responders. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 29-30.—Results of recent studies have indicated that voluntary responders and high orienters may be especially sensitive to words and the meanings they convey. To examine this possibility, an experiment was performed in which 80 male undergraduates experienced both semantic conditioning (generalization and differential eyelid conditioning (using verbal CSs) procedures within the same experimental session. No evidence was found to support similarities between orienting response level and conditioning type. However, unexpectedly, significant differences in heart rate were found between voluntary responders and conditioners.—*Author abstract.*

2246. Bowers, Kenneth S. (U. Waterloo, Ontario, Canada) **An attributional analysis of operant conditioning: Paradoxical effects of reinforcement on the endurance of behavior change.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 287-288.—An attributional analysis of operant conditioning suggests that behavior change attributed to contingent reinforcement will quickly dissipate when reinforcement is discontinued. The present study permitted comparison of Ss with and without the opportunity to misattribute behavior change (achieved posthypnotically) to contingent reinforcement. Reinforced Ss returned to their base-rate performance much more quickly than unreinforced Ss. Rather than misattributing their changed behavior to reinforcement, the reinforced Ss seemed to react against it, as if reinforcement constituted a threat to their free choice. Cautions in the use of operant conditioning are suggested, based on considerations of attribution theory.—*Author abstract.*

2247. Deysach, Robert E. (Syracuse U.) **Determiners of self-regulatory behavior and effects on response maintenance in the absence of external reward.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4333.

2248. Dixon, Paul W. & Cummings, William C. (U. Hawaii, Hilo) **Effect of intertrial interval and verbal reinforcement on choice of front or back tongue position.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 59-62. 2- vs. 4-sec ITIs significantly increased choice of front-articulated vowels as compared with back-articulated vowels in 4 reinforced and 4 nonreinforced groups of 5 native English-speaking undergraduates each. Ss showed a significant preference for front-over back-articulated vowels. The hypothesis that shorter ITIs would increase conditioning was not supported since no reinforcement effects were found. Discrimination between the 2 response classes of front- and back-articulated vowels was demonstrated in the 4 2-sec ITI groups as compared with the 4 4-sec ITI groups. The preference for front- over back-articulated vowels and increased preference for the front- over back-articulated vowels due to shorter ITIs is discussed in terms of stimulus choice due to prior learning of English.—*Journal abstract.*

2249. Kennedy, Thomas D. (Arizona State U.) **Reinforcement frequency, task characteristics, and interval of awareness assessment as factors in verbal conditioning without awareness.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 103-112.—Investigated the temporal relationship between

performance gains and awareness. 100 undergraduates were reinforced for pronoun responses in a sentence-construction task or for human noun responses in a word-naming task. Awareness was assessed from notes written by Ss during the conditioning task and from a postconditioning questionnaire. Of unaware Ss, only those reinforced for pronoun responses showed a conditioning effect. Aware Ss demonstrated performance gains prior to reports of awareness, although the effect was more pronounced in the sentence-construction task. Results support a behavioral explanation of verbal conditioning that performance gains and awareness are both dependent variables which can be influenced directly by reinforcement or indirectly by other factors, e.g., nature of the task. It is concluded that unless awareness is assessed frequently during conditioning, performance gains occurring prior to awareness may not be detected, leading to erroneous conclusions about the role of awareness in verbal conditioning.—*Journal abstract.*

2250. Miller, Richard E. (Arizona State U.) **Differential effects of connotative and denotative dimensions in verbal operant generalization.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3711.

2251. Williams, Bobby D. (U. Mississippi) **Sensory preconditioning as a function of stimulus pairing and interstimulus interval during preconditioning.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3742.

Verbal Learning

2252. Bler, David W. (Northwestern U.) **The effect of frequency, affect, and total time in verbal-discrimination learning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4354-4355.

2253. Freund, Joel S. (Northwestern U.) **Variability of subject's judgments of frequency and their effect on verbal-discrimination learning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4360-4361.

2254. Guthrie, John T. (Johns Hopkins U.) **Feedback and sentence learning.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 23-28.—Examined the theoretical functions of external feedback in stimulus-response (S-R) and closed-loop models of verbal learning. Contradictory predictions from the models were tested with a 3×3 factorial experiment including 3 types of feedback and 3 amounts of rehearsal. 90 male undergraduates were tested individually and required to learn 39 sentences verbatim. Results indicate that feedback (a) facilitated learning when it followed wrong responses; (b) had no effect on learning following correct responses; and (c) consisting of both the stimulus and the response was superior to no feedback, whereas feedback consisting of only the response did not differ from no feedback. The closed-loop model is supported.—*Journal abstract.*

2255. Hopkins, Ronald H. & Epling, William F. (Washington State U.) **Pronunciation and the length of the study interval in verbal discrimination.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 145-146.—Hypothesized that the difference between silent- and verbalization-study conditions might be caused by more time pressure, and an effectively shorter study interval, in the silent- than in the verbalization-study condition. This hypothesis was tested by varying the length of the study interval for 78 undergraduates.

Silent study produced better performance than did verbalization, and the difference was independent of the length of the study interval. It is concluded that the frequency theory is an adequate interpretation of the detrimental effect of pronunciation of both members of a verbal discrimination pair.—*Journal abstract.*

2256. Huang, I-ning & Hynum, Les J. (Wisconsin State U.) **Degrees of isolation and the Von Restorff effect in serial learning.** *Psychonomic Science*, 1970 (Dec), Vol. 21(6), 357-359.—60 undergraduates learned by the study-recall method of a serial list of 11 CVCs with the central item isolated in different degrees of perceptual enhancement: shape, shape and color, or shape, color, and size; the middle 3 items isolated; the middle 5 items isolated; or none isolated to a criterion of 2 consecutive errorless trials. Compared to the corresponding control items, significant facilitation of isolated item (I) occurred in all experimental conditions. The magnitude of facilitation of the I (6th item) increased as (a) the degree of perceptual enhancement increased, and (b) the number of surrounding Is decreased. The item immediately following I(s) was also significantly facilitated. Findings are accounted for in terms of E. J. Gibson's concepts of generalization and differentiation in verbal learning.—*Journal abstract.*

2257. Hudson, Robert L. & Davis, Jerry L. (Mississippi State U.) **Part-whole transfer of a categorizable word list.** *Psychonomic Science*, 1970 (Dec), Vol. 21(6), 331-332. 45 undergraduates learned a part list where the words could be placed into 1 of 4 B. J. Underwood and J. Richardson categories and were then transferred to the whole list containing all the words of the part list plus additional words from each category. 1 group was told prior to part list learning that the words could be categorized, and another group was never given this information. An additional control group was included to assess the effects of information, per se. Results of whole-list learning, which were in the predicted direction but generally nonsignificant, show a slight superiority for the group receiving information over the group not receiving information.—*Journal abstract.*

2258. Johnson, Ronald E. (Purdue U.) **Serial learning of narrative prose as related to the structural importance of the linguistic segments.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 51-52.—Ranked linguistic subunits of a narrative folktale according to their structural importance. The serial learning of the linguistic segments was then related to their judged structural importance. Learners in Exp. I (N = 40 undergraduates) controlled the presentation rates themselves, while the presentation rates in Exp. II (N = 40 undergraduates) were controlled automatically. Regardless of the method of controlling the presentation rates, a strong relationship existed between the structural importance of the units and their remembering. Linguistic segments of high structural importance also were more often emitted as intrusions.—*Author abstract.*

2259. Oléron, G., Rivoal, C., Marquer, P., & Shun, J. (U. Paris at the Sorbonne, Experimental & Comparative Psychology Lab, France) **Effet d'un conflit entre l'attitude d'apprentissage et l'automatisme verbal.** [The effect of a conflict between learning attitude and verbal automatism.] *Bulletin de Psychologie*, 1969 1970, Vol. 23 (9-10), 583-590.—64 Ss were presented lists of word pairs varying in speed of presentation and in the number of repetitions. 1 group (L) heard 1 word every 6

sec., the other group (4R) had 4 repetitions, 1 every 1.5 sec. The word lists varied also in the strength of association of their pairs as well as in the direct and reversible association factor. Spacings (contiguity) of associate pairs within lists ranged from 5-23 interposed words. Response criteria were recall of words in any order (spontaneously) and recall in presented order. Recall was most efficient in the 4R group with spontaneous recall. The distance between associates did not influence recall efficiency, neither on random recall nor order recall. The 4R method as well as the order-recall task favored the reconstruction of associates by contiguity. The degree of association did not influence recall in either group. The effect of reversibility of associations interacted with the modes of presentation. Results are compared with those obtained by Broadbent and Glanzer and Cunitz, and theoretical issues are discussed.—R. E. Smith.

2260. Spangenberg, Ronald W. (Indiana U.) **Structural coherence in verbal and pictorial displays.** *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-A), 2748-2749.

2261. Wachtel, Paul L. (New York U., Research Center for Mental Health) **Cognitive style, attention, and learning.** *Perceptual & Motor Skills*, 1971 (Feb), Vol. 32(1), 315-318.—46 male college students were administered both the Rod and Frame Test (RFT) and a learning task, consisting of learning the nonsense-syllable "names" arbitrarily assigned to a series of complex designs. RFT performance was unrelated to learning the names of overall designs, but good performance on the RFT was associated with better ability to identify part-aspects of the designs. Results are discussed in terms of greater ability of field-independent individuals to extract aspects of their experience from an embedding context, as well as their greater task orientation.—*Journal abstract.*

Verbal Paired Associate Learning

2262. Epstein, Michael L. (U. Washington) **Unlearning: An effect of change in response set?** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7-B), 4359.

2263. Hogan, Martin J. (Wayne State U.) **The effects of anxiety, stress, task difficulty and stage of learning on performance in paired-associate learning.** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7-B), 4363-4364.

2264. Johnson, Guy J. (U. British Columbia, Vancouver, Canada) **Effects of item discriminability in mixed-list presentation of paired associates.** *Psychonomic Science*, 1970 (Dec), Vol. 21(6), 371-372. Investigated the effects of intersubset discriminability on the performance of strongly and weakly associated pairs presented under a mixed-list procedure. In the low-discriminability condition, the 2 subsets were presented in the same color, while in the high-discriminability condition, each subset appeared in a different color. 36 female undergraduate Ss were assigned to each condition. Performance measures in terms of number of correct responses and number of trials to perfect recitation indicate facilitation effects for both strong- and weak-association pairs under the high-discriminability condition. Results are discussed in terms of intralist generalization and differentiation.—*Journal abstract.*

2265. Jurca, Nancy H. (Northwestern U.) **Effects of**

concept learning on stimulus selection during subsequent paired-associate learning. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4364.

2266. Keister, Richard S. (Ohio State U.) The role of organization in paired-associate learning. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4365.

2267. Linton, Marigold; Jewett, Marsha, & Brotsky, S. Joyce. (San Diego State Coll.) Prediction of paired-associate learning from a complex indicator of associative strength. *Psychonomic Science*, 1970(Dec), Vol. 21(6), 354-355.—48 undergraduates learned successively 4 homogeneous lists constructed by pairing stimuli with their most frequent, their 2nd, their 3rd, or their 4th normative response. Predictions of paired-associate learning from associative strength defined by both rank and normative frequency of response were confirmed. Results are attributed to (a) utilization of a complex indicator of associative strength, and (b) establishment of conditions which facilitated development of appropriate response sets.—*Journal abstract*.

2268. Lowe, William F. (U. Texas) Response latency in paired-associate learning. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4367.

2269. Rimm, David; Roesch, Ronald; Perry, Ronald, & Peebles, Chris. (Arizona State U.) Effects of blank versus noninformative feedback and "right" and "wrong" on response repetition in paired-associate learning. *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 26-30.—Examined response repetition as a function of feedback type. 16 male and 16 female undergraduates were presented with a paired-associate learning task. Informationless feedback consisted of either the standard blank or a redundant reminder of the 2 response alternatives, with Ss informed in both cases that such feedback conveyed no information. Both types of feedback resulted in an equally strong tendency for S to repeat responses which they followed, with the probability of repetition only slightly less than that obtained for "right." "Wrong" resulted in marked response suppression. Findings on informationless feedback support A. M. Buchwald's view that blank feedback is functionally equivalent to "right" or "wrong" feedback which is forgotten.—*Journal abstract*.

2270. Stetten, Robert D. (Lehigh U.) Forward and backward associative interference on paired-associate transfer. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3740.

Reinforcement

2271. Etaugh, Claire F., Kelliher, Richard J., & Stalling, Richard B. (Bradley U.) Reinforcement of verbal behavior by evaluative meaning words. *Psychonomic Science*, 1970(Dec), Vol. 21(6), 327-328.—Tested the generality of an earlier finding that evaluative meaning words function as reinforcers for children's instrumental motor learning. 45 male undergraduates served as Ss in a verbal conditioning task. Words rated as having positive, negative, or neutral evaluative meaning (EM) were presented contingent upon the use of self-referent pronouns and were later removed during extinction. Frequency of emission of self-referent pronouns (a) increased, following presentation of positive EM words and removal of negative EM words; (b) decreased, following removal of positive, and presentation of negative, EM words; and (c) was unaffected by

presentation or removal of neutral EM words. Results strengthen A. W. Staats's conclusion that EM words can function as reinforcers and punishers in instrumental tasks.—*Journal abstract*.

MEMORY

2272. ———. Modes of memory. *British Medical Journal*, 1970(Mar), Vol. 1(1569), 641-642.—A person's ability to remember is related to general intelligence, but not in a direct way and with exceptions. Functional and organic disorders which may impair the memory are discussed. Evidence related to the mechanism of memory is reviewed. Studies indicate that there are 3 memory storage processes.—S. R. Diamond.

2273. Anderson, Richard C. & Watts, Graeme H. (U. Illinois) Response competition in the forgetting of paired associates. *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 29-34.—Reports 2 experiments with 112 undergraduates in each, which investigated retroactive inhibition (RI) with paired associates learned under the A-B, A-C, the A-B, A-Br, or the A-B, C-D paradigm. 1st-list retention was assessed using 1 of 3 types of unpaced multiple-choice test. When each test item included the specific competing response from the 2nd list, there was a substantial amount of RI; whereas no RI appeared when test items entailed only 1st-list responses or noncompeting 2nd-list responses. Results are interpreted as evidence for specific response competition.—*Journal abstract*.

2274. Crouse, James H. (U. Delaware, Coll. of Education) Retroactive interference in reading prose materials. *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 39-44.—Investigated retroactive interference phenomena with prose-learning tasks. Exp. I with 80 undergraduates dealt with the effects of interpassage similarity on retroactive interference. Interpassage similarity was defined in terms of list-generated questions which the successive passages answered. The passages were constructed so that, in successive passages, questions were different, similar, or identical, but always had different answers. No retroactive interference was found in the different condition, but approximately 40% retroactive interference was obtained in similar and identical conditions. Exp. II with 60 undergraduates supported the conclusion that the retroactive interference is not a result of failures of passage differentiation, and Exp. III with 60 undergraduates suggested that it is not a result of output phenomena.—*Journal abstract*.

2275. Doost, Rainer & Turvey, M. T. (U. Connecticut) Iconic memory and central processing capacity. *Perception & Psychophysics*, 1971(Mar), Vol. 9(3-A), 269-274.—Conducted 3 experiments to assess whether or not iconic memory is influenced by demands placed upon central processing capacity. In Exp. I, 2 23-28 yr. old males and 2 females with normal vision were required to store material in short-term memory while performing an iconic memory task. In Exp. II and III, 4 normal-sighted Ss performed an auditory classification task concurrently with iconic storage. The 3 experiments did not reveal any significant impairment of iconic memory as a function of performing a subsidiary task. Similarly, performance on the subsidiary tasks did not suffer as a result of the concurrent iconic memory task (17 ref.).—*Journal abstract*.

2276. Forrester, William E. & King, David J. (State University Coll. New York, Oswego) Effects of seman-

tic and acoustic relatedness on free recall and clustering. *Journal of Experimental Psychology*, 1971-
(Apr), Vol. 88(1), 16-19.—Varied semantic and acoustic
relatedness of words in a mixed-list design presented to
36 undergraduates. Free recall was significantly better
for semantic items than for acoustic or unrelated control
items. Acoustic relatedness had no effect on amount
recalled but did affect order of output. Significant
clustering occurred via the semantic dimension only.
Correlational analyses indicate that clustering of seman-
tic items was associated with higher recall of semantic
and nonsemantic components. No significant correla-
tions involving acoustic clustering were found.—*Journal*
abstract.

2277. Goldstein, Alvin G. & Chance, June E. (U. Missouri) **Visual recognition memory for complex configurations.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 237-241.—Previous studies of recognition memory for heterogeneous pictorial stimuli suggest an unusually large storage and retrieval capacity. In Exp. 1, 3 series of homogeneous pictures (faces, inkblots, snow crystals) were presented to 6 independent groups of Ss, and recognition was tested immediately or 48 hr. later. Accuracy and sex were related to stimulus configuration; at both time intervals, accuracy was best for faces and poorest for snow crystals. Levels of accuracy were below those attained in studies using heterogeneous arrays. The results of 2 other experiments suggest the relative unimportance of verbal mediation in recognition of homogeneous pictorial stimuli. (22 ref.)—*Journal abstract.*

2278. **Gorfeln, David S. & Blair, Claudia.** (New Coll., Natural Science Div.) **Factors affecting multiple trial free recall.** *Journal of Educational Psychology*, 1971- (Feb), Vol. 62(1), 17-24.—Tested 32 undergraduates on variety of material in multiple-trial free-recall paradigms, and over a number of single-trial free-recall lists. All Ss participated in a paired-associate and short-term memory experiment. Analysis showed relatively high correlations across materials of free-recall total score with a corresponding lack of correlation for subjective organization. A short-term memory score and a paired-associate learning score both correlated significantly with multiple-trial free-recall performance. A previous report that the correlation between free recall and paired associates was due to the fact that good paired-associate learners were good in subjective organization is not supported in this data. Significant practice effects were shown in several aspects of the total free-recall performance. (22 ref.)—*Journal abstract.*

formance. (22 ref.)—*Journal abstract.*
2279. Hunt, Karl. (U. Tennessee, Chattanooga) **Measuring clustering differences among categories in the same list.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 67-69.—Presents a method which allows category characteristics to be varied within Ss by using mixed lists, whereas previously only homogeneous lists could be employed. It is designed to measure only relationships among items actually recalled, not between those recalled and those not recalled.—*Journal abstract.* (U. California, Berkeley)

2280. Jensen, Arthur R. (U. California, Berkeley) **Individual differences in visual and auditory memory.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 123-131. -Presented 100 undergraduates with a visual and auditory forms of a digit memory test in a counterbalanced order (auditory-visual group and visual-auditory group) under conditions of immediate and

10-sec delayed recall. 2 control groups of 25 undergraduates each were given exclusively either the visual or auditory test. Auditory memory was better than visual for immediate recall; the reverse was true for delayed recall, the interaction being significant beyond $p < .001$. Correlations between individual differences in auditory and visual memory, after correction for attenuation based on reliabilities obtained from the control groups, did not significantly differ from unity for either immediate or delayed recall. There was no evidence for individual differences as a function of sensory modality of the input. There was a significant ($p < .001$) interaction, however, between Ss and time of recall (immediate vs. delayed). (26 ref.)—*Journal abstract.*

2281. Kroes, William H. & Libby, William L. (Ohio State U.) **Conceptual encoding categories in free recall.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 267-269.—49 female students were administered a randomized list of 60 words, 15 from each of 4 different kinds of conceptual categories, 1 of which was from an exhaustive category and 3 from nonexhaustive categories. Results support the hypotheses that some conceptual categories are more powerful in facilitating free recall and a higher degree of clustering occurs in the more powerful conceptual categories. Contrary to expectations, an exhaustive category, such as all 3-letter words rhyming with "a," is not necessarily as powerful as a more nonexhaustive category, i.e., clothing words. —*Journal abstract.*

2282. Kupriyovich, L. **Rezervy pamyati.** [Reserves of memory.] *Nauka i Zhizn'*, 1970(Oct), Vol. 37(10), 65-72.—Surveys the facts which lead to the view that characteristic of the brain is its "huge reserves," only a very small portion of which are utilized. Methods for tapping these reserves are suggested. 1 D London

2283. Levy, C. Michael & Lam, Karen D. (1 Florida)
The psychology of memory—1968: A bibliography.
Perceptual & Motor Skills, 1971(Feb), Vol. 32(1), 99–
124.—644 contributions to the psychology of memory
and forgetting published during 1968 are listed alpha-
betically. *Journal abstract.*

2284. Madigan, Stephen A. & McCabe, Linda. (1 Southern California, Los Angeles) **Perfect recall and total forgetting: A problem for models of short-term memory.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 101-106.—Conducted 2 paired-associate probe experiments with 30 and 36 graduate and undergraduate students. The items in the last input position in 5-pair lists were recalled perfectly in immediate recall, but practically never in a subsequent delayed recall test. Other items in the list were recalled at intermediate levels in both tests. This "negative recency" effect in delayed recall occurred regardless of whether a pair had or had not been tested in immediate recall. **Results, at variance with predictions derived from some current models of memory, suggest that pairs in terminal input positions are deliberately not processed and stored by Ss in a manner allowing their later recall from long-term memory.**—*Journal abstract.*

2285. Meunier, Gary F., Stanners, Robert F., & Meunier, Jo A. (Ball State U.) Pronounceability, rehearsal time, and the primacy effect of free recall. *Journal of Experimental Psychology*. 1971(Apr), Vol. 88(1), 123-127. Assigned 84 undergraduates to 1 of 4 groups in a serial learning free recall task. The groups were designated by the rated ease of pronounceability of the materials and the presence or absence of a back-

wards counting task following each of the 1st 4 items. 2 presentation recall trials were given each of the 3 lists presented to S. Recall was superior for easy-to-pronounce items and sharp reductions in the primacy effect were produced by the counting task. This reduction did not appear with the difficult-to-pronounce items until the 2nd presentation recall trials. Results are compatible with a model for memory proposed by R. Atkinson and R. Shiffrin.—*Journal abstract.*

2286. Miller, Stuart. (Towson State Coll.) **Memory span effects in transfer.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 39-40.—Studied the performance of 30 high- (H-MS) and 30 low-memory span (L-MS) undergraduates in positive transfer (A-B'), negative transfer (A-C), and control (C-D) conditions using paired-associate lists. A 1st-list superiority of H-MS over L-MS groups was found. On the transfer list, MS effects were found in the A-C and C-D conditions but not in the A-B' condition. It is concluded that although L-MS Ss make use of supplied mediators as well as H-MS Ss, L-MS Ss have particular difficulty in overcoming interference from previously established associative bonds.—*Author abstract.*

2287. Nelson, Thomas O. (Stanford U.) **Recognition and savings in long-term memory: Related or independent?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 15-16.—27 Ss learned a 20-item paired-associate list to a criterion of 1 errorless trial, had a 4-wk retention interval, and returned for a recall test, recognition test, and relearning; during relearning, $\frac{1}{2}$ of the items remained the same as in original learning and $\frac{1}{2}$ were changed (A-B₂). Results: (a) during the retention test, recall was remarkably high (50% correct); and (b) although 49% of the incorrectly recalled items were recognized correctly, the savings effect during relearning was the same regardless of whether the incorrectly recalled item had been correctly or incorrectly recognized, implying that recognition is not a prerequisite for the savings effect.—*Author abstract.*

2288. Newman, Slater E. & Campbell, Ralph T. (North Carolina State U.) **A-B and B-A performance as functions of test instructions and reading order.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 57-59.—Conducted 2 experiments with 90 and 160 male undergraduates to evaluate the principle of associative symmetry advanced by S. Asch and S. Ebenholtz (see PA, Vol. 37:390). In Exp. I, a 2×2 design was used in which Ss were told that they would be given an A-B or a B-A test. At the end of training, $\frac{1}{2}$ the Ss in each treatment were tested in the A-B direction and the rest in the B-A direction. A-B performance was superior to B-A performance independent of the type of test which S was told he would get. In Exp. II, Ss in each treatment read the pairs aloud from right to left or from left to right. For Ss who read the items aloud from left to right, the results replicated those from Exp. I, i.e., the A-B mean was higher than the B-A mean. However, for Ss who read the items aloud from right to left, the B-A mean was higher than the A-B mean. Results do not support a principle of associative symmetry.—*Journal abstract.*

2289. Paivio, Allan. (U. Western Ontario, London, Canada) **Imagery and deep structure in the recall of English nominalizations.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 1-12.—Compared rated imagery and deep-structure complexity as

predictors of the free recall of English nominalizations in experiments with 79, 51, and 42 undergraduates, involving different lists, showed consistent positive effects of imagery but no effect of deep-structure complexity. Interactions of the 2 variables were inconsistent across experiments. A correlational analysis revealed that noun imagery alone was the best predictor of recall. Results suggest an imagery interpretation of memory for nominalizations. (26 ref.)—*Journal abstract.*

2290. Palmer, Stephen E. & Ornstein, Peter A. (U. California, San Diego) **Role of rehearsal strategy in serial probed recall.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 60-66.—Studied the effects of different rehearsal strategies in serial probed recall. In Exp. I, 32 undergraduates were instructed to rehearse list items either cumulatively (Group CR) or as paired associates (Group PA). The groups differed in the initial portion of the serial position curve, Group CR showing a large primacy effect, while Group PA showed none. In Exp. II with 64 undergraduates, immediate and delayed recall procedures were used to permit inferences concerning primary- and secondary-memory components of recall. The primacy effect for Group CR was again obtained under immediate recall conditions, and was somewhat reduced, but still significant under delayed recall conditions. Results are interpreted as indicating the importance of rehearsal strategies in determining memory performance and as supporting the position that rehearsal repetition both maintains primary memory traces and transfers information to secondary memory. (18 ref.)—*Journal abstract.*

2291. Ranschburg, Jenő. (Eötvös Lóránd U., Budapest, Hungary) **A verbális emlékezéshez kapcsolódó negatív és pozitív érzelmek fejlődésének vizsgálata galvanós bőrreflexszel.** [Examination of the trend of negative and positive emotions induced by verbal memory with the galvanic skin response.] *Pszichológiai Tanulmányok*, 1967, No. 10, 375-379.

2292. Rumery, Robert E. & Leicht, Kenneth L. (Illinois State U.) **Serial and free recall: Number and form of serial position functions as related to rehearsal and recall instructions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 13-14.—3 lists of 15 common words were presented 1 at a time for 4 trials to 136 Ss under 4 experimental conditions and analyzed using a factor-analytic procedure. When instructions allowed Ss to choose rehearsal strategies, recall performances were characterized by 3 serial-position functions in serial recall and by 2 functions in free recall. The 2 functions associated with free recall, free rehearsal and 2 of the 3 associated with serial recall, free rehearsal were interpreted as representing short- and long-term memory processes.—*Author abstract.*

2293. Senf, Gerald M. & Rollins, Howard A. (U. Illinois, Chicago) **Effect of precuing versus postcuing retrieval order of the accuracy of bisensory memory.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 12-15.—Presented trials of 6 digits arranged into 3 audiovisual pairs, the interpair interval being either $\frac{1}{2}$ or 2 sec. to 44 undergraduates. Groups were either precued to recall the items as 3 audiovisual pairs or as 2 modality sets and postcued to recall the items in forward or backward order or vice versa. Analysis of forward recall data found precuing improved accuracy for both pair and modality recall methods, particularly at the slow stimulus presentation rate. Parallel with dichotic listen-

ing data, modality order recall was superior at the fast rate, pair recall superior at the slow rate. Forward recall order was more accurate than backward order. The superiority of modality over pair order recall and the greater accuracy for fast over slow stimulus rates were attenuated when recall was in the backward order. Results suggest that at slow rates, S can modify the manner of item storage, while, at fast rates, stimulus rate is the primary determinant.—*Journal abstract.*

2294. Szmirnov, A. A. (Psychological Inst., Moscow, USSR) **Néhány korreláció az emlékezés terén.** [Certain correlations of memory.] *Pszichológiai Tanulmányok*, 1967, No. 10, 15-27.

2295. Weisberg, Robert W. (Temple U.) **The Influence of previously established associations on the storage of simple active sentences.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 55-56.—Tested a semantic theory of sentence storage by obtaining intrasentence word associations (ISWA) from simple active sentences in which degree of preestablished associations among the words varied. Ss were 40 paid undergraduates. It was found that strong preestablished associations had little or no effect on ISWA patterns, which conformed to predictions based on semantic interpretation and thus replicated earlier studies. Associative strength as measured by free association plays little part in the actual storage of sentences, but may be important in reconstruction of a forgotten sentence at recall.—*Author abstract.*

2296. Weist, Richard M. (U. Nebraska) **"No-show" phenomena in free recall.** *Psychonomic Science*, 1970, (Dec), Vol. 21(6), 366. In a multitrial free-recall experiment, 14 undergraduates assigned to a free-recall group were compared with 10 Ss in a restricted-recall group who were instructed that all of the words would not be presented on each trial and that they must recall only the words that were presented. While, in fact, all of the words were consistently presented in both groups, recall performance was depressed in the specially instructed group.—*Journal abstract.*

2297. Wood, Gordon. (Michigan State U.) **Organization, large memory units, and free recall.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 52-56.—Utilized a whole-part transfer paradigm. In 2 experiments with 44 undergraduates each, to assess the effect of "forcing" Ss to reorganize large memory units. List 1 contained 18 categories of 3 words each, and List 2 contained 9 categories of 3 words each. Experimental Ss received all 27 List 2 words in List 1. Even though the within-category organization established during List 1 learning was appropriate for List 2 learning, the negative effect due to the inappropriate between-category organization offset or overpowered the positive effect of within-category organization. The effect of forcing Ss to reorganize memory units did not appear to depend on the size of the memory unit. It is suggested that it may be more accurate to conceptualize free-recall learning as the process of forming 1 large memory unit.—*Journal abstract.*

2298. Yuille, John C. (U. British Columbia, Vancouver, Canada) **Does the concreteness effect reverse with delay?** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 147-148. Reports an attempted replication of a previous experiment by M. J. Butter (see PA, Vol. 44:11772) which reported a reversal with delay of the effect of stimulus concreteness on paired-associate

recall. An experiment with 32 undergraduates was unable to replicate the earlier finding. Together with data from 2 other experiments, considerable doubt is cast on the Butter results.—*Journal abstract.*

2299. Zerdy, Gerald A. (U. Maryland, Computer Science Center) **Incidental retention of recurring words presented during auditory monitoring tasks.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 82-89.—Presented lists of 1440 common English words by a tape recorder to 120 undergraduates. Ss were instructed to press a button whenever defined "target" words occurred. A group of 12 recurring words served as criterion items on subsequent tests of free recall and of recognition memory. 3 experimental variables were examined: (a) learning conditions (incidental or intentional), (b) orienting task (stimulus examination or memory examination), and (c) repetition frequency (7, 14, or 28). Results confirm the hypothesis that listening for semantically (i.e., categorically) defined target words would lead to greater incidental retention than would listening for a single target word. It was observed that (a) intentional learners retained more than incidental learners, (b) repetition facilitated retention to a greater extent for the incidental learners, and (c) effectiveness of the orienting task interacted with the conditions of learning. Results are discussed in terms of the information-processing requirements of the orienting tasks.—*Journal abstract.*

Short Term & Immediate Memory

2300. Adams, William A. (U. Wisconsin-Milwaukee) **Proactive interference in very short term memory.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 41-42. Tested college students (N = 40 undergraduates in Exp. I, and 16 in Exp. II) for retention of tachistoscopically presented displays of consonant trigrams with retention intervals of 100, 200 or 300 msec. and a constant exposure period of 75 msec. Proactive interference was found to increase over trials for all retention intervals to about the same extent. When the III was filled with a neutral counting task, the proactive interference effects disappeared. Proactive interference results are interpreted in terms of verbal confusion arising during the III from Ss' attempts to "confirm" their uncertain perceptions of the stimulus materials.—*Author abstract.*

2301. Anders, Terry R. (Harvard Medical School, Boston, Mass.) **Retrospective reports of retrieval from short-term memory.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 37-38. Studied retrieval processes in short-term memory by quantifying Ss' (N = 12 females from a nursing school) verbal reports of the number, location, and order of material covered during the memory search. The basic results are comparable to previous findings, i.e., the search was slow (about 5 items/sec), serial, and usually self-terminating. In addition, however, the Ss' search reports provided data on several aspects of the retrieval process previously unexplored. Among these were descriptions of (a) how the stored material was accessed, (b) the search preceding incorrect responses, and (c) how organization at the time of input affected retrieval.—*Author abstract.*

2302. Baddeley, A. D. & Scott, Denise. (U. Sussex, Experimental Psychology Lab, Brighton, England)

Word frequency and the unit sequence interference hypothesis in short-term memory. *Journal of Verbal Learning and Verbal Behavior*, 1971(Feb), Vol. 10(1), 35-40.—Examined experiments claiming to show unit-sequence interference in short-term memory. 4 experiments were performed with 40 enlisted men, 36 housewives, 30 students from a college of education, and 329 university undergraduates, to investigate the retention of high and low frequency words over filled intervals of 0-30 sec. Results show (a) better overall performance on high frequency sequences, and (b) parallel forgetting of high and low frequency sequences. It is concluded that unit-sequence interference is not an important variable in short-term memory. (17 ref.)—*Journal abstract*.

2303. Bartz, Wayne H. (Iowa State U.) **Successive responses to simultaneous and successive auditory stimuli.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 81-82.—Compared the immediate memory for items presented simultaneously (dichotic listening) with memory for the same items presented successively. 20 undergraduate volunteers responded to 160 lists composed of 2 categories of items. Each list contained 6 items from 1 category and 2 from the other. The 2-item category was presented in successive pairs of serial positions in serial lists or simultaneously with 2 items in the 6-item category. Ss ordered their recall by categories. Results show that retention for serial and dichotic lists was identical. Dichotic listening, then, is but one means of structuring a list of verbal items.—*Author abstract*.

2304. Cimbalo, Richard S. (Rosary Hill Coll.) **Short-term memory: List length and the isolation effect.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 35-36.—Placed digits in various positions of lists otherwise comprised of consonants. Lists containing either 6, 10, or 12 items were presented to Ss ($N = 45$ 15-19 yr. old high school students) for a single trial. Contrary to predictions derived from either or both interference and Gestalt theories: (a) overall performance between isolated and unisolated lists did not differ, (b) the isolation effect was not present at all positions, (c) the isolation effect and list length were not directly related, and (d) no evidence for a generalization gradient was found. An information processing theory with a time-dependent attentional mechanism was considered as an alternative.—*Author abstract*.

2305. Elmes, David G. & Adams, Carl. (Washington & Lee U.) **Related responses in short-term memory.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 140-141.—Utilized a running paired-associate task to examine the role of related responses in short-term memory. Potential retroactive and proactive inhibition effects were held constant across related-item conditions. 15 undergraduates were presented 45 lists in which there were 0, 1, or 2 responses related to a particular "critical" response. The presentation and recall loci of the related items were systematically varied. Correct recall of the critical responses increased with increases in the number of related responses, suggesting that Ss group related items for recall. The effects of presentation of locus of related responses were compatible with the idea of grouping for recall.—*Journal abstract*.

2306. Griffin, John L. (U. Alabama) **Presentation rate and intra-list interpolation in the sequential recall of letters.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4361-4362.

2307. Heisey, John A. & Duncan, Carl P. (Northwestern U.) **Syntactical encoding in short-term memory.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 95-100.—Hypothesized that when the same sentence structure is repeatedly used to encode different sentence contents, structural encodings of sentence contents would become confused and proactive inhibition (PI) would result. 192 undergraduates learned and recalled lists of nonsense words presented without sentence structure, or the same words embedded in key syntactical positions in active, passive, or interrogative voice sentences, for 3 trials. On Trial 4, all Ss learned and recalled nonsense words presented in an active voice sentence. In all conditions, recall decreased and PI increased from Trial 1-3. On Trial 4, (a) the group continuing with active voice showed further PI, (b) the word list group showed a high degree of recovery, and (c) the passive and interrogative groups showed intermediate amounts of recovery. The recovery from PI when sentence structure was introduced, or was changed from 1 voice to another, is taken to indicate use of syntax as an encoding cue for recall.—*Journal abstract*.

2308. Henderson, Leslie & Matthews, Michael L. (U. Guelph, Ontario, Canada) **Perception and memory loss of item and order information in short-term memory.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 231-233.—Recognition probes given before or after a series of letters presented at varying rates were used to evaluate perception and memory loss of order and item information ($N = 20$ Ss). For both order and item information pre- and postprobe functions converged at fast rates of presentation. Performance decrement at fast rates is attributable to perceptual factors and is greater for order than for item information.—*Journal abstract*.

2309. Irion, Arthur L., Boswell, John J., & Walker, James T. (U. Missouri, St. Louis) **Repetition effects in short-term memory.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 367-368.—Studied human short-term memory in an experiment with 64 female undergraduates, using repeated presentations of the stimulus materials. A consonant trigram was presented, rehearsal was prevented for a 20-sec interval, and the procedure was then repeated without allowing an attempted recall. A single recall test was given after the interval that followed the last presentation. Number of presentations (1, 2, 3, and 4) was the independent variable. Considerable increases in recall were obtained as number of presentations increased.—*Journal abstract*.

2310. Kellas, George & Butterfield, Earl C. (U. Kansas) **Effect of response requirement and type of material on acquisition and retention performance in short-term memory.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 50-56.—Employed multiple list tasks to examine the performance of 90 undergraduates during input and output phases of short-term retention. The duration of time Ss exposed successive items in the experimental lists was recorded for free, ordered, and probe recall. The resultant patterns of exposure durations across serial positions were compared to the patterns of correct responses during recall. Specific predictions concerning the nature of the stimulus material (single letters, bigrams, and trigrams) and the recall requirements were made from 2 current models of memory. Results demonstrate an inverse relationship between input and output performance. Comparisons among the various treatment conditions support the N.

C. Waugh and D. A. Norman model of memory (see PA, Vol. 39:9429).—*Journal abstract.*

2311. Scapinello, Ken F. & Yarmey, A. Daniel. (U. Guelph, Ontario, Canada) The role of familiarity and orientation in immediate and delayed recognition of pictorial stimuli. *Psychonomic Science*, 1970(Dec), Vol. 21(6), 329-331.—Examined the effects of familiarity and changes in stimulus orientation on immediate and delayed recognition of human faces, canine faces, and buildings. 80 undergraduates were assigned randomly to 1 of 4 experimental conditions: immediate or delayed recognition of stimuli presented and tested in the same orientation, and immediate or delayed recognition of stimuli presented and tested in opposite orientations. Results indicate that familiar stimuli presented for 7 successive inspection trials were significantly better recognized than were unfamiliar stimuli inspected only once. Recognition performance declined as a function of stimulus rotation and a 20-min delay in testing. This decline was significantly greater for human faces than for other stimuli, regardless of the recall interval used. It is concluded that increased familiarity improved recognition and that the disproportionate difficulty for rotated human faces was independent of familiarity.—*Journal abstract.*

2312. Zechmeister, Eugene B. (Northwestern U.) Short-term recognition memory as a function of method of presentation and situational frequency of test alternatives. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4376.

THINKING

2313. Brown, Bill R. & Aylworth, Charles E. (U. Louisville) Feature encoding and pattern classifications with sequentially presented Markov stimuli. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 203-207.—Attempted to develop and evaluate a methodology designed to permit more direct assessment of the detailed processes involved in prototype abstraction. 30 Ss participated in a task having the following characteristics: (a) classifications of Markov-generated stimuli sampled from 2 different populations, (b) controlled scanning of pattern features, (c) a measure of the degree to which pattern features were correctly identified, and (d) intermittent reproduction of pattern features abstracted from collections of mixed instances. Results showed that a significant number of the Ss learned to classify the stimuli into categories corresponding to the generation rules and, at least partially, abstracted the population prototypes from these variable instances. The feature identification data suggested that the Ss who were unsuccessful in classifying the stimuli into the rule-defined categories used an inappropriate strategy for sampling pattern information upon which to base their classifications. (15 ref.)—*Journal abstract.*

2314. Cairns, Helen S. & Foss, Donald J. (U. Texas) Falsification of the hypothesis that word frequency is a unified variable in sentence processing. *Journal of Verbal Learning and Verbal Behavior*, 1971(Feb), Vol. 10(1), 41-43.—Investigated the relationship of word frequency to sentential processing complexity. 32 undergraduates listened to sentences and pushed a button in response to a word beginning with a preestablished phoneme (target words), and RT was taken as an index of local processing difficulty. Lexical items immediately preceding the target words were manipulated: they were

either high or low frequency adjectives, nouns, or verbs. It was found that only low frequency adjectives produced longer RTs. No effect of word frequency on nouns or verbs was observed. An information entry hypothesis is proposed to account for the results.—*Journal abstract.*

2315. Carver, Ronald P. (American Inst. for Research, Washington, D.C.) Pupil dilation and its relationship to information processing during reading and listening. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 126-134. Investigated whether pupil diameter indicates information-processing load during reading and listening experiments involving 24 undergraduates reading passages of varying difficulty. A TV camera and monitor and a video recorder were used to measure the diameter of the pupil under a reading condition and 3 control conditions. No evidence was obtained that the pupil dilates while reading. Results were investigated by measuring the pupil size of 20 undergraduates while listening to tape recordings of the reading passages. No evidence was obtained that the pupil dilates while listening. Results suggest that pupil size cannot be used as an objective indication of whether or not an S is processing the information contained in connected discourse while he is engaged in reading or listening activities. The possibilities that the dilations occurred but were not reliably detected by the methods used is discussed.—*Journal abstract.*

2316. Dufoyer, Jean P. (U. Paris at the Sorbonne, School of Letters & Humane Sciences, France) Rôle de certaines habitudes verbales dans la conduite du raisonnement chez des adolescents et des adultes. [The role of certain verbal habits in the course of reasoning in adolescents and adults] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 526-532. 41 adults and 41 students in psychology (13 male, 28 female) and 41 12-16 yr old boys were asked to identify statements represented by stick figures using a series of propositions such as "Roland is as heavy as Frederic. Roland is as tall as Oliver. Oliver is taller than Anthony. Frederic is heavier than Anthony." Significant differences between men and women and between adults and adolescents were found in the identifications made. Errors in identification by 1/2 of the adults and 2/3 of the adolescents indicated that they had understood the implied equality in "A is as [heavy/tall] as B" and not the implied inequality in "A is as [heavy/tall] as B" as in "A is as [heavy/tall] as B, but C is heavier/taller than B." These Ss did not understand that a statement "Paul is as tall as Peter" does not indicate whether they are actually both tall or short.—R. E. Smith

2317. Flowers, J. H. & Garner, W. R. (Yale U.) The effect of stimulus element redundancy on speed of discrimination as a function of state and process limitation. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-A), 158-160. The effect of spatially repeated stimulus elements on the speed of discrimination was measured in a sorting task (state limitation) and conditions of low stimulus similarity (process limitation) for 15 male college students. A significant increase in speed of sorting stimuli was found when the stimuli were state limited but not when process limited, even though base speeds were the same in both cases. It is concluded that element redundancy will improve discrimination performance only when the need for the improvement is a state limitation.—*Journal abstract.*

2318. Goldstein, Irwin I. & Allen, John C. (U.

Maryland) **Effects of irrelevant stimuli on the processing of information in complex displays.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 110-113.—Investigated the effects of irrelevant stimuli on Ss' ability to organize information by using response categories. 40 undergraduates were assigned to relevant or relevant-irrelevant conditions. Irrelevant stimuli were found to increase response time and errors for all levels of complexity, but more so for certain specific response categories where interference effects could be expected.—*Journal abstract*.

2319. Grill, Donna J. (Johns Hopkins U.) **Variables influencing the mode of processing of complex stimuli.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4362.

2320. Gyaraky, Frigyes F. (National Education Inst., Budapest, Hungary) **A Landa-vezérlési elv egy logikai modellje és alkalmazása gondolkodáslelektani vizsgálatokban.** [A logical model of Landa's control principle and its application in the psychological examinations of thought.] *Pszichológiai Tanulmányok*, 1967, No. 10, 259-265.

2321. Hoepfner, Ralph; Guilford, J. P., & Bradley, Paul A. (U. California, Los Angeles) **Information-transformation abilities.** *Educational & Psychological Measurement*, 1970(Win), Vol. 30(4), 785-802.—This investigation into the structure of intellect model focuses on the changing, revising, or redefining of information. 1 sex, 10 transformations, and 6 reference factors were hypothesized. Structure of intellect tests were administered to 197 senior high school students. A principal factors method was applied to the intercorrelations among the 47 structure of intellect measures. The hypothesized factors were retained for orthogonal rotation. Among the transformation factors appearing clearly were cognition of symbolic units, cognition of symbolic transformations, memory for symbolic transformations, divergent production of semantic classes, convergent production of semantic transformations, and evaluation of symbolic transformations.—*N. M. Chansky*.

2322. Miller, Gerald R. (Michigan State U.) **Some factors influencing judgments of logical validity of arguments: A research review.** *Quarterly Journal of Speech*, 1969(Oct), Vol. 55(3), 276-286.—Reviews studies dealing with the influence of variables on an S's judgment of an argument's logical validity. 4 classes of variables are distinguished: (a) structural form and/or semantic characteristics of an argument, (b) prior training of the S, (c) attitudinal state of the S, and (d) the cognitive style of the S. Research is recommended in the effect of channel variables, argument format, and the persuasiveness of logical arguments.—*S. Knapp*.

2323. Schulman, David & Shontz, Franklin C. **Body posture and thinking.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 27-33.—Ss were 8 groups of college students, 10 men and 10 women per group. Ss in each group were tested while in a standing, sitting-erect, sitting-bent, or supine posture. Enclosed box problems and the Uses of a Brick task were administered to 4 groups (1 group in each body posture). The other 4 groups were administered an abbreviated TAT, a task requiring S to talk about himself, and a test of memory for posture-related words. Ss were tested individually. Number of problems solved, pace of talking, number of self-referent statements, and proportion of posture-related words remembered were significantly affected by

posture. Sex differences were also significant for several measures. It is concluded that body posture influences several types of thinking and that the study of the influence of posture on behavior has theoretical value as well as implications for psychological testing, therapy, and education. (18 ref.)—*Journal abstract*.

2324. Simpson, W. E., Vaught, Glen M., & Ham, Marie L. (State University Coll. New York, Oswego) **Intercorrelations among imagery tasks.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 249-250.—Intercorrelations were obtained for 9 measures of performance by 30 adults in an attempt to assess any general ability reflected on those tasks involving visual imagery. Neither the direction nor the magnitude of the correlations gave strong support to the operation of such general ability.—*Journal abstract*.

2325. Wellens, A. Rodney & Thistlethwaite, Donald L. (Vanderbilt U.) **An analysis of two quantitative theories of cognitive balance.** *Psychological Review*, 1971(Mar), Vol. 78(2), 141-150.—Reviews previous attempts to formulate balance theories capable of accommodating interelement relations of varying magnitudes. 2 new algebraic formulations of the quantitative balance theories of N. T. Feather and W. M. Wiest are proposed. It is shown that the discrepancy principle used in the former theory contains an algebraic formulation which is equivalent to one that may be given for the upper boundaries of balance implied in the latter theory. Empirical results probing these theories provided some support for the algebraic formulation common to both theories, but disconfirmed the polarization principle which has been used as an adjunct to Wiest's geometric model. (17 ref.)—*Journal abstract*.

Problem Solving

2326. Davies, Ivor K. (Royal Air Force Coll., Cranwell, England) **Get immediate relief with an algorithm.** *Psychology Today*, 1970(Apr), Vol. 3(1), 53-54, 68-69.—Prose presentations of complex rules and procedures are very difficult to understand because prose must contain many qualifications and often cannot maintain the order best for comprehension. Changing the format to an algorithm containing only simple, yes-no decisions arranged in an efficient order can increase understanding and reduce errors in solving problems. Income tax regulations among many other sets of directions, could be rewritten as algorithms.—*E. J. Posavac*.

2327. Revlis, R., Lipkin, S. G., & Hayes, J. R. (Carnegie-Mellon U.) **The importance of universal quantifiers in a hypothetical reasoning task.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 86-91.—Presented 180 undergraduates belief-contravening problems which required a forced choice between accepting either a general law (all As are Bs) or a quantified statement of the form "All As are Bs) or a particular fact (This Y is a Z). Ss consistently rejected the fact in favor of the generality. Laws with the affirmative quantifier (all) were accepted more often than those with the negative quantifier (no). Generalities expressing class-inclusion (is a) were accepted more often than those expressing property assignment (has a). Laws with familiar content were accepted more often than those with unfamiliar content. It is concluded that the contexts for the assertions (definitional, empirical, and unspecified) contributed to the acceptability of the gen-

each. Prior to each presentation, Ss predicted which of 2 symbols they expected (dimension what), and in which of 2 locations it would appear (dimension where). Following each presentation, some Ss identified what; others identified where. For each response and incentive condition CRS was fastest following the most probable dimension combination, and when both stimulus dimensions were correctly predicted. With an incentive for correct what predictions, CRS to identify where was markedly decreased.—*Author abstract.*

2337. Harris, Richard J. (U. New Mexico) **An interval-scale classification system for all 2×2 games.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 219-220.—An extension of R. J. Harris' (see PA, Vol. 43:7509) classification system permits classification of the interval-scale properties of any 2×2 (2 person, 2 choice) game. The system is compared to taxonomies developed by Rapoport and Guyer, H. Hamburger (see PA, Vol. 43:7509), and Harris. It is shown to permit compact description of any 2×2 game as an octet of numbers. It also permits rapid classification of comparisons among game matrices with respect to the strength of measurement which must be assumed for the comparison to be meaningful.—*Author abstract.*

2338. Lichtenstein, Sarah & Slovic, Paul. (Oregon Research Inst., Eugene) **Reversals of preference between bids and choices in gambling decisions.** *Oregon Research Institute Research Bulletin*, 1970(Oct), Vol. 10(7), 1-27. Ss in 3 experiments chose their preferred bet from pairs of bets, and later bid for each bet separately. In each pair, 1 bet had a higher probability of winning (P bet); the other offered more to win (\$ bet). Bidding method (selling vs. buying) and payoff method (real-play vs. hourly wage) were varied. Results showed that when the P bet was chosen, the \$ bet often received a higher bid. These inconsistencies violate every risky decision model, but can be understood via information-processing considerations. In bidding, S starts with amount to win and adjusts it downward to account for other attributes of the bet. In choosing, there is no natural starting point. Thus, amount to win dominates bids but not choices. One need not call this behavior irrational, but it casts doubt on the descriptive validity of expected utility models of risky decision making.—*Journal abstract.*

2339. Liebllich, Amia; Liebllich, Israel, & Sevin, Judith. (Hebrew U. of Jerusalem, Israel) **Arithmetical estimation "ad absurdum."** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 143-150.—An "absurd" arithmetical estimation task, which totally eliminated any skill facet, was used to test the hypothesis that only when any application of known algorithms is clearly impossible, do Ss take into account shifts in payoff matrices in their decision processes. Psychology students' behavior in this absurd task was compared with that of Ss in a previously described arithmetical estimation task under severe time restrictions. 10 Ss comprised the experimental group while 6 Ss served as controls, each S performing 150 decisions. 5 experimental Ss showed the expected rational shift in their behavior; there were no shifts by controls. Ritualistic skill-based strategy under adverse environmental conditions is discussed.—*Journal abstract.*

2340. McDaniel, Clyde O. (U. Pittsburgh) **Expectations and desires.** *Psychology*, 1970(Nov), Vol. 7(4), 2-26.—Based on J. Nehnevajsa's decision orien-

tation theory, the present study explored the relationship between expectations and desires, its influence on decision-making, and the demographic, temporal, and behavioral factors in decision orientations. Orientations are rooted in an individual's definition of outcomes, and the resulting decisions may be probability oriented, negative-desirability oriented, positive-desirability oriented, or utility oriented. It was hypothesized that: (a) probability evaluations are significantly effected by desirability evaluations at specific points in time; (b) this relationship is maintained over time; (c) this effect is influenced by the relevant information-seeking strategy employed; and (d) sex, age, race, marital status, nationality, education, and political party affiliation do not affect the probability-desirability relationship at points in time or over time. Random samples were obtained from an urban Negro Baptist church, a list of faculty members from an elementary school and a high school, and a white Republican organization. Results stress the importance of temporal factors and their socio-psychological correlates in probability and desirability evaluations. Demographic findings are reported. It is concluded that Nehnevajsa's theory is substantiated, that "some people act mainly on what they expect; others, on what they desire; still others on what they would like to prevent. This means that the various ways of characterizing the future do not play the same role in decision making." (16 ref.)—P. Zell.

2341. Shanteau, James C. (U. California, San Diego) **Component processes in risky decision judgments.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3739.

2342. Teger, Allan I. & Kogan, Nathan. (U. Pennsylvania) **The effect of reciprocal decision rule on decisions for another person.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 247-248.—Ss made decisions on a gambling task where the outcome would affect their own payoff or the payoff of another person. Contrary to popular expectation, decisions for other people were no more cautious than decisions for oneself. Decisions for others became significantly more cautious when the S believed that the other person was making reciprocal choices which would affect the S's payoff. This was interpreted as due to either increased empathy in the reciprocal condition or an attempt to match an expected cautious choice from the other person. Friendship with the other person had no effect on the level of caution chosen for him.—*Author abstract.*

2343. Wallsten, Thomas S. (U. North Carolina, L. L. Thurstone Psychometric Lab., Chapel Hill) **Subjectively expected utility theory and subjects' probability estimates: Use of measurement-free techniques.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 31-40. Conducted an experiment to provide measurement-free tests (a) of SEU theory based on the principle of additivity, and (b) of the common assumption that Ss' probability estimates differ from their subjective probabilities inferred from SEU theory by no more than a scale factor. 2 male and 2 female summer college students estimated probabilities of random events used in 31 pairs of gambles. SEU theory accounted for the empirically established indifference of each S within error limits. Each S's estimates were close to his inferred subjective probabilities; 1 analysis supported the assumption that they differed by no more than a scale factor, while another rejected it.—*Journal abstract.*

PHYSIOLOGICAL PSYCHOLOGY

2344. **Ádám, György.** (Eötvös Lóránd U., Budapest, Hungary) **Adatok az interocepció és a tudat összefüggéséhez.** [Data concerning the relation of interoception and consciousness.] *Pszichológiai Tanulmányok*, 1967, No. 10, 67-72.

2345. **Haider, Ijaz & Oswald, Ian.** (U. Edinburgh, Scotland) **Late brain recovery processes after drug overdose.** *British Medical Journal*, 1970(May), Vol. 2(5705), 318-322.—Though recovery of consciousness after drug overdose may occur within a day or 2, the drug itself may not finally leave the brain for another 1-3 wk., and at this late time a withdrawal syndrome can occur, with insomnia, restlessness, raised paradoxical REM sleep, epileptic phenomena, and even delirium. It is proposed that a high degree of drug tolerance and dependence can be rapidly acquired after overdose. 10 case histories are presented. Abnormal sleep features of the patients resolved only slowly over a period of up to 2 mo. after overdose. Data support the view that REM sleep is concerned with processes of brain repair. —*Journal abstract.*

2346. **Lelord, Gilbert.** (Medical Faculty, Bretonneau Hosp., Tours, France) **Aspects psychophysiologiques de l'acquisition et de la mémoire.** [Psychophysiological aspect of acquisition and of memory.] *Revue de Psychologie et des Sciences de l'Éducation*, 1970, Vol. 5(4), 448-468.—Presents a historical review of the evolution of the problem of acquisition and memory from a psychological viewpoint, and summarizes classical methods for observing acquired responses in man and animal. Contributions of anatomophysiological and electrophysiological techniques to the problem of acquisition are emphasized. Biochemical, physical, and mathematical aspects of acquisition are also analyzed. A possible application of the experimental data to psychiatry is suggested. (Flemish summary) (2 p. ref.)—*English summary.*

2347. **Moorcroft, William H., Lytle, Loy D., & Campbell, Byron A.** (Nebraska Psychiatric Inst., Omaha) **Ontogeny of starvation-induced behavioral arousal in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 59-67.—Measured spontaneous locomotor activity of 276 and 4 male Sprague-Dawley neonatal and weanling rats in stabilimeter activity cages scaled to the size of the Ss under a wide range of temperature and food-deprivation conditions. Activity was low for the 1st 10 days of life and then increased sharply, reaching a peak nearly 10 times that of normal adult animals 15-20 days postpartum. Activity then declined rapidly to near-adult levels by 28 days of age. This change in activity levels is correlated with major ontogenetic changes in the structure and functioning of the CNS. It is suggested that these changes may reflect a caudal-rostral sequence of development, in which brainstem excitatory centers and their afferent inputs mature earlier than do the more phylogenetically advanced telencephalic inhibitory centers. (32 ref.)—*Journal abstract.*

2348. **Richelle, Marc.** (U. Liège, Belgium) **Biological clocks.** *Psychology Today*, 1970(May), Vol. 3(12), 33-35, 58-60.—Rhythmic activity is exhibited almost universally by living things. Fruit flies hatch on a regular circadian rhythm and cats learn and retain reinforcement schedules for at least 2 mo. There is some reason to

suspect that these rhythms may develop from biochemical reactions at the cellular level. An unsolved problem concerns how physiological rhythms are related to the experience of time. This problem has relevance for globally mobile people and, even more, for people traveling in space.—*E. J. Posavac.*

2349. **Ried, József.** **Kísérleti kutatások az időjárás előrejelzésnek biopszichés reakciók segítségével történő finomítására.** [Experimental research aimed at refining meteorological prognosis by means of biopsychological reactions.] *Pszichológiai Tanulmányok*, 1967, No. 10, 161-164.

2350. **Winfree, Arthur T.** (Princeton U.) **The effect of light flashes on a circadian rhythm in *Drosophila pseudoobscura*.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3696.

2351. **Zucker, Irving.** (U. California, Berkeley) **Light-dark rhythms in rat eating and drinking behavior.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 115-126.—In 3 experiments with 200 Sprague-Dawley and Long-Evans rats, it was found that following blinding there was a rapid and sustained increase in eating and drinking during the light portion of a light-dark (L-D) cycle. Group nocturnal rhythms in eating and drinking were retained in attenuated form for at least 10 days; 60 days after blinding these rhythms were absent. For sighted Ss the food/water ratio was 3 times greater during the light than during the dark; this difference was greatly reduced almost immediately after blinding. Continuous illumination almost immediately suppressed water intake and abolished group nocturnal rhythms in eating and drinking within 9-11 days. Nocturnal eating and drinking rhythms reentrained within 7-9 days following an inversion of the L-D cycle. Ss blinded between 12 and 36 hr. after such an inversion remained residually entrained to the original L-D cycle for at least 1 mo., but Ss blinded at 48-120 hr. reentrained to the new cycle. These differences persisted for surprisingly long times and suggest that the initial period following a change in environmental illumination is most critical for reentrainment of eating and drinking which may then proceed relatively normally in the absence of further visual stimulation. Nocturnal patterns of drinking were present in essentially adult form in Ss 23 days old; blinding on Day 14 but not on Day 18 or later prevented the appearance of these rhythms. The early perinatal period was not critical for entrainment of eating and drinking rhythms since Ss 1st exposed to alternating L-D patterns of illumination at 59 days of age displayed nocturnal behavior patterns shortly thereafter. The influence of daytime feeding schedules on nocturnal drinking patterns is described and the neural basis for rhythmic light-dependent behavior considered (22 ref.) —*Journal abstract.*

NEUROLOGY

2352. **Bradley, P. B. & Candy, J. M.** (Medical Research Council, Neuropharmacology Unit, Birmingham, England) **Iontophoretic release of acetylcholine, noradrenaline, 5-hydroxytryptamine and D-lysergic acid diethylamide from micropipettes.** *British Journal of Pharmacology*, 1970(Oct), Vol. 40(2), 194-201.—The in vitro iontophoretic release of tritium-labeled acetylcholine and 5-hydroxytryptamine from large and small micropipettes and noradrenaline and LSD from small micropipettes was determined by liquid

scintillation counting. The release was directly proportional to the electrical charge passed in the range normally used in the iontophoretic study of these compounds. The transport numbers obtained for the large micropipettes were approximately double those with the small micropipettes. A very low transport number was found for LSD. The spontaneous leakage was small and did not vary appreciably with time. The iontophoretic release of acetylcholine in vitro agreed with the in vitro measurements. The brainstem tissue concentration of LSD after iv injection into 3 intact and 4 decerebrate cats was determined.—*Journal abstract.*

2353. Burbaeva, G. Sh. & Lozovskii, D. V. (Inst. of Psychiatry, Moscow, USSR) *K immunokhimicheskomu issledovaniyu belkov mozga cheloveka.* [On an immunochemical study of the proteins of the human brain.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1971(Jan), Vol. 26(1), 50-55.—Studied the protein composition of the gray and white matter in different lobes of the human cerebral hemispheres, using differential disk-electrophoresis on polyacrylamide gel. Differences in the protein composition between gray and white matter were disclosed, but no relationship was discerned between protein composition and individual lobes. The protein composition of the cortical gray matter was studied analogously. Precipitation tests showed that cortical gray matter contained minimally 7 antigens, of which several were identical with those found in human serum and liver, 3 were organo-specific, and 1 was, to all appearances, species-specific. (English summary)—*J. D. London.*

2354. Gardner-Medwin, A. R. (University College, London, England) *Modifiable synapses necessary for learning.* *Nature*, 1969(Aug), Vol. 223(5209), 916-919.—Elaborates a system in which most modifiable synapses "can in principle be the mechanism underlying memory in a network similar... to the nervous system," even where the synaptic modification is not long lasting. It is argued that even the simplest types of synaptic modification could provide the basis of both long- and short-term memories if events are coded in the nervous system as bursts of impulses rather than single spikes. (18 ref.)—*S. Appelle.*

2355. Hanus, Marguerite & Boisacq-Schepens, Nicole. (U. Louvain, Neurophysiology Lab., Belgium) *Mécanismes neurophysiologiques du mouvement.* [Neurophysiological mechanisms of movement.] *Revue de Psychologie et des Sciences de l'Education*, 1970, Vol. 5(4), 381-394.—In this approach to the problem of motor function, a 1st question concerning its localization is asked. At each level of the CNS the pathways of motor outputs and sensory inputs are described. A 2nd question dealing with function is then considered. It is shown that from the lowest to the highest level of the CNS, a more and more perfect sensorimotor integration is progressively accomplished in view of the elaboration of a well adapted movement. (Flemish summary) (2 p. ref.)—*English summary.*

2356. Ison, James R. & Leonard, Dale W. (U. Rochester) *Effects of auditory stimuli on the amplitude of the nictitating membrane reflex of the rabbit (Oryctolagus cuniculus).* *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 157-164.—Describes a series of 5 experiments with a total of 64 New Zealand rabbits. Results provide temporal and intensity data on the dynamic laws of the reflex, describing the time course of facilitation and inhibition

of the nictitating membrane reflex as determined by preceding momentary and prolonged auditory stimulation. Prolonged stimulation provided facilitation which (a) was directly related to stimulus intensity, (b) increased in an S-shaped function following stimulus onset, and (c) declined in a negatively accelerated decay function following stimulus offset. Momentary stimulation provided inhibition which: (a) was inversely related to stimulus intensity, and (b) was nonmonotonically related to time since stimulus offset, 1st increasing, then decreasing in extent as the interval increased. Since reflex modification occurred in the absence of any reliable evidence for conditioning, implications for the conditioned diminution phenomenon in classical conditioning are discussed.—*Journal abstract.*

2357. Lachman, Sheldon J. (Wayne State U.) *Learning and brain function: A theory of neural facilitation and defacilitation.* *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 59-60.—Of the variety of responses which occur as a consequence of stimulation in an instrumental learning situation, those leading to reward provide excitations to a facilitating neural center, the effects of which are to strengthen the connections between neurons in the sequence leading to the rewarded response. Those leading to punishment provide excitations to a defacilitating neural center, the effects of which are to weaken the connections between neurons in the sequence leading to the punished response. Multiple alternative routes, between particular stimulation and particular response, are simultaneously established and at different CNS levels.—*Author abstract.*

2358. Vanderwolf, C. H. (U. Western Ontario, London, Canada) *Limbic-diencephalic mechanisms of voluntary movement.* *Psychological Review*, 1971-(Mar), Vol. 78(2), 83-113.—Data from a series of brain-behavior experiments utilizing techniques of ablation, ICS, and electrical recording emphasize the importance of the concept of levels of function in understanding behavior. Initiation, performance, and cessation of voluntary behaviors (e.g., walking, manipulating objects) are associated with activation of ascending pathways from the diencephalon to the hippocampus and neocortex. More automatic behaviors (e.g., chewing, emotional expression) are not directly dependent on these pathways, even when they occur as CRs. Electrical recordings indicate that hippocampal activity, in particular, is closely related to behavior. Wave morphology, amplitude, and frequency, are all related to different aspects of concurrent motor activity. Problems of the definition and mechanism of "voluntary" and "automatic" control of movement are discussed. (7 p. ref.)—*Journal abstract.*

2359. Willows, A. O. (U. Washington) *Giant brain cells in mollusks.* *Scientific American*, 1971(Feb), Vol. 224(2), 68-75. *Tritonia diomedea*, a sluglike nudibranch, has brain cells which can be individually identified because of large size and distinctive color. Tritonia's stereotyped instinctive escape reaction renders it useful for behavioral research. Experiments were conducted to determine the sources of sensory signals to each of several cells, the paths followed by signals along the cells' axonal branches, intercellular interactions, and roles played by various cells in the regulation of behavior. White brain cells apparently influence growth, development, or general behavioral state, but do not

directly affect motor activities. Orange-colored cells are involved in motor activity in a highly predictable fashion. Results support the conclusion that Tritonia's movement sequences are driven by built-in CNS circuits, rather than by reflex chains.—P. Tolin.

2360. Young, J. Z. (University Coll., Medical School, London, England) **What can we know about memory?** *British Medical Journal*, 1970(Mar), Vol. 1(5697), 647-652.—While knowledge about the brain is often seen as central to the problem of memory, little thought has been given to exactly what kind of knowledge about the brain would actually help us to understand memory. The memory system of the octopus is discussed particularly in relation to understanding the relationship between a memory system and a reflex system. The role of classifying systems in memory is discussed and applied to the problem of production and recognition of human speech. The role of association areas, based on evidence of the effects of lesions, is assessed. The role of the elimination of connections producing unwanted alternative possible responses is stressed. The code of the brain and the sets of neurons of which it is made is still unknown to man. It is suggested that the memory system may consist not of isolated separately addressed pieces but of one unified system.—S. R. Diamond.

Neuroanatomy

2361. Blomfield, Stephen & Marr, David. (Inst. of Psychiatry, De Crespigny Park, London, England) **How the cerebellum may be used.** *Nature*, 1970(Sep), Vol. 227(5264), 1224-1228. —3 factors—(a) new anatomical information concerning the origin of the cortico-olivary and cortico-pontine projections; (b) the discovery that olivo-cerebellar fibers branch; and (c) the prediction that these fibers can organize more than simple memorizing phenomena—are related to new input-output relations for the cerebellum, and implications about the role of motor cortex in the learning and control of voluntary movements. It is argued that "the small, superficial pyramidal cells of the cerebral cortex detect incompatibilities in the current deep pyramidal cell activity, and that they modify the behaviour of the cerebro-cerebellar-cerebral loop to cope with this."—S. Appelle.

2362. Korman, Leo A. (U. Florida) **The effect of infantile electric shock on the anatomy of the young rat brain.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4315.

LESIONS

2363. Buerger, A. A. & Fennessy, A. (U. California, Irvine) **Long-term alteration of leg position due to shock avoidance by spinal rats.** *Experimental Neurology*, 1971(Feb), Vol. 30(2), 195-211. —Studied female Long-Evans rats with thoracic or lumbar spinal cord transections. In Exp. I, 9 Ss received shocks whenever they lowered an electrode attached to 1 hind foot into an electrolyte bath; yoked-control Ss received the shocks along with the experimental Ss. Experimental Ss consistently held the foot with the electrode above the electrolyte. During the early minutes of the 2nd phase, a testing situation, in which the experimental and control Ss were both shocked for leg lowering, the experimental Ss received fewer shocks than the controls; the controls eventually withheld the foot. In Exp. II, 4 Ss served as their own controls with 1 hind leg as a yoked control for

the other. Results were analogous, although the differences between the experimental and control legs were less distinct. Results suggest that the lumbosacral spinal cord of mammals relates shock to leg position and directs the leg to avoid shock when leg position is contingent on shock. It is concluded that the spinal cord might be used as a simple system for the study of mammalian learning. (24 ref.)—*Journal abstracts*.

2364. Frumkin, Kenneth. (McGill U., Montreal, Quebec, Canada) **Interaction of LiCl aversion and sodium-specific hunger in the adrenalectomized rat.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 32-40. —Studied 84 adrenalectomized and 42 sham-adrenalectomized male hooded rats having prior experience with either (a) preoperative LiCl, (b) postoperative NaCl, (c) both preoperative LiCl and postoperative NaCl, or (d) neither of these experiences. Sham-operated Ss exposed to LiCl consistently avoided NaCl; adrenalectomized Ss did not. The deaths of 21 adrenalectomized Ss were attributed to the increased toxicity of LiCl for these Ss coupled with an increased tendency for them to drink it. No differences were found between groups of adrenalectomized Ss which had tasted LiCl and groups which had had it stomach-loaded. It is concluded that adrenalectomized rats regulate their salt intake on the basis of need alone. (19 ref.)—*Journal abstracts*.

2365. Gatehouse, Robert W. (State U. New York, Albany) **The role of the pinna in monaural sound localization of cats.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3728.

Brain Lesions

2366. Butler, C. R. (University Coll., Medical Research Council Cerebral Functions Research Group, London, England) **Different effects of temporal lobe lesions on learning of visual pattern discriminations and of a visuomotor coordination task.** *Experimental Neurology*, 1970(Aug), Vol. 28(2), 356-364. —Examined whether learning of a visual guidance response was impaired as severely as pattern-discrimination learning by lesions of the inferior temporal neocortex. 3 groups of 2 split-brain rhesus monkeys were used: (a) Ss who also sustained unilateral removals of the inferior temporal area and the hippocampus, (b) Ss who later received the unilateral lesions and were retrained on the task, and (c) controls. Ss were taught to retrieve a peanut from a revolving container using only 1 eye and the contralateral hand. It was found that (a) the majority of the Ss were more proficient on the final session than on the 1st, indicating that learning had taken place, (b) that learning for the 2 hemispheres did not differ, except for isolated sessions, and (c) that the level reached by the b group was not lost following damage. It is concluded that the learning seen in this experiment does not depend on the temporal lobe structures in the same way as pattern discrimination learning.—*Journal abstracts*.

2367. Casseday, John H. (Indiana U.) **Auditory localization: The role of the brainstem auditory pathways of the cat.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4356-4357.

2368. Deagle, John H. (U. Tennessee) **One-way and shuttle avoidance acquisition and reversal in two strains of septal rats.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4358.

2369. Entingh, Daniel. (U. North Carolina, Medical

School, Chapel Hill) **Perseverative responding and hyperphagia following entorhinal lesions in cats.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 50-58.—Reports 2 experiments with 17 and 10 cats on the effects of entorhinectomies on passive-avoidance behavior. It was found that Ss with large bilateral lesions limited to entorhinal cortex were (a) impaired on the reversal but not the original learning of position habits, (b) displayed deficient passive-avoidance behavior, (c) were hyperactive in the open field, and (d) were hyperphagic for some days after the surgery. The lesions had no effect on the acquisition or the punishment extinction of a 1-way active-avoidance response. Control experiments showed that effects of entorhinectomy on position-habit reversals and open-field activity were not secondary to hyperphagia. The pattern of behavioral deficits suggests that the entorhinal region participates in the suppression of appetitively reinforced responses but not in the suppression of aversively reinforced responses. (23 ref.)—*Journal abstract*.

2370. Goodman, Edward D., Jansen, Paul E., & Dewsbury, Donald A. (Emory U.) **Midbrain reticular formation lesions: Habituation to stimulation and copulatory behavior in male rats.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 151-156.—In an experiment with 30 male Long-Evans rats, Ss with lesions in the midbrain reticular formation did not habituate in a measure of reactivity to handling stimuli as did operated controls and normals. Comparison of pre- and postoperative copulatory behavior in Ss with midbrain reticular formation lesions, and copulatory behavior in control operates and normals revealed that the midbrain lesions left copulatory behavior essentially intact except for some increase in the latency to the 1st mount. (22 ref.)—*Journal abstract*.

2371. Gotsick, James E., Osborne, Francis H., Allen, Carole J., & Hines, Kenneth M. (Morehead State U.) **Factors affecting performance on a shock escape task in rats with septal lesions.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 199-201.—Compared 7 male albino Wistar rats with septal lesions to 7 operated controls on a shock escape task. It was found that little difference existed between the groups initially but the control group decreased the latency of responding over days, while the septal Ss exhibited little change. As a result, the control group was significantly superior to septals in the later stages of testing. An analysis of incidental behavior indicated that the amount of time spent holding the bar paralleled performance on the escape task. The inferior performance of the septal group appeared to be secondary to a failure to remain at the bar during the ITI. It is suggested that this behavior is consonant with a response disinhibition hypothesis of septal lesions, and that incidental behavior may be an important factor in other types of behavioral experiments.—*Journal abstract*.

2372. Isaacson, Robert L. (U. Florida) **When brains are damaged.** *Psychology Today*, 1970(Jan), Vol. 3(8), 38-42.—The effects of early relative to late brain damage were explored in research with cats. Ss were operated on either on the day of birth, at 6 wk. or 3 mo. of age, or as adults. At the age of 1½ yr. Ss began 6-12 mo. of training and testing. On some tasks there apparently was some compensation for early brain damage. Other tasks, however, could not be learned regardless of when the damage occurred. The brains of the cats were then examined. The function of supportive cell reactions in

the brain is not understood although it appeared that the animals performed better in their absence.—E. J. Posavac.

2373. Levinson, Daniel M. (U. South California) **Monocular acquisition and interocular transfer of two types of discriminations in normal and corpus callosally-sectioned guinea pigs.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3731-3732.

2374. Manning, Frederick J. (Walter Reed Army Medical Center, Washington, D.C.) **Punishment for errors and visual-discrimination learning by monkeys with inferotemporal cortex lesions.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 146-152.—Trained 3 normal monkeys and 6 monkeys with bilateral lesions of inferotemporal or foveal prestriate cortex on a series of 8 simultaneous visual discriminations. Training was accomplished (a) solely with positive reinforcers, or (b) with positive reinforcers and electric-shock punishment for errors. With training a, lesioned Ss made significantly more errors than normal Ss, the foveal prestrates being slightly more impaired than the inferotemporals. With training b, the inferotemporals were indistinguishable from the normals, whereas the foveal prestrates Ss made significantly more errors than either of the other groups.—*Journal abstract*.

2375. Massopust, L. C., Wolin, L. R., & Frost, V. (Cleveland Psychiatric Inst., Lab. of Neurophysiology, O.) **Increases in auditory middle frequency discrimination thresholds after cortical ablations.** *Experimental Neurology*, 1970(Aug), Vol. 28(2), 299-307.—Trained 7 male rhesus monkeys to respond to 2 tones (4000 and 5000 Hz.) above selected criterion using frequency discrimination conditioned avoidance procedures. The 4000-Hz tone was increased in frequency through a series of steps approaching 5000 Hz. 5 Ss reached relative frequency discrimination thresholds of 30-50 Hz., 1 reached 60 Hz., and another 125 Hz. 4 Ss having preoperative thresholds of 30-150 Hz. showed remarkable increases in relative thresholds after cortical ablation (400-900 Hz.). Cortical lesions were located in the middle 1/3 of the superior temporal gyrus, including damage to the opercular and insular cortices. 2 other Ss. in which superficial and minimal cortical removals were performed, showed no increase in threshold. 1 S with bilateral ablations performed in the superior 1/3 of the superior temporal gyrus demonstrated minimum increase in threshold of 100 Hz. It is concluded that as the test frequencies reach higher levels a greater area of auditory cortex is needed for criterion discrimination performance.—*Journal abstract*.

2376. Peters, Michael & Monjan, Andrew A. (U. Western Ontario, London, Canada) **Behavior after cerebellar lesions in cats and monkeys.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 205-206.—Reports that lesions of the cerebellar vermis in cats and squirrel monkeys have a taming effect. The lesions extended from the declive to the pyramis and produced slight but persistent changes in some aspects of motor behavior.—*Journal abstract*.

2377. Ravizza, Richard J. (Vanderbilt U.) **Effects of neocortical ablation on hearing and on reflexive responses to sound in a primitive mammal (Delphis virginiana).** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3735.

2378. Schnelle, John F. (U. Tennessee) **Concurrent performances in septally operated rats: One and two**

response extinction. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4371.

2379. Weber, June R. (U. South Dakota) **Effects of dorsolateral frontal lesions on attention in the pigtail monkey.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4375-4376.

Brain Hypothalamic & Hippocampal Lesions

2380. Casebolt, Stephen D. (Illinois Inst. of Technology) **Extinction as a function of hippocampal lesions and acquisition training.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4356.

2381. Grossman, Sebastian P. (U. Chicago) **Changes in food and water intake associated with an interruption of the anterior or posterior fiber connections of the hypothalamus.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 23-31. Studied the effects of transverse knife cuts which interrupted posterior fiber connections of the medial hypothalamus without producing significant cellular destruction in 30 female Sprague-Dawley rats. Hyperphagia and hyperdipsia resulted. Both effects were most pronounced during the 1st 2 wk. after surgery, but food as well as water intake remained significantly elevated 6 wk. after the cuts were made. Similar transverse cuts through the anterior hypothalamus, just anterior to the ventromedial nuclei, also produced hyperphagia and hyperdipsia. In most Ss these effects were transient. Average food intake returned to near-normal levels within 2 wk. and water intake declined to below-normal levels after 4 wk. 3 Ss with anterior cuts which did not appear to involve the ventromedial nuclei directly remained hyperphagic and hyperdipsic. (18 ref.)—*Journal abstract*.

2382. Thomas, Garth J. (U. Rochester, Center for Brain Research) **Maze retention by rats with hippocampal lesions and with fornixotomies.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 41-49.—Studied 39 male hooded rats in groups with subtotal hippocampal lesions, with fornixotomies, and with sham operations. Lesioned Ss were significantly impaired in retention and in savings (errors) in relearning of a 4-unit multiple-U maze. The striking effect was that retention or savings could be well within the normal range, or memory could be severely impaired. Findings suggest that the hippocampal complex does not subserve a unique and necessary mechanism of memory. Other processes, perhaps the development of malfunctioning foci that produced abnormal function of remaining neural tissue, were necessary for the appearance of the behavioral disturbances of memory for the maze habit. (17 ref.)—*Journal abstract*.

2383. Walker, Don W., Means, Larry W., & Isaacson, Robert L. (Veterans Administration Hosp., Gainesville, Fla.) **The effects of hippocampal and cortical lesions on single-alternation go, no-go acquisition in rats.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 29-31.—Trained 4 rats with hippocampal ablations, 4 with cortical control lesions, and 4 normals on a go-no-go single-alternation task in an operant situation. Hippocampectomized Ss were facilitated, compared to normals, in acquisition in terms of latency measure (latency to 1st press on go trials/latency to 1st press on no-go trials). Cortically ablated Ss were deficient compared to normals, in terms of a response measure (total responses on no-go trials/total responses on go trials). A drive stimulus (S^D) was added to go trials after the Ss attained

a low-level criterion and was eliminated after 10 sessions. As measured by performance tests given after elimination of the S^D, no group differences were found in utilization of the S^D.—*Journal abstract*.

2384. Wampler, Richard S. (U. Pennsylvania) **Changes in sleep and arousal accompanying the lateral hypothalamic syndrome in rats.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3741-3742.

BRAIN STIMULATION

Chemical Stimulation

2385. Bandler, Richard J. (Carnegie-Mellon U.) **Direct chemical stimulation of hypothalamus, thalamus and midbrain: Effects on aggressive behavior in the rat.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4352-4353.

2386. Boakes, R. J., Bradley, P. B., Briggs, J., & Dray, A. (Medical Research Council, Neuropharmacology Unit, Birmingham, England) **Antagonism of 5-hydroxytryptamine by LSD 25 in the central nervous system: A possible neuronal basis for the actions of LSD 25.** *British Journal of Pharmacology*, 1970(Oct), Vol. 40(2), 202-218.—5-Hydroxytryptamine (5-HT), acetylcholine (ACh), noradrenaline (NA), glutamate (D,L-homocysteic acid (DHP), glycine, and γ -aminobutyric acid (GABA) were applied to single neurons in the brainstem of decerebrate cats by microiontophoresis. The abilities of LSD 25 methysergide maleate (1 ML 491), and 2-bromo-lysergic acid diethylamide (BOI 148) to antagonize the actions of these compounds were studied. LSD 25 antagonized 5-HT excitation of single neurons when applied iontophoretically or administered iv. LSD 25 also antagonized glutamate excitation of neurons which could be excited by 5-HT. Inhibitory effects of 5-HT, the action of glutamate on neurons which could be inhibited by 5-HT, and the actions of all the other compounds tested were unaffected by LSD 25. Iontophoretically applied 1 ML 491 was also a specific antagonist to 5-HT and glutamate excitation but was less potent than LSD 25. BOI 148 rarely exhibited antagonism. It is suggested that antagonism to 5-HT and glutamate excitation of brainstem neurons may be the basis of the psychotomimetic action of LSD 25. It is also suggested that there may be similarities in the mechanisms by which 5-HT and glutamate produce excitation where they act on the same neuron. (6 ref.)—*Journal abstract*.

2387. Cerny, Veronica A. (Louisville) **Influence of the hypothalamus on the mating behavior of the female cat.** *Dissertation Abstracts International* 1970(Dec), Vol. 31(6-B), 3670-3671.

2388. Laverie, R. & Taylor, K. M. (U. Otago Medical School, Dunedin, New Zealand) **Effects of intraventricular 2,4,5-trihydroxyphenylethylamine (6-hydroxydopamine) on rat behaviour and brain catecholamine metabolism.** *British Journal of Pharmacology*, 1970(Dec), Vol. 40(4), 836-846.—6-Hydroxydopamine (200 μ g injected intraventricularly) caused depletion of noradrenaline from all regions of rat brain within 2 hr. after injection but depletion of dopamine in the brain was observed only from 2 days after injection. Both catecholamines remained depleted for more than 32 days. Rats treated with intraventricular 6-hydroxy-

ydopamine were sedated and lethargic, with reduced spontaneous and exploratory activity, for periods of up to 8 days after injection. Conditioned avoidance responding was abolished or reduced for a similar period. Intraventricular 6-hydroxydopamine caused a prolonged reduction in the amount of labeled catecholamines in store 4 hr. following an intraventricular injection of ³H-dopamine. During the 1st 6 hr. after 6-hydroxydopamine injection, there was a marked increase in neutral and acid metabolites from the labeled catecholamines. A comparison of the behavioral and biochemical effects of intraventricular 6-hydroxydopamine and reserpine suggests that both drugs affect catecholamine storage mechanisms but by different mechanisms. It was not possible from these experiments to correlate behavioral changes with either catecholamine storage or metabolism. (15 ref.)—*Journal abstract.*

2389. Marley, E. & Stephenson, J. D. (Inst. of Psychiatry, London, England) **Effects of catecholamines infused into the brain of young chickens.** *British Journal of Pharmacology*, 1970(Dec), Vol. 40(4), 639-658.—Infused (–)-noradrenaline, (–)- α -methylnoradrenaline, and (–)-isoprenaline into various brain regions of 12-21 day chicks. When infused into the hypothalamic area, but not the cerebral hemisphere or posterior mesencephalon, these amines produced behavioral sleep, lowered temperature and blood pressure, and reduced oxygen consumption. Electrocorical sleep activity usually ensued but this was not marked and frequently dissociation between electrocorical activity and behavior occurred. After MAO inhibition, which prolonged the action of noradrenaline, dopamine had similar effects. The effects of the catecholamines were prevented or substantially reduced by pretreatment with phenoxybenzamine given iv or into the hypothalamus but not by iv injection of propranolol. However, intrahypothalamic infusion of propranolol prevented the temperature, but not the behavioral effects of noradrenaline. The fact that the effects were similar but more intense, apart from electrocorical changes, and of longer duration than those seen after iv injection of catecholamines suggests that in young chicks these amines penetrate from the blood into the brain and elicit their effects through a localized region, presumably the hypothalamus. (57 ref.)—*Journal abstract.*

Electrical Stimulation

2390. Altman, Jack L. & Wishart, Thomas B. (U. Western Ontario, London, Canada) **Motivated feeding behavior elicited by electrical stimulation of the septum.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 105-109.—Electrical stimulation of the septal region of the rat brain was found to induce a poststimulation sequence of shaking, grooming, and feeding in an experiment with 5 male albino and 5 male black-hooded rats. This stimulation was capable of maintaining an operant response to obtain food in the sated S. In the deprived S, such stimulation depressed operant responding for food. 2 hypotheses, both involving seizure activity in the limbic lobe, were proposed to account for these results. (15 ref.)—*Journal abstract.*

2391. Asdourian, David & Andrezik, Joseph. (Wayne State U.) **Cerebellar stimulation is effective as a CS at low stimulation intensities in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 165-170.—Utilized stimulation of cerebellar cor-

tical areas as the CS in a 2-way avoidance task with 17 male albino Holtzman rats. The stimulation remained effective in maintaining avoidance behavior even though stimulation intensities were reduced 40-90% below forced-movement thresholds. For all but 2 Ss that learned the task, the lowest effective stimulation amperages were between 4-80 μ a., making it unlikely that (a) there was current spread to the brainstem, or (b) the signal used as the CS consisted of proprioceptive information elicited by forced movement.—*Journal abstract.*

2392. Delgado, Jose M. (Yale U., Medical School) **ESB.** *Psychology Today*, 1970(May), Vol. 3(12), 48-53.—Reviews the effects of electrical stimulation of the brain in controlling aggression, rage, fury, fear, anger, feelings of pleasure, and laughing. Whether electrical stimulation will be a tool of governments is a question which must be faced. The precedent for the official manipulation of personal biology has already been made in the field of public health. Here the results have been beneficial. The wise use of electrical stimulation could similarly lead to a better life for man.—E. J. Posavac.

2393. Edwards, Stephen B. (Yale U.) **The corticospinal control of striking in attack behavior elicited from the midbrain.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3672

2394. Faircloth, Kathleen P. (U. Alabama) **A comparison of the reinforcing effects of self and imposed electrical brain stimulation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4359-4360.

2395. Fog, R., Randrup, A., & Pakkenberg, H. (St. Hans Hosp., Psychopharmacological Lab., Roskilde, Denmark) **Intrastratial injection of quaternary butyrophenones and oxypertine: Neuroleptic effect in rats.** *Psychopharmacologia*, 1971, Vol. 19(3), 224-230.—In an experiment with white Wistar male rats, it was found that bilateral intrastratial microinjections in rat brains of quaternary neuroleptic drugs of the butyrophenone type (haloperidol, benperidol, floropipamide) and the indole type (oxypertine) antagonized amphetamine-induced stereotyped behavior, with the development of catalepsy. These 2 behavioral effects were also typical for neuroleptics given subcutaneously. No effect was observed when placebo was injected intrastratially or when quaternary haloperidol was injected into the thalamus or hippocampus. The neuroleptic effect may be exerted through dopaminergic mechanisms in the corpus striatum.—*Journal abstract.*

2396. Gordon, Arthur & Baum, Morrie. (McGill U., Montreal, Quebec, Canada) **Increased efficacy of flooding (response prevention) in rats through positive intracranial stimulation.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 68-72.—Trained 4 groups of 6 female hooded rats to avoid severe shock (1.3 ma). Subsequently, 2 groups received 5 min. of flooding (response prevention), while the other 2 spent an equal amount of time in a neutral environment. Flooding consisted of thwarting the learned avoidance response while forcing the S to remain in the feared situation. During this 5-min period, 1 flooding and 1 nonflooding group received positive intracranial stimulation. Results showed that the group receiving both flooding and stimulation extinguished more rapidly than any other group. No other differences in rate of extinction were found between any other 2 groups.—*Journal abstract.*

2397. Kogan, A. B. & Kompaneets, E. B. (Rostov State

U. USSR) **Uslovnoreflektornoe differentsirovanie mozaik vzbuzhdeniya vyzvannykh pryamym elektricheskom razdrazheniem zritel'noi kory.** [Conditioned discrimination of excitation patterns produced by direct electrical stimulation of the visual cortex.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 196(1), 243-245.—In 5 chronically prepared cats the salivary reflex was conditioned to spatial patterns of simultaneous electrical stimulation of the visual cortex. In each S, within an area of $3 \times 3.4 \times 4$ mm., 3, 4, 5, or 6 electrodes were implanted in different spatial arrangements. 1 pattern of stimulation through 2 or 3 of these electrodes was reinforced with food while another pattern was not reinforced. Ss learned to discriminate between the 2 patterns. The possibility of proprioceptive conditioning arising out of the motor responses of the Ss to electrical stimulation was rejected since discrimination learning took place even when both the positive and negative patterns of stimulation aroused identical orienting motor responses in an S.—*L. Zusne.*

2398. Levine, M. S., et al. (U. Rochester) **Retrograde amnesic effects of inferotemporal and amygdaloid seizures upon conditioned suppression of lever-pressing in monkeys.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 431-442.—Seizures induced electrically in the inferotemporal cortex, as monitored by EEG recording, produced retrograde amnesic effects upon the development of conditioned suppression of lever-pressing to a visual CS paired with shock UCS but not to a similarly paired auditory CS. Ss were 8 rhesus and 16 stump-tail monkeys. The afterdischarges, which propagated to the amygdala among other structures, appeared to interfere with the association of the visual CS with the noxious UCS without blocking retention of information about the noxious UCS itself. By contrast, seizures induced in the amygdala, which showed a more variable pattern of propagation to inferotemporal cortex, produced no apparent retrograde amnesic effects. (French & German summaries) (24 ref.)—*Journal abstract.*

2399. Nieder, P. & Nieder, I. (Presbyterian U. Pennsylvania Medical Center, Philadelphia) **Antimasking effect of crossed olivocochlear bundle stimulation with loud clicks in guinea pig.** *Experimental Neurology*, 1970(Jul), Vol. 28(1), 179-188.—Investigated the finding that crossed efferent stimulation further reduces a partially masked neural response from the cochlea. A wide range of click intensities was used in testing 9 anesthetized guinea pigs with middle ear muscle attachments cut and differential electrodes placed in the basal cochlear turn. With high level click stimuli efferent stimulation significantly increased the masked neural response. The peak to peak amplitude of the gross neural response of the cochlea was plotted as a function of click level both with and without efferent stimulation with no background stimulus and also with a masking noise present. The input-output functions strongly suggest that there is a low threshold afferent fiber moiety whose response to low level signals is blocked by crossed stimulation, but which are then available for excitation by higher level signals. It is suggested that these fibers are excited by both outer and inner hair cells.—*Journal abstract.*

2400. Pellet, Jean & Dermenonville, Jean M. (U. Marseille, France) **Effets de la stimulation électrique répétitive du vermis au cours du sommeil avec activité corticale rapide.** [Effects of repetitive electrical stimulation of the vermis during sleep with fast cortical

activity.] *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 175-190.—Studied the effects of high frequency electrical stimulation of the vermal cortex (culmen declivé) during paradoxical sleep (PS). The characters of the reactions registered depended essentially on the intensity of the stimulations. The average increase of the cerebellar arousal thresholds from slow to fast sleep was 62%. No significant difference between the average arousal thresholds of Lobules V and VI were noticed. The enhancement of the thresholds was maximal during the periods of PS with phasic activities. These unspecific arousal effects were subject to habituation. Liminal stimulations for the PS arousal induced a postural collapse during wakefulness. Weak unawakening vermal stimulation had transitory effects on the tonic and phasic events of PS: modifications of the hippocampal theta rhythm and suppressions of the phasic waves of the occipital cortex at central level, restorations of the muscular tonus and reductions of clonic twitches and of ocular movements at a peripheral level. The cerebellar arousal might be explained, through vermis-fastigio-reticular systems, by an early disfacilitation of the inhibitory reticular formation, followed by a late poststimulatory facilitation of the reticular activating system. The transitory effects of weak vermal stimulation might be related to a lighter sleep. A depressing and more specific action on the brainstem structures which are responsible for phasic manifestations of PS may also be invoked. (59 ref.)—*English abstract.*

2401. Pellet, Jean & Dermenonville, Jean M. (U. Marseille, France) **Effets éveillants de la stimulation électrique répétitive du vermis au cours du sommeil avec activité corticale lente.** [Arousal effects of repetitive electrical stimulation of the vermis during sleep with slow cortical activity.] *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 165-174.—Studied the arousal effects of high frequency stimulation of the dorsal regions (culmen, declivé) of the vermal cortex in chronic regions (culmen, declivé) of the vermal cortex in chronic guinea pigs during slow sleep. Corticographic and behavioral arousals were easily produced. They presented some characters of reticular arousals: gradation in the manifestations of the responses parallel to the rise of the stimulation intensity, threshold varying with the depth of sleep, and habituation effects. Relations between ascending cortical actions and descending tonic-postural actions were particularly studied, i.e. an early and short cortical activation may be obtained without behavioral arousal for liminal stimulations. These unspecific responses were elicited by voltages of stimulation lower than those which induce the classical specific motor effects. It is suggested that the early phase of the arousal might be explained by a transitory cerebellar disfacilitation of the synchronizing and disactivating structures during cortical stimulation, whereas activating structures might have been caused by a late poststimulatory late cerebellar facilitation of the reticular activating system. The weak unawakening vermal stimulations during slow sleep did not trigger the fast wave sleep nor modify its organization. Several interpretations are proposed regarding the absence of fast sleep induction. (62 ref.)—*English abstract.*

2402. Pond, Fred J., Lidsky, Theodore I., Levine, Michael S., & Schwartzbaum, J. S. (U. Rochester) **Hippocampal electrical activity during hypothalamic-evoked consummatory behavior in rats.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 21-23.—Recorded hippocampal electrical activity in freely moving

Ss during normal feeding behavior, lateral-hypothalamic stimulation, and during eating and drinking induced by such stimulation. Ss were 3 male Holtzman rats that displayed stimulus-bound consummatory behavior. In contrast to the irregular and desynchronized hippocampal activity observed during normal feeding behavior, stimulus-bound eating and drinking were associated with synchronization of hippocampal activity. The peak frequency of theta rhythms during such elicited consummatory behavior was 1-2 Hz. below that evoked by the stimulation in the absence of consummatory objects. Results point up differences between normal and stimulus-evoked consummatory behavior and the influence of consummatory activity upon electrophysiological state.—*Journal abstract.*

2403. Sledjeski, Michael B. (U. California, Berkeley) **The defensive reactions elicited by stimulation of the hypothalamus and central gray.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4372.

2404. Vardaris, Richard M. & Schwartz, Karen E. (Kent State U.) **Retrograde amnesia for passive avoidance produced by stimulation of dorsal hippocampus.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 131-135.—Produced retrograde amnesia (RA) in 24 male albino Holtzman rats receiving low-level hippocampal stimulation (ESB) immediately following footshock (FS) in a 1-trial passive avoidance situation. Ss given ESB without FS showed no avoidance and those receiving FS without ESB avoided maximally. The role of hippocampal after-discharges in RA is discussed.—*Journal abstract.*

2405. Vrtunski, Predrag. (Case Western Reserve U.) **Dynamic properties of the intracranially reinforced (ICR) response.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4375.

2406. Wyers, Everett J. & Deadwyler, Samuel A. (State U. New York, Stony Brook) **Duration and nature of retrograde amnesia produced by stimulation of caudate nucleus.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 97-103.—In an experiment with 112 male albino rats, it was found that Ss given a single brief footshock while standing upright and drinking from a water tube were slow in returning to the tube and drinking when tested 24 hr. later. When single pulse bilateral electrical stimulation of the caudate nuclei followed the footshock they were quick to return and drink. This retroactive effect of the stimulation was temporally graded. It resulted from a retrograde amnesia produced by the stimulation. A delay of 5 min. was effective. A further experiment repeating the treatment a 2nd time indicated that a 15-min delay was not effective. Another experiment repeated the treatment 4 times. Rate of learning (avoidance of the tube) increased as the delay of stimulation increased indicating that the stimulation was stopping the encoding of short-term associative learning into memory at the time of its application. (21 ref.)—*Journal abstract.*

2407. Young, A. Grant & Galluscio, E. H. (Louisiana State U.) **Effects of ECS on one-trial learning following continuous- and partial-reinforcement training.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 43-44.—Trained 32 naive male albino rats to leverpress for sucrose using a discrete trial procedure. $\frac{1}{2}$ of the Ss were trained on a CRF schedule, and the other $\frac{1}{2}$ on a fixed-ratio (FR) schedule. Following acquisition, for $\frac{1}{2}$ of the Ss in each group, a leverpress produced footshock followed by ECS. For the remaining Ss, a leverpress

produced footshock only. Results show that suppression of the leverpress response due to footshock was reduced by the ECS, regardless of the acquisition reinforcement schedule. Results also show that FR-trained Ss failed to show the PRE in extinction.—*Journal abstract.*

ELECTRICAL ACTIVITY

2408. Arutyunyan, S. A. (Orbeli Inst. of Physiology, Erevan, USSR) **Issledovanie fonovoï elektricheskoi ritmiki kory mozga i nekotorykh podkorkovykh struktur pri vyrabotke uslovykh reflektsov u koshek.** [Study of background electrical rhythm in the cortex of the brain and in several subcortical structures when elaborating conditioned reflexes in cats.] *Doklady Akademii Nauk Armyanskoi SSR*, 1969, Vol. 48(5), 307-312.—Ss were 12 adult cats with chronically implanted electrodes in the visual, auditory, motor, and associative cortical areas and in the lateral geniculate body and mesencephalic reticular formation. Background (spontaneous) electrical activity of different parts of the brain was studied as affected by the elaboration of positive and inhibitory motor-alimentary CRs to light. The data suggest that a shift in the direction of the higher frequencies is the most general electrophysiological effect of the excitatory processes in spontaneous rhythms, whereas inhibitory reactions are expressed in the EEG by a prevalence of the less frequent rhythms and by the appearance in the visual cortical areas of bursts of spindlelike activity. The electrographic similarity of the different forms of internal inhibition confirm the genetic commonality of their origin. (Armenian summary) (15 ref.)—*J. D. London.*

2409. Bessou, P., Burgess, P. R., Perl, E. R., & Taylor, C. B. (U. Utah, Medical School) **Dynamic properties of mechanoreceptors with unmyelinated (C) fibers.** *Journal of Neurophysiology*, 1971(Jan), Vol. 34(1), 116-131.—Unmyelinated (C) fibers were recorded from peripheral nerves of anesthetized cats and intracellular recordings were obtained from cell bodies of C fibers. Gentle mechanical stimulation excited these fibers, but they showed little capacity to signal rapid changes in stimulus: they were incapable of following an oscillating stimulus above 1 Hz. They were excited by brief mechanical pulses and adapted gradually to a steady stimulus. Their receptive fields were small and not excited by gentle hair movement.—*G. Westheimer.*

2410. Blankenship, James E., Wachtel, Howard, & Kandel, Eric R. (New York U., Medical School) **Ionic mechanisms of excitatory, inhibitory, and dual synaptic actions mediated by an identified interneuron in abdominal ganglion of Aplysia.** *Journal of Neurophysiology*, 1971(Jan), Vol. 34(1), 76-92.—The interneuron L10 in the abdominal ganglion of Aplysia mediated inhibitory potentials in some cells and or excitatory potential in others. Early inhibitory postsynaptic potentials produced by the cell was Cl^- dependent; the excitatory postsynaptic potentials were Na^+ dependent. The effects were also produced by iontophoretically applied acetylcholine, suggesting that the latter is the natural transmitter released by the interneuron at all its branches.—*G. Westheimer.*

2411. Braden, Karen B. (Case Western Reserve U.) **A quantitative investigation of somatosensory coding in single cells of the cat mesencephalic reticular formation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4355-4356.

2412. Dow, B. M. & Dubner, R. (National Inst. of Health, Bethesda, Md.) Single-unit responses to moving visual stimuli in middle suprasylvian gyrus of the cat. *Journal of Neurophysiology*, 1971 (Jan), Vol. 34(1), 47-55.—About $1/3$ of single neurons in the anterior portion of the middle suprasylvian gyrus of the chloralose-anesthetized cat responded preferentially to moving stimuli. Some of the cells had a very large receptive field responding to any brisk movement stimulus; others had a small receptive field with some directional sensitivity. Ablation experiments showed that the ipsilateral hemifield was relayed via the contralateral visual cortex and corpus callosum. The colliculi did not seem involved.—G. Westheimer.

2413. Inouye, Tsuyoshi & Shimizu, Akira. (Osaka U. Medical School, Japan) The electromyographic study of verbal hallucination. *Journal of Nervous & Mental Disease*, 1970 (Dec), Vol. 151(6), 415-422.—Investigated the hypothesis that auditory hallucinations are expressions of "inner speech." All Ss experienced frequent auditory hallucinations. Bipolar electrodes were used to obtain EMG recordings of change in potential for 5 muscles. Ss were instructed to depress a switch whenever experiencing an auditory hallucination. Switch pressing and EMG changes are associated 47.6%. EMG change also is strongly associated with experienced "loudness" of the hallucination ($p < .005$). (29 ref.)—R. A. Denis.

2414. Kyler, Harry J. (Lehigh U.) An investigation of the possible neural mechanisms of slow wave sleep. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3730.

2415. Musland, Richard H., Chow, Kao L., & Stewart, David L. (Stanford U. Medical School) Receptive-field characteristics of superior colliculus neurons in the rabbit. *Journal of Neurophysiology*, 1971 (Jan), Vol. 34(1), 148-156.—Extracellular recording within the superior colliculus of unanesthetized paralyzed rabbits gave cells that could be classified into cells with concentric antagonistic surrounds (12%), with uniform fields (22%), movement sensitivity (23%), directional selectivity (9%), and with a hypercomplex elongated receptive field (19%).—G. Westheimer.

2416. Ong, Jin & Fisher, Mark A. (Southern Cal. of Optometry) Effect of visual size on galvanic skin response. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 64(Pt. 1), 85-86.—Investigated GSR latency, mean amplitude, and quiescent or postreading time during or after reading paragraphs of various acuity levels. The Beckman Dynograph with miniature skin electrodes was used to record GSR of 6 undergraduates. Results show that latency varies with letter size exponentially, that letter size has no effect on amplitude, and that postreading time and letter size varies negative-linearly.

2417. Pinel, John P., Malbury, Charles W., & Corcoran, Michael E. (U. British Columbia, Vancouver, Canada) The incubation effect in rats: Skin resistance changes after footshock. *Physiology & Behavior*, 1971 (Feb), Vol. 6(2), 111-114.—Measured the skin resistance of 25 naive male black hooded rats at a resistance of 25 ohms using a 500 Hz sine wave bridge apparatus for 2 min. on each of 3 consecutive days. On the 4th day a footshock (FS) was administered to 4 groups of Ss but not to a 5th control group. Skin resistance was then measured 1 min., 1 hr., 5 hr., or 24 hr. after FS. Skin resistance was found to increase over the 1 hr. after FS tests, and a decrease in skin resistance was produced by FS in those Ss tested 1 min. or 1 hr. after

FS. Findings conflict with the hypothesis that the incubation of freezing and fear is a function of time after a stressor. FS is postulated as a function of anxiety. (10 ref.)—J. J. L. L.

2418. Routhak, A. (Ed.) Dlitel'nye elektricheskie potentsialy nervnoi sistemy. I. [Electrical potentials of the nervous system. I.] *Trudy, USSR Med. Akad. Nauk*, 1970, 330 p.

2419. Ruzinov, V. S., Nivets, T. B., & Fersht, V. L. (USSR Academy of Sciences, Inst. of Higher Nervous Activity & Neurophysiology, Moscow) Dlitel'nye elektricheskie potentsialy v kore bol'shogo mozga i ikh funktsional'noe znachenie. Prolonged electrical potentials in the cerebral cortex and their functional meaning. In A. I. Routhak (Ed.), "Dlitel'nye elektricheskie potentsialy nervnoi sistemy." (See PA Vol. 46, Issue 2, 282, 1971.) Studies of the effects of the shifts of cortical potentials (CPI) by means of electrodes were accompanied with the administration of electric stimulation was applied to the following locations: (a) cerebral cortex, (b) subcortical structures, specific and nonspecific of the thalamus nuclei, and (c) reticular formation of the brain. The variables were: change of CPI and/or resulting from changing the stimulus intensity, (b) direction of shift, (c) nature of response, whether diffuse or localized, and (d) effect of pharmacological agents. The shifts of CPI during the stimulation of the cortex induced the appearance of temporary excitation and inhibition of reflexes, inhibition of the excitability of the cortex, and disappearance of the excitatory CPI. It is pointed out also that the shifts of CPI induce the change in the polarization of the neuron membrane and the facilitation of the neuron postsynaptic potentials. (11 ref.)—H. H.

2420. Shean, G. D. (Can. of Women & Men) Instrumental modification of the galvanic skin response: Conditioning or control? *Psychological Monographs*, 1971, Vol. 44, No. 1, 1-11.—To determine the effects of the GSR on the response which can be conditioned, 20 female Ss were given 15 instructions. 15 male and 13 female Ss were assigned to 2 groups. Group 1 received explicit instructions about the response-shock contingencies. Group 2 was told that shock would follow the lights on some trials. Results indicate that GSR can be both increased and decreased by explicit instrumental contingencies. However, the results do not appear to have resulted from direct instrumental conditioning of the GSR, but rather from secondary conditioning of the GSR by the shock. (10 ref.)—J. J. L. L.

2421. Stewart, David L., Chow, Kao L., & Musland, Richard H. (Stanford U. Medical School) Receptive-field characteristics of lateral geniculate neurons in the rabbit.

2422. Stewart, Richard P. & Hill, Frances A. (Montana) Effects of instruction and interstimulus interval in human GSR conditioning.

beta) which are considered expressions of the present and past, there is a constant phenomenon of balance for each phase of central nervous activity. This alternating must be studied in the various modifications of the operative function of nervous structures as well as in prevalent moments of CNS activity, e.g., waking and sleeping. The active state of the organism is studied as a moment of supremacy of the "past" component on a level with structures of consciousness, where the supremacy of the "present" leads to a state of greater reflection and to an "inwardness." In the 2 alternating moments the component which is not prevalent passes in the former case to axial structures and in the latter case to subcortical circuits. (English summary)—*A. M. Farfaglia*.

2430. Székely, József I. & Csáki, Péter. (Medical U. of Budapest, Inst. of Biology, Hungary) **Az elektroencefalogram matematikai analizisének néhány kérdéséről.** [Problems in the mathematical analysis of the electroencephalogram.] *Pszichológiai Tanulmányok*, 1967, No. 10, 749-754.

SENSORY PHYSIOLOGY

2431. Blakemore, Colin; Carpenter, Roger H., & Georgeson, Mark A. (U. Cambridge, Physiological Lab., England) **Lateral inhibition between orientation detectors in the human visual system.** *Nature*, 1970 (Oct), Vol. 228(5266), 37-39.—Required Ss to set a comparison line to a position parallel to a standard line, oriented 30° from the horizontal. The standard line was 1 of 2 lines forming the angle-arms of a variable-magnitude angle. Comparison settings were analyzed as a function of the position of the 2nd angle arm, i.e., as a function of angle size. Results suggest that acute angles were perceptually expanded on the order of 10°, while obtuse angles were perceptually contracted, but to a lesser extent. Results are discussed in terms of a neural system for orientation detection in which mutual inhibition between neighboring columns in the visual cortex, each containing cells tuned to a specific orientation, interact so as to perceptually displace 2 lines of different orientations. (19 ref.)—*S. Appelle*.

2432. Hoisman, Nancy A. (U. California, Los Angeles) **Effects of monoptic and dichoptic presentation of two-flash recovery in the visual system of the cat.** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7-B), 3875.

2433. Meulders, Michel. (U. Louvain, Lab. of Neuropsychology, Belgium) **Neuropsychologie et perception visuelle.** [Neuropsychology and visual perception.] *Revue de Psychologie et des Sciences de l'Education*, 1970, Vol. 5(4), 372-380.—Discusses several topics in visual psychophysiology in relation to recent neuropsychological research: (a) role in constancy of contour perception, (b) influence on movement perception of active and passive eye movements, and (c) perceptual unity caused by harmonization and selection of sensory informations and generalization of visual learned behavior. (Flemish summary) (24 ref.)—*English summary*.

2434. Táncozs, Zsolt. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A vizuális integráció centrális mechanizmusairól.** [The central mechanisms of visual integration.] *Pszichológiai Tanulmányok*, 1967, No. 10, 73-84.

2435. Váriné-Szilágyi, Ibolya. (Hungarian Academy of Sciences, Psychological Inst., Budapest) **A modern**

tudomány az emberi látórendszer munkájának aktív jellegéről. [Modern science and the active character of the operation of the human visual system.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 403-420. Establishes a genetic and functional connection between perception and behavior. (English & Russian summaries)—*M. Moore*.

BIOCHEMISTRY

2436. Efron, Daniel H., Harris, S. Richard; Manian, Albert A., & Gaudette, Leo E. (National Inst. of Mental Health, Chevy Chase, Md.) **Radioassay of chlorpromazine and its metabolites in plasma.** *Psychopharmacologia*, 1971, Vol. 19(3), 207-223.—Conditions have been established for the quantitative formation of radio-labeled derivatives of chlorpromazine, chlorpromazine sulfoxide, and their demethylated analogs in plasma extracts. Tritiated N-acetyl derivatives are formed from the demethylated compounds and C¹⁴ quaternary amines from the tertiary amines by acetylation and methylation, respectively. These reactions are quantitative over a wide range of concentrations. The reactions may be performed sequentially when chlorpromazine and its Nor derivatives (or chlorpromazine sulfoxide and its Nor derivatives) exist in a single extract. An extraction procedure has been suggested by which chlorpromazine and its Nors may be separated from chlorpromazine sulfoxide and its Nor derivatives so that each fraction may be subjected to the sequential acetylation and methylation reactions. Recoveries of µg quantities of standards from plasma are less than quantitative, probably because of losses due to glass absorption and protein binding, but may be corrected with appropriate internal standards. As low as 15-20 ng/ml of each compound are measurable in a 3-ml plasma aliquot. The method has been applied to a limited number in vivo experiments in dogs and humans.—*Journal abstract*.

2437. Hafeez, Mohammad A. (U. California, Berkeley) **Studies on the pineal organ in teleost fishes.** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7-B), 4396.

2438. Sharma, V. N., Mital, R. L., Banerjee, S. P., & Sharma, H. L. (S.M.S. Medical Coll., Japur, India) **Pharmacological studies with some newly synthesized phenothiazines exhibiting lesser extrapyramidal reactions.** *Japanese Journal of Pharmacology*, 1969 (Jun), Vol. 19(2), 211-223.—Discusses control of 1969 (Jun), Vol. 19(2), 211-223.—Discusses control of extrapyramidal side effects of the phenothiazines. A review of the literature, regarding the biochemical alterations produced by drug induced parkinsonism, indicates that the only way to reduce the parkinsonism liability of these drugs is to increase their anticholinergic-like activity. Since oximes are generally used as antidotes in case of organophosphorous poisoning, it is suggested that anticholinergic compounds of these types can provide a tranquilizer with less liability for Parkinson's disease. In the present study quaternary oximes of phenothiazine drugs were synthesized and assessed for their parkinsonism liability. Their CNS depressant properties were also studied and compared with their parent drugs. Data indicate that it is possible to decrease the parkinsonism liability to a greater extent, with only a little loss of antipsychotic activity. A positive correlation between these 2 biological actions probably does not exist. (28 ref.)—*Journal summary*.

2439. Wachtel, Howard & Kandel, Eric R. (New York U., Medical School) **Conversion of synaptic excitation to inhibition at a dual chemical synapse.** *Journal of Neurophysiology*, 1971(Jan), Vol. 34(1), 56-68.—The interneuron L10 in the abdominal ganglion of *Aplysia* mediated sequential chemical excitation and inhibition in the Cell L7. The presynaptic neuron produced excitatory postsynaptic potentials in the follower cell at low firing rates, but inhibitory postsynaptic potentials at higher firing rates. The transmitter, acetylcholine, excited 2 separate postsynaptic receptors: an excitatory one which has a low acetylcholine threshold and an inhibitory one with a higher threshold. As a result of these properties, this synaptic connection was extraordinarily sensitive to changes in firing patterns of the presynaptic neuron.—G. Westheimer.

Hormones

2440. Booth, D. A. & Pain, J. F. (U. Sussex, Brighton, England) **Effects of a single insulin injection on approaches to food and on the temporal pattern of feeding.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 17-19.—24 naive male albino rats raised a panel in approaching food more often after their 1st insulin injection than after a control injection. At the same time there was a reduced incidence of long pauses in feeding under the influence of injected insulin. Also, the size of the 1st feeding bout after injection and its ratio to the delay before the next feeding bout both increased. This suggests that insulin elicits hunger by attenuating satiety signals.—*Journal abstract.*

2441. Coville, P. F. & Telford, J. M. (BDH Research, Ltd., Godalming, England) **The effect of thyroid hormones on the action of some centrally acting drugs.** *British Journal of Pharmacology*, 1970(Dec), Vol. 40(4), 747-758.—Determined the effect of administration of thyroxine or thyroidectomy on the pharmacological action of (+)-amphetamine, (benzedrine, direct stimulant), caffeine, hexobarbitone, and morphine in rats or mice. Locomotor activity induced by (+)-amphetamine caffeine was increased by hyperthyroidism and decreased by hypothyroidism. The LD50s of (+)-amphetamine and caffeine in hyperthyroid rats were $1/3$ and $2/3$ that of control rats. With each drug, the LD50 regression lines in hyperthyroid and control rats were not parallel, suggesting that hyperthyroidism modifies the mechanism of the toxic effects. Hypothyroidism reduced toxicity to (+)-amphetamine. The effects of the drugs on the sleeping time in the Ss and controls are discussed. In contrast to rats, a sex difference in the duration of action of hexobarbitone was not found in mice. Thyroxine prolonged sleeping time equally in each sex. Analgesia induced by morphine in mice was unaffected by hyperthyroidism. No increase in sedative or "Straub tail" activity could be detected, but toxicity was increased when higher doses of morphine were used. The mechanism by which thyroid hormones produce these changes in sensitivity to centrally acting drugs is discussed. It is suggested that the effects of thyroxine vary according to whether the mode of action of the drug or its metabolism is modified. (21 ref.)—*Journal abstract.*

2442. Eaton, Gordon G. (U. California, Berkeley) **Perinatal androgen's role in the ontogenesis of coital behavior in the male hamster (*Mesocricetus auratus*).** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4359.

2443. Pappas, Bruce A. & Gray, Peter. (Rockefeller

U.) **Cue value of dexamethasone for fear-motivated behavior.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 127-130. In Exp. I, with 22 naive albino Charles River rats, Ss deprived of water for 24 hr. were administered a single grid shock after emitting 200 licks. Latencies to resume licking were significantly increased by prior ACTH injection but were unaffected by injections of dexamethasone, which inhibits endogenous ACTH, or by corticosterone. In Exp. II, with 40 naive male albino Charles River rats, water-deprived Ss were injected with either dexamethasone or saline, and given 5 shocks in the licking chamber. 24 hr. later they were tested for lick latencies under the same or different injection treatment. Ss shocked and tested under dexamethasone showed equivalent latencies to those shocked and tested under saline injection. However, Ss trained and tested under opposite injection conditions showed significantly shorter latencies than Ss trained and tested under the same drug condition, indicating that the dexamethasone had functioned as a cue.—*Journal abstract.*

2444. Sassin, J. F., et al. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Human growth hormone release: Relation to slow-wave sleep and sleep-waking cycles.** *Science*, 1969(Aug), Vol. 165(3892), 513-515.—Ss were 10-28 yr. old healthy, adult, male volunteers. Ss were allowed normal meals and activity when not under study, but were kept fasting and at rest during experimental sessions. Release of human growth hormone during sleep was significantly related to slow, synchronized stages of sleep and therefore would seem to be controlled by related neural mechanisms. When sleep-waking cycles were reversed by 12 hr., the release of growth hormone with sleep was reversed; this release did not follow an inherent circadian rhythm independent of sleep.—*Journal abstract.*

Drug Effects—Human

2445. Agnew, Neil M. & Ernest, Carole H. (York U., Toronto, Ontario, Canada) **Dose-response and biased set study of an amphetamine and a barbiturate.** *Psychopharmacologia*, 1971, Vol. 19(3), 282-296.—Compared 3 dosage levels of barbiturate and 3 of amphetamine with a placebo, all under 3 set conditions (neutral, stimulant, and sedative). Drug reactions in 315 undergraduates were assessed by performance measures and by self-rating scales administered at a series of standard times following the drug administration to provide drug-time-response patterns. The self-rating scales yielded clear dosage-time-response curves for both drugs at all dosage levels. There was no systematic evidence of set or drug-by-set-effects. Research strategies in human drug studies are discussed. (27 ref.)—*Journal abstract.*

2446. Sidell, Frederick R. & Pless, John E. (Medical Research Lab., Edgewood Arsenal, Md.) **Ethyl alcohol: Blood levels and performance decrements after oral administration to man.** *Psychopharmacologia*, 1971, Vol. 19(3), 246-261. 26 healthy young male enlisted men drank ethyl alcohol (diluted in orange juice) in doses ranging from .5-2 ml/kg (.4-1.6 gm/kg). Levels of performance on 3 measures correlated well with dose and blood alcohol levels and decline of effects paralleled the fall in blood levels. The greatest decrement in performance was on the test requiring hand-eye coordination; lesser decrements were produced on tests of cognitive ability. (22 ref.)—*Journal abstract.*

2447. Tart, Charles T. (U. California, Davis) **Marijuana intoxication: Common experiences.** *Nature*, 1970(May), Vol. 226(5247), 701-704.—Presents the results of a questionnaire distributed to marihuana users and designed to assess the subjective characteristics of a marihuana "high" under natural (nonexperimental) conditions. Sensations (visual, auditory, tactual, gustatory, and olfactory) were typically reported to be enhanced and clarified with marihuana intoxication, although memory was reported impaired. Marihuana users reported feeling more empathetic, sociable, uninhibited, and insightful when "high." Nearly all the commonly reported effects seemed to share the characteristic of being "either emotionally pleasing or cognitively interesting...."—S. Appelle.

2448. Thomas, Timothy R. & Hull, John H. (Alma Coll.) **Effect of an anesthetic placebo on two-point thresholds.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 235-238.—2-point thresholds were measured on the forearms of 14 undergraduates. Threshold measures after the application of Vaseline were significantly lower than those taken after the application of an anesthetic placebo. The magnitude of the differences between thresholds for each S was not related to S's verbalized belief in the effectiveness of this placebo nor to the magnitude of GSR reactivity.—*Journal abstract.*

2449. Vergani, E., Ravizza, L., & Gala, S. (U. Turin, Inst. of Clinical Psychiatry, Italy) **Richerche sul comportamento nell'uomo del tasso di serotonina nelle piastre e dell'acido 5-idrossi-indolilacetico nelle urine per azione di alcuni psicofarmaci.** [Research on human behavior in the analysis of serotonin in platelets of 5-hydroxytryptamine in the urine after action of certain psychotropic drugs.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 843-858. In 6 Ss urinary secretion of 5-hydroxyindolylacetic acid was also assessed in addition to platelet 5-hydroxytryptamine levels. The results are discussed and compared with those reported in the literature. (French, English, & German summaries) (26 ref.)—L. L'Abate.

Drug Effects—Animal

2450. Ahtee, Liisa & Shillito, Elizabeth. (Inst. of Animal Physiology, Cambridge, England) **The effect of benzodiazepines and atropine on exploratory behaviour and motor activity of mice.** *British Journal of Pharmacology*, 1970(Oct), Vol. 40(2), 361-371. Observed male albino mice in red light on a tunnel board in test exploration. Their motor activity was assessed in an open cage, 30 min. after ip injection of drugs. Atropine and methylatropine 5 or 10 mg/kg did not alter the motor activity of the mice, while chlordiazepoxide (librium, minor tranquilizer) 25 or 50 mg/kg and diazepam 10 or 20 mg/kg increased the activity. Especially at the lower of the 2 doses used. All the compounds used except methylatropine adversely affected exploratory behavior. When atropine 10 mg/kg mice was reduced and exploratory behavior was further impaired. Methylatropine did not have this effect.—*Journal abstract.*

2451. Barnett, A., Malick, J. B., & Taber, R. I. (Schering Corp., Bloomfield, N.J.) **Effects of antihistamines on isolation-induced fighting in mice.** *Psychopharmacologia*, 1971, Vol. 19(4), 359-365. A series of antihistamines representing many structural

types and pharmacological spectra antagonized isolation-induced fighting in CF No. 1-S male mice. Antagonism of fighting by these compounds was correlated with anticholinergic potency as measured by prevention of physostigmine-induced lethality but did not correlate with antihistaminic or antitetrabenazine potency. Antagonism of fighting was not related to effects of these drugs on spontaneous motor activity.—*Journal abstract.*

2452. Biederman, G. B. (U. Toronto, Ontario, Canada) **Memory enhancement of a partly-learned discrimination in pigeons by intramuscular injection of physostigmine.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 33-35.—48 male Carneaux pigeons, individually trained in 2 discrimination tasks, with 1 well learned and 1 partly learned, showed improvement in relearning each task following injection of the anticholinesterase physostigmine. A control group, receiving saline after 28 days had elapsed from the original training, showed forgetting of the partly learned discrimination. The 28-day physostigmine group showed improvement in the relearning of the partly learned discrimination. These facts suggest that anticholinesterase injection had facilitated the memory of the partly learned task in the experimental group. The failure of anticholinesterase to produce amnesia, while apparently facilitating memory for a partly forgotten discrimination, suggests that pigeon memory may operate in a different temporal sequence than does rat memory.—*Journal abstract.*

2453. Borgen, Lowell A., Khalsa, J. H., King, William T., & Davis, W. Marvin. (U. Mississippi School of Pharmacy) **Strain differences in morphine-withdrawal-induced aggression in rats.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 35-36.—36 male rats (housed 6/eage) of 3 strains—Sprague-Dawley, Wistar, and Long-Evans—were given ip injections of morphine sulfate in dosages increasing over a 15 day period to a terminal dose of 405 mg/kg/day. Groups of 6 from each strain received saline control injections. Approximately 50 hr. after the last injection, significant increases in fighting behavior were observed in the Long-Evans and Wistar strains, the Long-Evans Ss showing the most aggression. Fighting continued for about 40 hr. and then subsided to control levels. Sprague-Dawley Ss receiving morphine showed no significant increase in aggressiveness over placebo-injected Ss.—*Journal abstract.*

2454. Cicero, T. J., Snider, S. R., Perez, V. J., & Swanson, L. W. (Washington U. Medical School) **Physical dependence on and tolerance to alcohol in the rat.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 191-198. Maintained 24 Holtzman rats on ad lib food and either a forced-intake regimen of 7% alcohol (v/v) or tap water only from weaning (21 days) until 154 days of age. Upon withdrawal of alcohol most of the alcohol Ss were extremely hyperactive and appeared to be engaged in frantic, highly disorganized, exploratory behavior in an open field. The behavior of the water Ss was in marked contrast to these data. Alcohol Ss were also much less responsive to an injected dose of alcohol than water Ss, even though there was no difference in the rate of disappearance of alcohol from the blood. Data suggest a development of a cellular tolerance to alcohol after a chronic exposure period. The intake of alcohol which appeared to exceed the Ss' ability to metabolize it, increased progressively throughout the initial exposure and remained unchanged when water or even a 3rd choice (saccharin) was simultaneously offered. Data would thus seem to suggest that a model for alcohol

addiction is possible in the rat which satisfies, for the 1st time, the classical pharmacologic criteria of addiction, i.e., physical dependence, tolerance, etc. (32 ref.)—*Journal abstract.*

2455 Gage, Michael I. (U. Rochester) **Amphetamine and pentobarbital effects on interresponse time distributions of monkeys reinforced for low sequential variability of interresponse time.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4361.

2456. Guaitani, A., Marcucci, F., & Garattini, S. (Mario Negri Pharmacological Research Inst., Milano, Italy) **Increased aggression and toxicity in grouped male mice treated with tranquilizing benzodiazepines.** *Psychopharmacologia*, 1971, Vol. 19(3), 241-245. Fed N-demethyl diazepam, diazepam, and oxazepam, incorporated in the diet, to albino Swiss male and female mice (10-50 mg/day/kg of body weight) for 6 mo. Increased mortality was observed in grouped male Ss, but not in female or isolated male Ss. Multiple skin lesions and necroses found in grouped male Ss were probably due to increased aggression.—*Journal abstract.*

2457 Hoyland, Valerie J., Shillito, Elizabeth E., & Vogt, Marthe. (Inst. of Animal Physiology, Cambridge, England) **The effect of parachlorophenylalanine on the behaviour of cats.** *British Journal of Pharmacology*, 1970(Dec), Vol. 40(4), 659-667.—Male and female kittens and adult cats in 4 groups of 6 Ss each were given p-chlorophenylalanine orally. After treatment, some of the male Ss showed mounting behavior and the kittens and nonestrous females showed an increase in treading and rubbing which was similar to 1 aspect of preestrous behavior. The treated Ss also appeared to suffer from skin irritation and showed increased restlessness which accompanied sleep deprivation. Injection of 5-hydroxytryptophan stopped abnormal sexual activity and restored normal sleep for about 5 hr. It is concluded that 5-hydroxytryptamine-containing neurons inhibit sexual behavior in cats and that this role can be seen in males and, to some extent, in female Ss. (15 ref.)—*Journal abstract.*

2458. Hutchings, Donald E. & Gibbon, John. (New York State Psychiatric Inst., New York) **The effects of vitamin A excess administered in late pregnancy on discrimination learning.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 211-212.—Maternal vitamin A excess is a teratogenic treatment known to interfere with the histogenesis of the fetal rat CNS. This treatment was administered on Days 14 and 15 of gestation to determine possible behavioral effects in the offspring. Treated Ss learned an operant auditory discrimination more slowly and performed it less efficiently than controls. Because the treated Ss attained a performance level comparable to the controls when an aversive component was added to the schedule, an auditory or intellectual deficit was ruled out. An impairment in attention or motivation was suggested as mediating the treated Ss' poor discrimination performance.—*Author abstract.*

2459. Isaac, Walter. (U. Georgia) **A study of the relationship between the visual system and the effect of d-amphetamine.** *Physiology & Behaviour*, 1971(Feb), Vol. 6(2), 157-159.—In an experiment with 32 male albino rats, it was found that the observed stimulant effect of d-amphetamine as measured by cage activity in the nocturnal animal was at least partially due to the drugs reducing the activity suppressing effect of

illumination. The drug had its greatest effect in combination with a lesion of the superior colliculus.—*Journal abstract.*

2460. Iwahara, Shinkuro & Matsushita, Kazuyo. (Tokyo U. of Education, Japan) **Effects of drug-state changes upon black-white discrimination learning in rats.** *Psychopharmacologia*, 1971, Vol. 19(4), 347-358.—Trained 24 naive male Wistar-Kimichi rats on a black-white discrimination task, using electric shock. After reaching a criterion of 18 out of 20 correct responses in the original discrimination learning (L1), the same discrimination learning was repeated twice (L2 and L3) to the same criterion. Ss were exposed to either a drug-induced state—20 mg/kg chlordiazepoxide (CDP)—or an undrugged state (saline) at each stage of discrimination learning. CDP was generally found to retard the discrimination learning both in terms of correct responses and of running times, although the latter effect was more immediate. A shift in drug state produced a decrease in the percentage of correct responses and this effect was quantitatively about the same whether responses had been overlearned (L3) or not (L2). The same dissociative effect was not found in L3 for those Ss who had previously been trained in both drug states. Contrary to previous studies, running times were not state dependent.—*Journal abstract.*

2461. Kusé, Yoshitoshi, Miyata, Takeshi; Kamikawa, Yuichiro, & Kataoka, Mikiko. (Kamamoto U., Faculty of Pharmaceutical Sciences, Mikiko, Japan) **Pharmacological studies on alicyclic amines: II. Central actions of piperidine, pyrrolidine and piperazine.** *Japanese Journal of Pharmacology*, 1969(Jun), Vol. 19(2), 300-314.—All 3 amines (a) showed notable CNS actions, (b) significantly prolonged hexobarbital sleeping time in mice, (c) effectively blocked the conditioned avoidance response in rats, and (d) did not show significant inhibitory effects on both maximal electrical seizure and pentylenetetrazol. Piperidine and pyrrolidine (a) produced sedation when administered iv to mice in very small doses, (b) showed depressing effects on aggressive behavior in rats and mice, (c) when administered ip, potentiated the tremor following administration of tremorine and produced eventual death; and (d) when administered intraventricularly during pretreatment, prevented appearance of tremor by tremorine, but treatment after the tremor caused potentiation. The significance of central actions of the 3 amines is discussed. It is concluded that piperidine and pyrrolidine show notable central actions similar to those of nicotine and acetylcholine, and that piperazine shows predominant depressing actions on the CNS. (43 ref.)—*Journal summary.*

2462. Kilbey, M. Marlyne & Harris, Robert T. (Texas Research Inst. of Mental Sciences, Houston) **Behavioral, biochemical and maturation effects on early DL-para-chlorophenylalanine treatment.** *Psychopharmacologia*, 1971, Vol. 19(4), 334-346.—Administered DL-para-chlorophenylalanine to albino rats daily from within 8 hr of birth for various lengths of time during the 30-day postnatal cortical development period. In Exp. 1, with 240 F1 Wistar-Kimichi Ss, whole brain serotonin and plasma phenylalanine were measured 24 and 72 hr. posttreatment in 7-, 14-, 21-, and 28-day rats. Data support the hypothesis that DL-para-chlorophenylalanine may be used to institute the biochemical characteristics of phenylketonuria. The DL-para-chlorophenylalanine-treated Ss weighed significant-

ly less at 14 days of age and thereafter and, also, were less strong. 100 mg/kg DL-para-chlorophenylalanine was administered daily from birth through Day 30 for experimental Ss in Exp. II and III. In Exp. II, with 101 F344/I Mai Ss, maturation indices were reported to be retarded in drug-treated Ss for behaviors involving the skeletal-muscular system, and activity measures were reported to be lower at 25, 45, and 121 days of age. Exp. III, with 24 male Ss from Exp. II, showed that acquisition of a conditioned pole climb avoidance and/or escape response measured at 180 days of age was poor in early drug-treated Ss. Data indicate that early DL-para-chlorophenylalanine-treated Ss show some degree of behavioral deficit at maturity. (27 ref.)

—*Journal abstract.*

2463. Komissarov, I. V., Makarova, L. E., & Rudenko, N. Z. (Gorki Medical Inst., Donetsk, USSR) **Mest-anestezirovushchaya aktivnost' elektronodonnogo svoystva molekul anestetikov.** [Tropical anesthetizing activity and the electron-donating properties of anesthetic molecules.] *Farmakologiya i Toksikologiya*, 1970 (Nov), Vol. 33(6), 681-683. —Anesthetine, novocaine, benecaine, xycaine, dicaine, and sovaine were shown to interact intermolecularly with benzoic acid and glycerophosphate in guinea pigs. The greater the electron-donating properties of the anesthetic molecules, the greater was the intensity of the interaction. The anesthetizing activity of the agents correlated satisfactorily with the intensity of the intermolecular interaction of the anesthetics with carboxyl and phosphorus groups. (English summary)—I. D. London.

2464. Kumar, Ramesh. (University Coll., London, England) **Extinction of fear: II. Effects of chlordiazepoxide and chlorpromazine on fear and exploratory behaviour in rats.** *Psychopharmacologia*, 1971, Vol. 19(3), 297-312. —In an experiment with 96 naive female hooded rats, it was found that Ss avoided a distinctive environment in which they had previously received inescapable electric shocks; the amounts of passive avoidance were taken as indices of the levels of conditioned fear on repeated unpunished tests. Chlordiazepoxide, 7.5 and 15 mg/kg tended to reduce fear, but did not accelerate its extinction; 30 mg/kg however, retarded the extinction of fear by making Ss inactive and thus reducing the number of unpunished entries into the fear-evoking environment. The effects of chlordiazepoxide on locomotor activity were complex; entries were increased by all 3 doses of chlordiazepoxide on the 1st trial only, and following this, activity was markedly depressed by 30 mg/kg. Chlorpromazine, however, consistently reduced locomotor activity and while it increased avoidance, possibly by augmenting fear. As a result of this increased avoidance, the extinction of fear tended to be retarded by 1.5 mg/kg of chlorpromazine. The slowing of the free extinction of fear by both of these drugs was critically dependent on the doses used, but in no case was there a beneficial effect, indicating hastened extinction of fear. (44 ref.)—*Journal abstract.*

2465. Liesiene, V. A. (Medical Inst., Kaunas, USSR) **Sravnienie faz estestvennogo sna s deistviem fenamina i aminazina i otsenka srednei chastoty ekzrema EKOg koshki.** [Comparison of the phases of natural sleep with the action of phenamine and aminazine, and evaluation of the mean frequency of ECoG extrema in the cat.] *Farmakologiya i Toksikologiya*, 1970 (Nov), Vol. 33(6), 665-669. —10 cats with implanted electrodes were used to procure a quantitative

evaluation of cortical activity in the phases of natural sleep and in the corresponding ones under the action of phenamine and aminazine (chlorpromazine). Indices employed were mean extremal frequency and mean amplitude of the electrocorticogram (ECoG). However, after im injection of 15 mg/kg aminazine, ECoG of the visual cortical area did not differ from the phases of "slow" sleep with respect to both visual inspection and mean amplitude. At the same time mean extremal frequency was lower than the level of mean extremal frequency of "slow" sleep ECoG desynchronization, produced by im administration of 5 mg/kg phenamine, was accompanied by an increase in the mean extremal frequency of the ECoG of the same cortical area to the level observed during "rapid" sleep. In both cases visual differences in the ECoG and differences in the mean amplitude were not observed. (English summary) (21 ref.)—I. D. London.

2466. Mahju, M. A. & Maickel, R. P. (Nishtar Medical Coll., Multan, Pakistan) **Accumulation of phenothiazine tranquilizers in rat brain and plasma after repeated dosage.** *Biochemical Pharmacology*, 1969 (Dec), Vol. 18(12), 2701-2710. After a single ip dose to rats, chlorpromazine, fluphenazine, promazine, trifluorpromazine, and trimetopazine achieve brain/plasma ratios > 1 , with $1/2$ -lives in brain and plasma of < 10 hr. After 5 doses at 12-hr intervals, brain/plasma ratios of all compounds, except trifluorpromazine, are greater than after a single dose, due to accumulation in the brain. Trifluorpromazine appears to reach a maximum limit in the brain at about 11-12 $\mu\text{g/g}$. The $1/2$ -lives of promazine and trimetopazine in brain and plasma are greater after 5 doses than after a single dose, while those of chlorpromazine, fluphenazine, and trifluorpromazine are essentially the same after 1 or 5 doses. (21 ref.)—*Journal abstract.*

2467. Makarov, V. A. (1st Inst. of Medicine, Moscow, USSR) **Osobennosti vliyaniya aminazina na vyzvanuyu s mindalevidnogo kompleksa sudorozhnuyu elektricheskuyu aktivnost'.** [Specificities of the influence of aminazine on convulsion potentials evoked from the amygdala.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 195(6), 1472-1475. In paralyzed but unanesthetized cats epileptic discharges were produced through electrical stimulation of the basal and lateral nuclei of the amygdala. EEG recordings were made from the amygdala, the cerebral hemispheres, reticular formation, the thalamus, hypothalamus, and the hippocampus. With the lowest stimulating voltages, convulsive discharges were first observed in the reticular formation. With increasing voltage, response spread to other subcortical structures, and only then to the cortex. Aminazine (chlorpromazine) affected both the nature and duration of the convulsive discharges. It decreased the intensity of ongoing convulsive discharges and, if the amygdala was stimulated 15-20 min after the administration of aminazine, such stimulation no longer evoked convulsive potentials. The existing evidence suggests that aminazine acts by blocking the adrenergic substrate of the reticular formation.—L. Zusne.

2468. Markin, V. A. & Mitrofanov, V. S. (Inst. of Pharmacology, Moscow, USSR) **Gistokhimicheskie dannye o vliyani i tvorazizina na aktivnost' nekotorykh flavinovykh dehidrogenaz v golovnom mozge krysa.** [Histochemical data on the influence of fluoracizine on the activity of several flavine dehydrogenases in the rat brain.] *Byulleten' Eksperimental'noi*

Biologii i Meditsiny, 1971(Jan), Vol. 71(1), 43-45.—200 white rats were used in a histochemical study of the influence of fluoracizine [10-(β -diethylaminopropionyl)-2 trifluormethyl phenothiazine hydrochloride] on the activity and distribution of a number of flavine dehydrogenases in the structures of the brain. Fluoracizine has been shown to be markedly antidepressive and able to abolish extrapyramidal disorders arising from neuroleptic treatment. A single injection of fluoracizine produced a moderate or weak reduction of enzymatic activity in many cerebral structures. At the same time in the chronic experiment a distinct activation of the flavine dehydrogenases under study took place in several regions of the cortex and subcortical structures. (English summary)—*I. D. London*.

2469. Masur, Jandira; Märtz, Regina M., & Carlini, E. A. (Santa Casa U., Faculty of Medical Sciences, São Paulo, Brazil) **Effects of acute and chronic administration of cannabis sativa and (Δ^9 -trans-tetrahydrocannabinol on the behavior of rats in an open field arena.** *Psychopharmacologica*, 1971, Vol. 19(4), 388-397.—Studied the effects of acute and chronic administration of (Δ^9 -trans-tetrahydrocannabinol (Δ^9 -THC), cannabis extract, and control solution on the behavior of 117 male and female Wistar rats repeatedly exposed to an open-field arena. After the 1st dose both Δ^9 -THC and cannabis extract significantly decreased defecation, grooming, and rearing; ambulation was not affected. After 20 injections of both marihuana compounds, Ss showed values for defecation, grooming, and rearing near to those obtained during the predrug phase; control Ss, however, showed a significant decrease in these parameters indicating habituation to the open-field. Results are discussed in terms of effects of marihuana on emotional behavior of rats. (30 ref.)—*Journal abstract*.

2470. Matveev, V. F. (Moscow Medical Stomatological Inst., USSR) **Obratimost' izmenenii v golovnom mozge krys, vyzvaemykh dlitel'nym vvedeniem lizergamida (LSD).** [Reversibility of changes in the rat brain, brought on by prolonged administration of lysergamide (LSD).] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1971(Jan), Vol. 71(1), 45-48.—100 3-mo-old white rats were given daily im injections of LSD for a 4-wk period, at the end of which Ss were sacrificed every wk. for 1 mo. Pathomorphological changes, resembling those seen at the end of the period, were retained for about 2 wk. Reversibility of the changes was noted only at the end of the 3rd wk. in the form of increased nucleolar activity and an increased number of Nissl bodies. Binuclear cells were observed at the end of the 2nd and 3rd wk. of the restorative period in the deep cortical layers. Normal reactions to RNA and DNA were restored. The dendritic apparatus remained altered for a long time. The presence of foci of disintegration and of rarefaction in the 3rd-5th cortical layers, thalamus, and hypothalamus and the tendency of the vascular walls and soft cerebral membranes to fibrosis should be viewed as the residual effects of cerebral lesion, brought on by prolonged LSD intoxication and leading to a definite disturbance of normal activity of the brain. (English summary)—*I. D. London*.

2471. McCullough, Deborah O., Milberg, Jane N., & Robinson, S. M. (U. S. Army Research Inst. of Environmental Medicine, Biochemistry & Pharmacology Lab., Natick, Mass.) **A central site for the hypothermic effects of (+)-amphetamine sulphate and**

π -hydroxyamphetamine hydrobromide in mice. *British Journal of Pharmacology*, 1970(Oct), Vol. 40(2), 219-226.—Examined unanesthetized mice, weighing 20-30 gm., for the effect of (+)-amphetamine sulphate and π -hydroxyamphetamine hydrobromide on rectal temperature. The drugs were injected ip or into the cerebral ventricles. Amphetamine produced hypothermia when injected ip in doses of 1-5 mg/kg and intraventricularly in doses of .5-25 μ g. Injections of larger doses—10 mg/kg ip and 400 μ g intraventricularly—resulted in hyperthermia followed by hypothermia. Hydroxyamphetamine produced hypothermia only when given by the intraventricular route; the effect was obtained with .5-25 μ g. An intraventricular injection of 200 μ g resulted in hyperthermia followed by hypothermia. When injected ip the sole effect on temperature was hyperthermia, and this response was obtained with 5 and 10 mg/kg. Hydroxyamphetamine injected ip or intraventricularly in doses which produced hyperthermia reduced the noradrenaline but not the dopamine content of the brain. When injected intraventricularly in smaller doses which produced hypothermia no reduction in the noradrenaline content of the brain was obtained. The hypothermia is attributed to an action on the anterior hypothalamus, and the possibility is discussed that it is brought about indirectly by the release of noradrenaline. The hyperthermia, however, is probably a peripheral effect. (21 ref.)—*Journal abstract*.

2472. McFarlan, Robert A. (U. Houston) **Effects of para-chlorophenylalanine (a serotonin depletor) on conditioned alternation in a choice chamber.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3732-3733.

2473. Meliska, Charles J. (Case Western Reserve U.) **The effects of scopolamine and eserine on runway extinction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3693.

2474. Nikiforova, T. L. (2nd Moscow Medical Inst., USSR) **Vliyanie ionola (2,6-di-*tert*-butil-4-metilfenol) na prodolzhitel'nost' zhizni Drosophila melanogaster.** [Influence of ionol (2,6-di-*tert*-butyl-4-methylphenol) on duration of life of *Drosophila melanogaster*.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1971(Jan), Vol. 71(1), 81-82.—Ionol decreased the average life-span of fruit flies. The decrease was greater in males than in females. The action of ionol was found to intensify with increase of dosage. Results were in contrast to D. J. Harman's findings on the duration of life for mice given ionol, where the preparation was found to increase life-span. In any case, it can be seen that free radicals, neutralizable by ionol, play a decisive role in the aging process.—*I. D. London*.

2475. O'Keefe, Ruth; Sharman, D. F., & Vogt, Marthe. (Medical Research Council, Neuropsychiatry Unit, Carshalton, England) **Effect of drugs used in psychoses on cerebral dopamine metabolism.** *British Journal of Pharmacology*, 1970(Feb), Vol. 38(2), 287-304.—Chlorpromazine (thorazine, minor tranquilizer) 15 mg/kg, given daily to cats for 2 wk., produced a rise in homovanillic acid (HVA) content of the caudate nucleus, whereas the same dose of thioridazine (mellaril, major tranquilizer) lacked this effect. Of these 2 drugs only chlorpromazine causes a high incidence of drug-induced parkinsonism in man. In the mouse, chlorpromazine, thioridazine, and haloperidol increased striatal concentrations of HVA and accelerated the disappearance of dopamine (DA) after inhibition of

catecholamine synthesis with α -methyltyrosine. Oxyperine, another drug apt to produce parkinsonism in man, caused a severe reduction in striatal DA and hypothalamic noradrenaline (NA). Though all the drugs used caused temporary motor disabilities in animals, these bore no resemblance to human parkinsonism, even when treatment was continued for 7 wk or more as it was in cats and monkeys. Even at the high dose of 50 mg/kg, phenoxybenzamine did not increase DA turnover in mouse brain, but it sedated the mice as did the tranquilizers. Atropine sulphate, 25 mg/kg, reduced the HVA content of mouse striatum and partially antagonized the rise in HVA produced by phenothiazines. The effect was surmountable. Possible modes of action of atropine are discussed. 2 types of biochemical changes which may occur in the brain of animals after treatment with drugs apt to cause parkinsonism in man are known: (a) a loss of cerebral catecholamines, as seen after reserpine or oxyperine; or (b) an increase in turnover of DA as after phenothiazines and butyrophenones. (29 ref.)—*Journal abstract*.

2476. Orsingher, Otto A. & Fulginiti, Susana. (Cordoba National U., Inst. of Chemical Sciences, Argentina) Effects of alpha-methyl tyrosine and adrenergic blocking agents on the facilitatory action of amphetamine and nicotine on learning in rats. *Psychopharmacologia*, 1971, Vol. 19(3), 231-240.—DL-amphetamine sulfate (2 mg/kg) and nicotine (2 mg/kg) showed a facilitatory action on the acquisition of a CR in a shuttle-box by white albino rats. This was reversed by pretreatment with α -MT (DL α -methyl-p-tyrosine) (30 mg/kg). Pretreatment with dibenamine (10 mg/kg) impaired the action either of amphetamine or nicotine. Nethalide (5-10 mg/kg) exerted a partial protection on the depressant effect produced by the interaction between dibenamine and nicotine. Ss treated with α -MT (30 mg/kg) and kept in the cold (4-6° C for 3 hr) also showed a depressed learning capacity. DL-Dopa (200 mg/kg) provided a partial protection on the depressive effects caused by the interaction of α -MT with amphetamine, nicotine, or cold. It is suggested that the facilitatory learning action of amphetamine and nicotine involves a common adrenergic mechanism. The depressant effects of amphetamine, nicotine or cold after α -MT treatment are attributed to depletion of "functional pools" of catecholamines. (33 ref.)—*Journal abstract*.

2477. Overton, Donald. (Temple U., Medical School) High education. *Psychology Today*, 1969(Nov), Vol. 3(6), 48-51.—Rats can learn incompatible responses to the same stimulus if they learn one in a drugged condition and the other in a nondrugged condition. The condition and the other in a nondrugged condition. The animal's response can be switched back and forth between these 2 responses by testing it in either a drugged state or a nondrugged state. A response learned under 1 drug may be performed under a different drug. The drugs that produce state-dependent learning in animals are the same ones that produce psychological dependence or addiction in man. (E. J. Bruner)

2478. Peeke, Harman V., LeBoeuf, Burney J., & Herz, Michael J. (U. California, San Francisco) The effect of strychnine administration during development on adult maze learning in the rat: II. Drug administration from Day 51 to 70. *Psychopharmacologia*, 1971, Vol. 19(3), 262-265.—Strychnine sulphate, administered to 26 male Long-Evans rats during development from Day 51-70 affected the rate of maze learning in

adulthood. Ss given the drug in a rich environment learned the maze at a faster rate and with fewer errors than Ss treated with the same drug that reared in a laboratory cage. The performance of 24 Ss given the drug was intermediate to that of the drug-naïve and drug-caged groups. —*Journal abstract*.

2479. Roldán, F., Radli-Weiss, T., & Chocholová, L. (Czechoslovak Academy of Sciences, Inst. of Pharmacology, Prague) Influence of chlordiazepoxide on paroxysmal EEG activity induced by hippocampal and/or thalamic cobalt loci. *Psychopharmacologia*, 1971, Vol. 19(3), 266-272.—Studied the influence of chlordiazepoxide (librium) on the paroxysmal 7-9/sec spike and wave and polyspike EEG discharges induced by chronic cobalt-gelatin implantation into the dorsal hippocampus and/or nonspecific thalamus in 31 Wistar albino rats with electrodes in the frontal cortex, dorsal hippocampus, and the mesencephalic reticular formation. Both low (1.5-9 mg/kg ip) and high (9-15 mg/kg ip) doses of chlordiazepoxide reduced the incidence of paroxysmal EEG manifestations and shortened their duration (when present). Both effects were more pronounced after lower doses. The frequency of spike-wave complexes or spikes within the paroxysmal EEG discharges did not change systematically after chlordiazepoxide. The influence of the drug on the paroxysmal discharges is independent of whether the EEG after chlordiazepoxide is desynchronized or synchronized. In the latter case desynchronization of the EEG by reticular stimulation does not facilitate the occurrence of paroxysmal EEG discharges. —*Journal abstract*.

2480. Roldán, F., Radli-Weiss, T., & Chocholová, L. (Czechoslovak Academy of Sciences, Inst. of Pharmacology, Prague) The influence of barbiturates on paroxysmal EEG activity induced by hippocampal and/or thalamic cobalt loci. *Psychopharmacologia*, 1971, Vol. 19(3), 273-281.—Induced epileptiform, 2 sec spike and wave and polyspike EEG discharges in 31 male albino rats by chronic cobalt-gelatin implantation into the dorsal hippocampus and/or nonspecific thalamus. Low doses of all barbiturates and the potent (70-150 mg/kg) barbital reduced the incidence of the epileptiform discharges simultaneously with the suppression of slow wave EEG activity. After desynchronization by reticular sensory stimulation the paroxysmal EEG patterns then reappeared. The presence of these waves with a reduction of slow wave and partial sleep phases made it difficult to measure the duration of the effect. Low doses of barbiturates seemed to shorten the 7-9/sec spike and wave and polyspike discharges mainly indirectly by depressing the level of arousal. High doses (150-500 mg/kg) of the barbiturates caused an almost complete disappearance of the epileptiform manifestations lasting for several hr. The frequency of spike and wave complexes or spikes within the epileptiform episodes (when present) suddenly increased after barbiturate administration. In the last 10 days the incidence of low doses of barbiturates in increasing suppression of the incidence of the paroxysmal discharges was sometimes observed together with the appearance of epileptiform movements. During the last 24 hr of methohexal administration doses reduced the incidence of spike and wave discharges lasting for several minutes. —*Journal abstract*.

2481. Shilito, Elizabeth E. (Agricultural Research Council, Inst. of Animal Physiology, Cambridge, England) The effect of parachlorophenylalanine on

social interaction of male rats. *British Journal of Pharmacology*, 1970(Feb), Vol. 38(2), 305-315.—Juvenile male rats treated with parachlorophenylalanine showed hair loss round the head and neck extending down the chest and abdomen. Treated isolated Ss did not have this loss of hair, while untreated Ss living in the same cage as treated Ss lost their hair. The loss therefore seems to be caused by increased social behavior. This consists of a greater frequency of chasing each other, rolling over, and social grooming. Adult male rats show an increase in mounting after treatment with parachlorophenylalanine, and this change in behavior was counteracted by treatment with 5-hydroxytryptophan. It is concluded that 5-hydroxytryptamine inhibits sexual behavior in male rats. The increase in social interaction seen in juvenile Ss may be the behavioral precursor of adult sexual behavior. Atropine 2.5 mg/kg blocked all forms of social interaction in adult male Ss, although other activity was not altered.—*Journal abstract*.

2482. Sinitsyna, L. N. (Kirov Medical Inst., Gorki, USSR) Vliyaniye morfina na eksperimental'nye aritmii, voznikayushchie pri élektricheskoi stimulyatsii razlichnykh struktur golovnogogo mozga. [Influence of morphine on experimental arrhythmias when different cerebral structures are electrically stimulated.] *Farmakologiya i Toksikologiya*, 1970(Nov), Vol. 33(6), 683-690.—Immobilized adult cats were used to study the influence of iv administered morphine on rhythmic disturbances of cardiac activity arising with electrical stimulation of structures in the cerebral cortex, di- and mesencephalon. Electrical stimulation of the sensorimotor zone of the cerebral cortex and of structures in the midbrain, thalamus, sub- and hypothalamus produced rhythmic disturbances of cardiac activity. With additional stimulation of structures in the thalamus and midbrain, superimposed upon arrhythmia, an inhibitory effect emerged, expressed in the restoration of the normal EKG. 1-5 mg/kg morphine reduced or completely blocked arrhythmia when the cortical sensorimotor zone and subthalamus were stimulated. With stimulation of structures in the thalamus and midbrain after the injection of 5-10 mg/kg morphine, an increase in rhythmic disturbances of cardiac activity was observed, accompanied by a reduction of the inhibitory effect. 15-20 mg/kg morphine reduced arrhythmias emerging with stimulation of structures in the thalamus and midbrain. (English summary) (24 ref.)—*I. D. London*.

2483. Stolerman, I. P. (University Coll., London, England) A method for studying the influences of drugs on learning for food rewards in rats. *Psychopharmacologia*, 1971, Vol. 19(4), 398-406.—Describes a standardized procedure for assessing quantitatively the acquisition of lever-pressing for food rewards in male hooded rats. Training was carried out by automatic equipment throughout, without shaping the performance of individual Ss, and was broken down into stages of habituation to the test chamber, learning of the magazine response, and learning to associate lever presses with operations of the food magazine (on a CRF schedule). Lever-pressing rate was the main measure of performance, but approaches to the reward area and general motor activity were also recorded. Both the spontaneous rate of lever-pressing and the speed with which the magazine response was carried out were correlated with the subsequent performance under CRF, and might therefore be useful for predicting individual differences

in acquisition. Chlorpromazine and chlordiazepoxide both depressed performance during acquisition, but the mechanisms involved were probably different for the 2 drugs. These may be analyzed further by comparing effects on acquisition with those on established performance, and by testing for dissociation of learning. (25 ref.)—*Journal abstract*.

2484. Tilson, H. A. & Sparber, S. B. (U. Minnesota) Differences in tolerance to mescaline produced by peripheral and direct central administration. *Psychopharmacologia*, 1971, Vol. 19(4), 313-323.—Used a fixed-ratio schedule of food reinforcement to study the differences in tolerance produced by peripheral injections and intraventricular infusions of mescaline hydrochloride in 3 male albino Sprague-Dawley rats. Successive daily administrations of 10 mg. mescaline/kg ip resulted in a decrease in behavioral disruption (tolerance). The following day, intraventricular infusion of a dose of mescaline, previously shown to be approximately equal to the peripheral dose in terms of behavioral disruption, was started. After tolerance to central administration of mescaline was established, 10 mg/kg of mescaline injected ip resulted in behavioral disruption equal to that produced by the 1st ip injection. In Exp. II, with 5 Ss, blood pressure effects of mescaline given ip and intraventricularly were studied. Peripherally administered mescaline produced marked effects on caudally measured blood pressure and increased biting upon and struggling within the restraining device. Mescaline administered centrally did not appear to elicit similar cardiovascular changes. Data suggest that different mechanisms may be involved in the formulation of tolerance to mescaline administered by these 2 routes as measured by means of a fixed ratio reinforcement schedule. (17 ref.)—*Journal abstract*.

2485. Uyeno, Edward T. (Stanford Research Inst., Menlo Park, Calif.) Relative potency of amphetamine derivatives and N, N-dimethyltryptamines. *Psychopharmacologia*, 1971, Vol. 19(4), 381-387.—Evaluated the relative potency of amphetamine derivatives and N,N-dimethyltryptamine (DMT) derivatives in 100 male Long-Evans rats trained to swim through an underwater tube to escape at the other end of the tank. All of the compounds tested significantly increased the starting latency. The time of peak effect of 2,5-dimethoxy-4-ethyl-amphetamine (DOET), 2,5-dimethoxy-4-methyl-amphetamine (DOM), and 6-hydroxy-DMT was estimated at 40 min. after the ip injection and that of DMT, 4-methoxy-DMT, and psilocybin was 20 min. Dose-response curves showed that the increase in the latency was dose-dependent. The descending rank order of potency of the compounds, according to the median effective dose (ED₅₀), was: DOET, psilocybin, DOM, DMT, 4-methoxy-DMT, and 6-hydroxy-DMT.—*Journal abstract*.

2486. van Abeelen, J. H., Smiths, A. J., & Raaijmakers, W. G. (U. Nijmegen, Genetics Lab., Netherlands) Central location of a genotype-dependent cholinergic mechanism controlling exploratory behaviour in mice. *Psychopharmacologia*, 1971, Vol. 19(4), 324-328.—Peripheral administration of scopolamine tended to reduce the frequencies of 3 exploratory acts in males of the mouse strain C57BL/6 and to increase them in strain DBA/2, whereas methylscopolamine was ineffective. Physostigmine diminished these exploratory scores in both genotypes, whereas neostigmine had no such effects. These observations support the hypothesis

of a genetically controlled cholinergic mechanism which is located in the brain and which facilitates exploratory behavior in mice.—*Journal abstract.*

2487. Wahlström, Göran. (U. Uppsala, Sweden) **Changes in a hexobarbital anaesthesia threshold in rats induced by repeated long-term treatment with barbitol or ethanol.** *Psychopharmacologia*, 1971, Vol. 19(4), 366-380.—Determined the quantity of iv infused hexobarbital needed to produce a burst suppression of 1 sec. or more in the EEG in male Sprague-Dawley rats after chronic barbitol or ethanol treatments. The ensuing "sleeping times" were also recorded. At the end of the 1st treatment with barbitol (200 mg/kg/day ip for 5 wk. the hexobarbital thresholds had increased by approximately 45% compared with a preexperimental average. The thresholds were back to normal after approximately a wk. At the end of a 2nd treatment with barbitol there was a similar immediate increase in threshold. 3 wk. after the 2nd treatment there was also a new increase in threshold. The ensuing sleeping times were unaffected. Ethanol treatment (10% W/V in the drinking water allowed twice 1 hr. each day for 16 wk.) caused a gradual increase in threshold which reached a maximum (20%) around Day 9-10 after the end of the treatment. 2 wk. after the ethanol treatment the thresholds were essentially normal. In an earlier barbitol treated group a 2nd slightly larger increase was also seen around 3 wk. after the end of the ethanol treatment. In this group an increase was also seen in the ensuing sleeping times but this increase seemed to be unrelated to the increases in threshold. These late changes in threshold after a 2nd treatment seem to be due to a summation of changes induced by the 2 treatments. In this respect ethanol and barbitol are probably related. They are, however, not identical with respect to their effects on the hexobarbital threshold after interruption of chronic treatment. This is shown by the longer latency of the immediate changes after ethanol treatments. (21 ref.) *Journal abstract.*

2488. Yoshimura, Hidetoshi; Mori, Masa-Aki; Oguri, Kazuta, & Tsukamoto, Hisao. (Kyushu U., Fukuoka, Japan) **Metabolism of drugs-LXV: Studies of the urinary conjugated metabolites of codeine.** *Biochemical Pharmacology*, 1970(Jul), Vol. 19(7), 2353-2360. Performed the detection and estimation of urinary metabolites of codeine in rabbits, guinea pigs, rats, and mice by thin-layer and gas chromatography. It was found that the conjugated metabolites in all species examined consisted of codeine glucuronide and morphine-3-glucuronide. Other conjugated metabolites could not be demonstrated. The amounts of codeine, morphine, codeine glucuronide, and morphine-3-glucuronide which were excreted/24-hr urine were estimated by gas chromatography to be about 3.5, 5, 11, and 29%, respectively, for rabbits; 2, 13, and 4.5% for guinea pigs; and 6, 7, 1, and 19% for rats. *Journal abstract.*

CARDIOVASCULAR PROCESSES

2489. Fotopoulos, Sophia. (U. Kansas) **Internal vs. external control: Increase of heart rate by thinking under feedback and no-feedback conditions.** *Dis. Variation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3703-3704.

2490. Gerbner, Mátyás. (National Medical Inst. for Physical Education & Sport, Budapest, Hungary) **A sportmérközésekben fellépő izgalom objektív mérése és hatása a vérkeringésre.** [Objective measurement of

excitation arising in sporting contexts, and its influence upon circulation.] *Psychologiai Tanulmányok*, 1966, No. 10, 513-518.

ENVIRONMENT & STRESS

2491. Dantsig, N. M. & Skobareva, Z. A. (Soviet Inst. of General & Communal Hygiene, Moscow, USSR) **K probleme gigenicheskogo normirovaniya optimal'nykh uslovii osveshcheniya.** [On the problem of setting up hygienic standards for optimal lighting conditions.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970(Dec), Vol. 25(12), 32-39.—Discusses the problems encountered in determining standards for the optimal lighting of premises serving a variety of purposes and the various findings of research on this topic. The methods of "physiological optics, psychophysiology and of general biological observation" should be employed. (English summary)—J. D. London.

2492. Docktor, Robert & Sharkey, Brian J. (U. Montana) **Note on some physiological and subjective reactions to exercise and training.** *Perception & Motor Skills*, 1971(1 Feb), Vol. 32(1), 233-234.—Progressive exercise training on the treadmill seemed to reduce both the catecholamine excretion and the subjective effort ratings associated with the exercise for 5 healthy but nonathletic college men.—*Journal abstract.*

2493. Gallusio, Eugene H. (Louisiana State U.) **Retrograde amnesia induced by electroconvulsive shock and carbon dioxide anesthesia in rats: An attempt to stimulate recovery.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 136-140.—Trained 96 male albino rats to press a lever for a sucrose reinforcement. Following training a lever press produced (a) a footshock, (b) an ECS, (c) carbon dioxide (CO₂) anesthesia, (d) footshock plus ECS, (e) footshock plus CO₂ anesthesia, or (f) no treatment. The ECS plus (C) anesthesia or (f) no treatment. The ECS produced retrograde amnesia (RA) in the lateral passive avoidance learning situation but (C) anesthesia failed to do so. Partial recovery from ECS-induced RA was effected by a "reminder" shock administered 4 hr following ECS treatment. Recovery indicates that trauma induced memory loss may not be due to destruction of the memory, as is implied by consolidation theory, but may be due to disruption of retrieval processes necessary for the expression of the memory. *Journal abstract.*

2494. Jacobs, Barry L. & McGinty, Dennis J. (Veterans Administration Hosp., Sepulveda, Calif.) **Effects of food deprivation on sleep and wakefulness in the rat.** *Experimental Neurology*, 1971(Feb), Vol. 30(2), 212-222.—Studied the effects of prolonged total food deprivation on paradoxical sleep (PS), slow wave sleep (SWS), and wakefulness in male Sprague-Dawley albino rats. Analysis of sleep and waking patterns was based on daily 3-hr recordings of EEG, electrodermogram, and EMG activity. The amount of wakefulness increased monotonically in a positively accelerating curve as a function of deprivation while the amount of sleep declined reciprocally. After 6-11 days of food deprivation virtually all sleep had disappeared, with PS always disappearing before SWS. Ss that did not eat spontaneously when offered food ad libitum after the disappearance of sleep died within the next 24 hr. SWS declined gradually during the 1st few days of food deprivation and then rapidly declined toward 0. However, PS significantly increased in amount on the 1st day of deprivation and then stayed at approximately control

level until 2 days before it disappeared completely. On the day after the return to ad libitum food, PS increased substantially above control level while SWS remained below control. (19 ref.)—*Journal abstract*.

2495. Kaas, Judith S. (Duke U.) **The relationship between the electroencephalogram and reaction time under normal and reduced oxygen partial pressures.** *Dissertation Abstracts International*, 1971-(Dec), Vol. 31(6-B), 3729.

GENETICS

2496. Molchanov, A. M. (Inst. of Biological Physics, Pushchino, USSR) **Upravlenie i adaptatsiya.** [Control and adaptation.] *Biofizika*, 1970(May), Vol. 15(3), 497-502.—Discusses the "evolutionary aspect of the problem of control," where control is viewed as the "development of an extreme asymptotic form of adaptation." The mathematical model is presented, and the evolution of the control system under unfavorable conditions is discussed.—*J. D. London*.

2497. Richter, Curt P. (Johns Hopkins U. Hosp., Henry Phipps Psychiatric Clinic) **Inborn nature of the rat's 24-hour clock.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 1-4.—Studied the "clock" which in Norway rats, and many other organisms, measures time in units of 24 hr. and subunits of 12 hr. Under ordinary conditions, this device keeps time independently of all external and internal disturbances except light. To determine whether exposure to alternating periods of light and darkness of day and night plays any role in establishing this clock, tests were made on 20 rats blinded just after birth and on 6 congenitally blind rats. Both groups manifested this clock by alternating 12-hr phases of activity and inactivity. Results indicate that (a) the clock is inherent; (b) that it must have been built into the nervous system by a survival process in relation to alternating periods of light and darkness of day and night; and (c) that it must have originated in early evolutionary eras in the tropics where day and night have the same length, i.e., 12 hr.—*Journal abstract*.

PERSONALITY CORRELATES

2498. Beyra, Marcelo & Crommelinck, Marc. (U. Louvain, Lab of Neurophysiology, Belgium) **Psychophysiologie des émotions.** [Psychophysiology of emotions.] *Revue de Psychologie et des Sciences de l'Éducation*, 1970, Vol. 5(4), 427-447.—The psychophysiology of emotions utilizes many investigation techniques applied to animals as well as to man. Such types of emotional behaviors as reactions of pleasure, aggression, alarm, fear, flight reactions and inhibitions have been induced by electrical and pharmacological stimulation of a great number of brain structures. Moreover, intracranial self-stimulation behavior is described in man and animal. Another frequently utilized technique consists of excluding cerebral structures either functionally or anatomically in order to observe possible changes in emotional reactivity. Recording of brain structures activity during emotional reactions is revealing itself as a new means of studying organic factors conditioning emotional behavior. It is suggested that emotions might play the role of a signal of well-oriented performance. (Flemish summary) (3 p. ref.)—*English summary*.

2499. Gray, Jeffrey A. (Inst. of Experimental Psychology, Oxford, England) **The psychophysiological basis of introversion-extraversion.** *Behaviour Research*

& Therapy, 1970(Aug), Vol. 8(3), 249-266.—On both psychological and physiological grounds it is suggested that the hypothesis in Eysenck's theory of introversion-extraversion attributing greater conditionability to the introvert should be replaced by the hypothesis that the introvert is relatively more sensitive to punishment and to frustrative nonreward. The data on which this conclusion is based stem chiefly from the study of eyeblink conditioning in man as a function of personality, and from the study of physiological locus of action of the extroverting drug, sodium amobarbital, in animals. It is suggested that the physiological basis of introversion includes, besides the ascending reticular activating system, an inhibitory system comprising the orbital frontal cortex, the medial septal area, and the hippocampus. This system is able to carry out the essential psychological functions believed by Eysenck to underlie introversion-extraversion. A new conception of neuroticism as reflecting degree of sensitivity to both reward and punishment is also proposed.—*A. Barclay*.

2500. Karli, Pierre. (National Center of Scientific Research, Neurophysiology Lab., Strasbourg, France) **Neurophysiologie des motivations.** [Neurophysiology of motivations.] *Revue de Psychologie et des Sciences de l'Éducation*, 1970, Vol. 5(4), 395-426.—Discusses the notion of "motivation." The role played by the hypothalamus in the elaboration of motivation states is analyzed: recent acquisitions concerning the problem of "hypothalamic behavior centers" and of positive and negative reinforcement systems in the hypothalamus are exposed and discussed. The part taken by the limbic system in the genesis of motivation is studied: effects of limbic system lesions on alimentary, sexual, and aggressive behaviors are successively analyzed. (Flemish summary) (4 p. ref.)—*English summary*.

2501. Marton, Lajos & Urbán, János. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Személyiség típusokra jellemző EEG-minták elemzése nyugalmi és elemt. tanulási helyzetekben.** [Analysis of EEG-samples characteristic of personality types in resting state and elementary learning activity.] *Pszichológiai Tanulmányok*, 1967, No. 10, 165-169.

2502. Richard, Wayne C. (U. Florida) **An approach to the study of personality integration and autonomic responsivity.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 298.—Compared physiological arousal in 45 fraternity members selected for high, average, and low scores of Duncan's Personality Integration Reputation Test. Heart rate, skin temperature, and GSR were measured under various conditions of stress. Results indicate that (a) the low group showed greater reaction as measured by skin temperature change, (b) the average group more quickly reached peak RT in the mental arithmetic task, (c) the mental arithmetic task elicited shorter RTs than other stimuli, (d) skin temperature was the slowest and most reliable modality to response, and (e) greater heart rate changes occurred when discussing social data and working mental arithmetic problems than when discussing the future. It is concluded that multiple criteria for identification of optimal adjustment may be more valid than the use of a single measure.—*S. Knapp*.

2503. Thomas, Caroline B., Jones, Leona W., & Ross, Donald C. (Johns Hopkins U., Medical School) **Studies on figure drawings: Biological implications of structural and graphic characteristics.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 223-251.—Invest-

gated biological correlates of structural and graphic characteristics of figure drawings by healthy young adults. Differences between drawings by men and by women were the most outstanding. Minimal differences were found between drawings by smokers and by nonsmokers. Measurements of height and body proportion of figure drawings showed little or no correlation with the physiological and metabolic characteristics of the Ss. The final significance of these findings remains to be ascertained. (16 ref.)—D. Prager.

NUTRITION & GASTROINTESTINAL PROCESSES

2504. Carlisle, Harry J. (U. California, Santa Barbara) **Fixed-ratio polydipsia: Thermal effects of drinking, pausing, and responding.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 10-22.—Tested daily 8 female Sprague-Dawley rats on fixed-ratio schedules of food reinforcement using 3 different test procedures. Water intake increased with the severity of the response demand for all tests. Hypothalamic temperature increased within a session, but was not greatly different as a function of the magnitude of the response demand, the availability of water, or polydipsia. A fall in temperature was associated with pausing or drinking, while responding was associated with a rise. Ss were not grossly hyperthermic since peak hypothalamic temperature exceeded 39°C only by a few 10ths of a degree. Results indicate that it is unlikely that polydipsia is a response to thermal stress although the possibility remains that excessive drinking or pausing can mitigate the elevation in body temperature caused by an intermittent food-reinforcement schedule. (28 ref.)

Journal abstract.

2505. Myer, James S. & Kowell, Arthur P. (Johns Hopkins U.) **Loss and subsequent recovery of body weight in water-deprived snakes (*Elaphe obsoleta obsoleta*).** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 5-9.—Placed 8 food-deprived black rat snakes on a schedule of 5 day water-deprivation periods followed by drinking tests in a runway and 2-day periods with water in their cages. Mean body weight loss during 5 successive deprivation periods was almost invariant, and mean recovery on the drinking tests closely matched weight loss. Latency to drink decreased over successive tests. Ss were then water deprived for 5-, 12-, and 19-day periods, each followed by a drinking test and 2-days access to water. Recovery on the drinking tests was proportional to weight loss, and the mean weight recovered on the tests did not differ significantly from the levels maintained during the subsequent periods of access to water, indicating that water loss was accurately replaced at the 1st opportunity.—Journal abstract.

2506. Pliner, Patricia L. (Columbia U.) **Internal regulation of food intake by normal and obese subjects as a function of various preloads.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3042-3043.

ANIMAL PSYCHOLOGY

COMPARATIVE PSYCHOLOGY

2507. Beecher, Michael D. (Boston U. Graduate School) **A comparative study of auditory localization.**

Dissertation Abstracts International, 1970(Dec), Vol. 31(6-B), 3721.

2508. Holgate, Stanley H. (Texas Tech U.) **An interbehavioral interpretation of the effects of thermal stimulation on the behavior of vertebrates and invertebrates: A comparative approach.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4364.

2509. Martino, Luigi & Perio, Bernardo (I. Agraria Inst. of Embriology & Histology Inst.) **Topografia cranio-encefalica tridimensionale in animali da esperimento [Tridimensional encephalic topography in laboratory animals.]** *Rivista di Neurobiologia*, 1970(Jul), Vol. 16(3), 267-328.—Coordinated for the 1st time a systematic study of encephalic and behavioral topography using the heads of rabbits, guinea pigs, and rats. The study is called *Atlas of Encephalic Maps* and includes over 100 pictures, diagrams, and tables. The proportional cranium metric process was used, because it is the only method able to give an objective measurement. "Numbers is the language with which Nature makes her laws known to us." Exact measurements of spherical and encephalic formations are given in each type of animal, and are compared to one another and then to man's. (English summary) (33 ref.)—A. M. Farag.

2510. Ploog, Detlev (Max Planck Inst. für Psychiatrie Munich, W. Germany) **Psychobiologie des Partnerschaftsverhaltens.** [Psychobiology of partnership behavior.] *Neurosci. Biobehav. Rev.*, 1970, Vol. 4(6), 411-255.—Partnership interactions are divided into communications by languages and signals. The latter are common with animals, and experiments provide a study of the reproductive cycles of songbirds and the ontogeny of monkeys are reported. For further investigation of human social behavior, it is suggested that methods be developed for studying verbal and nonverbal information transfers. Tests were made with healthy adults and with healthy and sick children to study adults and with healthy and sick children to study adults. The visual contacts and behavior of a distance. The influence of the expression of the eye and of the body bearing in connection with verbal messages was tested. The behavior of a child was reported concerning the control of treating a 4-year-old child. They were made for studying a few ideas concerning psychobiology of partnership between social behavior and language in the context of a brain psychobiology examination. The existence of a cerebral representation for response by social behavior is discussed. (18 ref.)—P. van Tol.

2511. Winkler, Wolfgang (Max Planck Inst. für Physiologie der Behavior, New York Station, W. Germany) **Regressionen als normale Elemente des Sozialverhaltens.** [Regression as normal elements of social behavior.] *Praxis der Psychotherapie, Fortschritte der Psychotherapie*, 1970, Vol. 18(4), 150-151.—Comparative examination of various socially-living vertebrates have shown that certain regular behavior elements serve for the regulation of their sexuality. These elements are of primary importance for the development of the species. The new but not developed forms have different positions. The breed is related to the development of the species which breed is related to the development of the species. It is suggested that the development of the species is related to the development of the species. The development of the species is related to the development of the species. It is suggested that the development of the species is related to the development of the species. It seems that regression belongs to the normal behavior of

human beings as well, in spite of the fact that it can assume pathological dimensions.—*P. von Toal.*

2512. Gallon, Robert L. Avoidance conditioning in goldfish: Effects of fear conditioning with and without an escape contingency on subsequent acquisition. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3727-3728.

NATURAL OBSERVATION

EARLY EXPERIENCE

2513. Brown, Cheryl & Jackson, Donald E. (Eastern Michigan U.) The effects of high-intensity noise in early development upon behavior in the adult rat. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 207-208.—Following 30 days (age 26-56 days) of either high-intensity noise exposure or control conditions, 38 rats were subsequently either trained in a U maze or tested in an open field. Analysis of variance revealed significant Noise and Noise \times Sex interaction effects on U maze performance. No differences in the open field test were observed. These results suggest a differential sex effect of noise on subsequent learning where emotional factors have been controlled.—*Author abstract.*

2514. Cappell, Howard D. (Columbia U.) Effects of early handling and social living on affiliation in the rat. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3722-3723.

2515. Chakrapani, T. K. (Aiyar's Advertising & Marketing Pvt. Ltd., Bombay, India) Resistance to stress as a function of infantile stress experience: An experimental study. *Psychology Annual*, 1970 (Mar), Vol. 4, 7-9.—Examined whether infantile anoxic stress increases the ability of an S to withstand subsequent stress. 144 Wistar albino rats were tested in 12 groups. 8 groups were subjected to 2 levels of anoxia at 4 developmental periods and the remaining groups served as controls. After 3 mo. of anoxia, all Ss were deprived of food and water for 120 hr. No significant differences were found in the mortality rate between Ss subjected to anoxia and the controls.—*S. Knapp.*

2516. Fullerton, Clare; Berryman, Julia C., & Sluckin, W. (U. Leicester, England) Peeping in chicks as a function of environmental change. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 39-40.—Measured peeping in 1- and 4-day-old chicks in 4 different testing conditions. No differences were found between the 2 ages, but peeping increased markedly with the degree of environmental change. 80 Ss were tested. This latter variable may have been overlooked in past work because of the prevailing interest in changes of behavior as a function of disruption of social imprinting bonds.—*Journal abstract.*

INSTINCTS

2517. Manosevitz, Martin. (U. Texas) Hoarding: An exercise in behavioral genetics. *Psychology Today*, 1970 (Aug), Vol. 4(3), 56-58, 76.—Studied the hoarding behaviors of several strains of mice using a standardized procedure. The data indicate that genetic influences accounted for $1/3$ to $1/2$ of the observed hoarding behavior. Submitting the different strains to standard environmental manipulations showed that genetic dif-

ferences interact with nurture to produce increases or decreases in hoarding behavior depending on the strain. It is concluded that there probably is an optimal environment which would lead to the full development of an individual's genetic potential.—*E. J. Posavac.*

2518. Shapiro, Lorin J. (Texas Christian U.) The effect of various durations of enforced exposure to a stimulus object on the reversibility of the following response in white Peking ducklings. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3739.

2519. Stern, Jeffrey J. & Hoffman, Bonita M. (U. Michigan, Dearborn) Effects of social isolation until adulthood on maternal behavior in guinea pigs. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 15-16.—Separated 5 female guinea pigs from their mothers at birth and reared them in social isolation until adulthood. Following impregnation and parturition, the maternal behavior of these Ss was compared to that of a mother-reared group. No differences were found on nursing time, nursing posture, pup-oriented responses, or on weight gain of offspring.—*Journal abstract.*

MOTIVATION & EMOTION

2520. Ashton, Alan B., Gandelman, Ronald, & Trowill, Jay A. (Saginaw Valley Coll., University Center, Mich.) Effect of food deprivation upon elation of saccharin drinking following a temporary shift to water. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 5-6.—Elation of saccharin intake was seen after a temporary shift to water in 60 nondeprived rats, but not after a temporary absence of solutions, or after a temporary shift to an empty drinking tube. 2 different groups of 12 female albino rats served in 2 experiments. Deprivation tended to attenuate elated responding after a water shift. The relationships of the present design to others involving reinforcement shifts were discussed.—*Journal abstract.*

2521. Dube, Rodney; Ashton, Alan B., & Trowill, Jay A. (U. Massachusetts) Responses to palatability shifts: Effects of varying the retention level. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 10-12.—Gave nondeprived rats a 1-hr exposure to a sodium-saccharin solution for 28 consecutive days. Male albino rats served as Ss in Exp. I and II ($N = 6, 6$), and 16 female albino rats served as Ss in Exp. III. A temporary shift to tap water then occurred for all Ss. The brief timeout (tap water) led to a positive contrast effect. Lengthy exposure to tap water (30 days) resulted in the possible forgetting of the comparison solution (saccharin) or perhaps the response to that solution.—*Journal abstract.*

2522. Dunlap, William P. & Frates, Sarah B. (Tulane U.) Influence of deprivation on the frustration effect. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 1-2.—Compared groups of male albino rats under 0-hr food deprivation to groups under 22-hr food deprivation. A running to sucrose-pellet reward in the double alley. A total of 24 Ss were used. In addition to experimental groups switched from continuous to 50% reinforcement in the 1st goalbox (GB1), control groups never receiving reward in GB1 were used under both deprivation conditions. A substantial frustration effect (FE) was found for the 22-hr deprived groups; however, no reliable evidence of the FE was found with 0-hr deprived groups.—*Journal abstract.*

2523. Jones, Elhis C. (Frostburg State Coll.) Effects of ingesting nonnutritive sweet substances on

subsequent sucrose consumption. *Psychonomic Science*, 1970(Oct), Vol. 21(1), 23-24.—Conducted an experiment with 50 male Sprague-Dawley rats to verify and further study the drive-reducing effects of non-nutritive sweet substances. Ingestion of 1 ml. of .25% pure saccharin or .6% sodium cyclamate solutions significantly suppressed subsequent consumption of a 16% sucrose solution. Data also indicate that the suppression effect following consumption of saccharin disappears within 5 min. It is concluded that the transitory effects of saccharin consumption may account for discrepancies between previous studies on the drive-reducing effects of saccharin. (15 ref.)—*Journal abstract*.

2524. **Latto, Richard.** (U. Cambridge, Psychological Lab., England) **Visual search in monkeys.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 307-312.—6 monkeys were trained to search a visual display for a target stimulus. Their search time increased linearly with the number of irrelevant stimuli (N) and at 60 msec/item was comparable to the performance of man on similar tasks. Error scores were not linearly related to N, nor did they change in a systematic way as N increased.—*Journal abstract*.

2525. **Levison, Cathryn A.** (U. Chicago) **The development of head banging in a young rhesus monkey.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 323-328.—Describes the development of head banging in a male rhesus monkey which had been reared under conditions of early social and visual deprivation, but which had, after release from deprivation, exhibited no stereotyped behaviors. Head banging developed as a consequence of a particular set of interactions with the E and subsequently generalized to other related areas of behavior.—*Journal abstract*.

2526. **Loop, Michael S.** (Florida State U.) **Effects of deprivation on the tongue flicking and orientation of young rat snakes to water.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 49-51.—Deprived 6 young rat snakes (Elaphe) of water for 6 days and then tested them by placing a dry cotton swab and a swab dipped in distilled water 1 cm. in front of the snake's snout. 2 measures, approach/tongue flick and approach orientation, revealed that the water elicited higher responding than the dry stimulus. 8 Ss were then tested over a 10-day period. The stimulating effectiveness of water under deprivation was found to decline at 1st and then increase until ad lib water was returned. It is concluded that water is an effective stimulus for the snake's chemoreceptors but would elicit responding only under conditions of deprivation.—*Journal abstract*.

2527. **Roediger, Henry L. & Stevens, Michael C.** (Yale U.) **The effects of delayed presentation of the object of aggression on pain-induced fighting.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 55-56.—It has been suggested that an aversive stimulus produces a drive to aggress in shocked organisms. Presumably this drive in state will last a short time after the pain stimulus in absence of an object of aggression. This notion was studied by presenting the object of aggression (another rat) 0, 2, 4, or 6 sec. after the cessation of the shock. Some fighting behavior was observed, regardless of when the object of aggression was presented. However, the intensity of the fighting behavior decreased markedly as delay of presentation increased from 0-6 sec. Ss were 8 albino Sprague-Dawley rats.—*Journal abstract*.

2528. **Senini, Adriano.** (Catholic U., Inst. of Psy-

chology, Milan, Italy) **Il confinamento nello "startling-box" come fattore di frustrazione.** [Confinement in the "startling box" as a factor in frustration.] *Archivio de Psicologia Neurologia e Psichiatria*, 1970(Jul), Vol. 31(4), 352-362.—Amsel's hypothesis of short-term effects of excitatory potential and of rapid decay was tested in a T maze with 24 rats. (French, English, & German summaries)—L. L'Abate.

2529. **Valle, Fred P.** (U. British Columbia, Vancouver, Canada) **Flavor preferences in laboratory rats.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 31-32.—1 group of 12 rats (Group A-B) was reared on an almond-flavored diet, a 2nd group of 12 (Group B-A) on a banana-flavored diet, and a 3rd group of 7 (Group C-C) on an unflavored diet. The groups were then given both the banana and almond diets for 2 days. Results show all 3 groups preferred almond to banana (almond preference), with Group B-A showing the strongest preference (novelty preference). Results of a 2nd set of tests, following upon an interval during which Groups A-B and B-A had their maintenance flavors switched, are generally consistent with the above, but also indicate that a diet's preferability may depend upon an interaction between its primacy, its familiarity, and its attractiveness.—*Journal abstract*.

LEARNING

2530. **Balderrama, Norberto & Maldonado, Héctor.** (Venezuelan Inst. of Scientific Investigations, Caracas) **Habituation of the delmatic response in the mantid (Stagmatoptera biocellata).** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 98-106.—When adult female mantids (Stagmatoptera biocellata) are faced with a bird, a "frightening response" is displayed called a delmatic reaction (DR). Habituation of this mantid's response due to repeated presentation of 3 different species of birds was studied. The response decrement appeared with all 3 stimuli: a decrease in the number of DRs, an increase in the percentage of incomplete responses, and a shortening in the response duration. Significant retention of the effects of habituation was found after 6 days (24 ref.)—*Journal abstract*.

2531. **Borkhuis, Mary L.** (South Dakota) **Extraneous information in pattern reproduction by monkeys.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4355.

2532. **Davis, Michael.** (Yale U.) **Habituation of the startle response as a function of the length and variability of the interstimulus interval.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3724.

2533. **Glendinning, R. L. & Meyer, Donald R.** (Ohio State U.) **Motivationally related retroactive interference in discrimination learning by rats.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 153-156.—Trained 4 groups of 15 Long Evans hooded rats on 2-choice discrimination problems under a shock-avoidance shock-avoidance or a shock-avoidance food-approach motivational sequence. The LCS or sham-LCS treatments were delivered as Ss attained criterion on the 2nd habit. Retention tests for the 1st habit showed no motivational specific LCS effects, but habit showed no motivationally related retroactive interference was found. The amount of this interference with retention proved to be much larger than has previously been obtained with 3-habit training paradigms.—*Journal abstract*.

2534. Jensen, Philip K. (Drew U.) **Role of blind alleys in latent learning.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 133-136.—Conducted 2 experiments to investigate the extent of the role of blind alleys in complex maze latent learning studies. 51 albino and hooded male and female rats were examined in a Buxton-Haney-type study, and a replication with the effects of blind alleys removed by the use of a multiple free-path maze. Results show a strong latent learning effect in the 1st case but no such effect in the 2nd. Either cognitive or classical reinforcement theories have difficulties explaining the data. It is suggested that the simplest theory to apply is a probabilistic contiguity model.—*Journal abstract.*

2535. Kardos, Lajos; Mario, Zanfortin, & Giorgio, Poli. (Eötvös Lóránd U., Faculty of Arts, Budapest, Hungary) **Lokomóciós tanulási és térirányozási: Ekvifermínális alternatív utak jelentősége a tanulásban.** [Locomotion learning and space orientation: The significance of equiterminal alternative routes in learning.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 443-458.—In a complex maze, rats avoided a route which had previously been blocked. An insight-type explanation is discussed.—*M. Moore.*

2536. Kirkby, Robert J. (Psychiatric Research Unit, Rozelle, New South Wales, Australia) **Learning in marsupials.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 155-166.—Reviews a total of 14 papers that have been reported in the area of learning and memory processes in which marsupials served as Ss, and suggests that a survey of the area indicates that (a) relatively little research has been undertaken with marsupials in comparison to that with rats, higher mammals, and invertebrates; (b) depending upon the investigation, learning ability of marsupials has been found to be either superior to, inferior to, or no different from that of laboratory rats; (c) studies typically use small groups of animals and frequently omit information regarding age, sex, or species; and (d) only 2 reported studies have investigated the Australian kangaroo, only 1 the Australian brushtail possum, and only 1 has been undertaken in Australia. The availability of marsupial Ss in Australia is discussed, and it is suggested that the failure of psychologists to make use of such sources "is perhaps indicative of the gap between 'Psychology' and the biological sciences in Australia."—*R. Wiltz.*

2537. Powell, Robert W. & Burns, Richard. (U. South Florida) **Visual factors in observational learning with rats.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 47-48.—11 albino rats learned to leverpress for food reinforcement through observation as quickly as 48 hooded rats. Hooded Ss, observing a trained rat through a screen, which reduced visibility, learned just as quickly as hooded Ss which observed the trained rat through plexiglas. Leverpressing was more quickly acquired by hooded Ss that were shaped than hooded Ss learning through observation. Results suggest that the contribution of visual observation to learning in rats is relatively minor and does not involve a high degree of visual acuity.—*Journal abstract.*

2538. Rao, T. R. (U. Mysore, India) **On correlates of learning.** *Psychology Annual*, 1970(Mar), Vol. 4, 49-54.—Studied 21 male and 42 female Wistar albino rats in open field tests, in activity and living cages, and in a water T maze. Scores of emotionality based on acquisition scores, cage behavior, and activity were analyzed. It was found that (a) high emotion Ss and male Ss

defecated more frequently than low emotion or female Ss, (b) no significant sex or emotionality differences were present in learning, and (c) retardation in learning tended to be associated with a greater amount of motor activity.—*S. Knapp.*

2539. Weinstock, Roy B. (Mary Washington Coll., Virginia) **Preacquisition exploration of the runway in the determination of contrast effects in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 107-115.—Randomly assigned male hooded rats either to explore (EX) or not to explore (NEX) an unbaired runway before training was begun in a double-shift reward-contrast study. Ss received during training 1 of 4 reward sequences: HLH, LHL (experimental conditions), HHH, LLL (control conditions, where H indicates a 10-pellet, and L a 1-pellet reward). The 1st amount of reward in a sequence was received by the Ss over Trials 1-19 (acquisition), the 2nd over Trials 20-28 (Shift 1), and the 3rd over Trials 29-35 (Shift 2). Significant elation effects were found following the 1st shift of reward only, under both EX and NEX conditions. No depression effects occurred. EX Ss ran faster than NEX Ss throughout training. (23 ref.) *Journal abstract.*

Conditioning

2540. Akhtar, M. (Slippery Rock State Coll.) **The postsession feeding: A sustainer and an inhibitor of a free-operant.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 66(1), 25-26.—Performance under punishment-extinction was shown to improve under an immediate and to decrease under a delayed postsession feeding ($N = 12$ male rats). The variable of delay was manipulated by introducing a 1/2-hr detention either after 9, 18, or 27 days of immediate feedings received after daily sessions. These groups were factorially combined with 2 variations of a feeding cage: home vs. "other." Home-cage feeding had a longer history and its prevention was found to be more frustrating than a prevention of other-cage feeding. Detention introduced at a later point of feeding expectancy was also more frustrating.—*Author abstract.*

2541. Asratyan, E. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Kausalnyi uslovnyi refleks.** [The causal conditioned reflex.] *Voprosy Filosofii*, 1970(Oct), Vol. 24(10), 117-126.—Discusses the documented statements of Pavlov on the higher nervous activity of anthropoids, made during laboratory seminars. These statements surely provide a basis for designating certain "associations," discerned in anthropoids, as transcending their CR origin, since they now serve to implement a "signal connection." This permits one to refer to such an association as a "causal CR," although Pavlov explicitly denied that the causal association, discerned in the anthropoids, could be called a CR. Arguments are presented to support the view that the CR nature of causality in anthropoids and man is the same.—*D. London.*

2542. Brahlek, James A. (Southern Illinois U.) **Conditioned facilitation and conditioned suppression during a conditioned stimulus terminated with a positive unconditioned stimulus: The effect of conditioned stimulus duration.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4356.

2543. Carman, John B. (U. North Dakota) **Effects of some stimulus probes upon negatively accelerated conditioned suppression responding.** *Psychology Abstracts*, 1971, Vol. 11, 1000.

Science, 1970(Oct), Vol. 21(1), 13-15.—Assessed the effects of negatively accelerated response rates during pre-shock stimulus with neutral, safe and shock-paired and strength manipulations of the response presentation of the pre-shock stimulus. 4 naive rats at 50% delay were used. Results suggest that there is a response pattern during a pre-shock stimulus period upon an indirect pre-shock stimulus shock relationship and that an inhibition of delay interpretation of such behavior may be inappropriate. (8 refs.) *Journal of Experimental Psychology*.

2544. Favell, James E. (U. Kansas). Preference control in pigeons by conditioned positive reinforcement. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3725-3726.

2545. Flaxen, Dean L. (U. Kansas). The effects of reward sequence and level of training on resistance to extinction. *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3726-3727.

2546. Harman, Roger E. (U. Utah). Comparison of response elimination procedures in concurrent two-operand and single operand situations. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4362-4363.

2547. Krane, R. V. & Ison, J. R. (U. Rochester). Positive induction in differential instrumental conditioning. Effect of the interstimulus interval. *Journal of Comparative & Physiological Psychology*, 1970, Vol. 70(1), 129-135. Tested 16 groups of 8 Holtzman rats. Ss received 116 differential instrumental conditioning trials at various IIS followed by extinction trials to the former positive stimulus. Ss in control condition worked with Ss in experimental condition by 1 trial to non-rewarded stimulus (induction condition). In 3 sets of groups, the IIS between successive S+ trials was 1, 4, or 16 sec. In the control condition extinction speeds were higher with increased IIS in effect on apparent extinction rate. Relative to their own control group, the effect of the interposed S- trial was positive in speed in the 1-min condition and negative in speed in the 10-min condition. It is concluded that extinction positive induction may result because S- prevents the accumulation of inhibition across massed trials to the former S+.—*Journal of Experimental Psychology*.

2548. Krane, Richard V. & Ison, James R. (U. Rochester). Positive induction at different sections of the performance chain. *Psychonomic Science*, 1970 (Oct), Vol. 21(1), 37-39.—24 naive male Holtzman rats received 95 differential conditioning trials followed by 30 extinction trials. In the former S+ either in succession (control procedure) or with each S+ preceded by a trial to S- (induction procedure). In Exp. I, retention time on nonrewarded trials was 15 sec. in control and 3 sec. in induction. In Exp. II, it was 3 sec. The induction procedure generally faster response speeds and fewer reactions in extinction, these being in the former S+ trials. In Exp. III, the induction procedure was used in 2 experiments indicating that the S- trial has a facilitation effect of the induction procedure. (10 refs.) *Psychonomic Science*.

2549. Noble, Stanley R. (Princeton). Interaction of an aversive Pavlovian conditioned stimulus with aversively and appetitively motivated operants. *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(6-B), 3738-3739.

2550. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2551. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2552. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2553. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2554. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2555. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2556. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2557. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2558. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2559. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

2560. Noble, Stanley R. & Sherman, J. (Princeton). Effects of US magnitude on one-trial pavlovian classical forward conditioning of the rabbit's jaw movement response. *Journal of Experimental Psychology*, 1970 (Apr), 13, 27-30.

1). 21-22. In 178 male Charles River CD albino rats, single trial step-down passive avoidance varied with foot shock intensity and duration. Severe punishment led to a decline in performance. Defensive reactions elicited by the punishing stimulus may explain these results. Species specific defense reactions (SSDRs) of immobility and heightened activity (withdrawal) may develop at different severity of punishment levels. As severity of punishment increases immobility increases up to a point. Further increases in punishment lead to heightened activity. Immobility is compatible with passive avoidance whereas heightened activity is not. Thus, whether passive avoidance develops or not depends upon which type of SSDR becomes dominant.—*Author abstract*

2554. Baum, Morrie & Gordon, Arthur. (McGill U., Montreal, Quebec, Canada) Effect of a loud buzzer applied during response prevention (flooding) in rats. *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 287-292. In a 2×2 factorial design, 100 rats were trained to avoid shock of .5 or 1.3 mA (1 factor) following which a brief period of flooding was administered. During flooding, a loud buzzer was either continuously applied or not applied (2nd factor). Results showed that (a) stronger shock decreased the efficacy of flooding, and (b) the application of the buzzer enhanced the effectiveness of flooding in producing extinction of the avoidance response. Analysis of Ss' spontaneous behavior during flooding supported the view that it is important for the animal to engage in nonfear behavior (general exploratory activity, grooming) during flooding if the treatment is to be effective. The buzzer acted to facilitate the action of flooding by inducing greater amounts of such nonfear behavior during flooding.—*Barclay*.

2555. Brush, F. Robert. (U. Oregon, Medical School, Portland) The effects of amount of signaled escape training on subsequent avoidance learning. *Psychonomic Science*, 1970(Oct), Vol. 21(1), 51-52. Independent groups of 12 Long-Evans male rats received 0, 5, 15, or 25 trials of signaled escape training 5 min. before receiving 60 trials of avoidance training. Avoidance learning was equally facilitated in the 5-, 15-, and 25-trial groups relative to that of the 0-trial group. Results are discussed in terms of the role of escape responding in avoidance learning.—*Journal abstract*.

2556. Delprato, Dennis J. & Terrant, Frank R. (Eastern Michigan U.) Effects of preshock on subsequent passive avoidance behavior. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 23-24.—A step-down task was used to determine the effects of 3 pretraining conditions (inescapable preshock in the apparatus, escapable preshock, and nonpreshock) on passive avoidance. The punishing shock of the passive avoidance task was inescapable in Exp. I and escapable in Exp. II (total $N = 30$ female Sprague-Dawley albino rats). Major results: (a) preshock groups showed more response inhibition than nonpreshock groups on the 1st passive avoidance trial, (b) preshock facilitated performance when punishment was inescapable (Exp. I), (c) preshock interfered with performance when punishment was escapable (Exp. II), and (d) inescapable and escapable preshock had similar effects. Results are discussed in terms of a fear-mediated freezing mechanism and relaxation theory.—*Author abstract*.

2557. Green, Kenneth F. & Churchill, Peggy A. (California State Coll., Long Beach) An effect of flavors

on strength of conditioned aversions. *Psychonomic Science*, 1970(Oct), Vol. 21(1), 19-20.—Attempts to condition aversions to nonpreferred flavors have not been as consistently successful as when preferred flavors were used. To find if the problem is 1 of method of measurement or if it is a general characteristic in the conditioning of aversions, several measurement procedures were used to compare aversions formed by 10 female albino rats to 1 preferred and 1 nonpreferred flavor. On all measures, whether relative (decreases in intake) or absolute (final amount consumed), aversions for the preferred flavor were greater than for the nonpreferred flavor.—*Journal abstract*.

2558. Hammond, L. J. & Lambert, Joseph V. (Temple U.) Punishing effects of long delays of reinforcement with shock-escape behavior. *Psychonomic Science*, 1970(Oct), Vol. 21(1), 63-64.—32 male Sprague-Dawley rats receiving long delays of reinforcement in a shock-escape runway (30 or 45 sec. of goalbox confinement before relief) ran quite slowly on later, as compared to earlier, acquisition trials. In this sense, long delays of relief appeared to punish running. A psychological interpretation was given. In the case of escape behavior, longer delays of reinforcement may result in definitely discernible increments in shock (drive) duration, whereas in the case of rewarded behavior, a min. or more of hunger is probably above the DL based on a standard of 24 hr. of hunger.—*Journal abstract*.

2559. Levis, Donald J. (U. Iowa) One-trial-a-day avoidance learning. *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 65-67.—Compared a 1-trial-a-day discrete-trial avoidance conditioning procedure run for 30 consecutive days with a massed-trial procedure where Ss received 30 consecutive trials within 1 day. 20 naive male Blue Spruce rats in 2 equal groups were equated for time each S spent in the nonshock compartment of the apparatus, number of times the transport box carrying Ss was lifted out of the nonshock compartment, and the number of times each S was handled. The main difference between groups was the interession trial length of 24 hr. for the 1-trial-a-day Ss. Learning was rapid for both groups. The groups did not differ reliably on 6 acquisition indices. The methodological advantages of the 1-trial-a-day procedure and its theoretical importance are discussed. *Journal abstract*.

2560. Linton, John; Riccio, David C., Rohrbaugh, Michael, & Page, Horace A. (Kent State U.) The effects of blocking an instrumental avoidance response: Fear reduction or enhancement? *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 267-272.—Rats which were prevented (blocked) from making an instrumental avoidance response extinguished much more rapidly than nonblocked Ss. In a subsequent test, however, passive avoidance of the former shock chamber was much greater in the blocked Ss. When no regular extinction trials were permitted, blocking (per se) reduced residual "fear" below the level present at the end of acquisition. Considered in terms of two-process learning theory, these data suggest a need for multiple indices of behavior change.—*Barclay*.

2561. Thompson, Richard W., Galosy, Richard A., & Morlock, Gerald W. (Western Washington State Coll.) The effect of posttrial ECS and footshock on the acquisition of a nonshock passive-avoidance response. *Psychonomic Science*, 1970(Oct), Vol. 21(1), 3-4.—Exp. I, with a 2×2 factorial design of training, no

training, ECS/no ECS, investigated the effect of ECS on the acquisition of a 1-trial nonshock passive avoidance response. Ss were 40 female albino rats in 4 groups of 10 each. Results indicate passive-avoidance learning in trained Ss and that ECS produced nearly complete retrograde amnesia (RA) for the response. Exp. II, using the same design and procedure, investigated the effect of posttraining footshock (FS) on the acquisition of the passive-avoidance response. Results indicate passive-avoidance behavior for groups receiving training and no FS, training and FS, and no training and FS. There was no evidence of RA produced by FS.—*Journal abstract.*

Reinforcement

2562. Ashton, Alan, & Gandelman, Ronald J., & Trowill, Jay A. (Saginaw Valley Coll., University Center, Mich.) **Effects of reinforcement shifts upon subsequent sucrose consumption.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 7-8.—Elation of sucrose consumption was not observed among male or female rats following a temporary shift to water. A total of 3 experiments were conducted with 6 male albino rats in 2 and 16 female albino rats in 1. Data are contrary to earlier work which employed saccharin as the reward.—*Journal abstract.*

2563. Ashton, Alan B. & Trowill, Jay A. (Saginaw Valley Coll., University Center, Mich.) **Effects of reinforcement shifts upon lick rate.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 8-10.—Observed marked increments in lick rate in saccharin drinking following a temporary shift to water in both deprived and nondeprived rats. Similar increases were not observed when sucrose was the reward. Ss were 10 female albino rats in Exp. I and 10 female albino rats in Exp. II. Similarities and differences of lick rate data to intake data are discussed.—*Journal abstract.*

2564. Campbell, Patrick E., Crumbaugh, Charles M., Rhodus, Deborah M., & Knouse, Stephen B. (Southern Methodist U.) **Magnitude of partial reward and amount of training in the rat: An hypothesis of sequential effects.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 120-128.—Tested 40 female albino Sprague-Dawley rats in each of 2 experiments with alternating reward (R) and nonreward (N) for 6 trials a day in a runway. Reward was 2 or 20 .045-gm pellets, and Ss were given either brief or extended training according to a 2×2 factorial design. Large-reward Ss learned a pattern discrimination in both experiments (fast speeds on R trials and slow speeds on N trials), but small-reward Ss learned the discrimination only in Exp. II. Resistance to extinction following extended training was greater for small than for large reward in both experiments. The opposite effect occurred for briefly trained Ss but only in Exp. II. Results support a sequential discrimination hypothesis derived from E. J. Capaldi's aftereffects theory. (15 ref.)—*Journal abstract.*

2565. Grossen, Neal E. (Sacramento State Coll.) **Effect of aversive discriminative stimuli on appetitive behavior.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 90-94.—Investigated whether a 1971(Apr), Vol. 88(1), 90-94.—Investigated whether a non-safety signal, i.e., a stimulus which predicts the non-occurrence of shock, serves as a positive incentive, or acts to inhibit a preexisting fear. The latter is indicated by the finding in 80 male Long-Evans rats that a safety signal supports appetitive behavior only in a fear-eliciting situation. (16 ref.)—*Journal abstract.*

2566. McCloskey, J. L. & Tombaugh, Tom N. (Carleton U., Ottawa, Ontario, Canada) **Sucrose concentration, constant delay of reward, and resistance to extinction.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 128-132.—Combined 3 levels of sucrose concentration (4, 16, and 64%) factorially with 3 constant delay intervals (0, 6, 12 sec.) in the discrete-trial bar-press situation. 72 Sprague-Dawley naive female albino rats served as Ss. Results indicate that both acquisition and extinction performance were an increasing function of concentration and a decreasing function of delay, with differences in extinction for both parameters being attributable to different terminal acquisition levels. Results are evaluated regarding E. Capaldi's sequential hypothesis with emphasis on the factor of associative strength in determining the generalization function for these 2 parameters.—*Journal abstract.*

2567. Oley, Nancy N. & Slotnick, Burton M. (Columbia U.) **Nesting material as a reinforcement for operant behavior in the rat.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 41-43. Paper strips served as an adequate reinforcement for the acquisition and maintenance of fixed-ratio barpressing in 2 pregnant Wistar rats. Prior to parturition, only a small daily nest was built and barpressing occurred only in the dark part of the lighting cycle. Following parturition, barpressing for nesting material greatly increased, and sustained periods of responding alternated with nest-building and pup-care activities. *Journal abstract.*

2568. Rescorla, Robert A. (Yale U.) **Summation and retardation tests of latent inhibition.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 77-81.—Reports 2 experiments with 32 and 16 male Sprague-Dawley rats assessing the effects of nonreinforced exposure to a tone. In Exp. I, preexposure retarded subsequent conditioning of suppression to that tone, but did not establish conditioned inhibition as measured by a summation test procedure. In Exp. II, preexposure retarded subsequent conditioning of inhibition to the tone. Results are interpreted in terms of reduced stimulus salience resulting from preexposure.—*Journal abstract.*

2569. Van Hemel, Paul E. (Johns Hopkins U.) **Aggression as an incentive: Operant behavior in the mouse-killing rat.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4374.

2570. Van Hemel, Susan J. (Johns Hopkins U.) **Retrieving as a reinforcer in nulliparous mice.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4374-4375.

Reinforcement Schedule

2571. Allison, Tom S. (Washington State U.) **Concurrent schedules of reinforcement: The relationship between relative performance measures and relative frequency of reinforcement as a function of changeover delay.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3719-3720.

2572. Blackman, D. E., Thomas, G. V., & Bond, N. W. (U. Nottingham, England) **Second-order fixed-ratio schedules.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 53-55. Exposed 6 pigeons to chained and tandem fixed-ratio (FR) schedules in which the ratio requirement in each of 10 components was 1 FR 10 (1 R 1). Results suggest similarities between a conventionally defined unit of behavior, e.g., a single keypeck, and the

sequences of schedule-controlled behavior, which are treated as unitary responses in other 2nd-order schedules.—*Journal abstract.*

2573. Hug, James J. (U. Toronto, Ontario, Canada) **Frustration effects after varied numbers of partial and continuous reinforcements: Incentive differences as a function of reinforcement percentage.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 57-59.—Assessed magnitude of the frustration effect (FE) after 16, 40, and 64 acquisition trials under CRF and PRE conditions using 40 male albino Wistar rats as Ss. Data indicate that FE magnitude increased with the number of training trials under both reinforcement schedules and that, although the effect was more pronounced under CRF conditions with relatively few reinforcements, there was no difference in the magnitude of the effect as a function of CRF vs. PRE after additional reinforcements. Assuming that the strength of incentive or expectancy is a factor in the magnitude of the FE, these data can be taken as confirming K. W. Spence's speculation that PRE decelerates the conditioning of incentive but does not affect its asymptotic strength.—*Journal abstract.*

2574. Hug, James J. (U. Toronto, Ontario, Canada) **Frustration effect after development of patterned responding to single-alternation reinforcement.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 61-62.—Using a 20-min ITI, 1 group received single-alternation PRE in the 1st alley of a double-runway apparatus. A 2nd group also ran to a single-alternation schedule in Alley 1, but did not run in Alley 2. Results indicate that single vs. double alley running did not affect the rate of development, or the terminal strength, of patterned responding. A substantial decrease in the magnitude of the frustration effect occurred in the 2nd alley as patterning developed in the 1st 20 male albino Wistar rats were Ss.—*Journal abstract.*

2575. Hug, James J. (U. Toronto, Ontario, Canada) **Number of food pellets and the development of the frustration effect.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 59-60.—Following few-trials PRE studies, the effect of number of food pellets (total magnitude of reward equated) on the development of the frustration effect (FE) was investigated using 40 male albino Wistar rats. Multiple pellets in the 1st goalbox resulted in more rapid development of the FE but did not affect its terminal magnitude. In contrast, the number of pellets in the 2nd goalbox had no effect on either the rate of development of the terminal strength of the FE. Results support the frustration-theory account of few-trials experiments.—*Journal abstract.*

2576. Jones, Elvis C. (Frostburg State Coll.) **A correlational study of pre- and postgoal competing responses.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 25-27.—60 male Sprague-Dawley rats were trained and extinguished in a straight runway under CRF or PRE. Each S within each group received a different amount of reinforcement. Competing responses in the runway were correlated with competing responses that occurred after the S reached the food cup. There was a significant relationship between competing responses emitted en route to the goal and competing responses emitted after reaching the goal. The direction and magnitude of this relationship depended on both the percent and amount of reinforcement.—*Journal abstract.*

2577. LeBlanc, Judith M. (U. Kansas) **Continuous reinforcement: A possible behavior modification**

procedure for decreasing resistance to extinction. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3731.

2578. Posey, Thomas B. & Cogan, Dennis C. (Murray State U.) **Postreinforcement delay training effect on runway speed patterning.** *Psychonomic Science*, 1970, (Oct), Vol. 21(1), 45-47.—Trained 2 groups of 8 male albino Holtzman rats each in a straight-alley runway for 100 acquisition trials and 40 extinction trials. Group A was trained on a single-alternation PRE schedule with a 15-sec postreward delay period following the rewarded trials. Group B received no delay period on rewarded trials. While Group B showed a reliable patterning effect, no patterning was observed in Ss in Group A. During extinction the Ss in Group A were less resistant to extinction in the goal segment of the runway. Findings were seen as in general agreement with E. J. Capaldi's sequential aftereffects hypothesis.—*Journal abstract.*

2579. Reynolds, Thomas W. (Ohio U.) **A comparison and test of current theoretical explanations of the partial reinforcement effect.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3735-3736.

Punishment & Extinction

2580. Blintz, John. (U. California, Davis) **Between- and within-subject effect of shock intensity on avoidance in goldfish (*Carassius auratus*).** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 92-97.—Assessed the effects of shock intensity on avoidance conditioning in goldfish. In Exp. I with 120 Ss, independent groups received 1 of 5 shock intensities as the UCS. In Exp. II with 36 Ss, different CSs cued different shock intensities within Ss. Avoidance performance was an inverted U-shaped function of shock intensity in Exp. I and a direct function of shock intensity in Exp. II. Shock intensity was interpreted to have a facilitory effect on conditioning fear and a suppressive effect on subsequent responses. In the between-Ss procedure, the suppressive effect overrides the facilitative effect at higher intensities resulting in poorer performance. Within Ss, the suppressive effect is equated across conditions and the facilitory effect is seen at higher shock intensities.—*Journal abstract.*

2581. Boe, Erling E. (U. Pennsylvania) **Variable punishment.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 73-76.—Investigated (a) the effect of varying punishment intensity from trial to trial vs. fixed-intensity punishment, and (b) the effect of scheduling punishment on a variable-ratio vs. a fixed-ratio schedule. The lever response with footshock was used to test 80 male albino Charles River rats. Variable-intensity shock (50-110 V) was substantially more suppressive of lever pressing than fixed shock (80 V) while there was no significant difference between variable- and fixed-ratio punishment.—*Journal abstract.*

2582. Knouse, Stephen B. & Campbell, Patrick E. (Southern Methodist U.) **Partially delayed reward in the rat: A parametric study of delay duration.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 116-119.—Tested male albino Holtzman rats in a straight-alley runway in 2 replications with 40 Ss each. Acquisition consisted of 5 trials a day for 10 days under a 50% irregular partially delayed reward schedule. Delay was varied as a between-groups factor with 0-, 8-, 16-, 24-, 32-, 40-, 48-, or 56-sec delays in the goal box. Extinction consisted of 5 trials a day for 8 days to a

nonreward confinement of 15 sec. In acquisition there were no differences in performance among delay-duration groups in the start or run times. In the goal times the 0-sec group ran significantly faster than all other groups. During extinction all speed measures produced an increasing linear relation between duration of delay and resistance to extinction. Results are discussed in terms of current theories of extinction. —*Journal abstract.*

2583. Shearman, Richard W. (State U. New York, Psychological Services, Binghamton) **Response-contingent CS termination in the extinction of avoidance learning.** *Behaviour Research & Therapy*, 1970 (Aug), Vol. 8(3), 227-239.—5 groups of rats were employed in a 2 × 2 plus control group design with flooding (100-sec exposure to the CS alone vs. 20 5-sec exposures) and confinement as the independent variables. After learning a 2-way avoidance response experimental groups received 1 of the 4 treatments while the controls rested. During 9 days of regular extinction which followed, the avoidance responses of all experimental groups were equally (and virtually) extinguished from the 1st day; controls showed little extinction. The 4 treatment procedures had in common that CS termination was not response-contingent; this was hypothesized to be responsible for the elimination of the response. To test this hypothesis all Ss were retaught the response following which the controls received extinction with non-response-contingent CS termination while the experimental animals received response-contingent CS termination. The results of the 1st extinction were reversed. It is concluded that avoidance responding is "inextinguishable" only so long as the response results in CS termination. Generalizing to humans, the study supports the conclusion that total duration of exposure to the CS and inability on the part of the patient to terminate the CS may be the 2 essential factors in successful behavioral treatment of phobias. —A. Barclay.

2584. Smith, Kendon. (U. North Carolina, Greensboro) **A possible explanation for the Estes phenomenon in terms of a symmetrical law of effect.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 61-62. In 1944, Estes reported experimental results which seemed to uphold the hypothesis that punishment merely "suppresses," rather than truly "weakens," behavior. It appears, however, that the conditions of Estes' experiment were such as to favor (a) the attachment of a strong secondary reinforcing effect to the response of lever-pressing; (b) the persistence of that effect in spite of any weakening, by punishment, of the response itself; and (c) the action of that effect to restrengthen the response, once punishment had been terminated. Evidently, then, Estes' results are not contrary to Thorndike's original, symmetrical law of effect. *Author abstract.*

2585. Terris, William & Sears, Ronald J. (De Paul U.) **Determinants of generalized resistance to punishment.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 19-20.—Animals trained to resist gradually increasing shock-punishment in order to obtain food subsequently show increased resistance to shock-punishment in a novel testing situation. An attempt was made to determine the extent to which this transsituational resistance to punishment is due to: (a) an approach

response which generalizes from 1 fear situation to another, (b) shock simply losing its aversiveness, or (c) shock becoming a secondary reinforcer. In a training apparatus, 190 albino rats received 1 of 4 treatments: (a) shock-food pairings contingent upon an approach response, (b) shock-food pairings independent of any response, (c) shock not paired with food and independent of response, or (d) no shock but food. Subsequently, in a novel testing situation, each response produced either: (a) both food and shock, (b) food but no shock, (c) no food but shock, or (d) no food and no shock. Highly reliable F ratios were obtained for the training factor, the testing factor, and the Training × Testing interaction. Results indicate that the approach response acquired in the training apparatus did generalize to the testing apparatus. In addition, the aversiveness of shock was reduced, partially by shock-food pairings, and partially by mere experience with shock. There was no evidence for the secondary reinforcement hypothesis. —*Author abstract.*

2586. Wells, Arthur M. (U. Florida) **An investigation of operant elements in desensitization: A comparison of differential reinforcement of other behaviors and desensitization in the reduction of phobic responses in rats.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4350.

2587. Wong, Paul T. (U. Texas) **Coerced approach to shock and resistance to punishment suppression and extinction in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Apr), Vol. 75(1), 82-91.—Hypothesized that the continuation of any ongoing behavior in the face of disruptive events increases responding in other disruptive situations. 30 naive male Wistar rats and 32 naive rats were tested in 2 experiments involving coerced approach to intermittent shock and consistent shock. Results demonstrated that such training (a) increased resistance to suppression by punishment under conditions of noncoercing in the same situation, and (b) increased resistance to extinction of a food-rewarded running response. Results are interpreted in terms of A. Amiel's general theory of persistence (17 ref.). —*Journal abstract.*

2588. Woodard, William T. & Blitteman, M. E. (U. South Florida) **Punishment in the goldfish as a function of electrode orientation.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 72-73. For each response to a nipple from which they were trained to take liquid food, 83 in goldfish were punished with a brief AC shock administered through a pair of stainless steel electrodes placed either to the right and left of the S, over and under it, or in front and back of it. As anticipated, on the assumption that the aversiveness of shock is a function of the potential difference across the S's body, the right-left orientation of the electrodes was found to produce the least suppression of feeding and the front-back orientation the most. *Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

2589. Box, Hilary O. & Westby, G. W. (U. Reading, England) **Behavior of electric fish (*Gymnotus carapo*) in a group membership experiment.** *Psychonomic Science*, 1970(Oct), Vol. 21(1), 27-28.—Used 4 specimens of the electric fish *Gymnotus carapo* to investigate the social interactions of members of this species. 4 different 2-member groups were established and observed for

20-min sessions every day for 8 days. 2 categories of aggressive behavior, approach, and threat movements, were found to be inversely related to the phenomenon of "turning off" of electrical pulses. Further, the S that became the more aggressive in any pairing could be predicted from the mean pulse frequency measured prior to the social experiment.—*Journal abstract.*

2590. Denenberg, Victor H. & Zarrow, M. X. (U. Connecticut) **Rat pax.** *Psychology Today*, 1970(May), Vol. 3(12), 45-47, 66-67.—Tested the hypothesis that "aggressive behavior is the result of interaction between the environment and the genetic make-up of the organism" using mice and rats. Rats who were reared with mice did not kill mice when later placed in a cage with a mouse although 45% of the control rats killed mice. In another study only 5 of 115 pairs of mice reared by rat mothers fought each other while 46% of the control mice fought. The levels of corticosterone of the control mouse-reared mice also differed from that of the rat-reared mice. Using "rat aunts" with nursing mice it was possible to show that differences in fighting tendencies and corticosterone levels were due to the social interaction of the rats and not to the differences in milk content.—*E. J. Posavac.*

2591. Flandera, V. & Nováková, V. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **The development of interspecies aggression of rats toward mice during lactation.** *Physiology & Behavior*, 1971(Feb), Vol. 6(2), 161-164.—Tested the aggressive behavior of rats towards mice in 4 breeding groups of laboratory female rats (Wistar-SPF, and conventional Long-Evans, Sprague-Dawley, and Wistar) before mating and during lactation. On each testing day, independent groups of females were tested. The incidence of aggression before mating was at a low level for all Ss. During the period of lactation aggression increased significantly only in 1 group, namely the females of the Wistar-SPF group. In this group the aggressive behavior of mothers increased from parturition and reached its maximum on the 5th day of lactation (60% of occurrence). Thereafter incidence of aggression decreased and disappeared entirely by the 15th day of lactation. This development is independent of the immediate presence of pups with mother, and of environment of the female during the time of testing. The aggressive behavior of the females who killed mice during the period of lactation had a long-term character, and outlasted the weaning of the pups.—*Journal abstract.*

2592. Nevo, Eviatar. (Hebrew U., Lab. of Genetics, Jerusalem, Israel) **Mole rat spalax ehrenbergi: Mating behavior and its evolutionary significance.** *Science*, 1969(Jan), Vol. 163(3866), 484-486.—Within 4 groups of Israeli Spalax ehrenbergi, each with different numbers of chromosomes, it was found that mating behavior provided partial reproductive barriers. It is concluded that selective matings between chromosome forms may complement a cytologic isolating mechanism to prevent widespread natural hybridization.

2593. Pion, Lawrence V. (Pennsylvania State U.) **Effects of experience, social structure and hunger on the incidence of mouse-killing behavior in Norway rats.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-B), 3770.

2594. Ploog, Detlev & Melnechuk, Theodore. (Max Planck Inst. for Psychiatry, Munich, W. Germany) **Primate communication: A report based on an NRP work session held January 3—February 1, 1967.**

Neurosciences Research Program Bulletin, 1969(Nov), Vol. 7(5), 419-510.—Reviews the phenomenology and physiology of communication among nonhuman primates. Vocalization in the bullfrog is presented as a model because of its simplicity and the amount of correlated behavioral and physiological data. Primate signals are discussed in several aspects: (a) interaction of communication and social behavior, (b) modalities, (c) signal function, and (d) context effects. Studies of vocal calls and signal-response interdependencies in the squirrel monkey, signal-response interdependencies in 3 species of baboon, mother-infant bond in the bonnet and pigtail macaques, and electrically evoked vocalization in rhesus monkeys are described. Discussions of linguistic and nonlinguistic communication involve (a) comparison of primate and human physiology and behavior, (b) discussion of 3 attributes of language, (c) speculation on the evolution of language, (d) studies of sensory-motor feedback, and (e) examinations of the role of the brain in language. Empirical and theoretical research strategies are described. Prospects and problems of research in primate communication are outlined. (16 p. ref.)—*S. Knapp.*

SENSORY PROCESSES

2595. Fannin, Henry A. & Braud, William F. (U. Houston) **Preference for consonant over dissonant tones in the albino rat.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 191-193.—It was demonstrated that 16 albino rats without prior exposure to consonant and dissonant tones prefer the former. This finding is discussed in relation to sensory reinforcement theory and to the well-known phenomenon of noxiousness of dissonant sounds in man.—*Journal abstract.*

2596. Harris, Alastair V. (U. South Dakota) **Visual masking in monkeys.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4363.

2597. Kardos, Lajos. (Eötvös Lóránd U., Budapest, Hungary) **A tér orientáció alaplformái az állatoknál.** [Basic forms of spatial orientation in animals.] *Psychológiai Tanulmányok*, 1967, No. 10, 61-65.

2598. Somerville, John W. (Southern Illinois U.) **Motion parallax in the visual cliff situation.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 43-53.—Walk's assumption that motion parallax is "the critical cue" for depth discrimination by newly hatched chicks was assessed by the use of 3-dimensional striped patterns on each side of the centerboard. The 3-dimensional patterns served 2 purposes: (a) to test a hypothesis that chicks would show no significant preference for the "shallow" side if motion parallax cues were presented independent of the solid appearance furnished by 2-dimensional surfaces, and (b) to permit direct manipulation of the stimulus basis for motion parallax. Ss were 250 6-24 hr old chicks. Results provide evidence that stimuli for motion parallax, devoid of the solid appearance of 2-dimensional surfaces, are sufficient cues for depth discrimination by chicks.—*Journal abstract.*

DEVELOPMENTAL PSYCHOLOGY

2599. Altus, William D. (U. California, Santa Barbara) **Sex role dissatisfaction, birth order, and parental favoritism.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971.

6(Pt. 1), 161-162.—Predicted that more frequent sex-role dissatisfaction, as reported by undergraduate females from 2-child families, would be found among those females who were their father's favorite child or who were born 2nd. It was also predicted that greater sex-role dissatisfaction would be correlated with poor adjustment. The prediction relating to birth order was sustained but the one relating to adjustment was not. The prediction on paternal favoritism was partially sustained. Females with male sibs tended to be dissatisfied with their sex role. Favoritism had no effect if the sib was female.—*Author abstract.*

2600. Cavior, Norman & Doeckel, Paul R. (West Virginia U.) **Physical attractiveness self concept: A test of Mead's hypothesis.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 319-320.—Observations from various sources indicate that what a person thinks of his physical appearance is very important in terms of his psychosocial development and interpersonal relations. Using 5th and 11th graders, the study failed to support Mead's hypothesis that the self-concept is derived from the judgments of significant others. Physical characteristics of Ss were found to be of greater importance than the opinions of significant others apparently because liking or disliking the person being judged affects the judgments of his physical attractiveness.—*Author abstract.*

2601. Eckerman, Carol O., Rheingold, Harriet L., & Helwig, Richard A. (U. North Carolina, Chapel Hill) **A laboratory for developmental psychologists.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 54-62.—Describes the main features of the laboratories for developmental psychologists at the University of North Carolina. Included are (a) a flexible spatial arrangement of experimental rooms, (b) a grouping of the rooms into 3 independent units for the conduct of research with immature organisms of different ages and species, (c) central apparatus that controls the stimulating and recording equipment, (d) viewing areas that permit the observation of behavior in several rooms, (e) auditory intercommunication between all pairs of rooms, and (f) self-contained automated devices to aid the E or O in his tasks. These characteristics make the laboratories useful for a variety of studies.—*Journal abstract.*

2602. Green, Phillip C., Elliot, Lee, & Bancke, Linda. (Bowling Green State U.) **Age differences in information processing of an ambiguous learning task: Effect of varying information level.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 209-210.—1st graders and college students learned a 3-choice probability learning task. "Correct" responses were rewarded with either cents (juveniles) or money (adults). Information feedback (5, 10, 20%) and stimulus anticipation (AT = 2, 11 = 100, 60, 20%) were systematically varied. Results indicate (a) a direct relation between IF level and matching ability in both groups, (b) regression to chance below IF = 60, and (c) greater processing ability by juveniles at lower feedback levels and longer AT spans. It is concluded that 7 yr. olds can process ambiguous content about as well as adults if they receive a constant and sufficient information flow and their information carrying capacities are not overloaded.—*Author abstract.*

2603. Hall, Elizabeth. **A conversation with Jean Piaget and Bärbel Inhelder.** *Psychology Today*, 1970 (May), Vol. 3(12), 25-32, 54-56.—Piaget relates how his early interests in biology were applied to the study of

intelligence when he became convinced that most of the problems of philosophy were problems of knowledge and that most problems of knowledge were problems of biology. Another early indication of the direction of his later work was his interest in the concept of equilibrium when answering a standard intelligence test question who has cooperated with Piaget for over 30 years, and with him in suggesting that education should be organized by a greater concentration on developmental tasks and by helping children learn basic scientific concepts and activities before introducing the formal mathematical representations of these concepts.—*E. J. Poirier.*

2604. Horvath, László G. (Eötvös University, Budapest, Hungary) **Az emocionális és pszichés folyamatok vizsgálata különböző életkorúknál.** Examinations of emotional and mental processes in various age groups. *Psychologiai Tanszemle*, 1970, No. 10, 733-741.

2605. Khatena, Joe (Marshall U.) **Production of original verbal images by children between the ages of 8 and 19 as measured by the alternate forms of onomatopoeia and images.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 187-188.—Experiments designed to measure creative thinking occurring at the 4th and 5th grade levels relative to the production of original images as measured by Onomatopoeia and Images (a test of verbal originality). 280 boys and 261 girls from 4th and 5th grades served as Ss. Both forms of the instrument were administered at the ages of 10 and 15 or at about the 5th and 4th grade levels with differential rates of increase for boys and girls.—*Author abstract.*

2606. Kulsin, Sandra, Kulsin, Bertram, Pargament, Richard, & Bird, Henry (Rivera Research Inst., New York, N.Y.) **Children's social distance construct: A developmental study.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 151-152.—Developmental changes in children's concepts of the normative and personal social distance between the sexes and the races were assessed with a nonverbal measure for 4167 black and white boys and girls in Grades 1-12. So made judgments concerning the appropriate distances at which stimuli differing in race and/or sex should be placed from one another, and judgments concerning the appropriate distances between the self and others. Distances between the sexes decreased during adolescence. Distances between the races increased with age. Both self-other distances from white and black female stimuli changed markedly with age.—*Author abstract.*

2607. Latta, Luis M., Swartz, Jim D., & Holzman, Wayne H. (Texas Austin) **Human figure drawings by normal children over four years of repeated testing.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 167-168.—Studied human figure drawings of 1000 children longitudinally for the last 4 years of a long period of perceptual cognitive development. Boys grouped by age, male and female Ss were 7, 8, 9, 10, 11, and 12 years initially, and 11, 12, 13, 14, 15, and 16 years at the 4th study. Boys' drawings increased in size and detail. Girls' study was by age. Males' drawings increased in size and detail. Boys' drawings were more detailed than girls' drawings. Developmental changes in drawing were more marked for HFD scores. Sex differences were found. Drawing for HFD scores. Sex differences were found. Drawing for females at most ages. From 4 to 9 years of age, males' female figure 1st, males ranged from 78-97%. Females drawing same sex figures 1st decreased with age, but not

males. Correlations between Vocabulary and HFD scores for males increased with age. Highest correlations with HFD scores across age-sex groups were for Block Design.—*Author abstract.*

2608. Newton, Darren & Allen, Vernon L. (U. Wisconsin) Norm formation and social influence in children. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 157-158.—Investigated effect of a group decision on children's private acceptance across Grades 4, 7, and 10 with a total of 113 children. Experimental conditions either increased or decreased perception of individuals as a psychological group. It was predicted that group influence would increase directly with age in the condition of increased group awareness. Results confirm the prediction from the 4th to 7th grade, but not from Grade 7 to 10, possibly because of failure in the manipulation used to differentiate the conditions on group feeling. No difference among the 3 ages was observed in the condition of minimal psychological group formation.—*Author abstract.*

2609. Salamon, Jenő. (Eötvös Lóránd U., Budapest, Hungary) A megismerés és a cselekvés együttes átalakulása az ontogenezisben. [Joint changes of cognition and activity in the course of ontogenesis.] *Pszichológiai Tanulmányok*, 1967, No. 10, 339-343.

2610. Soares, Louise M. & Soares, Anthony T. Age differences in the personality profiles of disadvantaged females. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 163-164.

2611. Sommers, Richard H. (U. South Carolina) Codability as affected by incidental and intentional learning, developmental level, and meaningfulness of stimuli. *Dissertation Abstracts International*, 1971-(Jan), Vol. 31(7-B), 4321.

2612. Voronin, L. G., Kononov, V. F., & Serikov, I. S. (Inst. of Biophysics, Moscow, USSR) Dinamika formirovaniya i dilitel'nost' khraneniya sledovykh protsessov u cheloveka v ontogeneze. [The dynamics of the formation and the duration of storage of trace processes in human ontogeny.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 195(6), 1468-1471.—52 5-17 yr. old Ss were presented with 50-70 sequences of sound and light stimuli of 3-sec duration each, separated by a 15-sec interval. Ss' task was to open their eyes when the light was turned on. In the course of the trials changes in Ss' GSR were measured 2 or 3 times as stimulus presentation was suspended. The results were: (a) the younger the S, the stabler the response to stimuli and to the ITI, and the longer the extinction process; (b) the younger the S, the faster a GSR to time was established; (c) the younger the S, the longer the duration of the stimulus trace. The observed age differences are explained in terms of changes in the inhibition-excitation processes, phasic-tonic reactions, and mobility of the nervous system.—*L. Zusne.*

INFANCY

2613. Banikiotes, Forence G., Montgomery, A. A., & Banikiotes, Paul G. (Elkhart Rehabilitation Center, South Bend, Ind.) Auditory reinforcement of infant vocalizations. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 135-136.—Studied differential effects of male and female auditory reinforcement on fundamental frequency and rate of infant vocalizations. 16 infants

participated in an experimental session consisting of 4 3-min stages; 2 base-line stages alternated with 2 conditioning stages. During base-line stages vocalizations were counted. During conditioning stages vocalizations were counted and reinforced by male or female voices. Although experimental procedures resulted in a significantly greater number of vocalizations from base-line to conditioning stages, no differences were found between conditions involving male and female auditory reinforcement. Fundamental frequency of vocalizations remained constant through all experimental stages.—*Author abstract.*

2614. Bhana, Kastoore. (U. Kansas) Response decrement and recovery as an index of visual discrimination in young human infants. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3686.

2615. Bower, T. G., Broughton, J. M., & Moore, M. K. (U. Edinburgh, Scotland) Infant responses to approaching objects: An indicator of response to distal variables. *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 193-196.—Infants (Ns = 21 6-20 day old Ss in Exp. I, 5 8-17 day old Ss in Exp. II, and 9 10-20 day old Ss in Exp. III) showed an adaptive avoidance response to approaching objects. The response was affected by the closeness and speed of approach. It was mediated by visual variables. Air-pressure changes did not elicit the response. This kind of response implies discrimination and response to distal variables rather than merely to their proximal mediators.—*Journal abstract.*

2616. Giblin, Paul I. The development of imitation in Piaget's sensory-motor period of infant development (Stages III-IV). *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 137-138.—Studied 16 white home-reared babies (8 boys and 8 girls) ranging in age from 6 mo. to 2 yr. during home visits. Piaget's sensorimotor development theory of imitation was employed, and his special thesis of the hierarchical sequence was tested. E proposed 4 criteria for assessing the development of imitation during this period: (a) accuracy of the imitation, (b) speed at which imitations are acquired, (c) complexity of imitation infant is capable of acquiring, and (d) novelty of the imitation. Findings conformed to the Guttman quasi-simplex correlation matrix, and demonstrated existence of a developmental sequence. Further investigations relating imitation during the sensorimotor period to application of measures of affective development are proposed.—*Author abstract.*

2617. Kabai-Husza, Antónia. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) Az érzelmi differenciálódás fejlődésének jellegzetességei a különböző környezetben nevelkedő 3-24 hónapos gyermekeknél. [Emotional differentiation of children aged 3-24 months educated in different environments.] *Pszichológiai Tanulmányok*, 1967, No. 10, 381-386.

2618. Katz, Violet. (New York U.) The relationship between auditory stimulation and the developmental behavior of the premature infant. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4156-4157.

2619. Krebs, Richard L. (Sinai Hosp., Baltimore, Md.) Mother and child: Interruptus. *Psychology Today*, 1970(Jan), Vol. 3(8), 33.—On the basis of experience with 2 infants who woke up and cried when their mother became sexually aroused, it is speculated that the odor of the mother's milk disturbed the infants' sleep. This behavior has survival value since it postpones the next pregnancy.—*E. J. Posavac.*

2620. McKenzie, Beryl & Day, R. H. (Monash U., Clayton, Victoria, Australia) **Operant learning of visual pattern discrimination in young infants.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 45-53.—Studied visual discrimination of simple patterns by 6-12 wk. old infants. The appropriate direction of head turning to the patterns was developed and maintained by social reinforcement. Results show that visual discriminative control of the direction of head turning can be achieved. (20 ref.)—*Journal abstract*.

2621. Minard, James; Quick, Gary; Gory, Elliot, & McWilliams, Jun-Ko. (Maryland Psychiatric Research Center, Baltimore) **Polygraphically recorded rapid eye movement and reliably observable behavior obtained during sleep as indicators of neonate function: Effects of major tranquilizers and nursery noise.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 185-186.—Describes exceptions to previously reported patterning and day-to-day change in cumulative REM records of sleeping neonates. An infant lacking patterning had REM abolished by nursery noise and proved hyperactive. Marked day-to-day REM increase and absence of sleep-onset REM were observed in neonates of mothers given major tranquilizers during pregnancy. Related studies suggest nursery noise usually lacks marked effect on REM measures, absence of sleep-onset REM is unusual, and latency from lid closure to directly observed REM has convenience, reliability, and stability in neonate research.—*Author abstract*.

2622. Miranda, Simón B. & Fantz, Robert L. (Case Western Reserve U.) **Distribution of visual attention by newborn infants among patterns varying in size and number of details.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 181-182.—Size and number of details were varied both independently and simultaneously in an array of 6 stimulus targets for visual preference testing of newborn infants. Consistent preferences were shown for higher numerosity when size was controlled and for larger size when number remained constant, with a tendency toward prepotency of size over number preference when the 2 varied inversely as in commonly used "complexity" variations. Results question interpretations of previous studies as showing preference for simpler patterns by newborns and an increase in "optimal complexity level" or "information-processing capacity" with age.—*Author abstract*.

2623. Nelson, Keith E. (Yale U.) **Accommodation of visual-tracking patterns in human infants to object movement patterns.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3733.

2624. Sanders, William E. (U. South Carolina) **The effects of receptive and expressive speech training on vocabulary size of one year old infants.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4319.

2625. Sigman, Marian D. (Boston U., Graduate School) **The effects of high and low stimulation on visual attention and preference for novelty in infants.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3739-3740.

2626. Smith, JoAnn H. (New York U.) **A study of the relationship between dogmatic and rigid attitudes in the mother and early developmental progress in the infant.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4160.

2627. Vehrs, Sidney & Baum, David. (U. Colorado) **A test of visual responses in the newborn.** *Developmental Medicine & Child Neurology*, 1970(Dec), Vol. 12(6), 772-774.—Describes a test consisting of a bright red flashing light (7-W with reflector, blinking rate 18/min) mounted by a headband on the examiner's nose, allowing him to hold the baby upright in his arms. It proved superior in eliciting ocular fixations and following responses to the traditional stimuli of a red ball or diffuse light.—P. W. Pruyser.

2628. Woodcock, James M. (C. W. Post Coll., Long Island U.) **Terminology and methodology related to the use of heart rate responsivity in infancy research.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 76-92.—Discusses methodological problems in measuring and interpreting infantile heart rate reactivity. Various ways of describing cardiac activity are listed. Attention is given to the relationship between resting state and heart rate responsivity. (36 ref.)—*Journal abstract*.

CHILDHOOD

2629. Bartha, Lajos. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A második jelzőrendszer előlokainak és elemi formái kialakulásának kísérleti vizsgálata kisgyermekeknél.** [Experimental investigation of the preliminary phases and elementary forms of the second signalling system in preschool children.] *Pszichológiai Tanulmányok*, 1967, No. 10, 345-349.

2630. Benkő-Zsemlye, Erzsébet. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A gyermek viszonya a saját és kortársai rajzteljesítményéhez.** [The child's attitude towards his own drawing and that of his peers.] *Pszichológiai Tanulmányok*, 1967, No. 10, 397-400.

2631. Borton, Terry. (Philadelphia Board of Public Education, Pa.) **Dual audio television.** *Harvard Educational Review*, 1971(Feb), Vol. 41(1), 64-78.—Describes "dual audio television," a new medium designed to help young children learn significantly more factual information, concepts, and process skills while watching regular commercial TV broadcasts. It requires little technology and can provide each child with several thousand hr. yr. of instruction at negligible cost. A dual announcer would weave his commentary in between the verbal script and music of the commercial program and the child would receive it via his own inexpensive preset radio, equipped with a bug-in-the-ear private listening device. Preliminary experiments of promise are reported, practical and technical problems discussed, and procedures for further testing and implementation outlined.—C. Franks.

2632. Brophy, Jere E. & Lassa, Luis M. (U. Texas) **Effect of a male teacher on the sex typing of kindergarten children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 169-170.—To evaluate the effects of exposure to a male teacher, male-taught and female-taught kindergarten children were compared in a 2-yr. study. Measures taken involved sex typing in interests and preferences, mental ability patterns, sociometric play patterns, attitudes toward school and school objects, conceptual tempo, task persistence and level of aspiration. Few teacher sex effects were observed, and these were confined mostly to covert variables rather than

overt sex typed behavior. In general the results are consistent with Kohlberg's writings but not with predictions based on modeling or reinforcement theories.—*Author abstract.*

2633. Burnes, Kay. (National Inst. of Child Health & Human Development, Bethesda, Md.) **Clinical assumptions about WISC subtest score and test behavior relationships.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 299.—Administered the WISC to 40 white and 38 Negro 8-yr-old boys. The E and an O independently scored the S's behavior for attention, energy level, social skill, task persistence, and concern about performance. 13 clinical psychologists completed a questionnaire ranking behaviors considered important to performance on each of the WISC subtests. 15 hypotheses resulted, 8 involving attention and none involving concern about performance. Analysis of scores and ratings produced 8 significant relationships, 3 involving concern about performance. Emphasis on attention was found to be greatly overestimated. 16 correlations were significant for race and socioeconomic status. "Results indicate that (a) most of the clinically assumed relationships do not exist, and (b) the importance of test behavior to performance may vary among groups of children and tasks."—S. Knapp.

2634. Busch, John C. & DeRidder, Lawrence M. (U. North Carolina, Greensboro) **Note on control for intelligence in studies of field dependence with young children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 337-338.—96 4.10-6.2 yr. old children from 6 Head Start Centers were administered the Rod and Frame and the Lorge-Thorndike Intelligence Tests. ϕ coefficients indicated that there was no relationship between intelligence and Rod-and-Frame scores for males and females separately or combined. It should not be necessary to control for effects of general intelligence in studies of field dependence with young Ss.—*Journal abstract.*

2635. Houston, H. S. **New directions: Research concerning early childhood.** *Delta, Massey U., New Zealand*, 1970(May), No. 6, 2-5.—Briefly describes the work of various behavioral scientists investigating growth and behavior in the early years of childhood. The progress of Project Head Start, the work at University of Illinois with mothers as teachers, and the work at Harvard by J. Kagan and by J. Bruner is reviewed. The psychological development of the young child and the different child-rearing techniques of various middle- and lower-class mothers are emphasized. The program of the Harvard School of Education's Pre-School Project, in which mothers have been placed into 1 of 5 categories on the basis of the mother-child relationship, is discussed. It is concluded that the significance of such work "cannot sensibly be overlooked by any group of educators ... concerned with the social and intellectual well-being of pre-school children."—R. Wiltz.

2636. Jamias, Maria F., Pablo, Renato Y., & Taylor, Donald M. (McGill U., Montreal, Quebec, Canada) **Ethnic awareness in Filipino children.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 157-164.—Investigated Filipino children's self-perception in terms of ethnic identity and assessed how accurately they recognized sketches of persons representing 2 important out-groups, i.e., Americans and Chinese. Each of the 90 Tagalog male Ss (6, 8, and 10 yr. old) was administered a picture identification test designed to assess Ss' ethnic affiliation. Results demonstrate that the frequency of identifying with an ethnic group increased with age and

that children identified more often with their regional group than with the national group. Ss were more accurate in recognizing Chinese pictures than those representing Americans, implying that accuracy of ethnic perception is related to the frequency of contact with the group.—*Journal summary.*

2637. Just-Kéry, Hedvig. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Gondolkodási jellegzetességek az 5-6 éves óvodás korú gyermekeknél.** [Characteristic thought processes in nursery-school children aged 5-6.] *Pszichológiai Tanulmányok*, 1967, No. 10, 387-396.

2638. Lurçat, Liliane. (National Center of Scientific Research, Paris, France) **Etude de morphogénèse graphique.** [A study of graphic morphogenesis.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 512-520.—Presents an analysis of the evolution of obliqueness and circularity in children's drawings and tracings. Progressive coordination of horizontal and vertical movements of the arms resulted in the gradual change of a straight line to an oblique, to the development of the ellipse, and finally to the efficiently rounded curves necessary to produce true circles.—R. E. Smith.

2639. Matheny, Adam P. & Brown, Anne M. (U. Louisville, Medical School) **Activity, motor coordination and attention: Individual differences in twins.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 151-158.—Differences in temperament, attention span, and activity level as reported by mothers of 56 pairs of 12-mo-old twins were related to tested differences in cognitive abilities at age 4 yr. The more active twins were found to show temper more, have shorter attention span in play, and walk earlier but to have poorer manual dexterity than their co-twins. The twins with longer attention showed less temper and walked later but had better manual dexterity than their co-twins. Twins who were less active or had longer attention span at 12 mo. had significantly higher Wechsler Primary and Preschool Scale of Intelligence Performance IQs than their co-twins when tested at age 4 yr. Verbal IQ differences were in the same direction but not significant. (18 ref.)—*Journal abstract.*

2640. Meichenbaum, Donald H. (U. Waterloo, Ontario, Canada) **Implications of cognitive training research for educational television: Ways of improving Sesame Street.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 195-196.—The literature on cognitive training indicates that one strategy used to aid disadvantaged children to overcome serious language deficiencies is "verbal bombardment," which in many ways characterizes the "Sesame Street" format. A 2nd training strategy is an explicit tutorial language program whereby the child is taught to use language to overcome supposed comprehension, production, and mediation deficiencies. 3 studies are reported which indicate the efficacy of providing children with self-instructional training to moderate their performance and to tolerate failure by means of modeling and behavioral rehearsal. This research indicates the potentiality of modeling for thinking and cognitive strategies. The implications for educational TV cover such areas as explicit modeling of (a) self-instructions, self-reinforcement, and scanning strategies; (b) cognitive styles of reflectivity, creativity, and ways of coping with failure, delay of gratification; (c) interpersonal behaviors; and (d) Parent \times Child interactions.—*Author abstract.*

2641. Noelker, Robert W. (U. Cincinnati) **Reading**

ability and children's memory for sequence, form, and position. *Dissertation Abstracts International*, 1971-(Jan), Vol. 31(7-B), 4342-4343.

2642. **Orio, Stefania.** (State U., Pavia, Italy) **Influenza delle dimensioni affettive, economiche, culturali della famiglia sul livello di aspirazione.** [Influence of the affective, economic, and cultural dimensions of the family on the level of aspiration.] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 35-57.—Evaluated the influence of some aspects of family environment on 2 variables: the professional and scholastic aspirations of the preadolescent; and his expectation level. Level of expectation is defined as the degree of success which an individual tries to obtain in a definite task within a definite time period, and which requires an immediate solution. Level of aspiration is defined as the degree of accomplishment that an S hopes to attain over a long period of time in areas which directly influence his course of life. 294 11-13 yr. old Ss, representing all social classes were examined. Cassel's Level of Aspiration Test was used to evaluate the level of expectation, and the Ss' declarations were used for the level of aspiration, classified as low, average, and high, and then classified again into vague and definite. Family discipline was classified into (a) capricious, (b) indifferent, (c) rigid, (d) indulgent, and (e) mature. It is concluded that there is a relationship between family climate and structures and the levels of expectation and aspiration. (23 ref.)—*A. M. Farfaglia.*

2643. **Pizzo, Lucia; Renda, Salvatore, & Terrana, Liliana R.** **La rilevazione degli interessi in età evolutiva: Applicazione del Berufs Interessen Test: B.I.T.** [The emphasis of interest during the age of development: The application of the Career Interest Test (BIT).] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 97-128. Studied the problem of discovering the professional interests during the development age period. The Career Interest Test (BIT) was given to 180 elementary and secondary schoolchildren and to 200 adolescents who were apprentices. Statistical analysis shows that age, scholastic achievement, sociocultural family standards, and place of residence does influence interests. However, a deeper study of these statistics, through interviews and other information, shows that the data obtained through the test was unreliable. It is concluded that the BIT is reliable only if studied in conjunction with other detailed information of the Ss. (English, French, German, & Spanish summaries) *A. M. Farfaglia.*

2644. **Schroeder, Carolyn A. & Schroeder, Stephen R.** (U. North Carolina, Chapel Hill) **Decision conflict in children in a risk situation.** *Psychological Record*, 1970(Fal), Vol. 20(4), 457-463. Approach-avoidance conflict in 150 4th, 5th, and 6th grade boys was related to a risk situation where risk was defined as the relative magnitude of approach and avoidance tendencies. In this context, the risk was a specific win-lose ratio fixed by I. context, the risk was measured for each S on a series of decisions leading to a final decision to quit or play a game. Both win-lose ratio and incentive affected the number of Ss who quit playing and their trial of longest latency. (15 ref.)—*Journal abstract.*

2645. **Sinclair, Caroline.** (Richmond Public Schools, A Va.) **Dominance patterns of young children: A follow-up study.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 142.—Attempted to determine the change, if any, in hand, foot, eye, and ear dominance of young children after a 3-yr interval; the relationship of

dominance pattern to school success was also examined. 27 of the original 37 Ss were available for follow-up. Findings indicated stability in hand, foot, and eye preference after age 5 but some changes in ear preference. The relationships to school success were not significant. Further exploration of the concept of a dominance complex appears desirable. *Author abstract.*

2646. **Soualet, G.** (Lab. of the Psychology of Education, Bordeaux, France) **Quelques aspects de l'obéissance à la consigne à l'école maternelle.** [Some aspects of compliance with instructions in the kindergarten.] *Enfance*, 1970(May), No. 2, 203-214.—Ss consisted of 15 boys and 15 girls in each of 3 age groups: 3, 4, and 5 yr. old. They were asked to place 13 colored pieces in proper grooves on a spiral framework. Instructions implied, but did not specify, that the task was both to be completed and done correctly. Most Ss sought to complete the task but it was not until age 4 that correct performance became important. Successes increased with age but even in the older group only 53% were entirely successful. *S. S. Marzoli.*

2647. **Sutton-Smith, Brian; Lazler, Gilbert, & Zahn, Douglas.** (Teachers Coll., Columbia U.) **Age differences in dramatic improvisation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 421-422.—A review of the literature in child drama indicates that, unlike the study of children's art, there is no developmental account of improvisational phenomena. 3 improvisational tasks were presented to 34 7-12 yr. olds. Their responses to standardized instructions were recorded on videotape. When the younger (7-8 yr.) age group was compared with the older (9-12 yr.), they differed significantly in covering more space, stopping more often, creating more novel incidents, introducing more imaginary persons and showing more resistant acts to a 2nd player. Older children repeated more details thus giving a more clearly differentiated representation and a higher level of communication.—*Author abstract.*

2648. **Székely, Lajos.** **A gyermekkorú alkoholfogyasztás motivációja és megelőzése.** [Motivation for, and prevention of, alcohol consumption in childhood.] *Psychologiai Tanulmányok*, 1967, No. 10, 305-315.

2649. **Tóth, Béla.** (National Education Inst., Budapest, Hungary) **Az irodalmi érdeklődés vizsgálata 6-8 éves korban meserajzokkal.** [Examination of literary interest with the help of a fairy tale drawing test in a group of children aged 6-8.] *Psychologiai Tanulmányok*, 1967, No. 10, 215-219.

Learning

2650. **Beamer, Robert H.** (Illinois State U.) **Transfer after training with single vs. multiple tasks by individuals and pairs of low and high ability fifth graders.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2730.

2651. **Bernstein, Alan L.** (Tufts U.) **Variables affecting paired-associative learning in children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4354.

2652. **Brigham, Thomas A.** (U. Kansas) **Effects of choice and immediacy of reinforcement on multiple-schedule and switching performances on kindergarten children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3721-3722.

2653. **Campione, Joseph C., McGrath, Michael, &**

Rabinowitz, F. Michael. (U. Illinois, Children's Research Center) **Component and configurational learning in children: Additional data.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 137-139.—Tested 28 preschoolchildren with a 2-situational discrimination problem followed by a test series designed to assess whether components, configurations, or both were used to solve the original problem. 1 pair of stimuli differed in size, and 1 pair differed in color. It was found that whereas 25 of the Ss learned a component solution to the size pair, only 14 learned a component solution to the color pair. It is concluded that children of this age use both components and configurations within a discrimination problem and that the type of solution depends upon the dimension along which the stimuli vary. The relevance of the present findings to earlier work is discussed.—*Journal abstract.*

2654. **Cole, Lawrence E.** (U. Oklahoma) **Implicit associative responses in the verbal discrimination learning of children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4357-4358.

2655. **Deichmann, John W., Speltz, Mary B., & Kausler, Donald H.** (Southern Illinois U.) **Developmental trends in the intentional and incidental learning components of a verbal discrimination task.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 21-34.—Investigated developmental trends in both the intentional and the incidental learning components of a verbal discrimination task. An inverse relationship between age and intentional verbal discrimination learning was found in 36 parochial school children from the 4th-6th grade levels in Exp. I and from the 3rd-6th grade levels in Exp. II with 160 public school children, in agreement with Weber's law presumed by frequency theory to be operative in verbal discrimination learning. However, speed of intentional learning increased from the kindergarten to 3rd (Exp. II) and from the 6th-8th (Exp. I) and 9th (Exp. II) grade levels. In both experiments there was a direct relationship between age and amount of incidental learning, and there was no evidence for the post-6th-grade decrement in Type 2 incidental learning reported in earlier studies. (18 ref.)—*Journal abstract.*

2656. **Denison, Joseph W.** (George Peabody Coll. for Teachers) **Relationship of auditory and visual perceptual strengths to methods of teaching a paired-associate task to first graders.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 218.—Auditory and visual tests were used to define proposed perceptual preferences for learning in a group of 1st graders. Paired-associate tasks were then presented visually and auditorily to assess the efficacy for learning of matching methods of presentation to such perceptual strengths. Results failed to support the predicted interaction between modality strength and learning facility. "Auditory learners" performed significantly better on the 2nd presentation of the task, regardless of modality of emphasis.—*Author abstract.*

2657. **Di Vesta, Francis J.** (Pennsylvania State U.) **The effects of connotative similarity in children's learning of a paired-associate task.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 35-44.—Assigned 60 5th-6th grade children to learn 1 of 10 paired-associate lists varied according to the number of word-pairs that were similar or opposite in connotative meaning. A mixed list (interference or unrelated) of word-pairs served as a control. All basic lists were

arranged with adjectives as stimuli and nouns as responses. All but the 2 lists representing intermediate degrees of oppositeness were arranged in the reverse order. Differences favoring the noun-adjective vs. the adjective-noun order of presentation were found for 1st-trial data only. Results indicate that Ss' learning of paired associates is directly related to the number of word-pairs in which the units share common connotative meanings. Opposites in which the dimensional relation, but not the polarization, is shared are learned more readily than a mixed list but with slightly more difficulty than a list in which word-pairs are similar. It is concluded that dimensional relationships or connotative meanings shared by stimuli and responses of a paired unit facilitate acquisition of a list. Results are discussed in terms of mediational processes.—*Journal abstract.*

2658. **Dickinson, Ralph V.** (U. Southern California) **A comparison of interference and decay during short-term motor memory.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2724-2725.

2659. **Duke, Ann W.** (U. Nebraska) **Children's retention of a single item as a function of acoustic similarity to interfering items.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 13-22.—Tested predictions derived from W. A. Wickelgren's associative theory of short-term retention (see PA, Vol. 43:6871). Children recalled single phonemic CVC syllables which were presented in lists of other CVC items with either initial (CV) or final (VC) phonemic constancy. The single recall item was either similar to (i.e., shared the phonemic constancy) or dissimilar to the list items. In Exp. I with 96 4th grade children, recall did not vary with acoustic similarity or with the locus of the phonemic similarity. In Exp. II with 160 5th grade children, sources of interference were identified which differentially affected the recall of similar and dissimilar items. The absence of a similarity effect was related to these sources of interference. Results of Exp. II are discussed in terms of a multiple-associative theory of retention.—*Journal abstract.*

2660. **Favell, Judith E.** (U. Kansas) **Control of preference in humans by conditioned reinforcement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3726.

2661. **Frechtling, Joy A.** (George Washington U.) **Situational determinants of color-form salience in matching and learning tasks.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4360.

2662. **Haaf, Robert A.** (U. Toledo) **Cue and incentive motivational properties of reinforcers in children's discrimination learning.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 1-10.—Investigated 2 sources of interference in children's discrimination learning: reinforcer cue properties, e.g., size, shape, and texture; and reinforcer incentive properties, linked to preference value. The effects were studied in 84 2nd grade children by (a) comparing a condition in which S received the same type of reinforcer for all correct responses with 2 multiple reward conditions in which the reward varied from trial to trial between reinforcers differing in their cue properties, and (b) comparing reinforcers of equal preference value with those of unequal value. Results indicate that variation in both the cue and the incentive properties of rewards influences discrimination performance. Variation of reinforcer cue properties produced poorer performance than the single reinforcer condition. Where the occur-

rence of multiple rewards was correlated with irrelevant position cues, rewards of unequal, but not equal, preference value induced an interfering response strategy related to reinforcer-position contingencies.—*Journal abstract.*

2663. Jones, Sandra J. (National Inst. of Mental Health Bethesda, Md.) Children's two-choice learning of predominantly alternating and repeating sequences. *Journal of Experimental Child Psychology*, 1970 (Dec), Vol. 10(3), 344-362.—64 nursery and 64 kindergarten children guessed which of 2 lights would come on for 100 acquisition and 100 transfer trials. There were 4 groups in acquisition, differing in repetition probability (p_1) level (.1 or .9) and age. For transfer, p_1 was reversed for $1/2$ the Ss in each acquisition group, resulting in 4 groups at each age level. All Ss exhibited dominant response tendencies; nursery Ss tended to repeat their response, while kindergarten Ss tended to alternate theirs. Nursery Ss' responses were more dependent on event sequence than previous findings have indicated. While both groups were able to follow the highly predictable event sequence, kindergarten Ss followed both repeating and alternating patterns better than nursery Ss. For all Ss, a repeating sequence was easier to follow than an alternating one. Response tendencies established during acquisition were extremely resistant to change; except for 1 of the kindergarten groups, the effect of previous experience was not overcome in the transfer trials. It is suggested that kindergarten Ss performed better than nursery Ss because they were superior in response inhibition. Since a repeating response tendency requires fewer inhibitory responses than an alternating one, it is also suggested that a dominant response tendency is an indicator of the level of response complexity a child can handle when processing information. (17 ref.)—*Journal abstract.*

2664. Kler, Rae J. (Yale U.) Motivational effects of the probability learning of lower and middle class children at two MA levels. *Dissertation Abstracts International*. 1970(Dec). Vol. 31(6-B), 3730.

2065 Koplon, David L. (State U. New York Albany)
Dichotomy in cognition and reversal and non-reversal shifting. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3709.

2666 Lacher, Miriam R. & Hagen, John W. (Carlton Coll.) The relation of verbal and nonverbal encoding to serial recall performance in middle and lower class children. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6 (Pt. 1) 191-192. Investigated effects of lower vs middle-class parental occupation, verbal intelligence, and action content of pictured stimuli upon nonverbal serial recall in white 1st graders attending a semirural elementary school. An Occupation \times Intelligence interaction was found no main effects. Recall was higher for pictured static objects than for actions, and higher for objects in action than for faces and activities. A Class \times Intelligence interaction with action content supported the underlying cognitive-developmental theory while suggesting that intelligence is a better predictor than occupation in a small integrated community. Assumptions about encoding processes were explored using children's verbal and action labels on a classification report. *Author abstract.*

2667 McManus, Marianne. (Iowa State U.) Effects of systematic response biases on concept learning. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol 66 Pt 1b, 193.

194. —45 preschool children were administered 18 blank trials prior to the discrimination problem. Significant level ($p < .01$) response biases for stimulus size and position were exhibited by 10 of the Ss. So who evidenced the response biases on the blank trials measure did not require significantly fewer trials to learn the discrimination problem than Ss who had responded randomly. A trend was noted for So who had demonstrated most consistency in their response bias previous to learning to require fewer trials to learn the discrimination problem ($p < .08$). Results are interpreted in the light of the response bias model. (Author abstract)

2668. Moffat, Gene H. & Miller, Frank D. (Southern Mississippi) Effect of pretraining and instructions on avoidance conditioning in preschool children. *Journal of Experimental Psychology*, 1966, Vol. 11(4), 133-138. --Studied 70 preschool Ss in a discrete trial instrumental avoidance conditioning task. Omission of response during a 10 sec. interval was followed by 10 sec. served as the aversive event. A light was presented 3 sec. prior to the omission interval. 3 experimental groups and 2 control groups in which the light was never omitted were established. One control group received explicit instructions and the other received pretraining procedures. Learning to escape the aversive response is the criterion. Explicit instructions for better avoidance performance. The explicit instructions required reach criterion as compared with the pretraining group. The experimental and control groups did not differ significantly.

2669 Moffat, Gene H. & Moffat, James P. (Southern Mississippi) Effectiveness of different verbal reinforcement combinations on a discrimination reversal problem in children. *Psychological Review* 1970(Dec), Vol. 21(6), 351-353. — Preschool (47) & 2nd old nursery school and kindergarten children with a discrimination reversal task involving a right-blank (Rb), wrong-blank (Wb), or right-wrong (RW) verbal reinforcement condition. The discrimination problem performance in the Wb and RW conditions was similar and superior to performance in the Rb condition. The reversal problem indicated that in the Wb condition older 5s reversed faster than younger 5s and that younger 5s reversed faster in the RW condition than in the Wb condition. Results are consistent with the earlier conclusion that the Rb condition is more difficult than the Wb condition. (19 ref.) *Journal abstract*

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2021 Nicki R M & Shea J J 1 New H...
[redacted] Canada Learning, curiosity, and social

group membership. *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 124-132. Presented 80 middle- and lower-class schoolchildren a series of 20 question-alternative answer items. The alternative answers associated with each question were varied in number and relative probability in order to obtain 4 degrees of objective uncertainty. Using the Shannon-Weaver average information measure, these were calculated to have .9165, 1.5849, and 2.3219 bits of information. Recall of the correct answers, provided after each question-alternative answer item, was tested after all 20 items were presented. Recall of correct answers was found to be an inverted U-shaped function of objective uncertainty. Differences in recall between middle- and lower-class Ss lessened for intermediate and high degrees of objective uncertainty. (20 ref.)—*Journal abstract*.

2672. Northman, John E. & Black, Kathryn N. (State University Coll. New York, Cortland) **Ontogeny of visual and haptic-tactual information processing.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 171-172.—Gave 96 kindergarten, 3rd grade and 6th grade Ss preference and memory tasks in the visual and haptic modalities using random forms as stimuli. Visual memory was found to be superior to haptic memory at all grade levels. Additional analyses indicated differences between modalities in the types of errors made. There was no relationship between memory for visual and haptic stimuli. Ss explored longer in the haptic modality on both preference and memory tasks. Although there was consistency across tasks for exploration time, there was no significant relationship between time on the preference task and performance on the memory task.—*Author abstract*.

2673. Ornitz, Hilda W. **A developmental study of errors of commission in recall.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3711-3712.

2674. Resnick, Lauren B., Siegel, Alexander W., & Kresh, Esther. (U. Pittsburgh) **Transfer and sequence in learning double classification skills.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 139-149.—Trained 27 kindergartners on 2 different double classification matrix tasks in an attempt to determine whether the tasks were hierarchically related. Prior behavior analyses of the tasks suggested that the 2 tasks shared many components, but that the more complex task had additional components not included in the simpler one. It was predicted that learning the simpler task and then the complex, was the "optimal" learning sequence. As predicted, Ss who learned the tasks in the optimal order learned the more complex task in fewer trials than Ss who learned the tasks in the reverse order. Ss in the reverse order group who did succeed in learning the complex task showed evidence of having acquired the simpler task in the process. Findings support the hypothesis that the 2 tasks are hierarchically related. It is suggested that acquisition of complex cognitive skills may be a matter of learning specific relevant prerequisites.—*Journal abstract*.

2675. Rosner, Sue R. (U. Iowa, Inst. of Child Behavior & Development) **The effects of rehearsal and chunking instructions on children's multitrial free recall.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 93-105.—Examined age differences in multitrial free recall. 3 instructional conditions were given to 180 1st, 5th, and 9th grade children: (a)

standard instructions; (b) overtly rehearse during picture presentation; (c) "chunk" the items by establishing mediational links. Recall, organization, and S-units (subjective groupings) increased with grade. At the 1st grade level, type of instruction had no effect on recall or organization but S-units increased under chunking instructions. All performance measures, at the 5th grade level, were facilitated by chunking instructions. An adultlike performance pattern, a slight improvement under chunking instructions, and a small decline with rehearsal instructions, was obtained at the 9th grade level. The relation between age and memory mechanisms, and the productional, mediational, and retrieval aspects of children's organization are discussed. (24 ref.)—*Journal abstract*.

2676. Weisberg, Robert W. (Temple U.) **Semantic factors in the storage of sentences in children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 53-54.—Assessed sentence storage in children using a recognition procedure. 78 5th and 6th graders heard a training list of 10 active, passive, and negative sentences and then a test list of 30 sentences—the original 10 plus 20 transformationally related to the original 10. Maximum confusion resulted when the training sentence had been active and the test sentence was its passive, or vice versa. There was little confusion from either the actives or passives to negatives or vice versa. Results support those of other studies which indicate that semantic interpretation is stored, rather than formal aspects of a sentence.—*Author abstract*.

2677. Wolpert, Edward M. (U. Kansas) **Individual differences in sensory modality functioning in first grade children in learning to read common words of two imagery values.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2751.

Concepts & Language

2678. Barragy, Micheleen. (George Peabody Coll. for Teachers) **The effect of varying object arrangement and number on children's ability to coordinate perspectives.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2730.

2679. Bartholomeus, Bonnie N. & Doebring, Donald G. (McGill U., Montreal, Quebec, Canada) **Development of naming responses to meaningful nonverbal sounds.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 195-204.—Tests of sound and picture naming were presented to 118 3¹/₂ to 16 yr. old Ss to assess perceptual development for meaningful nonverbal sounds and to compare nonverbal visual and auditory perception. Sound naming improved rapidly until the 9th yr., did not differ significantly between boys and girls, and was positively correlated with the frequency of usage of the stimulus names. Virtually all Ss were poorer in sound naming than in picture naming. It is concluded that nonverbal visual stimuli may be more salient than nonverbal auditory stimuli in the perceptual world of children. Results were interpreted with respect to the concept of modality dominance. (22 ref.)—*Journal abstract*.

2680. Beaudichon, Janine & Forestier, Marie F. (U. Paris at the Sorbonne, Lab. of Genetic Psychology, France) **Facteurs de l'efficacité de la communication entre enfants: La perceptibilité du stimulus.** [Factors affecting the efficiency of communication between

children: Perception of the stimulus.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 575-582.—Analyzes the ability of children of kindergarten and primary levels (ages 6.5-7.7 yr.) to communicate the solution of a problem to each other as to method and effectiveness. The problem involved making colored water flow to a particular point in a labyrinth built of glass tubing by manipulating a series of valves. Although demonstration alone by a child was at times effective in teaching the solution to another child, verbal interaction between them produced quicker learning and more frequent generalization to similar problems. Older children, because of greater verbal skills, were more effective teachers.—*R. E. Smith.*

2681. Beiswenger, Hugo. (St. Lawrence U.) **Linguistic and psychological factors in the speech regulation of behavior in young children.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 63-75.—Gave 48 3-4½ yr. old children 2 sets of commands. Set I commands compared conditional and unconditional responding to a random sequence of visual signals. Ss found all of the series-conditional commands difficult and the series-nonconditional ones easy. There was an age-correlated increase in ability to perform both sets. Differences in performance on Set I commands were found in some cases to be a function of the complexity of the psychological processes required to organize a plan of action corresponding to the content of the command. A Set II command which required the mental transforming of the spatial relationship of a target and instrumental action of the command itself to an opposite spatial relationship in behavior could not be performed by 83% of all Ss, while the same command, with a paratactic syntax (no mental spatial reversal required) was performed by 86% of the same Ss. (16 ref.)—*Journal abstract.*

2682. Burns, Marion E. (U. South Carolina) **The effect of positive and negative criticism on verbal questioning behavior of deprived and non-deprived boys.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4305.

2683. Christie, James F. & Smothergill, Daniel W. (Syracuse U.) **Discrimination and conservation of length.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 336-337.—Presents a study with 20 4-yr-olds in partial replication of an experiment that had used oddity-problem training to successfully induce conservation of length in 5-yr-olds. Training in the present study was successful; a group given knowledge of results on each trial responded to the length cue significantly more often than an uninformed group. However, neither group evidenced conservation of length on a transfer test. Failure of the present training to induce conservation was predicted by a recent theory of conservation. Hypotheses specifying an identity of processes underlying discrimination and conservation are presented.—*Journal abstract.*

2684. Coon, Robert C. (Vanderbilt U.) **An investigation of transitivity and conservation performance as a function of conceptual tempo.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3724.

2685. Elardo, Phyllis T. (U. Arkansas, Center for Early Development & Education) **Effects of multiple discrimination and concept training on the optional shift performance of four-year-old children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 189

190.—An examination of studies which explored the effects of verbalization training on 4-yr-old children's performance with optional shift problems revealed that previous procedures had merely required children to label various stimulus objects. The present experiment provided 24 4 yr. olds with much more complete verbalization training than in the past; however, it was found that although children learned to describe verbally the concepts apparently relevant for problem solution, they did not register significant gains in reversal responses on the optional shift problem. This finding, therefore, lends support to the theoretical positions of the Kendlers, Luria, Jensen, and Bruner.—*Author abstract.*

2686. George, Linda O. (Indiana U.) **Selected factors which affect young children's concepts of conservation of length.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2735.

2687. Gray, William M. (State U. New York, Albany) **Children's performance on logically equivalent Piagetian tasks and written tasks.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2736.

2688. Gresson, Larry F. & Jacobson, Leonard I. (U. Miami) **Effects of modeling language units of differing complexity on the language acquisition of preschool black children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 197-198.—Investigated the effects of the modeling of 5 linguistic response classes and information complexity on language usage in preschool Negro children from poverty backgrounds. It was found that the modeling of simple language units, comprised of single sentences, resulted in more effective language acquisition than the modeling of complex language units, comprised of groups of sentences. In addition, particular categories of language usage were influenced significantly more than others as a result of the simple language units treatment. Thus, the effects of information complexity and the specific characteristics of modeled stimuli significantly influence the effectiveness of modeling as a method of language learning.—*Author abstract.*

2689. Hamsber, J. Herbert. (U. Rochester) **Children's understanding of emotions and interpersonal causality.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 159-160.—Developed a story-telling technique to assess the abilities of children to perceive, interpret, and explain emotional-interpersonal reactions and behaviors. The method involved 12 pictorially presented situations in which a child was depicted as confronted with an emotionally provocative stimulus and was then seen interacting with others. Ss explained the way they interpreted the story and how the others in the story perceived the "hero's" behavior. Stories were scored for level of sophistication in dealing with affective-causal relationships. Data from 81 children (ages 6-13) indicate that the technique is a useful approach to the study of a significant developmental dimension and that the dimension is separable from intelligence.—*Author abstract.*

2690. Hecox, Kurt E. & Hagen, John W. (U. Michigan) **Estimates and estimate-based inferences in young children.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 106-123.—Examined the ability of children to perform in estimation-based inference tasks. In Exp. I, 52 5-7 yr. old children were tested for their ability to make increasingly accurate estimates of proportions as a function of CA. It was

found that there was above-chance level performance at all CA levels and that performance improved as a function of CA. In Exp. II with 41 6-8 yr. old children, measures of the ability to make quantitative inferences were studied. It was hypothesized that: (a) performance would be above-chance level at all ages; (b) inferential performance would improve with increasing CA; (c) conservatism, defined as the constriction of responses to the middle of the response scale, would vary inversely with performance level; and (d) attention strategies would be a significant determinant of performance. All of the hypotheses except b were supported. Results are discussed in terms of cognitive models and it is concluded that accurate but nonlogical modes of inference operate in the performance of children within the CA range tested.—*Journal abstract.*

2691. Madison, Charles L. (Ohio U.) **The relationship between discrimination ability in two sensory modalities and articulation in first grade children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3752.

2692. Meyers, C. E. & Orpet, R. E. (U. Southern California) **Ability factor location of some Piagetian tasks at 5½ years.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 199-200.—Probed the psychometric and structure of intellect nature of 7 Piagetian tasks (6 of conservation) in 70 middle-class children at 5½ yr. 36 subtests from Weschler Preschool and Primary Scale of Intelligence, WISC, Illinois Test of Psycholinguistic Abilities, and others provided a structure of intellect matrix. Piaget scores loaded on 5 of 6 obtained factors, principally 2 convergent production factors, one having semantic-symbolic content, the other figural-semantic, and on a simple memory span factor; another (not conservation) on a purely figural. The 7 tasks loading separately indicated no single underlying Piagetian factor, with no conservation loading on the most nearly general factor obtained.—*Author abstract.*

2693. Mitter, Peter. (U. Manchester, England) **Biological and social aspects of language development in twins.** *Developmental Medicine & Child Neurology*, 1970(Dec), Vol. 12(6), 741-757.—Comparing 200 twins with 100 single controls (all 4 yr. old) on the Illinois Test of Psycholinguistic Abilities, twins showed an average retardation of 6 mo. in language development, equally in identical and fraternal twins. This developmental retardation was greater for language than in nonlinguistic functions (form boards, drawings). (40 ref.)—*P. W. Pruyser.*

2694. Nurss, Joanne R. & Day, David E. (Georgia State U.) **Imitation, comprehension, and production of grammatical structures.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 68-74.—Gathered base-line data from 147 Southern urban higher status white and lower status white and black 4-yr-old boys and girls on measures of their ability to imitate, comprehend, and produce selected grammatical structures. Ss were given the Brown, Fraser, Bellugi Test of Grammatical Contrasts. The higher status white group performed significantly better on all 3 tasks than either of the lower status groups. The tasks ordered in difficulty: comprehension = imitation > production. An alternate scoring system was devised to account for possible dialect differences between the test and the lower status children. Status effects on language development are discussed.—*Journal abstract.*

2695. Parisi, Domenico & Antinucci, Francesco. (National Research Council of Italy, Inst. of Psychology, Rome) **Tendenze recenti nello studio dello sviluppo delle capacità linguistiche.** [Recent trends in the study of development of linguistic aptitudes.] *Archivio di Psicologia Neurologia e Psichiatria*, 1970(Jul), Vol. 31(4), 299-329.—Reviews recent research in developmental psycholinguistics: (a) early language acquisition, (b) development of syntactic abilities during the school years, (c) relationship between language development and socioeconomic status levels, and (d) theoretical models of language acquisition. The influence of transformational linguistics on psychological theory has been significant. (French, English, & German summaries) (104 ref.)—*L. L'Abate*

2696. Romsted, Jean E. (Indiana U.) **Communication effectiveness in young children: An experimental analysis of practice and listener feedback effects.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4370.

2697. Sause, Edwin F. (Fordham U.) **Computer content analysis of the psychological and social factors in the oral language of kindergarten children: Dictionary construction.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4319.

2698. Shriberg, Lawrence D. (U. Kansas) **The effect of examiner social behavior on children's articulation test performance.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3753

2699. Vaughter, Reesa M. & Barrada, Maria. (Northern Illinois U.) **Effects of dimensional preference on the optional shift behavior of young children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 205-206.—32 young children solved 2 optional shift problems in succession. The same stimuli occurred in both problems; however, for each S the dimension relevant in the 1st problem was irrelevant in the 2nd and vice versa. Ss were given a dimensional preference test involving stimuli employed in the optional shift problems prior to their solving the successive optional shift task. It was found that dimensional preferences under certain conditions influenced both the rate of learning and the probability of S's making a reversal; however, the findings also suggest that the influence of salience upon shift behavior is not as simple as dominance theory has suggested.—*Author abstract.*

2700. von Raffler Engel, Walburga. (Vanderbilt U.) **The function of repetition in child language as part of an integrated theory of developmental linguistics.** *Bollettino di Psicologia Applicata*, 1970(Feb), No. 97-99, 27-32. Systematized language acquisition according to levels of abstraction: (a) intonation, e.g., babies' cries consisting of semantically different modulations; (b) syllable, e.g., 1 or more "carrier sounds" depending upon what the infant wishes to convey, (c) imitative syllables, e.g., bye-bye; (d) 2 consecutive syllables; (e) abstraction of the phoneme; (f) manipulation of words as part of a larger unit; and (g) redundancy, which is vital to effective communication. Repetition is used by the child to commit information to memory, to hold the listener's attention, and to ease the communication by saying only the bare essentials. 4. M. Farlaglia.

2701. Ward, Edna M. (Boston Coll.) **A study of causal thinking in elementary school children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2749.

2702. Weil, Joyce. The relationship between time conceptualization and time language in young children. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3695-3696.

Abilities

2703. Cerbus, George & Oziel, L. Jerome. (Xavier U., Cincinnati, O.) Correlation of the Bender-Gestalt and WISC for Negro children. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 276.—A significant correlation ($-.44$, $p < .01$) of the Bender-Gestalt as scored by the Koppitz system with the WISC Full Scale IQ in a sample of 40 Negro schoolchildren is attributable mainly to the association between the Bender and the Performance subtests. The Bender-Performance IQ correlation ($-.72$) is significantly higher than the Bender-Verbal IQ correlation ($-.14$) and is significantly higher in a "referral" subgroup ($-.89$) than in the normal Ss ($-.58$).—*Author abstract*.

2704. Cohen, Leo. (Henrico County Public Schools, Psychological Services, Richmond, Va.) The effects of material and non-material reinforcement upon performance of the WISC Block Design subtest by children of different social classes: A follow-up study. *Psychology*, 1970(Nov), Vol. 7(4), 41-47.—Investigated "the effect of verbal approval and material reinforcement upon performance of a motor task (WISC Block Design test) by 2nd and 5th grade lower- and middle-class children [N = 36 2nd graders and 36 5th graders; IQs ranged from 85-115]." Each S was given a practice trial, and then scores from Trials 2 and 3 "were recorded in order to test the effect of the reinforcer, the criterion being speed of performance." Class was significant at the .05 level, and grade was significant at both the .05 and .01 levels. Middle-class Ss performed significantly better than lower-class children. None of the interactions of the variables representing grade, reinforcement, and class was significant.—S. Knapp.

2705. Ford, Boyce L. (Cornell U.) Children's imitation of sentences which vary in pause and intonational pattern. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3727.

2706. Graham, Geraldine A. (George Washington U.) The effects of material and social incentives on the performance on intelligence test tasks by lower class and middle class Negro preschool children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4311.

2707. Henderson, N. B., Butler, B. V., & Clark, W. M. (U. Oregon, Medical School) Relationships between selected perinatal variables and seven-year intelligence. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 139-140.—Race and mother's occupation correlated significantly ($p < .01$), but not birth weight, Apgar, type of delivery, cord around neck, toxemia, or meconium staining with WISC IQ. Perinatal variables rendered a multiple correlation of .34 with IQ. Though multiple R was highly significant ($p < .001$), variables accounted for only 11.4% of IQ variance. Possible explanations for limited contributions are: homogeneous sample; excluding some, and using infrequently occurring variables; tabulating system; measurement units and cut-off points; examiner "bias"; sample loss; no correction for death; intelligence criterion; predictor curvilinearity; concentration on immediate threat conditions; and some

conditions ameliorated by intervention, and normal growth and learning.—*Author abstract*.

2708. Longeot, F., Girard, P., Lambert, J. L., & Rouquier, C. (U. Grenoble, Inst. of Psychology, France) Etude comparative de la nouvelle échelle métrique (Binet-Simon) et de l'échelle de développement de la pensée logique. [Comparison between the new Metric Scale (Binet-Simon) and the Scale for the Development of Logical Thinking.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(Sep), Vol. 26(4), 219-237.—Both scales were applied to 96 9-11 yr. old French children. Results of the Binet-Simon were interpreted in terms of operational theory of intelligence based on Piaget and Inhelder. Stages were demonstrated by hierarchical analysis. The linear correlation between MA and the operational score was .65, and the rank-order correlation between IQ and operational score was .54, both highly significant.—M. G. Stroebe.

2709. Miller, Douglas R. (Indiana U.) Some theoretical considerations of attention. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2741.

2710. Salamon, Jenő. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) Övodások elemi konstruáló tevékenységének sajátosságai. [Characteristics of the elementary constructing ability in nursery school children.] *Pszichológiai Tanulmányok*, 1967, No. 10, 373.

2711. Selman, Robert L. (Harvard U.) Conceptual role-taking development in early childhood. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 155-156.—60 middle-class Ss (10 boys and 10 girls at each of ages 4, 5, and 6) were administered a role-taking task specifically designed to enable the S (role-taker) to make and explain predictions about a peer's responses in a situation in which S has information not available to the peer. Results suggest a 4-level progression in role-taking skill across the age-range examined. The significant correlation between CA and the role-taking levels supports the hypothesis that conceptual role-taking is an age related social-cognitive skill and implies the possible existence of an ontogenetic sequence of role-taking stages.—*Author abstract*.

2712. Willis, Diane J. (U. Oklahoma) Perceptual and cognitive performance of children as functions of socio-economic class. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3045.

Perception

2713. Asso, Doreen & Wyke, Maria. (U. London, Goldsmiths' Coll., England) Discrimination of spatially confusable letters by young children. *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 11-20.—Studied the ability of young children to discriminate spatially confusable letters using 4 different methods of discrimination. Ss were 31 5.6 6.10 yr. old English children. Results show that the accuracy of discrimination of spatially confusable letters is dependent upon the method of assessment employed. The highest accuracy was achieved with copying confusable letters from a given sample. The method that required matching a given letter with other possible alternatives was next. Naming the confusable letters and writing them in response to dictation were the most difficult tasks to perform. A significant correlation between individual performances in the matching, naming, and

writing to dictation tests was found; but in the copying task individual performances varied independently of the performances in the other tests.—*Journal abstract.*

2714. Christophersen, Edward R. (U. Kansas) **Auditory matching to sample with children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3723.

2715. Dorman, Casey. (U. Washington) **Visuo-motor scanning in preschool children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4307-4308.

2716. Faw, Terry T. & Leftgoff, Shelly. (U. California, Los Angeles) **Influence of affective value on children's patterns of visual selection.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 177-178.—Examined the influence of stimulus affective value on the visual selection of 23 4.4-6.5 yr. old females using a seminatural experimental setting. Whereas earlier studies have found that for adults a monotonic function best describes the relationship between stimulus affective value and dominance in visual selection, the present study suggests that children seek out and attend to both positive and negative stimuli. Results are discussed in light of various models of visual selection, and their implications for an understanding of human development are examined.—*Author abstract.*

2717. Grossman, Edith K. (New York U.) **Effects of anxiety on task performance.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4337.

2718. Koenigsberg, Riki S. **Evaluation of procedures for improvement of orientation discrimination in preschool children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 183-184.—Previous researchers have indicated that 4-6 yr. old Ss have great difficulty in discriminating orientation, although some studies have shown improvement following brief training. 2 experiments were conducted with middle-class children in this age range to pinpoint the sources of difficulty and to determine the best methods for improving orientation discrimination. Results indicate that children 4 and 5 can discriminate orientation, when they are informed through demonstrations that orientation is to be considered relevant. The demonstrations featured a standard which could be rotated to illustrate the relationships between forms differing in orientation.—*Author abstract.*

2719. Locke, John L. (U. Illinois) **Phoneme perception in two- and three-year-old children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 215-217.—20 2- and 3-yr-old Ss were given a phoneme perception task in which they were to point to 1 of 2 pictures whose labels differed by minimally discriminable phonetic features. Results suggest that (a) picture identification testing can be used successfully to test phoneme perception in Ss as young as 2 yr., (b) place-of-articulation cues are not difficult for young children to distinguish, and (c) children's acquisition of expressive phonology must not be wholly dependent on their ability to process phonetic cues from the environment.—*Journal abstract.*

2720. Martin, Gary L. (U. South Dakota) **The perception of hazard by young children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4367.

2721. McWhinnie, Harold J. (U. Maryland) **A third study of the effects of a learning experience upon preference for complexity-asymmetry in fourth, fifth, and sixth grade children.** *California Journal of Educational Research*, 1970(Nov), Vol. 21(5), 216-225.

—Investigated the effects of a specific type of perceptual learning upon esthetic preference, the ability to handle visual information, and selected variables of cognitive style and perceptual field independence. 249 4th, 5th, and 6th graders participated in an experiment of 10-wk duration. A limited number of significant differences were found between pretest and posttest data, however, it was concluded that perceptual learning in art in relation to selected behavioral variables did in fact seem to be possible. A number of changes in research design, nature of the instructional treatment, and tests used to measure the results are suggested before any replication ought to be contemplated.—*Author abstract.*

2722. Moskowitz, Louis. (Ohio State U.) **The relationships within early cross-modality perceptual differentiation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4317.

2723. Quina, Kathryn & Pollack, Robert H. (U. Georgia) **Ponzo figure: One or two illusions?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 175-176.—Presented the test line of a tachistoscopically presented Ponzo figure at 2 positions relative to the apex of the wedge to children in Grades 2, 4, 6, and 8. Near the apex the test line was overestimated and at the open end it was underestimated for all ages. The effect at the apex decreased with age, and at the open end it increased with age. Results are discussed with reference to assimilation and contrast processes which seem to produce 2 separate illusions.—*Author abstract.*

2724. Schneiderman, Della Z. (Brooklyn Coll., City U. New York) **Tactile-visual perception and cross-modal transfer.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 159-162.—Observations of 12 young children (age range, 2.1-6.6 yr.) suggested that by age 4 they were able to match tactually seen objects and to match visually objects explored tactually.—*Journal abstract.*

2725. Sjöstrom, Kristen P. & Pollack, Robert H. (U. Georgia) **Simulated receptor aging in the study of ontogenetic trends of visual illusions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 173-174.—A Type I (Delboeuf illusion) and Type II (Usnadze effect) illusion was viewed both through and without a yellow filter by Ss from Grade Levels 2, 5, and 8. The effects of the filter were to simulate receptor aging by decreasing the visual sensitivity of the Ss. The magnitude of the Type I illusion decreased at all age levels when viewed through the filter, but the magnitude of the Type II illusion did not change. Results are interpreted as indicating different mechanisms producing the ontogenetic trends of the visual illusions.—*Author abstract.*

2726. Stettler, Floyd W. (Utah State U.) **Measurement of the perceptual rotation of visual stimuli.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4322.

2727. Winters, John J. & Baldwin, David. (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **Development of two- and three-dimensional size constancy under restricted cue conditions.** *Journal of Experimental Psychology*, 1971(Apr), Vol. 88(1), 113-118.—160 Ss (4 groups of children and 1 group of adults) judged the sizes of pairs of circles in 2- and 3-dimensional (2- and 3-D) displays under restricted cue conditions. The cue of vertical intersection was either included or excluded. It was found that size constancy in the 3-D display already exists by 4 yr. old, and develops

further between the ages of 6-10 yr. old. No size constancy, nor differences in the judged location of the circles, was found in the 2-D condition. The cue to vertical intersection had some influence on young S's judgments in the 3-D condition, and strongly affected adults' judgments in the 2-D condition.—*Journal abstract.*

Personality

2728. Biblow, Ephraim. **The role of fantasy in the reduction of aggression.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3699.

2729. Breskin, Stephen & Rich, Kenneth D. (New York State Psychiatric Inst., New York) **Correlation of non-verbal rigidity and intelligence in elementary school children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 194.—An R of $-.106$ ($N = 143$ elementary schoolchildren) was obtained between a brief measure of rigidity (the Breskin Rigidity Test; BRT) and intelligence (IQ based on the Kuhlmann-Anderson Test). This value is consistent with the assumption that the BRT is unrelated to intelligence.—*Author abstract.*

2730. Cameron, Paul & Janky, Christine. (U. Louisville) **The effects of TV violence upon children: A naturalistic experiment.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 233-234.—To explore the possible effects on children of viewing violence on TV, 254 kindergartner's TV viewing while-at-home was controlled by their parents over a 3-wk period. After division by sex, Ss were randomly assigned to 4 conditions: (a) 3 wk. of violent TV, (b) 2 wk. of violent followed by 1 wk. of passive TV, (c) 2 wk. of passive followed by 1 wk. of violent TV, and (d) 3 wk. of passive TV. Parents were interviewed after each of the 3 wk. and after the conclusion of manipulation. Parentally-reported behavioral changes were weighed and t tests between the groups performed. Generally, although all 4 groups tended to become more pathologic, children on a violent TV diet displayed more behaviorally-pathologic changes than those on the passive diet.—*Author abstract.*

2731. Doris, John; McIntyre, Anne; Kelsey, Connie, & Lehman, Ellen. (Cornell U.) **Separation anxiety in nursery school children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 145-146.—Parental ratings of 60 3 yr. olds' proneness to separation anxiety prior to nursery school entrance correlated .70 with teachers' ratings of observed separation anxiety during the 1st 2 wk. of school. In subsequent wk. mean teachers' ratings dropped from initially high levels but remained significantly correlated with parental ratings.—*Author abstract.*

2732. Eysenck, Sybil B. & Eysenck, H. J. (Maudsley Hosp., Inst. of Psychiatry, London, England) **"Psychoticism" in children: A new personality variable.** *Research in Education*, 1969(May), No. 1, 21-37.—Hypothesized that "there exists a dimension of psychotic predisposition, quantitative in nature and independent of neuroticism and extraversion" which can be measured in children. The Neuroticism (N), Extraversion (E), and Lie (L) scales of the Junior Eysenck Personality Inventory and 35 potential Psychoticism (P) items were administered to 486 11-15 yr. old girls and boys from a comprehensive school in the north of England. "Principal component analyses were carried out on the

product-moment intercorrelations between N, E and P items for the boys and girls separately; because of limitations on numbers of items simultaneously analysed the L items had to be excluded." Results indicate the independence of the P items from the others: "for both boys and girls 3 factors similar to the hypothesized N, E and P have emerged, though not without some unexpected changes of items from 1 factor to another." The psychological traits underlying the P items are described. The text of the 95-item scale is presented. (33 ref.)—S. Knapp.

2733. Glasnapp, Douglas R. (George Peabody Coll. for Teachers) **Assessment of children's self-concepts using word association and social schemata techniques.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2735-2736.

2734. Grimaldi, G. & Minio, L. (Umberto I Civil Hosp., Div. of Nervous & Mental Diseases, Enna, Italy) **Reazioni alle situazioni frustranti in ragazzi siciliani.** [Reactions to frustrating situations in Sicilian boys.] *Neuropsichiatria*, 1968(Oct), Vol. 24(4), 885-891.—In 504 Sicilian boys extropunitive tendencies measured with Rosenzweig's Picture-Frustration Study tended to decrease while intro-punitive and impunitive tendencies tended to increase. Socioeconomic background tended to vary according to whether S was of rural or urban origin. (16 ref.)—L. L'Abate.

2735. Harris, Susan & Braun, John R. (U. Bridgeport) **Self-esteem and racial preference in black children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 259-260.—Investigated the interrelation of self-esteem and racial preference in Negro children from an inner-city and a suburban school. The Piers-Harris Children's Self Concept Scale was administered to measure self-esteem, and a variation of the Clark and Clark dolls test was used to assess racial preferences. Ss who made more Negro preference choices had higher self-concept scores than those who made fewer Negro preference choices. No significant sex or social class differences were found. A majority of the Negro children preferred the black doll.—*Author abstract.*

2736. Harsányi, István. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Iskolai tanulók érzelmi személyiség-szférájának megközelítése "osztálytőnői feladatbatteria" segítségével.** [Gaining access to the emotional layers of school-children's personality with the help of the Formmaster Battery.] *Psichológiai Tanulmányok*, 1967, No. 10, 267-274.

2737. Jones, James M. (Yale U.) **Cognitive factors in the appreciation of humor: A theoretical and experimental analysis.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3038.

2738. Mansueto Zecca, G. & Muzio, N. Ravina. (U. Genoa, School of Medicine & Surgery, Italy) **Le origini del sentimento di inferiorità nel bambino.** [The origins of inferiority feelings in the child.] *Neuropsichiatria*, 1968(Oct), Vol. 24(4), 715-727.—Inferiority feelings are less frequent and intense in preschool years than in successive stages. Inferiority feelings with pain and hurt are usually accompanied by introversion, timidity, and difficulties in socialization. Growth models are seen in older children rather than in adults. Extreme feelings of inferiority are derived from debasing familial conditions. (French, English, & German summaries) (29 ref.)—L. L'Abate.

2739. McCall, William P. (U. South Carolina) **A**

double-blind study of inquisitive behavior (curiosity) in children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4316.

2740. Mikawa, James K. & Boston, John A. (U. Nevada, Psychological Service Center) **Psychological characteristics of adopted children.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 274-281.—20 normal nonadopted children were compared to 20 normal nonrelated adopted children on a number of personality dimensions. No significant differences were found between the 2 groups on any of the measures used. (31 ref.)—D. Prager.

2741. Miller, Thomas W. (Child's Aid of Buffalo, N.Y.) **Communicative dimensions of mother-child interaction as they affect the self esteem of the child.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 241-242.—Explored the effects of verbal and nonverbal parental behavior on the self-esteem of the child by means of a stratified random sampling of schools in a large metropolitan area in the northeastern United States. Ss were 203 8th grade level children and their mothers representing a wide range of educational, social, and ethnic backgrounds. Measures to assess verbal response patterns of mothers and the self-esteem of the child yielded the following results. A significant relationship existed between maternal descriptiveness in negative situations and the self-esteem of the child. Significant differences were observed between the inner-city black sample and suburban white sample. Measures to assess nonverbal parental behavior and its effects on the self-esteem of the child indicate a significant relationship between maternal empathy, genuineness, and positive regard toward the child and his level of self-esteem. Theoretical support, cultural differences, and application and import for future inquiry are discussed.—*Author abstract*.

2742. Perczel, Tamás & Völgyesi, Pál. **Az agresszív magatartásmód komplex jellege, differenciálhatósága, különös tekintettel a társadalmi hatások személyiség alakító jellegére.** [The complex nature and differentiability of aggressive behavior, with special regard to personality moulding by social effects.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 503-519.—Studied 68 10-14 yr. old girls in a state institution. The emergence of aggressive tendencies was attributed to social conditions. (English & Russian summaries)—M. Moore.

2743. Price, Frank T. (Wayne State U.) **Some effects of film-mediated professional models on the self-perceptions of black school children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4318.

2744. Singh, Udai P. & Akhtar, Syed N. (Bhagalpur U., Bihar, India) **The Children's Apperception Test in the study of orphans.** *Psychology Annual*, 1970(Mar), Vol. 4, 1-6.—Administered an Indian adaptation of the Children's Apperception Test (CAT) to 24 6-10 yr. old orphan boys. Results are descriptive rather than interpretive and indicate (a) identification with a male figure, (b) high interest in food, (c) need for acquisition and affiliation, (d) perception of the environment as hostile, (e) anxieties concerned with physical harm and punishment, and (f) severe superegos. Although the stories were unoriginal, indicating a lack of imagination and constructive intelligence, they were generally realistic and appropriate, indicating good ego integration. The large number of incomplete and stereotyped stories and

the low maturational development which is indicated suggest that Ss were poor in intellectual and self-development. Findings are discussed in terms of conditions in Indian orphanages and the background of the children.—S. Knapp.

2745. Todd, Gibson A. (U. Denver) **A developmental study of perceptual factors in color-affect arousal.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4374.

2746. Zlotowicz, Michel. **Origines et perspectives de quelques recherches sur l'anxiété.** [Origins and perspectives in some research on anxiety.] *Enfance*, 1970(May), No. 2, 113-171.—Reviews research and theory related to 3 definitions of anxiety: the clinical (Freud), the situational (Binet), and the experimental (Watson) with respect to their applicability to the study of anxiety in children. Covers questionnaires, which arose out of the work of Binet (Taylor, Sarason), factor analysis (Cattell), and conditioning (Mowrer and Miller). Concern with methodology and the development of a pure scale has subordinated attention to such issues as the intensity of affect and its development in infancy and those dealt with by Bowlby. Greater use should be made of open-ended inquiries and systematic yet naturalistic observation. (3 p. ref.)—S. S. Marzolf

Social Behavior

2747. Benton, Alan A. (U. Illinois, Chicago) **Productivity, distributive justice, and bargaining among children.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 68-78.—Examined the attitudes and bargaining behavior of 96 9-12 yr. old boys and girls with respect to the division of rewards following differential productivity. Same-sex pairs of friends, nonfriends, and neutrals were constituted, and 1 member in each pair passed a reading test which made toys available for play. Results indicate that (a) when paired with a friend or nonfriend, successful boys found allocations which favored themselves more acceptable and an equal allocation less acceptable than did boys who failed; (b) passing and failing boys paired with a neutral other chose allocations which favored themselves; (c) both successful and unsuccessful girls paired with a mutual friend or neutral other gave highest acceptability ratings to an equal division; (d) girls resolved the bargaining problem, which did not permit an equal division, by agreeing to an equity solution more often than did male pairs; and (e) the preferences and bargaining outcomes of girls paired with nonfriends were similar to those of male friends and nonfriends. Content-category analysis of the bargaining sessions revealed differences between experimental conditions, particularly between female friends and nonfriends. Results are explained in terms of differences in the typical socialization experiences of males and females.—*Journal abstract*.

2748. Hannifan, John J. (George Peabody Coll. for Teachers) **The effects of variations of model's power and nurturant behavior on the frequency with which observers imitate the model.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3690-3691.

2749. Harrison, Murelle G., Messé, Lawrence A., & Stollak, Gary E. (Michigan State U.) **Effects of racial composition and group size on interactional patterns in preschool children.** *Proceedings of the Annual Convention of the American Psychological Association*,

1971, Vol. 6(Pt. 1), 325-326.—Previous research has indicated that preschool-aged children are aware of racial differences, but this awareness does not affect their interaction in mixed-race groups. The present study extended this work by comparing 2- and 4-person homogeneous and racially mixed groups of 3½-5 yr. old children. Results indicate that the frequencies of initiations and negative responses were lower in 4-person racially mixed groups than in 4-person homogeneous groups. Also, the ratio of responses in general to initiations was lower in mixed groups than in homogeneous groups. Thus, racial awareness was found to inhibit social behavior.—*Author abstract.*

2750. Heider, Eleanor R. (Brown U.) **Style and accuracy of verbal communications within and between social classes.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 33-47.—Reports 2 experiments in isolating social class differences in language which actually affect interpersonal communication. 143 10-yr-old middle-class white, lower-class white, and lower-class Negro boys and girls encoded (described) abstract and face stimuli from sets of 6 similar items, so that "another child" could pick out that item at a later time. Consistent class differences of encoding style were found. Ss were recalled and asked to decode examples of the different styles of description given by each class and sex of S. For each class, the most successfully decoded style was the class' preferred encoding style. Overall, middle-class Ss were superior encoders and decoders. There was no evidence of overall greater within- than between-class accuracy. There were no consistent sex or race differences. (37 ref.)—*Journal abstract.*

2751. Jones, Reginald L. & Sisk, Dorothy. (U. California, Riverside) **Early perceptions of orthopedic disability: A developmental study.** *Rehabilitation Literature*, 1970(Feb), Vol. 31(2), 34-38.—A cross-sectional study was made of the development of perceptions of orthopedic disability. Ss were 230 non-disabled children who responded to either a drawing of a child of his own sex that included leg braces (orthopedically disabled) or a drawing of an identical child without braces. All Ss responded to a set of standard questions designed to tap interpersonal acceptance and an understanding of limitations imposed by orthopedic disability. 5 yr. olds rejected the drawing of the orthopedically disabled child with greater frequency than the drawings of the nondisabled on the question "Would you play with him?" 4 and 5 yr. olds perceived the disabled as less likely to have fun at a carnival than the nondisabled, and 5 and 6 yr. olds frequently qualified their responses by indicating the conditions under which they believed the disabled would have fun or be acceptable, a finding which held for the responses of 5 and 6 yr. olds in general. 4 was revealed as the age at which perceptions of the limitations imposed by physical disability appeared with consistency.—S. L. Warren.

2752. Liebert, Robert M. & Poulos, Rita W. (State U. New York, Stony Brook) **Eliciting the "norm of giving": Effects of modeling and the presence of a witness on children's sharing behavior.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 345-346.—A 2 (presence or absence of a witness) × 4 (no modeling and modeling with 3 types of verbalizations) factorial design was employed to examine further the elicitation of sharing

behavior by children. The presence of a witness and observation of a sharing exemplar each increased (a) the magnitude of the sharing displayed, and (b) the percentage of children who shared. Also as anticipated, these variables appeared to act in an additive fashion for both dependent measures. However, contrary to prediction, modeling effects were not influenced by the exemplar's verbalizations either in the presence or in the absence of a witness. The overall pattern of results is discussed with respect to the central importance of informative social cues in determining children's sharing.—*Author abstract.*

2753. Mueller, Edward & Rebersky, Freda. (Boston U.) **Origins of success and failure in children's spontaneous communication.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 152-153.—The view of preschool child as egocentric or incompetent in communication skills suggests that their spontaneous verbal interaction would be impaired. However, a direct examination revealed that 4 yr. olds almost always displayed social interest and usually received replies to the things they said in free play. The maintenance of verbal interaction was found to be multidetermined; however when many causative factors operated in 1 direction the outcome was perfectly predictable. The 2 most powerful predictors of whether or not a given message would receive a reply were its technical quality and the visual attention of the listener at its beginning.—*Author abstract.*

2754. Nelson, Linden L. (U. California, Los Angeles) **The development of cooperation and competition in children from ages five to ten years old: Effects of sex, situational determinants, and prior experiences.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4368.

2755. Shelton, Lawrence G. (U. Minnesota) **The role of anxiety and social comparison in the instigation of cheating.** *Dissertation Abstracts International*, 1971-(Jan), Vol. 31(7-B), 4371.

2756. Tudor, Catherine J. (Vanderbilt U.) **Development of class awareness in children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3044

Parent-Child & Family Relations

2757. ———. **Psychosexual development.** *British Medical Journal*, 1970(Feb), Vol. 1(5692), 319-320. Reviews recent studies on the part which parents play in the psychosexual development of their children. Most studies have been concerned with homosexuality, which is the most common sexual deviation. D. J. West found that male homosexual inpatients had recalled significantly more than a control group of neurotics an overintense relationship with their mothers and an unsatisfactory relationship with their fathers. Other studies have confirmed this. Deviations besides homosexuality have been studied. It is suggested that the findings be interpreted with caution. Cautious preventive measures are nevertheless justified.—S. R. Diamond.

2758. Burger, Gary K. & Armentrout, James A. (St. Louis U.) **A comparative study of methods to estimate factor scores for reports of parental behaviors.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 149-150. Factor analyses of the Child's Report of Parental Behavior Inventory have repeatedly yielded 3

factors. It is suggested that these factors rather than the original scales be employed in future studies. 3 methods of estimating factor scores were compared in terms of their validities. The methods compared were multiple regression, weighted sums, and unweighted sums. These methods were applied in turn to all the scales which best define a particular factor, the 3 best scales and finally, the 2 best scales. It is concluded that using unweighted scale sums of 2 or 3 scales provide highly valid estimates of factor scores.—*Author abstract.*

2759. Carpenter, James C. (Ohio State U.) **Patterns of self-disclosure and confirmation in mother-daughter communication.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4331.

2760. Nelsen, Edward A. & Vangen, Patricia M. (North Carolina Central U.) **The impact of father absence upon heterosexual behaviors and social development of preadolescent girls in a ghetto environment.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 165-166.—Compared 42 father absent (FA) and 53 father present (FP) 8th grade girls from a ghetto environment to investigate the impact of father absence upon heterosexual behaviors and concepts. A questionnaire concerning dating practices, peer relationships, and other issues and a slang word association task were administered. Among the girls who had dated, the FA girls reported they began dating at an earlier age and that they dated more frequently than the FP girls. The FA girls emitted more slang responses to the topic sex than the FP girls, while the FP girls emitted more slang responses to family members than did the FA girls. Results are interpreted as suggesting that FA girls were exposed to sexually provocative experiences at an early age, whereas the fathers of the FP girls appeared to have a role in controlling and restricting the dating and sexual expressiveness of their daughters.—*Author abstract.*

2761. Nuttall, Ena V. & Nuttall, Ronald L. (Public Schools, Lexington, Mass.) **The effect of size of family on parent-child relationships.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 267-268.—Using Schaefer's Children's Report of Parental Behavior Inventory on public and private schoolchildren in Puerto Rico, it was found that 3 factors appeared, replicating those found by Schaefer. As family size increases both mother's and father's Acceptance of both boys and girls declines. For girls, but not for boys, both parents' Hostile Psychological Control increased with increasing family size. The only-child girl, however, is much less Accepted by her mother and especially less Accepted by her father than is the 2- or 3-child family girl. In general, family size seems to affect girls much more than it does boys.—*Author abstract.*

2762. Olsen, Nancy J. (Stanford U., Social Research Lab.) **Sex differences in child training antecedents of achievement motivation among Chinese children.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 303-304.—Administered a verbal measure of achievement motivation to 36 6-10 yr. old children in a Taiwanese village. Their mothers responded to the Six Cultures Mother Interview, from which 4 items concerning independence training were selected. 2 of the items—low reward for dependent overtures, and early training in self-reliance (feeding and dressing)—were found to be significantly related to achievement motivation in boys, as was a summary score based on all 4

items. Independence training was unrelated to achievement motivation in girls.—*Author abstract.*

2763. Osofsky, Joy D. & Oldfield, Susan. (Cornell U.) **Children's effects upon parental behavior: Mothers and fathers' responses to dependent and independent child behaviors.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 143-144.—Studied 42 middle-class mothers' and fathers' responses to their daughters' dependent and independent behaviors utilizing observational and interview methods. As predicted, different children's behaviors differentially affected parental responses. Both parents displayed more controlling behaviors, and physically and verbally interacted more, when the children acted dependent. In addition, on the basis of parental sex, differences in observed and reported parental responses were noted related to children's behavior, birth order, nursery school experience, and reported encouragement of independence. Theoretical and research implications are discussed.—*Author abstract.*

2764. Phillips, Juliet R. (Johns Hopkins U.) **Formal characteristics of speech which mothers address to their young children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4369-4370.

2765. van der Veen, Ferdinand & Haberland, Herbert W. (Inst. for Juvenile Research, Chicago, Ill.) **Family satisfaction and congruence of family concepts among adolescents and their parents.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 147-148.—Relationships between the family concepts in 24 3-person normal family groups were investigated, employing real and ideal Q-sort descriptions of the family as a whole. It was hypothesized that the adolescent's satisfaction and adjustment, derived from his family concept, are greater when there is greater congruence of concepts among the family members. The hypothesis was strongly supported for the congruence of concepts regarding the real family and partly supported for the congruence of ideal family concepts. In addition, the family satisfaction of each parent showed strong positive relationships to the congruence of real family concepts and, in the case of the father's satisfaction, to ideal congruence as well. The family satisfaction of the adolescent was positively related to the father's but not the mother's satisfaction.—*Author abstract.*

2766. Winter, Sara K. (Wesleyan U.) **Mother and child: Fantasies at breast feeding time.** *Psychology Today*, 1970(Jan), Vol. 3(8), 30-32, 56.—The TAT stories of 29 middle-class mothers given while they were nursing their babies were contrasted to those given by 30 middle-class mothers who had recently weaned their babies. The babies of the control group mothers were playing near-by while they reported their TAT stories. Each mother was then interviewed for a 1/2 hr. in her home. Judges, who were unaware of which story came from which group, indicated that the breast-feeding mothers were not bound to chronological order and referred to more positive, pleasurable feelings. The non-breast-feeding group was, on the other hand, much more goal-oriented. In addition, the stories indicated that nursing mothers showed more orality and feminine masochism.—*E. J. Posavac.*

ADOLESCENCE

2767. Anderson, Bengt E. (Gothenburg U., Sweden)

cents' constructing abilities as reflected in their assembling structures on the basis of an industrial design.] *Psichologiai Tanulmányok*, 1967, No. 10, 295-300.

2781. Reale, Paola. *L'influenza del compito nella valutazione di un intervallo temporale*. [The influence of a written task in the evaluating of a time interval.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 111-122.—Studied the influence of homework of 104 13-15 yr. olds in evaluating a 30-sec time interval. 3 experimental conditions were used: (a) empty duration, (b) duration occupied in the formation of the capital letters, and (c) duration in a task involving numbers. The 3 intervals are overevaluated, especially in the monotonous task and in empty duration. The most under-evaluated is the 1 in which the S is the most absorbed. It is concluded that results obtained in the evaluating of the time of each S is related to intellectual efficiency and not related to the perceptual-motor type activity. (19 ref.)—A. M. Farfaglia.

2782. Rosenzweig, Saul. (Washington U.) *Consideration regarding reaction to frustration especially among adolescents*. *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 3-12.—Administered the adolescent form of Rosenzweig's Picture Frustration (PF) Study to 224 10th grade students to study sex and age differences. Also, the differences in responses to situations in which adults or peers represented frustrators was studied. The PF Study is a semiprojective device consisting of a series of 24 cartoon-like pictures each depicting 2 figures involved in a commonly occurring socially frustrating situation. S must study the picture and write in the correct response. Responses are scored as to type of aggression: obstacle-dominance, need-persistence, and ego defense. Sex differences appear to exist during adolescence. Males are more aggressive (positively and negatively) than females, possibly because of their greater competitiveness with the older generation. Adults are more threatening than peers to teenage Ss.—A. M. Farfaglia.

2783. Rosenzweig, Saul & Braun, Stephen H. (Washington U.) *Differenze dipendenti dal sesso nelle reazioni degli adolescenti alla frustrazione*. [Differences depending on sex in the reactions of adolescents to frustration.] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 23-33. Studied 224 students from Grade 10-12 who were given Rosenzweig's Picture Frustration Study using the form for adolescents. The test was administered during 1 school day. Ss were divided into 8 groups according to sex and age. Differences depending on sex were found, especially when the frustrating person was represented by an adult as opposed to a contemporary, e.g., male Ss were shown to be more aggressive (either positively or negatively) than female Ss, especially regarding competitiveness with the older generation. The adults are less a threat to male Ss than are their own contemporaries. Results confirm the prevalent opinion on the phase of adolescent development: contrary to infancy and adult life, during adolescence, there are differences of reaction depending on sex.—A. M. Farfaglia.

2784. Sexton, Patricia. (New York U.) *How the American boy is feminized*. *Psychology Today*, 1970-(Jan), Vol. 3(8), 23-29, 66-67.—The entire population of 1000 9th graders of an urban community were studied using the Masculinity scale of the CPI. Among other findings, the results showed that the more masculine the boy, the lower his school grades tended to be. It is urged

that school procedures and values be changed so that boys can remain masculine and avoid later, sometimes violent, attempts to regain their lost manhood.—E. J. Posavac.

ADULTHOOD & OLD AGE

2785. Birren, James E. (U. Southern California, Gerontology Center) *The abuse of the urban aged*. *Psychology Today*, 1970(Mar), Vol. 3(10), 36-38 & 76.—While the primary function of the city is social, this function is often ignored in urban renewal projects. Since the aged, because they are poor and not mobile, often live in the areas of the city thought to be the most deteriorated, their lives are often disrupted by new construction. Planners should consult behavioral scientists for help in considering the life space of the aged and then design so that the aged can live with the rest of the community and not be met by many physical barriers in daily life.—E. J. Posavac.

2786. Moenster, Phyllis A. (Washington U.) *The effect of free association upon retention, as a function of age*. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4316-4317.

2787. Palmore, Erdman B. (Duke U., Center for the Study of Aging & Human Development) *Physical, mental, and social factors in predicting longevity*. *Gerontologist*, 1969(Sum), Vol. 9(2, Pt. 1), 103-108.—Presents results from a 13-yr longitudinal study of possible relationships between intellectual, physical, and social factors of longevity. 268 60-94 yr. old volunteers were subjected to physical, psychiatric, psychological, and laboratory tests. Social history interviews were conducted. Results indicate that standard life expectancy tables are the best predictor of longevity. The other major factors were physical functioning, work satisfaction, and performance scores on the WAIS. However, for 60-69 yr. old men, work satisfaction was the best indicator; for 60-69 yr. old women and Negroes, physical functioning was the best indicator. It is concluded that "maintaining health, mental abilities, and satisfying social roles are the most important factors related to longevity."—S. Knapp.

2788. Parkes, Colin M. (Tavistock Inst. of Human Relations, Unit for the Study of Psycho-Social Transitions, London, England) *The first year of bereavement: A longitudinal study of the reaction of London widows to the death of their husbands*. *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 444-467.—Interviewed 22 London widows under the age of 65 at least 5 times in the 1st 13 mo. after the death of their husbands. The immediate reaction was numbness (10 Ss) and difficulty in accepting the fact of death (16 Ss). Panic attacks were commonest during the 1st mo. (12 Ss) but also occurred during the 3rd-6th mo. (5 Ss). Those who were most disturbed at first recovered more quickly while those who showed no emotion at first were moderately to severely disturbed by the 3rd mo. After the numbness wore off, thought of the deceased and intense pining began. Although restlessness was most marked at the beginning of bereavement (18 Ss), it was still present in a number of widows after 1 yr. (9 Ss). Apathy and disorganization characterized about 1/3 of these widows at the end of this study. (31 ref.)—E. M. Uprichard.

2789. Tiberi, Emilio. *Problemi d'adattamento dell'anziano nella società industriale*. [Adjustment problems of the aged in the industrialized society.] *Bollettino*

di Psicologia Applicata, 1969, No. 91-93, 129-143.

—Studied the problems of old people in relation to the new industrialized Italian society. The most important characteristics of the society are (a) change in the manual labor structure, (b) separation of the family from the place of work, (c) the rational division of work, (d) accumulation of capital, (e) rigorous and rational economic calculating, (f) work concentration in certain areas, (g) urbanization (26% of the Italian population lives in the city), (h) exodus from villages, (i) vertical and horizontal mobility of the society, (j) demographic increase, (k) economic growth, and (l) profound change in social and psychological nature. The personality of today's old is studied. It is a widowed personality looking for the rural environment in which it was formed. Many of the elderly were unable to go to school, hence, most of today's illiterates belong to that age group. "Industrialized society guides us toward a neutral perception of others while in rural or pretechnical society, others were either friends or enemies." (26 ref.)—*A. M. Farfaglia*.

2790. Yates, Forest C. (U. Iowa) **A study to investigate the relationship between several age levels and memory of paired-associates with two different degrees of stimulus item similarity.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2752.

SOCIAL PSYCHOLOGY

2791. Craik, Kenneth H. (U. California, Inst. of Personality Assessment & Research, Berkeley) **The environmental dispositions of environmental decision-makers.** *Annals of the American Academy of Political & Social Science*, 1970(May), Vol. 389, 87-94.—A new interdisciplinary field of research has recently emerged which studies how persons comprehend the everyday physical environment, how they use it, how they shape it, and how they are shaped by it. In seeking an objective understanding of the behavioral aspects of the total personal-social-environmental system, professional environmental decision-makers, such as architects, urban planners, and natural-resources managers, are strategic choices for psychological study. Within this context of environmental design and management, research is being directed toward clarifying the implicit assumptions about environmental behavior held by decision-makers, overcoming social and administrative distances from clients, and conducting systematic follow-up evaluations of the behavioral consequences of planning and design decisions. However, subtle and precise study of man-environment relations will require the development of psychological techniques providing a comprehensive and differentiated description of any person's orientation to the everyday physical environment. Methods for measuring individual differences in environmental dispositions are reviewed, and their potential usefulness for advancing knowledge of the interplay between human behavior and the physical environment is illustrated.—*Journal abstract*.

2792. Deasy, C. M. **When architects consult people.** *Psychology Today*, 1970(Mar), Vol. 3(10), 54-57, 78-79.—There are no recognized experts on the needs of humans relative to their buildings. Zoo animals may have quarters more suited to their needs than people have even though the plumbing and the furnishings are expensive. Careful observation of the way people use existing facilities reveals many surprises. Without taking

the views of the users into account, the architect is guilty of making decisions on the basis of his own values.—*J. Posavac*.

2793. Jacoby, Jacob & Aronoff, Daniel. (Purdue U.) **Political polling and the lost-letter technique.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 209-212.

Attempted to employ the lost-letter technique as an unobtrusive measure to predict patterns of voting behavior. Just prior to the election, 250 stamped envelopes, addressed to volunteer political organizations for the 3 major 1968 Presidential candidates but bearing no return address, were "lost" in various shops and placed under automobile windshield wipers in a Midwestern town. Return rates were 70% for Humphrey, 64% for Nixon, and 62% for Wallace. These were significantly different from the actual returns in which the three candidates received 38%, 57%, and 5% of the vote, respectively. The failure of the technique to predict voting behavior was discussed.—*Author abstract*.

2794. Jaspars, J. M. & Van Berge, Annie. **Social psychology in a dutch mirror.** *Psycholog.*, 1968, Vol. 3(7), 463-475.—Reviews the history of social psychology in the Netherlands. Discussions of research in general: social perception; prejudice and stereotypes; small groups; group cohesiveness, goals, norms, and structure; leadership, and power are included. Training programs and professional activities of social psychologists are discussed. (100 ref.)—*G. Steele*.

2795. Rosselló, Antonio. (Academy of Sciences, Havana, Cuba) **Algunos aspectos psicológicos sobre la guerra en Viet Nam: "Una escuela del crimen."** [Some psychological views on the war in Vietnam: "A crime school."] *Revista Cubana de Medicina*, 1969(Aug), Vol. 8(4), 177-184.—Views fear and discouragement as responsible for various "inhuman and barbarous acts committed by U. S. military personnel," and the indiscriminate use of mass destructive methods, e.g., napalm, toxic gases, and zonal bombing as intended to break the resistance of the North Vietnamese. The Central Intelligence Agency is accused of training soldiers in its "crime school" to become sadists who kill and torture for pleasure, and employ cruel psychological methods in interrogating prisoners. United States soldiers, leaving the scene of battle, are said to suffer from war psychoses, anxiety neuroses, and depression as a reaction to the destruction they themselves create. Silence in the face of such crimes (failure to protest) is equated with the role of accomplice.—*T. V. Webster*.

2796. Vidal-Yebra, José M. (U. Havana, Medical School, Cuba) **Posición del científico y del médico frente a la agresión y el genocidio en Viet Nam.** [Position of the scientist and physician with respect to the aggression and genocide in Vietnam.] *Revista Cubana de Medicina*, 1969(Aug), Vol. 8(4), 169-175.—Protests the military action by the United States in Vietnam, and condemns in the name of the scientists and physicians of revolutionary Cuba those professionals who (a) do not bother to inform themselves of the facts, (b) knowing the facts, fail to speak out against them, and are therefore accomplices, and (c) by their knowledge and effort aid in the creation of weapons capable of producing mass extermination of human beings. A world wide union of scientists and physicians is proposed to work against expansion of the war and campaign for its end. (English & French summaries) (25 ref.)—*T. V. Webster*.

2797. Winkel, Gary H. (City Coll. City U. New York, Graduate Center) **The nervous affair between behav-**

ior scientist and designers. *Psychology Today*, 1970-(Mar), Vol. 3(10), 31-35, 74.—Architects have received little help from social scientists because social scientists have been primarily interested in the effects of the social environment on people but not the physical environment. It is important, however, to develop a theory of the effect of physical arrangements on behavior and the effects of man's technology on nature. Some questions which deserve answers include: the nature of man's response to natural disaster, the best ways to preserve the human relations of a neighborhood, and the best uses of wilderness areas.—E. J. Posavac.

CULTURE & SOCIAL PROCESSES

2798. Abbele, Edoardo. *Il trattamento critico del dato socio-culturale*. [Critical treatment of sociocultural data.] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 145-148.—Defined sociocultural data as any event that might mean something to those who understand it. For critical treatment of sociocultural data a list must be compiled of all possible meanings which apply to the particular data. Any event presents 3 aspects which merit study: (a) specific factual data, (b) data of the effects on the individual, and (c) data of the motivations on a conscious and unconscious level that animated the protagonist of the event. After being isolated, each of these 3 aspects is subjected to an analysis of the following type: (a) listing of the versions provided by the various sources of information, (b) hypothesis on the presumable factual aspects of the sources of information, and (c) Ss of various social levels to affirm the critical hypothesis to give way to critical analysis.—A. M. Farfaglia.

2799. Andreski, Stanislaw. (U. Reading, England) *Evolution and war*. *Science Journal*, 1971(Jan), Vol. 7(1), 89-92.—Examines the relationship between war and biological and cultural evolution. Argues against an instinctual basis for war. War is regarded as the inevitable result of demographic imbalance and as a necessary condition for the emergence of civilization and the biological ascent of mankind. War ensured survival of the fittest and forced technology and the art of organizing to progress. It is concluded that war has been throughout history the most effective stimulant of cohesion of states and efficiency of government.—A. Santi.

2800. Carballo, Manuel. (Tulane U.) *A socio-psychological study of acculturation/assimilation: Cubans in New Orleans*. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3053.

2801. Daly, Robert W. (State U. New York, Upstate Medical Center, Syracuse) *The specters of technicism*. *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 417-432.—Reviews contemporary orientations—traditional, modern, and spectral—toward technology. The traditional view sees technology limited by "higher human values"; the modern or technicist view sees technology as inevitable and useful in bringing about the optimum life for all men; and the spectral view is an unconscious view that technology is a mysterious force that controls men. 6 cases are presented in some of which medical data are used as a talisman, and in others the system (or establishment) is an object of paranoia. (28 ref.)—E. M. Uprichard.

2802. Davies, Evan. *This is the way Crete went: Not with a bang but a simper*. *Psychology Today*, 1969-

(Nov), Vol. 3(6), 42-47.—The disappearance of the Minoan civilization on Crete has been a problem for historians and archeologists. An analysis of the designs on the pottery of this people in terms of need for achievement suggests that the civilization had lost its drive before its disappearance. Designs showing high need for achievement appear most frequently just before the great flowering of Minoan art and then appear less and less often. Perhaps there is a parallel to contemporary Western culture since a musical and artistic renaissance occurred in the early 20th century and presently the children of the affluent scorn entrepreneurial achievement.—E. J. Posavac.

2803. Fiedler, Fred E., Mitchell, Terence, & Triandis, Harry C. (U. Washington) *The culture assimilator: An approach to cross-cultural training*. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 95-102.—Describes the construction of self-administered programmed culture training manuals, called culture assimilators. These programs provide an apparently effective method for assisting members of 1 culture to interact and adjust successfully with members of another culture. Culture assimilators have been constructed for the Arab countries, Iran, Thailand, Central America, and Greece. The steps involved in the development of these programs, and studies validating the culture assimilator programs under laboratory and field conditions are described. (21 ref.)—*Journal abstract*.

2804. Glenn, Edmund S., Johnson, Robert H., Kimmel, Paul R., & Wedge, Bryant. (U. Delaware) *A cognitive interaction model to analyze culture conflict in international relations*. *Journal of Conflict Resolution*, 1970(Mar), Vol. 14(1), 35-48.—Presents a cognitive interaction model for cultural conflict composed of a 4 field matrix of conceptual frameworks: associative-abstractive and universal-oriented-case-oriented. Several types of international conflict are discussed in terms of this model. 3 mediating structures are distinguished and specialized international institutions are considered to be most valuable in providing mutual understanding. Analyses of conflicts guided by this model may lead to strategies which are at variance with the dictates of common sense (unconscious cultural assumptions) and the game theory model based on conflicts of interest. "In becoming aware of images, via the cognitive interaction model, one can distinguish between conflicts of interest and ... understanding and separate the conceptual frameworks within which these conflicts are viewed. This procedure could help to predict, and, hopefully, to manage a conflict between and within the present political entities of the world."—S. Knapp.

2805. Haydu, George G. (Creedmoor Inst. for Psychobiologic Studies, Queen's Village, N.Y.) *Interrelated transformations of Rousseau's life and of Western culture of his time*. *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 161-168.—Describes culture as a pattern of experiential activities through which members of society form and fulfill wants. The cultural changes that occurred between 1770 and 1840 are applied to Rousseau's life, whose need-complexes at 1st were seen as unfulfillable. However, after a transformation in 1750, his major works were created. The new pattern of culture was gained through interrelated integrative transformations. (29 ref.)—H. Roemmich.

2806. Herz, Sylvia. (Marriage Inst., Cranford, N.J.) *Behavioral patterns in sex and drug use on three*

campuses: Implications for education and society. *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 258-271.—A detailed 6-mo study was made of a random sample population of 150 undergraduate college students of both sexes at 3 Eastern universities. Drugs take priority over sex on today's college campus as a means of getting away from tensions. The present was considered more important than the future. Many alluded to a hopeless world, deplored the Vietnam war, and feared the threat of a nuclear holocaust. There was lack of credulity in the older generation. There is urgent need for further research in these areas. (33 ref.)—*D. Prager.*

2807. **Kiefer, Christie W.** (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **The psychological interdependence of family, school, and bureaucracy in Japan.** *American Anthropologist*, 1970 (Feb), Vol. 72(1), 66-75.—Views the Japanese "examination hell" phenomenon as a series of crisis rites through which the child passes from family-centered to peer group-centered values in a "particularistic" society. It is held that this model has greater explanatory power than the minimization of competition model proposed by others. It is argued that the examination system does not eliminate or significantly relieve the strain imposed by competition on primary group relations in general; it merely displaces the strain from the classroom to the community. The examination as crisis rite model is described as helping to explain the phenomenon of student radicalism and centrifugal relationships in middle-class communities. (34 ref.)—*Journal abstract.*

2808. **Lowin, Aaron; Hottes, Joseph H., Sandler, Bruce E., & Bornstein, Marc.** (State U. of New York, Albany) **The pace of life and sensitivity to time in urban and rural settings: A preliminary study.** *Journal of Social Psychology*, 1971 (Apr), Vol. 83(2), 247-253.—Investigated Ss with a battery of observational and field experimental techniques in several larger cities and smaller towns. On the whole, the urban pace appeared the faster. Other systematic urban-rural differences may, however, undercut this effect. Behavior and site sampling issues are also discussed.—*Author abstract.*

2809. **McGuigan, F. J.** (Hollins Coll.) **Reducción de la tensión internacional por métodos psicológicos.** [Reduction of international stress through psychological techniques.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(3), 327-341.—Suggests a behavioristic analysis, based on the laws of reinforcement, punishment, and extinction, for the reduction of international stress. The analysis is illustrated with past international events, e.g., Hitler and World War II. It is pointed out that behavioral analysis is applied to individuals, particularly decision-maker individuals, and not to a "nation" in abstract.—*Journal abstract.*

2810. **Rabkin, Leslie Y.** (Mental Health Clinic, Jerusalem, Israel) **Parties and cultural values: A kibbutz example.** *Psychiatry, Washington, D.C.*, 1970 (Nov), Vol. 33(4), 482-493.—Analyzes the social gathering known as "a party" as it occurs in the collective society of a kibbutz. The kibbutz is, of necessity, group-oriented "holding the overriding value of group experience as a basic tenet, of almost mystic intensity." Self-control and conformity are basic to the maintaining of this cultural structure. Social get-togethers on an informal level are composed of persons of about the same age, with chairs arranged in a circle, and conversation of a group, rather than personal, nature. This is not the fear of rejection of extrusion known to cocktail

party attendants in the United States, but there is joking, sexual humor, and group regulation of behavior limits. The party is thus seen as a social microcosm reflecting cultural values and norms of the society as a whole (18 ref.)—*E. M. Uprichard.*

2811. **Rodriguez, Irma S. & Berry, Paul C.** (U. Puerto Rico) **Discriminant analysis of attitudes to political associations with the United States among Puerto Rican students.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 331-332.—600 Puerto Rican university students were divided into groups seeking immediate or eventual independence from the United States, statehood within the United States, or maintenance of the present "commonwealth" status. From 24 demographic and attitudinal measures, 2 highly significant discriminants were extracted. The 1st concerned acceptance of orthodox American political and social beliefs. The 2nd concerned needs for legitimacy vs. willingness to compromise. Issues of Hispanic culture, and language, concern over race relations, or attitudes toward Communism and Castro, while correlated with the 1st discriminant, made little independent contribution. Surprisingly, demographic measures of age, sex, class, etc., contributed even less.—*Author abstract.*

2812. **Yoshioka, Gary A. & Athanasios, Robert B.** (Johns Hopkins U.) **The effect of site plan and social status variables on distance to friends' homes.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 273-274.—In studies of social interaction and friendship formation, some researchers have emphasized the importance of propinquity and position while others have suggested that homogeneity in the social characteristics of individuals plays a major role. This paper explores the effects of several types of variables on the physical distance between the dwelling units of people chosen as friends. Ss were wives in a random sample of 300 dwelling units. Results indicate that variables reflecting site plan, social class, and values or beliefs were significantly related to the average distance between friends' homes. Thus, the data lend support to arguments for both propinquity and status homogeneity as factors which affect the formation and maintenance of friendship patterns.—*Author abstract.*

Ethnology

2813. **Hall, William S.** (Educational Testing Service, Princeton, N.J.) **Two variables associated with differential productive cultural involvement among lower class Negro and Caucasian young men.** *Journal of Social Psychology*, 1971 (Apr), Vol. 83(2), 219-228. Investigated the relationship between productive cultural involvement, racial group membership, and personality among lower-class young men in the United States. Level of culturally productive behavior and environmental press were employed as independent variables. The dependent variables were 2 aspects of personality—achievement orientation and locus of control. The sample consisted of 30 Negro and 30 Caucasian young men, all of whom had dropped out of school at some point in their lives. While found, racial differences seem secondary to those reflecting different degrees of productive involvement.—*Author abstract.*

2814. **Hamm, Norman H., Johnson, William L., & Mullaney, Patricia S.** (U. Nebraska, Omaha) **Racial**

meaning with a mediated generalization procedure. *Psychonomic Science*, 1970(Dec), Vol. 21(6), 359-360. —Tested 78 white and Negro undergraduates, divided equally into white, Negro, and control mediation groups, for generalized responses along a color dimension ranging from medium brown to light tan. Control (no racial meaning implied) and mediational (racial meaning implied) gradients were derived with 5 colors, 2 lighter and 2 darker than the CS. On the control gradient, (a) Ss generalized more to light than to dark colors, and (b) black Ss generalized more to dark and less to light colors than white Ss. No significant mediation or race \times mediation effect was found.—*Journal abstract*.

Social Structure & Social Role

2815. Clavan, Sylvia. (Temple U.) **Women's liberation and the family.** *Family Coordinator*, 1970(Oct), Vol. 19(4), 317-323.—Women's liberation questions and challenges traditionally held ideas about the ideal American woman. Not all liberationists favor destruction of the conjugal family system, but most view the expected role structure of the husband as provider and the wife as homemaker and child's nurse as the basis of their oppression. It is possible that the movement heralds a revolutionary change in the American family. Industrialization, advanced technology, and higher levels of education may spell the end of traditional division of labor by sex.—*M. W. Linn*.

2816. Kalish, Richard A. (U. California, School of Public Health, Los Angeles) **Social values and the elderly.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 51-54.—The aged who have espoused our middle-aged and middle-class oriented values, have participated in their own rejection by so doing. The respect due them as human beings will not be forthcoming until new meaning is given to productivity, achievement, independence, meaningfulness, and futurity.—*A. M. Cawley*.

2817. Misra, S. L. (Army Hosp., Delhi, India) **A comparative study of religio-caste differences in concept formation ability of young adults.** *Psychology Annual*, 1970(Mar), Vol. 4, 10-12.—Hypothesized that Hindu and Muslim students would differ in their concept formation ability and that differences would be found between Hindu castes and Muslim sects. 288 14-19 yr. old students were selected: 24 Ss represented each of the 6 Hindu castes and 72 Ss represented each of the 2 Muslim sects. Lovell's Concept Formation Test and the Trist-Hargreave's Test were administered. On both tests, Muslim Ss scored higher than Hindu Ss. No significant differences were found within the groups, although all Hindu castes differed from the Schedule caste on both tests with the Schedule caste Ss scoring lower.—*S. Knapp*.

2818. Mullick, Rosemary J. & Feierabend, Rosalind L. (Wayne State U.) **Minority-group conflict and conciliation: A cross-national study.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 313-314.—Investigated interactions among 3 participating groups within society: the government, the dominant ethnic/racial majority, and the ethnic/racial minority. 25 countries were chosen from various regions of the world, with different types of government and different levels of development. All have sizable ethnic/racial groups within the population. Data were collected from the *New York Times* for

1955-1959 on all events of conflict and conciliation involving these groups. Hypotheses explored reciprocity of behavior and stability of equilibrium. Results indicate more conflict than conciliation in these group interactions and also support the hypothesis of reciprocity of conflict, although not necessarily of conciliation.—*Author abstract*.

2819. Sharma, K. L. (U. Rajasthan, India) **Attitudes of Indian students towards marriage roles.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 299-300.—Studied Indian male (N = 160) and female (N = 150) students to explore their attitudes toward marriage roles with the help of Jacobson Marriage Role Attitude Scale. Indian males and females significantly ($p < .01$) differed on overall scale. Findings are also compared cross-culturally (Japanese, American, and Thai students). Findings are in unison with the findings of other ethnic groups that males continue to appear more male dominant while females seem more equalitarian.—*Author abstract*.

2820. Stebbins, Robert A. (Memorial U., Newfoundland, St. John's, Canada) **Role distance, role distance behaviour and jazz musicians.** *British Journal of Sociology*, 1969(Dec), Vol. 20(4), 406-415.—In response to the observation that the current state of theoretical and descriptive development of the concept of role distance has led to a paucity of research and to an abundance of confusion, the following aims were pursued: to try to resolve some of the vagueness and ambiguity inherent in Goffman's initial definition and explanation and to suggest a few ways in which research can be carried out on this phenomenon. A concise definition of role distance was presented and differentiated from role-distance behavior (false and true). Research in this area is hampered by the time-consuming necessity of gaining an intimate knowledge of the culture or subculture where role distance is to be studied, and by the fact that the occurrence of role distance is probably relatively infrequent. It was suggested that the best strategy to meet these obstacles was to incorporate this research interest as part of a larger participant O study. By way of illustration some observations on role distance among jazz musicians are presented within the framework of 6 modes of role-distance behavior. They were found to hold both major and minor role-distance attitudes and to take true and false role distance on various occasions.—*Journal summary*.

2821. Turner, Castellano B. & Turner, Barbara F. (U. Massachusetts) **Perception of the occupational opportunity structure, socialization to achievement and career orientation as related to sex and race.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 243-244.—Investigated the relationship of race and sex to college students' perceptions of occupational discrimination against Negroes and women. Negroes perceived more discrimination against Negroes. Negro females perceived more discrimination against women than did males, but while females perceived less discrimination against women than did males. The additional finding that Negro women reported more orientation toward careers suggests the interpretation that white females are less motivated to perceive discrimination realistically since they anticipate less occupational involvement. Results are further interpreted in terms of the differential socialization for achievement by sex reported by Negroes and whites.—*Author abstract*.

Religion

2822. Auw, Andre. (United States International U., San Diego, Calif.) **The trusting community.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3684-3685.

2823. Bardis, Panos D. **Aspetti sociali dell'onomastica personale tra gli antichi ebrei.** [Social aspects of personal onomatology among the ancient Hebrews.] *Rassegna Italiana di Sociologia*, 1970(Jan), Vol. 11(1), 81-98.—Presents a notable contribution to the knowledge of onomatology. The ancient Hebrews gave enormous importance to names, e.g., a name was used to distinguish people or to indicate essences. At 1st their names were very simple, e.g., Ada; last names were rare. Names were either 1 word, e.g., Sarah (princess), or phrases, e.g., Abimelech (my father is king), or Ismael (the Lord will listen). Some of the sources of the ancient Hebrews names were (a) religion; (b) strange divinities; (c) phenomena of nature, e.g., Barak (lightning); (d) animals, especially for females, e.g., Deborah (ape) or Rachel (sheep); (e) plants, e.g., Susannah (lily); (f) precious objects; (g) national heroes; (h) place of birth; (i) day of birth; and (j) purpose, e.g., Eve (life). The ancient Hebrews wanted their names to represent religious, philosophical, or social purposes; thus, onomatology helps us to understand the nature of many social institutions of the Old Testament.—A. M. Farfaglia.

2824. Coursey, Robert D. (U. Rochester) **Liberal and conservative Roman Catholics.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 133-134.—Developed a scale measuring liberal-conservative religious attitudes among Roman Catholics in 3 studies. Study I with high school students found that seniors were more liberal than freshmen, girls more liberal than boys, and that liberalism correlates positively with scholastic aptitude. Study II provides data establishing the scale's reliability and validity among adult parishioners. Religious conservatism is shown to increase with age and decrease with education. A stable factorial structure is discussed. Study III cross-validates the scale using well-matched Ss from the readers of known liberal and conservative Catholic journals.—Author abstract.

2825. Johnson, Paul E. (Christian Theological Seminary, Indianapolis, Ind.) **The faith of a psychologist.** *Pastoral Psychology*, 1970(Oct), Vol. 21(207), 33-38.—"Psychology is empty and valueless without a creative faith. And faith is a fragile bloom without the knowledge and power of scientific discovery."—O. Strunk.

2826. Rader, Blaine B. (Adrian Coll.) **Koinonia and the therapeutic relationship.** *Pastoral Psychology*, 1970(Oct), Vol. 21(207), 39-44.—The basic model for present church fellowship groups is the "koinonia," the intimate spiritual sharing of believers which in New Testament times was thought to be accomplished through Jesus Christ or the Holy Spirit. Between this experience of fellowship and caring and the modern psychotherapeutic relationship there is both congruence and dissonance—congruence being present in the process of the horizontal human relationships, dissonance in the apparent absence of the vertical aspects of true "koinonia."—O. Strunk.

2827. Wicker, Alan W. & Mehler, Anne. (U. Illinois) **Assimilation of new members in a large and a small church.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 151-156.—Consistent with behavior setting theory,

26 new members of a small church (338 members) reported greater assimilation than 40 new members of a comparable large church (1599 members). The assimilation measure was a composite based on participation in church activities, felt obligation to participate, sense of belonging to the church, and acquaintance with church members and officers. 42 undergraduates asked to role-play new members of either the small or large church, did not differ in reported assimilation. The 2×2 analyses of variance (large vs. small church, new vs. established members) of self-report data on participation and church records of attendance and contributions revealed greater support for church activities by members of the small church and by established members.—Journal abstract.

Cross Cultural Comparison

2828. Bhalla, Salma & Turner, Castellano. (Holyoke Mental Health Center, Mass.) **A cross-cultural comparison of interpersonal schemas.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 355-356.—Investigated differences in interpersonal schemas (cognitive interpersonal plan) among individuals coming from 2 very different cultures (those of India and the United States). The focus was on 2 particular interpersonal schemas, the superior-subordinate relationship and the heterosexual relationship. After pointing out the major differences between the 2 cultures with regard to these relationships, it was hypothesized that Indians would show more distant interpersonal schemas than Americans on superior-subordinate and heterosexual placements. These hypotheses were supported, and the results were interpreted in terms of cultural variations leading to schemas.—Author abstract.

2829. Brewer, Marilyn B., Campbell, Donald T., & LeVine, Robert A. (Loyola U., Chicago, Ill.) **A cross-cultural test of the relationship between affect and evaluation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 213-214.—The prediction, derived from cognitive consistency theory, that direction of evaluation in interpersonal or intergroup perceptions will be consistent with the affective relationship between the perceiver and perceived was tested in a cross-cultural study in East Africa. Indices of intergroup affect and evaluation were derived from interview responses obtained from members of 30 tribal groups in Kenya, Uganda, and Tanzania. The obtained average correlation between the indices was .33, suggesting that subjective perceptions of outgroup characteristics are not entirely dominated by the prevailing state of intergroup relations. Reports of ingroup characteristics, however, were consistently positively biased.—Author abstract.

2830. Irving, Douglas D. (Rice U.) **The field-dependence hypothesis in cross-cultural perspective.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3691.

2831. Jamison, Kay. (U. California, Los Angeles) **British and American personality stereotyping.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 349-350.—Investigated the stereotypes which Americans have of the British and of themselves, compared these results with D. Katz and K. Braly's 1933 results (see PA, Vol. 8:3181), and then compared the results of the

stereotype investigation with data obtained from a prior cross-cultural study (Jamison and Comrey) done of British and American scores on a test measuring several personality factors. There were several differences between the 1933 and 1969 stereotypes, and a high degree of correlation was found between stereotypes cast and actual personality differences between a sample of British and American Ss on the objective personality inventory.—*Author abstract.*

2832. Long, Barbara H. & Henderson, Edmund H. (Goucher Coll.) **Measuring esteem across cultures.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 255-256.—Examined a nonverbal measure of esteem (Self-Social Symbols Tasks) for reliability and construct validity among samples of 100 early adolescents from Barbados, England, English Canada, France, French Canada, India, Israel, and Thailand. Results showed that Ss in all groups responded consistently (reliabilities .76-.91). Findings supporting validity included the assignment of a negative person to a low position, positive relations between esteem and social status, and between esteem and identification with mother. Findings were similar to those found earlier with American Ss. The measure thus seems useful for cross-cultural studies.—*Author abstract.*

2833. Lynn, R. (Economic & Social Research Inst., Dublin, Ireland) **National differences in anxiety.** Dublin, Ireland: Economic & Social Research Inst., 1971. \$.75.—Advances the theory that there are measurable differences in the level of anxiety among the populations of the advanced Western nations. The method proposed for the measurement of a nation's anxiety level is to: (a) take a number of epidemiological and demographic indices, including the rates of mental illness, suicide, vehicle accidents, coronary heart disease, tobacco consumption, alcoholism, and calorie intake; (b) intercorrelate and factor analyze them to reveal the existence of an underlying general factor; (c) interpret the general factor as anxiety; and (d) score the nations on anxiety on the basis of their factor scores. The nations with the highest anxiety levels were found to be Japan, Germany, Austria, and Italy; those with the lowest anxiety levels were the United States, New Zealand, England, and Ireland.—*Author abstract.*

2834. Meade, Robert D. (Western Washington State Coll.) **Future time perspectives of college students in America and in India.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 175-182.—50 male Hindu students attending college in North India and 50 male American students attending college in the United States were given 15 min. each to write 4 short stories. The 1st line in present tense was supplied by the E, 1 sentence with an economic theme, another with a political theme, another with an occupational theme, and a final 1 with an educational theme. Americans wrote more stories about future in all categories while Indians wrote more stories with a past theme. Results are related to another measure of achievement motivation and to the belief that Americans have set more goals with reference to future attainment than have Indians. (19 ref.)—*Author abstract.*

2835. Melikian, L., Ginsberg, A., Cüceloğlu, D., & Lynn, R. (Economic & Social Research Inst., Dublin, Ireland) **Achievement motivation in Afghanistan, Brazil, Saudi Arabia, and Turkey.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 183-184.—Reported scores on a questionnaire measure of achievement

motivation for male students in Afghanistan, Brazil, Saudi Arabia, Turkey, and Britain. The mean scores declined in the order of the countries given.—*Author abstract.*

2836. Ogletree, E. (Chicago State Coll.) **A cross-cultural examination of the creative thinking ability of public and private school pupils in England, Scotland, and Germany.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 301-302.—Administered the Torrance Test of Creative Thinking to 1165 elementary public and private schoolchildren in England, Scotland, and Germany to determine the influences of culture, school system, social class, grade level, age, and sex on creative thinking. Findings show that the less intellectually-oriented school system produced more creative children. Social class had a definite effect on creativity, favoring the upper- and middle-class groups. Girls were more creative than boys and English children scored higher than children of the other 2 countries.—*Author abstract.*

2837. Smith, Frank J. & Crano, William D. (Michigan State U.) **Concerning the possibility of cross-cultural research: A reexamination of Galton's problem.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 217-218.—"Galton's problem" has become a classic issue in cross-cultural methodology. The present research demonstrates a solution to this problem. Analysis was based on a data matrix of 68 trait variables \times 238 African cultures scaled from the Ethnographic Atlas. Each society was paired with its nearest neighbor and correlations for corresponding variables over all pairs were calculated. The data matrix was then factor analyzed from which 17 marker variables were determined and tabulated with nearest neighbor statistics (r and $1-r^2$). Discussion focused on the pattern of interaction effects of the substantive nature of the marker variables and their nearest neighbor correlations.—*Author abstract.*

Family

2838. Cozby, Paul C. & Rosenblatt, Paul C. (U. Minnesota) **Privacy, love, and in-law avoidance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 277-278.—In a cross-cultural investigation (59 nonneolocal societies), it was found that romantic love as a basis for marriage and the presence of formal rules of interaction with the mother-in-law are positively related to privacy for newlyweds. The findings support the view that privacy serves to allow the individual to interact with certain people without the intrusions of others, as well as allowing him to escape from the tensions of interacting with others. The relationship of the results to a general theoretical conception that man organizes his physical environment to maximize his range of behavior options is discussed.—*Author abstract.*

2839. Cross, Herbert J. & Aron, Robert D. (U. Connecticut) **The relationship of unobtrusive measures of marital conflict to remembered differences between parents.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 365-366.—1 source of marital conflict is differing expectations between spouses about the respective roles of husband and wife. These differences are partly determined by parental child rearing and by differences

between parents. A difference between one's mother and one's mother-in-law, for example, might contribute to a differing expectation of the wife's role between spouses. Unobtrusive measures of conflict were taken from conjoint interviews with young married couples who rated parental behaviors on a questionnaire. Husbands' competitiveness in the interviews related to differences in psychological control between the husbands' parents. Conflict between spouses was related to differences between their mothers.—*Author abstract.*

2840. Kennell, John H., Slyter, Howard, & Klaus, Marshall H. (Babies & Childrens Hosp., Cleveland, O.) **The mourning response of parents to the death of a newborn infant.** *New England Journal of Medicine*, 1970(Aug), Vol. 283(7), 344-349.—Observed the reactions of mothers to the loss of a newborn infant and explored the strength of the affectional ties between mothers and their infants before the 1st physical contact. 20 women were interviewed after the death of the infant; every mother mourned even when her baby was nonviable and lived for only an hr. There were no unduly upsetting effects of early tactile contact in emotionally healthy mothers. A high degree of mourning was most often found in mothers who were pleased to be pregnant and who had previously lost a baby. There was also, possibly, a higher degree of mourning in mothers who had touched their baby before its death, and who had not talked with their husbands about the loss. Strong affectional bonding appears to begin before physical contact and caretaking but is enhanced by these activities.—*Journal abstract.*

2841. Sweet, Phyllis R. & Nuttall, Ronald L. (Boston Coll., Inst. for Human Sciences) **Predicting family size from parental characteristics.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 269-270.—Based on components of parental background, an attempt was made to predict family size. About 3600 Puerto Rican secondary school students reported on their family background and size. 4 groups of background variables were dealt with: those relating to socioeconomic status, religion, mobility, and community integration. Using multiple regression techniques, small families had more educated, higher occupational prestige parents with the mother working at a higher occupational status. Small families tended to be new to the community and the island. Omitting the atypical 1-child family allows a stronger set of predictions with fewer variables.—*Author abstract.*

Social Change & Social Programs

2842. Bell, Leland V. (Central State U.) **Death in the technocracy.** *Journal of Human Relations*, 1970, Vol. 18(2), 833-839.—Discusses the changes in man's concept of death and immortality from ancient times to contemporary America, which is considered here as the quintessence of the technologically advanced nation. It is suggested that the menace of nuclear or chemical-biological warfare gives death a new meaning by nullifying all conceptions of immortality. Technology, by extending man's life span beyond the average individual's usefulness in a youth-oriented culture, has segregated the aged and relegated their deaths to depersonalized and dehumanized statistics. The exploitation of the aged's unfulfilled dreams and the guilt feelings of relatives by the medical and undertaking professions using technological gimmicks is discussed. It is suggested

that contemporary excursions into violence, sex, and the occult have been encouraged by the technocracy's repudiation of death.—*J. G. Tiedemann.*

2843. Hopkins, Phyllis & Feierabend, Rosalind L. (San Diego State Coll.) **Correlates of United States riots, 1965-1967: A cross-city comparison.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 311-312.—Explored correlates of Negro riots, 1965-1967. Hypotheses are that (a) higher attainment but greater relative deprivation and faster change for Negroes, midlevel police coercion, more discriminatory potential of city government, larger population size, density, and percent nonwhite will be positively associated with greater rioting. Findings reveal that better Negro education and income but worse employment conditions in 1950, improvement in Negro income and employment conditions 1950-1960, midlevel ratio of police to residents, mayor-council city government, larger population size and higher density all correlate with riot severity. Results suggest a frustration explanation of Negro rioting based on notions of "rising expectations" and relative deprivation.—*Author abstract.*

2844. Margolis, Clorinda G. (Thomas Jefferson U., Jefferson Community Mental Health Center) **The black student in political strife.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 395-396.—Negro students, today, are subject to a distinctive set of pressures too powerful to be ignored, and too diverse to be easily reconciled. This paper discusses some of the problems confronting young Negroes in the effort to handle the strains of maturation, self-interest, and personal development at the same time they are obliged to reconcile personal values with the inevitably demanding objectives of local political groups that either represent or claim to represent the Black Power movement. The pressures and polarized options that obtain produce severe conflict particularly in students who, for a variety of reasons, are disinclined to adopt a separatist position.—*Author abstract.*

2845. Raine, Walter J., Abudu, Margaret J., Burbeck, Stephen, & Davison, Keith. (California State Coll., Long Beach) **Empirical structure of the urban black subculture as related to riot activity.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 315-316.—Reports an empirical investigation in which the pattern of 742 fires set during the Los Angeles 1965 revolt is found to be significantly associated with a small number of socio-demographic variables. The ability of these 6 census variables and 4 store-type variables to predict fires is represented by a multiple R of .685. The study variables are used to construct an underlying structure of the new urban Negro subculture. The empirical basis of this configuration allows confirmation or disconfirmation by further work.—*Author abstract.*

2846. Skellie, F. Albert; Lipsey, Mark W., & Gordon, Joel F. (Johns Hopkins U.) **Research and relevance: Psychology's potential for social concern.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 405-406.—A sample of graduate students and faculty members in American departments of psychology were surveyed concerning, among other things, opinions about the desired relationship between psychology and the problems of society. A large majority of the respondents felt that psychology should be concerned with contemporary problems, but most agreed that it was not contributing

significantly to their solution. More students than faculty, and more respondents in "experimental" than in "nonexperimental" areas favored an increased involvement with the community. This suggests that the consensus in the discipline is undergoing change toward increased integration of psychological research and social needs.—*Author abstract.*

SEXUAL BEHAVIOR

2847. Broderick, Carlfred B. (Pennsylvania State U., Coll. of Human Development) **Sex and ethics: The rights of parents.** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 55-59.—"If getting children to internalize a responsible sex ethic is difficult, it is no more so than the responsibility to protect one's youngsters from sexual involvement and possible exploitation." Involvement in sex education on the part of educators and community leaders is necessary if their people and programs are to be served.—*O. Strunk.*

2848. Calderone, Mary S. (Sex Information & Education Council of the United States, New York, N.Y.) **Sex education for the society: The real stumbling block.** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 48-54.—Discusses various dilemmas facing Christianity in a day of new scientific truths about sex.—*O. Strunk.*

2849. Erickson, Richard C. (Veterans Administration Hosp., Seattle, Wash.) **A defense of the traditional Christian ethic.** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 43-47.—"The teachings of Scripture makes us creative masters, and sexual anarchy passive slaves of our sexual appetite. It is this good news we want to remind ourselves of and address to our children."—*O. Strunk.*

2850. Kirkendall, Lester A. & Anderson, Peter B. (Oregon State U.) **Authentic selfhood: Basis for tomorrow's sexual morality.** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 19-32.—"The purpose of morals is to enable man to survive and to survive joyously." The "need is to talk about how individuals, families, schools, churches, and civic institutions can build autonomous, fully-functioning, loving persons; individuals with authentic self-hood, and depend upon this knowledge to take care of the moral issue." (16 ref.)—*O. Strunk.*

2851. Packard, Vance. **Possible elements for a modern sex code.** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 33-42.—Outlines criteria for a new code of sexual ethics which would include society's disapproval of sexual intercourse between unmarried young people unless 3 elements are present: (a) that a deep friendship based upon substantial acquaintance exists between the man and woman, (b) that both are past adolescence, and (c) that they hope to marry and their best friends know of the hope.—*O. Strunk.*

2852. Rublin, Isadore. **What areas of agreement on sexual ethics are there for the religionist and the humanist?** *Pastoral Psychology*, 1970(Nov), Vol. 21(208), 10-17.—"If a genuine dialogue is to take place between the religionist and the humanist, it can be done only on the basis of a high regard for truth, a respect for logic, and an insistence upon finding answers in experience, critically examined and objectively interpreted." (31 ref.)—*O. Strunk.*

2853. Winthrop, Henry. (Central State U.) **Focus on the human condition: Sexual revolution or inner**

emptiness: Portents of Brave New World: II. The skin trade versus holistic balance in sexuality. *Journal of Human Relations*, 1970, Vol. 18(2), 924-938.—Suggests the encouragement given to the sexual revolution by some of the current better known middlebrow and avant-garde publications ranges from simply noting changes in sexual attitudes, morality, and behavior to catering to, reinforcing, extending, or intensifying amorphous sexual innovations. Examples of how the cinema, stage, and other media are cashing in on the "skin trade" are presented. The rising misuse of obscenity as an attempt to prove one is intellectually and socially liberated from "bourgeois hangups" is contrasted to authentic social, intellectual, and spiritual liberation. The quest for sexual freedom is regarded more as an accelerating movement towards the *Brave New World* presaged by Huxley, than a liberation from Puritan shackles. The new sexual freedom does not release the individual from social constraint, but simply binds him to new and fashionable sexual behavior. Achieving genuine sexual freedom and personal authenticity demands intellectual and moral depth, and will complement personal growth, self-respect, and development of the communal sense, as well as guaranteeing satisfaction of physiological needs. (17 ref.)—*J. G. Tiedemann.*

Birth Control & Abortion

2854. Baird, Anne C. (Emory U.) **Some social psychological correlates of fertility control.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3066.

2855. Fischer, Edward H. (Connecticut Valley Hosp., Middletown) **Attitudes toward limiting family size: Convergence of factorial and known-groups validity approaches.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 263-264.—Ss were 135 nursing, 74 university extension, and 103 liberal arts students. Likert-style ratings of birth planning statements were factor analyzed. 3 factors emerged: concern about overpopulation/intention to have small family, objective view of procreation, and birth control attitude. Concern and intention items, ostensibly separate in structure and content, both loaded on Factor I. Also, both types of items differentiated selected Ss wanting small or large families, at $p < .0001$. However, only intention (not concern) correlated strongly with preferred family size. Upper-class people, non-Catholics, and men showed greater concern about population growth and held attitudes more favorable to birth limiting than their demographic counterparts (i.e., lower-class people, Catholics, and women, respectively).—*Author abstract.*

2856. Kar, S. B. (Central Health Education Bureau, New Delhi, India) **Individual aspirations as related to early and late acceptance of contraception.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 235-245.—Tested 5 hypotheses about positive relationship between contraception and (a) level of striving, (b) future orientation, (c) value orientations, (d) social optimism, and (e) areas of satisfaction in life, while socioeconomic status (SES) is held constant. The sample consisted of 209 married women from lower social status and the hypotheses were tested by comparing the early and the late acceptors of contraception among white Ss. The 1st 4 hypotheses are validated and these relationships are

independent beyond SES. The multiple correlation coefficient between the independent variables and contraception is .78. The leading predictors of contraception are: level of striving, future orientation, SES, and value orientations. (24 ref.)—*Author abstract.*

2857. Resnik, H. L. & Wittlin, Byron J. (National Inst. of Mental Health, Center for Studies of Suicide Prevention, Chevy Chase, Md.) **Abortion and suicidal behaviors: Observations on the concept of "endangering the mental health of the mother."** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 10-20.—Psychiatrists have borne increased responsibility for translating liberalized abortion laws into recommendations for interruption. Suicidal risk is most commonly cited although research indicates that death by suicide virtually never occurs in pregnant but rather postpartum women—an infrequent event that is rarely possible to predict. In relation to "endangering mental health" other factors—unwanted pregnancy, "psychiatric disease," emotional sequelae of abortion—are discussed and recommendations offered to nonpsychiatrist physicians.—A. M. Cawley.

ATTITUDES & OPINIONS

2858. Archibald, W. Peter. (U. Michigan) **Self-esteem and balance with impersonal attitude objects.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 363-364.—Previous research demonstrates that cognitive-consistency predictions should take Ss' self-esteem into account, for what is consistent for those with positive self-esteem may be inconsistent for those with negative self-esteem. In most studies the attitude object is the S himself, so that liking for others with whom one agrees is balancing for all Ss. For Ss with negative self-esteem, however, liking for others with whom one disagrees should be balancing when the object of disagreement is an impersonal one. In the present experiment 38 undergraduates differing in self-esteem were presented with 3 levels of agreement-disagreement over the war in Vietnam, with 3 different hypothetical others. Contrary to the hypothesis, a Self-Esteem X Agreement interaction was not obtained, the only strong and consistent effect being a main effect for agreement. Results are discussed in terms of the limited range of the self-esteem variable and the questionable validity of the hypothesis.—*Journal abstract.*

2859. Bruvold, William H. (U. California, Berkeley) **Rater's attitudes and the method of equal-appearing intervals.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 373-374.—Raters having pro- or antiattitudes and high issue involvement rated 2 sets of statements regarding high contact use of water reclaimed from community sewage. A largely linear relationship between item scale values was obtained from the 2 groups with displacement of agreed-with items in a positive direction and disagreed-with items in a negative direction. These results are consonant with the requirements of a linear displacement theory of judgment and interval level measurement.—*Author abstract.*

2860. Cauthen, Nelson R., Robinson, Ira E., & Krauss, Herbert H. (Holyoke Mental Health Center, Mass.) **Stereotypes as contexts of meaning.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 353-354.—Assuming that the context of stereotypes has some effect on the

connotations attached to them, 12 words selected from those which make up the Negro stereotype were presented in 3 contexts and rated on the semantic differential Ss were freshmen and sophomore college students. For the 3 administrations of the semantic differential, context was created by identifying the words as descriptive of Negroes, Americans, and without a specific context. In general, the words in the Negro context were rated as more potent. Certain words were also rated as less active in the Negro context. The words were not rated differently for evaluation in any of the 3 contexts.—*Author abstract.*

2861. Cooper, Michael R., Fein, Victoria E., Washburn, Paul V., & Boltwood, Charles E. (Ohio State U., Organizational Research Service) **Passenger attitudes toward airline security and threat of skyjacking.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 407-408.—Structured interviews and questionnaires were administered to 102 airline passengers at a large Midwestern airport to investigate the nature of public reaction to skyjacking and of attitudes toward several proposed security procedures. Results indicate the following: (a) a general construct, "concern for security," did not adequately account for passenger acceptance of security precautions; (b) 3 dimensions of security procedures failed to differentially relate to public attitudes toward air safety; and (c) particular subgroups of the sample were related to particular attitudinal response patterns, including frequency of flying, distance of flight, age, and sex.—*Author abstract.*

2862. De Martino, Hugo A. (St. John's U.) **The relations between certain motivational variables and attitudes about mental illness in student psychiatric nurses.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3036.

2863. De Vincenzo, Doris K. (New York U.) **Socio-cultural relocation and changes in anxiety and attitudes toward the United States as host country among exchange visitor nurses.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4155.

2864. Ganti, Vernon W. (Ohio U.) **Attitude change as a function of source credibility and levels of involvement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3074.

2865. Kilty, Keith M. (U. Illinois) **Some determinants of the strength of relationship between attitudinal affect and cognition.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 275-287.—Investigated, in 2 experiments, several factors that seemed to affect a relationship between attitudinal affect and cognition. These factors included the source of beliefs (whether freely elicited from the Ss or standard beliefs supplied by the E, the number of beliefs, the type of belief statement, and the type of attitude object. Results show that the relationship between affect and cognition can become very complex. The type of concept was of major importance, involved in interactions with both source of beliefs and number of beliefs in the 2nd study. (19 ref.)—*Author abstract.*

2866. Lester, D. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Religious behavior and the fear of death.** *Omega*, 1970, Vol. 1(3), 181-188.—Religious denomination had little effect on the fear of death of college Ss. Among Protestant Ss those with low religiosity had a higher fear of their own death whereas those with high religiosity had a higher fear of the death

of others. Ss with low religiosity had less inconsistent death attitudes. No differences were found in unconscious attitudes toward death as assessed by a word-association test. It is concluded that religiosity had a greater effect on death attitudes than denomination.—*Author abstract.*

2867. Littig, Lawrence. (Howard U.) **Affiliation motivation and belief in extraterrestrial UFOs.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 307-308.—77 undergraduates, differing in strength of affiliation motivation, expressed their degree of belief in the extraterrestrial origins of unidentified flying objects (UFOs). Strong affiliation motivation was associated with this belief and weak affiliation motivation was not. It was conjectured that belief in extraterrestrial UFOs constitutes, in part, a projection of affiliation motivation.—*Author abstract.*

2868. Phifer, Mary K. (U. Oklahoma) **Influence of the process of discrimination in the selection of items for an attitude scale.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3042.

2869. Rosencranz, Howard A. & McNevin, Tony E. (U. Connecticut) **A factor analysis of attitudes toward the aged.** *Gerontologist*, 1969(Spr), Vol. 9(1), 55-59.—Examined attitudes and the effects of different social experiences on stereotypes of the aged. The Aging Semantic Differential Test was constructed and tested with 200 17-21 yr. old Ss. The final form was administered to 287 undergraduates. Ss were asked to rate 20-30, 40-55, and 70-85 yr. old males. Personal data from each S were collected for sex, age, father's occupation, and social contact with the aged. Significant differences were found on all 3 scales of the test. On the instrumental-ineffective scale, older men were regarded as less effective; on the autonomous-dependent scale, young and old men were seen as dependent, while middle-aged men were seen as autonomous; and on the personal acceptability-unacceptability, little difference was found between young and middle-aged men, while older men were regarded as least personally acceptable. Ss who had contact with grandparents or other meaningful association with the aged judged them more favorably except on the instrumental-ineffective scale. Hospital contact with the aged seemed to have a consistently negative effect on attitudes. The text of the Aging Semantic Differential is presented. —S. Knapp.

2870. Schmiedler, Gertrude & Windholz, George. (City Coll., City U. New York) **A nonverbal measure of attitudes: I. Data from Thailand.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 215-216.—Over 200 Thai college students were compared with American college students. Attitudes toward abstract concepts were similar, but attitudes toward family relations were different. Birth order effects offered some internal validation for inferences about Thai family patterns. The response measures were line drawings, scored for direction, size, pressure, etc. Other research has demonstrated that some of these correspond to scores on the semantic differential. Since responses are nonverbal and rapid, the method is useful for transnational research. Cross-cultural similarities in expressive movements, if found generally, have interesting implications for personality theory.—*Author abstract.*

2871. Steinmann, Anne & Fox, David J. **Attitudes toward women's family role among black and white undergraduates.** *Family Coordinator*, 1970(Oct), Vol.

19(4), 363.—An Inventory of Female Values was administered to 100 Negro and 126 white female undergraduates and to 100 Negro and 82 white college men. The Negro college womens' perceptions of man's ideal woman were different from the perceptions of any group of women previously studied. Although Negro female undergraduates had self and ideal woman perceptions no different from their white counterparts, their perceptions of man's ideal woman were far less family-oriented and far more self- and action-oriented.—M. W. Linn.

2872. Taylor, Howard F. (Syracuse U.) **Semantic differential factor scores as measures of attitude and perceived attitude.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 229-234.—40 male undergraduates indicated both their attitude toward an issue, and their perception of a role player's attitude (perceived attitude), by means of 12 semantic differential items. Factor analysis reveals nearly identical factor structures for both attitude and perceived attitude ratings. Factor scores for each S were computed for attitude and perceived attitude ratings. When factor scores on the attitude factor were related to an independent criterion measure, they were found to discriminate between Ss holding favorable and unfavorable attitudes. The same results were obtained with perceived attitude factor scores. Thus, semantic differential factor scores are valid weighted indices of the direction of one's attitude and one's perception of the attitude of another.—*Author abstract.*

2873. Truzzi, Marcello. (Cornell U.) **Explorations in cognitive balance theories: Experimental assessments of conflicting theoretical predictions in the cognitive consistency theories of F. Heider, T. M. Newcomb and C. E. Osgood and P. H. Tannenbaum.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3063.

Formation & Change

2874. Alimaras, Peter E. **Impression change as a means of reducing cognitive dissonance.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3684.

2875. Cook, Thomas D. & Wadsworth, Allen. **Attitude change and the paired-associate learning of minimal cognitive elements.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 387-388.—Ss heard a message in which the conclusion was presented once or 7 times. 4 days later, they received a letter which mentioned that 85, 50, or 15% of the persons who had heard the message had evaluated it as convincing. The letter to another group of Ss made no reference to peers' evaluations of the message. Attitude was assessed immediately after hearing the message, and 1 and 6 wk. later. Attitude varied directly with the support manipulation only when the conclusion had been previously heard 7 times. This was the case 2 days and 5 wk. after receiving the letter with the support manipulation.—*Author abstract.*

2876. Cooper, Ralph E. & Crano, William D. (Michigan State U.) **Pretest validity and the prediction of attitude: A further comparison of congruity and summation theories.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 393-394.—Fishbein and his colleagues, in comparing his summation model with Osgood's congruity model of attitude change, typically obtained the premeasure necessary for the Osgood model by asking Ss

to rate a person about whom they had little, if any, information. If such measures produce random variation, then the correlation between the Osgood predictions of postmanipulation attitude and the obtained values would be attenuated, biasing the results in favor of the Fishbein model which does not employ the premeasure. In order to test the plausibility of this hypothesis, 60 Ss were randomly assigned to each of 4 conditions: 1 paralleling the previous studies, 1 in which Ss were presented with information about the object person before the premeasure, and the others serving as controls for the amount of information and for test effects. In all conditions, the superiority of Fishbein's summation model was maintained.—*Author abstract.*

2877. Levy, Sheldon G. (Wayne State U.) **Dimensions of attitudes toward race relations and polarized subgroups in Detroit following the 1967 riot.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 307-308.—Analyses of a random sample of Detroit adults, interviewed after the 1967 riot, indicated 2 major attitudinal dimensions, 1 dealing with race relations, the other with alienation. Analysis of the attitudinal space indicated little overlap in average scores of white and Negro subgroups with the races further apart on the race relations than on the alienation factor. Whites and nonwhites who were high in education and who had close friends of the opposite race were closer in their average scores than any other white and nonwhite pair when race, friendship, and education were used to define the subgroups.—*Author abstract.*

2878. Levy, Sheldon G. (Wayne State U.) **Interaction analysis of attitudinal correlates of leadership evaluation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 309-310.—Analyses of a random sample of Detroit adults, interviewed shortly after the Detroit riot of 1967, resulted in 3 major dimensions for leadership evaluation. Stepwise multiple regressions indicated that attitudes toward race relations, riot interpretations, and trust in government were the most important predictors of leadership evaluation. Interaction effects among subgroups defined by the above 3 attitude variables as well as by experiences with discrimination were then examined. Although greater trust in government led to more positive leadership evaluation, the opposite was true for the evaluation of militant Negro leadership among those who had experienced discrimination.—*Author abstract.*

2879. Miller, Keith A. (Bowling Green State U.) **A study of "experimenter bias" and "subject awareness" as demand characteristic artifacts in attitude change experiments.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3040.

2880. Rudin, Lawrence A. (U. Oklahoma) **Relationship between the point fallacy and latitude dimensions of attitude change examined by use of two-sided, written, mixed communications.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3736.

2881. Shub, Allen N. & Johnson, Homer H. (Science Research Associates, Inc., Chicago, Ill.) **Dimensions of communication evaluation: A factor analytic approach.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 115-116.—An intervening variable, evaluation of the communication, is typically overlooked in attitude change research. In order to determine the dimensions

underlying communication evaluation, a principal components factor analysis with varimax rotation was performed on 14 measures. 3 factors, accounting for 55% of the total variance, emerged: general evaluation, ego involvement, and receptivity toward communication. Results of this study are important for future research involving attempts to discriminate among the various alternative responses to interpersonal disagreement by means of factor-based profile analysis of communications.—*Author abstract.*

2882. Weber, Stephen J. (Northwestern U.) **Source primacy-recency effects and the sleeper effect.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 385-386.—To assess primacy-recency effects for the source of a communication, the order of source presentation (1st or last) was manipulated together with source credibility ($N = 72$ undergraduates). In an attempt to replicate and specify the sleeper effect a condition was added in which the source was repeated 20 times during the course of message presentation. Opinion was then measured 3 times over a 4-wk period. A reliable recency effect of source presentation was found, but there were no indications across any of the low credibility conditions that a sleeper effect occurred.—*Author abstract.*

Influence & Behavior

2883. Himmelfarb, Samuel & Fishbein, Martin. (U. Massachusetts) **Studies in the perception of ethnic group members: II. Attractiveness, response bias, and anti-Semitism.** *Journal of Social Psychology*, 1971-(Apr), Vol. 83(2), 289-298.—22 male and 30 female non-Jewish American college students, varying in degree of anti-Semitism, judged the attractiveness and Jewishness of a series of persons portrayed in photographs. It was hypothesized that for most Ss there would be a positive relationship between the perceived unattractiveness and the judged Jewishness of the stimulus person, and that the correlation between the 2 sets of ratings would vary directly with the Ss' anti-Semitism. It was also hypothesized that anti-Semitism would be positively related to the number of persons judged to be unattractive. Results generally support the hypotheses. These relationships were assumed to mediate the frequently observed relationship between Ss' anti-Semitism and their tendency to label stimulus persons as Jewish.—*Journal summary.*

2884. Kamal, Zahi S. (Washington State U.) **Congruency of own and others' attitudes as an intervening variable between attitude and behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3057.

2885. Kaplan, Kalman J., Flagstone, Ira J., Moore, Michael, & Degnore, Roberta. (Wayne State U.) **Attitude toward an interviewer as a function of question intimacy across three interview settings.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 375-376.—In a test of a gradient approach to attitudes, 148 male undergraduates were asked to differentiate their liking and disliking responses towards an interviewer as a function of the intimacy level of the questions he asked for 1 of 3 interview settings (business, psychotherapeutic, or sex inventory). For all settings, intimate questions generated less favorable net attitude (liking + disliking) but greater total affect (liking + |disliking|) than nonintimate

questions, the unfavorable net attitudinal implications of intimacy being especially pronounced for the business setting Ss. Implications are drawn for the Zajonc "mere exposure" and the Argyle and Dean "distance equilibrium" hypotheses.—*Author abstract.*

2886. Snortum, John R. (Claremont Men's Coll.) **Attitudes toward criminality as held by community residents, police officers and prison inmates.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 401-402.—Ss were asked to recommend prison sentences and to estimate the rate of recidivism for 10 criminal offenses. In the community sample, education and social status were found to be inversely related to sentence length and age was positively correlated. Women were significantly more punitive than men. Implications of these findings for the jury selection process are discussed. Contrary to expectations, prison inmates generally assigned longer sentences than community residents or police. The fact that inmates made significantly lower recidivism estimates than community residents or police may indicate that inmates harbor feelings of special invulnerability to arrest.—*Author abstract.*

GROUP & INTERPERSONAL PROCESSES

2887. Anderson, Kathryn A. (Washington State U.) **Experimenter reinforcement and modeling effects of a verbal operant in an interview setting.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3697-3698.

2888. Bean, Frank D. (Duke U.) **Social role, personality, and interpersonal bargaining between the sexes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3051.

2889. Benton, Alan A. (U. Illinois, Chicago Circle) **Some unexpected consequences of jeopardy.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 223-224.—Examined the reactions of Ss to 3 programmed offer schedules under conditions in which failure to reach agreement resulted in forfeiture of some of the S's own money (L) or loss of a possible gain (NL). Principal findings were: (a) L Ss were more resistant to others' demands than NL Ss; and (b) no schedules effect was obtained for L Ss, however, NL Ss more readily agreed to unchanging minimum win demands than to schedules in which maximum win demands remained firm or were subsequently reduced. Results are discussed in terms of the manipulation's elicitation of risk-taking and competitive tendencies.—*Author abstract.*

2890. Blumstein, Philip W. (Vanderbilt U.) **An experiment in identity bargaining.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3034-3035.

2891. Boyanowsky, Ehor O. (Dalhousie U., Halifax, Nova Scotia, Canada) **Informational influence, threat of censure and self-identity as factors in discriminatory behavior.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 327-328.—A series of studies was undertaken to determine the relative contribution of race and belief factors to discriminatory behavior in group pressure situations. Results show that, under conditions of surveillance (with threat of censure) by their reference group, prejudiced Ss discriminated against Negroes on items dealing with self-identity (personal reality) whether informational influence was present or absent. As predicted, no discrimination occurred on visual percep-

tion items (physical reality), on opinion referring to society in general (general social reality), or on pencil-and-paper measures. Discrimination did not occur when surveillance was absent. A model incorporating previous discrepant results and present findings was formulated.—*Author abstract.*

2892. Butler, Richard P. (U. Tennessee) **A study of the effects of incentive, feedback, and manner of presenting the feedback on leader behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4377-4378.

2893. Callan, Joanne E. (U. Texas) **A measure of self-disclosure in intensive small groups.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4306.

2894. Chapple, Elliot D. (Rockland State Hosp., Research Center, Orangeburg, N.Y.) **Experimental production of transients in human interaction.** *Nature*, 1970(Nov), Vol. 228(5272), 630-633.—Reviews "some methods for measuring aspects of human interaction based on the rhythmic patterns of activity and inactivity which 2 people display when they meet."—S. Appelle.

2895. Clark, Russell D. (U. Kansas) **Procedural and theoretical extensions of the risky-shift phenomenon.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3035.

2896. Crawford, Jeffrey & Haaland, Gordon A. (U. New Hampshire) **Predecisional process and information seeking in social influence.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 361-362.—Examined the joint effects of task uncertainty, motivational orientation (cooperative or competitive), and the reinforcement value of information received in relation to information seeking and subsequent conforming behavior. Persons with a cooperative set sought significantly more information from their co-workers than did competitively oriented persons ($p < .001$). The seeking of information from others which increased the probability of a correct choice decreased over time while the rate of search for random information remained constant ($p < .01$). The nature of the information received affected conformity across all conditions ($p < .001$). However, cooperative groups conformed more than competitive individuals when event occurrence was equiprobable ($p < .06$). Results are discussed in a decision making, reinforcement framework.—*Author abstract.*

2897. Davis, Dan W. (George Peabody Coll. for Teachers) **The effects of individual, structural, and positional variables on problem-solving groups.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3035.

2898. Doise, Willem & Moscovici, Serge. (Ecole Pratique des Hautes Etudes, Paris, France) **Approche et évitement du déviant dans des groupes de cohésion différente.** [Acceptance and rejection of the deviant within groups of differing cohesiveness.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9 10), 522-525.—Studied the influence of a deviant upon 2 groups, one with high and the other with low cohesion. Quick exposure of his deviancy (e.g., disagreement) resulted in rejection with later assimilation by the high cohesion group. Greater tolerance for the deviancy was exhibited by the low cohesion group.—R. E. Smith.

2899. Dossett, Dennis L. & Mitchell, Terence R. (U. Washington) **The Culture Assimilator: A review of validation studies.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt.

1), 329-330.—Describes the Culture Assimilator, a programed self-instructional approach to culture training, and a series of laboratory experiments and field studies validating the Culture Assimilator are reviewed. The results indicate that increased personal adjustment and better interpersonal relations between heterocultural groups are obtained for Assimilator training as compared to cultural essay, geography, or no training. Productivity measures are less affected, although there is some evidence that Assimilator training may help increase productivity as well.—*Author abstract.*

2900. Eaglin, Ronald G. (U. Utah) **An experimental study of the effect of positive, negative, and no verbal reinforcers on assigned leaders in eight-member, decision making groups.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3688-3689.

2901. Emshoff, James R. & Ackoff, Russell L. **Explanatory models of interactive choice behavior.** *Journal of Conflict Resolution*, 1970(Mar), Vol. 14(1), 77-89.—Describes the research methodology and results of a study of individual choice in conflict situations. The objective was to develop a theory of choice which could explain decisions in terms of variables subject to external control. Graduate and undergraduate students played various forms of the Prisoner's Dilemma and Chicken games. The choice- and policy-matching theories were examined. Role-reversal theory—that an S selects the choice he believes his opponent would select if the opponent were in his place—provided the most accurate predictions. However, none of the theories predicted well when the S's attitude toward the game was favorable and toward his opponent was unfavorable. Subjective estimates of belief and attitude were made and various objective measures attempted. A teaching hypothesis that S would try to change the opponent's choices through various means was investigated and provided a slight improvement in prediction. Application of theories to larger games maintained the superiority of the role-reversal theory for prediction.—*S. Knapp.*

2902. Gaertner, Samuel L. (City Coll., City U. New York) **A telephoned call for help: Does the race of the victim affect the helping behavior of New York City Liberal and Conservative Party members?** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3036.

2903. Gouaux, Charles & Lamberth, John. (U. Texas, Southwestern Medical School, Dallas) **The effect on interpersonal attraction of successive and simultaneous presentation of strangers.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 337-338.—Compared 2 within-Ss designs with the between-groups design generally used in D. Byrne's interpersonal attraction research. 38 undergraduates in small groups either (a) received 3 agreeing strangers (having 4, 8, or 16 similar attitudes to the Ss) consecutively and evaluated each stranger after reading his attitudes; or (b) received all 3 strangers simultaneously and then evaluated each stranger. Whereas Ss in the successive-stranger design did not give significantly different attraction scores to the 3 strangers, for the Ss in the simultaneous-stranger design there was a significant effect attributable to the number of similar attitudes ($p < .05$).—*Journal abstract.*

2904. Graeven, David B. (U. Iowa) **Intergroup conflict and the group representative: The effects of power and the legitimacy of the power relation on negotiations in an experimental setting.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3037.

2905. Gratton, Carolyn. **Selected subject bibli-**

ography on friendship. *Humanitas*, 1970(Fal), Vol. 6(2), 249-257.—Presents a bibliography on the theme "personal growth through the friendship encounter." (212 ref.)—*O. Strunk.*

2906. Guttentag, Marcia & Freed, Ruth. (City Coll., City U. New York) **The effect on risk taking of sex of group members, group homogeneity, and problem content.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 305-306.—Tested the hypothesis that group shifts in decisions following discussion result from the enhancement of prior expectations. 2 sets of Choice Dilemmas problems were used: 1 with males, the other with female protagonists. Risky shifts were contingent on the content of the problems. Female Choice Dilemmas problems did not evoke risky shifts. Conservative shifts were found on Female Choice Dilemmas problems for female Ss in homogeneous groups.—*Author abstract.*

2907. Harpel, Richard L. (U. Colorado) **The effect of encounter group composition upon social and political attitudes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2683.

2908. Helm, Bob; Bonoma, Thomas V., & Tedeschi, James T. (State U. New York, Albany) **Counter-aggression as a function of physical aggression: Reciprocity for harm done.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 237-238.—60 males received either 1, 5, or 9 electric shocks of varying magnitude from a confederate during a 10-trial probability estimation task. Following initial trials, S and confederate reversed roles, and Ss were permitted equal opportunity to counter-aggress against the confederate. $\frac{1}{2}$ the Ss had been forewarned of role reversal, while the remainder had not. Results indicate that frequency of reciprocated shock (counteraggression) was a direct and linear function of frequency of initial aggression delivered. Postimpressions of the confederate indicated that frequent aggressors were perceived as less attractive and esteemed than infrequent aggressors, but as more active and potent.—*Author abstract.*

2909. Horowitz, Irwin A. (U. Toledo) **The effect of group norms on bystander intervention.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 265-273.—40 members of a service group holding altruistic group norms and 40 members of social fraternities were randomly assigned to 1 of 2 levels of norm salience, high and low, and to either a communication network with 3 or no bystanders. During the conversation pertaining to problems in an urban university the victim simulated a seizure and called for help. An analysis of variance performed on the $2 \times 2 \times 2$ factorial revealed that service group members were more likely to intervene than social group members and intervention was made more probable when group norms were made salient in the discussion. Social group members corroborated previous findings concerning the inverse relation between number of bystanders and likelihood of intervention. This was not true of service group members however as the increase in number of bystanders increased their felt responsibility for helping and increased the likelihood of intervention. It is suggested that initial differences between the 2 types of group members could just as easily account for differences in likelihood of intervention as can differences in group norms.—*Journal summary.*

2910. Hull, William F. (Pennsylvania State U.) **The influence of a random sample of international students upon American students in a sensitivity**

group experience. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2737.

2911. Kohls, John W. (Iowa State U.) **Bargaining behavior and outcomes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3744.

2912. Kowalski, William J. (Case Western Reserve U.) **Structuring of feedback information within sensitivity training: A group process analysis.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2614-2615.

2913. Kramer, Bryce A. (Case Western Reserve U.) **Toward a theory of self-direction and its enhancement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3038.

2914. Kraus, William A. (Ohio U.) **Laboratory groups: Effect on the tolerance scale of the California Psychological Inventory.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2686-2687.

2915. Leibman, Miriam. (City Coll., City U. New York) **The effects of sex and race norms on personal space.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3038-3039.

2916. Lundberg, Vera S. (Cornell U.) **The effects of attitude similarity-dissimilarity on attraction under conditions of stimulus certainty-uncertainty.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3039-3040.

2917. Mann, Philip A. (U. Texas) **Effects of anxiety and defensive style on some aspects of friendship.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 55-61.—Proposed that defensive styles can account for individual differences in preferences for emotional comparison in friendship more adequately than levels of anxiety. Deniers, compared to expressers, should give less importance to emotional comparison in their friendships, should be less accurate in perceiving similarity to their friends, and should be objectively less similar to their friends. Analysis of data derived from Omnibus Personality Inventory scores, an anxiety scale measure, and interviews with the reported friends of 57 male and 118 female undergraduates partially support the defensive style hypotheses, more for females than for males. Differences in anxiety produced none of the effects predicted from previous studies. Sex differences in the defensive styles of friends were found. Defensive style differences in the perception of similarity operate only when the relationship between the friends is such that it can be expected to mobilize defensive reactions. (15 ref.)—*Journal abstract*.

2918. Martindale, David A. (Nassau Community Coll.) **Territorial dominance behavior in dyadic verbal interactions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 305-306.—Examined the matter of territorial dominance in human beings by having 60 male college students negotiate, in dyads, in a nonneutral environment (a dormitory room belonging to 1 of them). Their task was to discuss a fictional criminal case with 1 participant playing the role of defense attorney and the other, the role of prosecuting attorney, and to decide upon an appropriate prison term for the accused. Territorial dominance was assessed by determining whether or not the home participant (the S whose room was being used) would speak more and win the negotiation. "For each dependent variable studied, the territory factor accounted for considerably more variance than the CPI Do factor. . . . These data appear to

demonstrate that environmental context is an important factor influencing both the course and the outcome of a negotiation."—*Author abstract*.

2919. Marwell, Gerald; Schmitt, David R., & Shotola, Robert. (U. Wisconsin) **Cooperation and interpersonal risk.** *Journal of Personality & Social Psychology*, 1971-(Apr), Vol. 18(1), 9-32.—Investigated the extent to which the existence of interpersonal risk may disrupt cooperative behavior in a situation where cooperation is the most effective behavior for the achievement of a desired goal. 8 experiments with a total of 106 pairs of undergraduates indicated that: (a) cooperation was disrupted by the introduction of interpersonal risk, substantially when the risk was small and almost totally when the risk was large; (b) the effect of large risk on cooperation did not change substantially with time; (c) increasing the difference in rewards for cooperating and working individually did not substantially reduce the effect of large risk; (d) large risk did not appreciably disrupt cooperation when taking was not reinforcing to the taker; (e) when the presence of large risk was not related to task choice, the effect of risk on cooperation was reduced but not eliminated; (f) the ability to communicate when large risk was introduced very substantially reduced the effect of risk on cooperation; and (g) if the ability to communicate was permitted following disruption of cooperation by risk, it eventually led to the emergence of cooperation for a majority of groups. However, cooperation emerged more slowly than when communication was available prior to disruption by large risk. (29 ref.)—*Journal abstract*.

2920. Mérei, Ferenc. **A pár és a csoport: Csoportdinamikai kísérletek gyermekeken.** [The pair and the group.] *Pszichológiai Tanulmányok*, 1967, No. 10, 153-160.

2921. Nydegger, Rudy V. (Rice U.) **Leadership status and verbal behavior in small groups as a function of schedule of reinforcement and level of information processing complexity.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 293-294.—In the manipulation of verbal behavior and sociometric rank in small groups by using positive reinforcement, it was contended that the informational aspects of the reinforcements were more important than the motivational ones, and this study lent some credence to this notion. Thus, the effects of information processing complexity and quantity of reinforcement (0, 50, 100%) were examined, and it was found that all Ss in the reinforcement conditions showed a conditioning effect, and that cognitively abstract Ss were more susceptible to influence in this setting than were concrete Ss. No significant difference between partial and continuous reinforcement was found.—*Author abstract*.

2922. Ohlson, Edward L. (U. Oklahoma) **The effects of the female-based family and birth order on the ability to self-disclose.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2742.

2923. Orwant, Carol J. & Orwant, Jack E. (U. Iowa) **A comparison of interpreted and abstract versions of mixed-motive games.** *Journal of Conflict Resolution*, 1970(Mar), Vol. 14(1), 91-97.—Presented a version of the Prisoner's Dilemma game containing 10 "real life" situations and the abstract version of the Prisoner's Dilemma game to 109 male and 56 female journalism students. It was predicted that the interpreted version would yield more cooperation among players and that

no significant sex differences would be found. Results support the prediction. The influence of the different formats and payoffs on the results are discussed.—S. Knapp.

2924. Raack, R. C. (California State Coll., Hayward) **When plans fail: Small group behavior and decision-making in the conspiracy of 1808 in Germany.** *Journal of Conflict Resolution*, 1970(Mar), Vol. 14(1), 3-19.—Presents the history and an analysis of an anti-French conspiracy in Prussia. Utilizing behavioral theory and studies in social psychology it was found that (a) "forces generated within the individual cells tended to heighten the influence of the risk-takers and stifle the voices of the more moderate"; (b) the plot developed a momentum of its own which forced the leaders to act more precipitously than they desired and often at odds with their original plans; and (c) the need for secrecy contributed to group solidarity, member recruitment, and ultimate betrayal to the enemy. Methodological issues raised by the study are discussed. (62 ref.)—S. Knapp.

2925. Rake, Johan M. **Friendship: A fundamental description of its subjective dimension.** *Humanitas*, 1970(Fal), Vol. 6(2), 161-176.—Discusses friendship from the perspectives of philosophy, anthropology, sociology, social psychology, and psychology. From these views basic constituents emerge indicating that friendship "is an encounter between 2 or more persons in a mutual sharing of space and time, embodied in a given culture, involving interaction and communion in light of some interest in one another and in a shared truth or shared search for truth, resulting in an enduring nonexclusive relation which is lived as a gift of affinity, affection, and personal history, and occasioning the autonomous growth of the persons involved."—O. Strunk.

2926. Reich, Leonard H. (Arizona State U.) **Non-verbal communication of emotions: A study of the relationship between training, expression and recognition of emotions.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2744-2745.

2927. Rioch, Margaret J. (Washington School of Psychiatry, Group Relations Conference Committee, D.C.) **Group relations: Rationale and technique.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 340-355.—"In order to understand man in society, it is necessary to shift one's view from the individual and the pair to a larger whole. The thrust of the Washington School of Psychiatry-Tavistock Conferences is the attempt to make this shift." After describing the transplantation of educational methods that had developed within the Tavistock Institute of Human Relations of London to American soil, the changes which have taken place are delineated. The conferences, which are set up as residential events, have 4 major aspects: small groups, the large group, the intergroup event, and application groups. "One of the major aims of the conferences is to contribute to people's ability to form serious work groups committed to the performance of clearly defined tasks. Whether or not members of such groups feel friendliness, warmth, closeness, competitiveness, or hostility to each other is of secondary importance. It is assumed that these and other feelings will occur from time to time, but this is not the issue. The issue is the common goal to which each individual makes his own differentiated contribution. A 2nd major aim, closely related to the first, is the

development of more responsible leadership and followership in group life."—I. Linnick.

2928. Sadler, William A. (Bates Coll.) **The experience of friendship.** *Humanitas*, 1970(Fal), Vol. 6(2), 177-209.—Identifies 2 theories of friendship in Western civilization—the Greek and Judeo-Christian, the latter being characterized by joy, communion, freedom, truth, and sacrifice.—O. Strunk.

2929. Schaps, Eric. (Northwestern U.) **Some determinants of helping behavior in a field setting.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4319-4320.

2930. Schreiber, Alan W. **An experimental double-blind and communicativeness.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3715.

2931. Schulman, Michael D. **Group structure and locus of control in predictive risk judgments.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3738.

2932. Senn, David J. (Monmouth Coll., Ill.) **Attraction as a function of similarity-dissimilarity in task performance.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 120-123.—Tested 30 pairs of male undergraduates in an RT task. Attraction toward a stranger was greatest when both Ss performed similarly on the task and both were successful, less when both performed similarly but unsuccessfully, and least when they performed dissimilarly. Findings support I. Byrne's "law of attraction" and extended the generality of the similarity-attraction relationship to task-performance behavior. However, the law appears to be restricted to behaviors which are positively similar. The similarity-attraction relationship was shown to break down when negatively evaluated behaviors were considered. The importance of studying more advanced and permanent relationships is emphasized.—*Journal abstract*.

2933. Skolnick, Paul. (San Fernando Valley State Coll.) **Reactions to personal evaluations: A failure to replicate.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 62-67.—Attempted to replicate and extend the study by M. Deutsch and L. Solomon (see PA, Vol. 34:4179) which found that Ss who fail at a task rate negative (consistent) evaluations higher than positive (inconsistent) ones, and Ss who succeed at a task rate positive reactions from an evaluator higher than negative ones. 133 undergraduates were induced to believe that they failed or succeeded in an ambiguous ego-involving task. A control group was left uncertain as to how they performed. Ss then were evaluated by a note from a stooge. The Deutsch and Solomon results were not replicated. Contrary to consistency theory predictions, all Ss favored positive to negative evaluations, and Ss who failed at the experimental task were more appreciative of the positive feedback than were those who succeeded. An alternative theoretical explanation for the results is considered. (23 ref.)—*Journal abstract*.

2934. Stroebe, Wolfgang; Insko, Chester A., Thompson, Vaida D., & Layton, Bruce D. (U. North Carolina, Chapel Hill) **Effects of physical attractiveness, attitude similarity, and sex on various aspects of interpersonal attraction.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 79-91. Measured 100 male and 100 female undergraduates' attraction to opposite-sex others of either high, medium, or low physical attractiveness and of either similar, moderately similar, or dissimilar attitudes in terms of Ss' liking for other, of preference for other as a coworker, and of the

probability that S would consider other as a dating or marriage partner. Major results indicate that Ss' attraction was greater to physically attractive rather than unattractive and to similar rather than dissimilar others. Similarity had a greater effect for females than males on liking and working, while physical attractiveness had a greater effect for males than females on working, dating, and marrying. Comparisons among the dependent variables revealed that physical attractiveness had a greater effect on dating than on liking or marrying for all Ss, although the difference was greater for males. Self-rating of attractiveness was found to be related to date selection. Relative to Ss who rated themselves as attractive, unattractive Ss were more likely to consider unattractive others and less likely to consider attractive others as a date.—*Journal abstract*.

2935. Swan, Andrew C. (George Peabody Coll. for Teachers) **Personality Integration and perceived behavior in a sensitivity training group.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3717-3718.

2936. Tedeschi, James T., Bonoma, Thomas, & Novinson, Noel. (U. Miami) **Behavior of a threatener: Retaliation vs. fixed opportunity costs.** *Journal of Conflict Resolution*, 1970(Mar), Vol. 14(1), 69-76.—Replicated the study of M. Deutsch and R. M. Krauss (see PA, Vol. 35:4812) with a modified Prisoner's Dilemma game utilizing explicit threats. 15 male and 15 female undergraduates were assigned to 1 of 3 test conditions: unilateral threat—Ss could threaten and punish noncompliance by a simulated target (ST) at a fixed cost of 5 points; bilateral threat—Ss could issue threats and punish noncompliance but the ST had retaliatory power which cost the S 5 points; and control with an ST playing 50% cooperative strategy. Analyses of test scores and results from a semantic differential questionnaire indicate that: (a) the ST was considered less potent in the unilateral test condition than in either of the other 2 conditions; (b) Ss chose to penalize STs more often in the retaliatory condition; (c) the use of threats did not affect the overall competitiveness or winnings; and (d) males cooperated less, won more, and were generally more aggressive than females in the use of threats and penalties. The interpretations of Deutsch and Krause are supported. Several hypotheses concerning the Ss' behavior are presented and discussed.—*S. Knapp*.

2937. Tepper, Brenda S. **Contrast and assimilation effects in dyadic interaction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3718.

2938. Tesser, Abraham. (U. Georgia) **Evaluative and structural similarity of attitudes as determinants of interpersonal attraction.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 92-96.—Presented 22 undergraduate males with 6 attitudes of 4 bogus others. These attitudes varied in terms of evaluative and structural similarity to each S. Evaluative similarity was manipulated by varying the number of similar attitudes 4 or 2, and structural similarity was manipulated by varying the pattern of similar/dissimilar attitudes. These manipulations were based on the responses of each S on a preliminary questionnaire. As predicted, Ss were able to perceive differences in structural similarity ($p < .01$), and attraction was positively related to both structural ($p < .05$) and evaluative ($p < .01$) similarity.—*Journal abstract*.

2939. Wolosin, Robert J., Sherman, Steven J., & Mynatt, Clifford R. (Indiana U.) **When self-interest**

and altruism conflict: Diffusion of responsibility and victim retribution. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 339-340.—Individuals and groups decided between helping themselves while hurting another or helping another at a cost to themselves. Groups chose to hurt others more than individuals, thus, lending support to diffusion of responsibility in group decision-making. When the victims of individual and group decisions were given the opportunity to gain retribution, however, group members were punished somewhat more for their decisions than individuals. Thus, group members are held at least as responsible for their decisions as individuals, and the decrease in responsibility shown by group members is not mirrored by a decrease in socially attributed blame.—*Author abstract*.

2940. Young, James R. (George Peabody Coll. for Teachers) **The effects of laboratory training on self-concept, philosophies of human nature, and perceptions of group behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3696-3697.

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2941. Argyle, Michael, et al. (U. Oxford, Inst. of Experimental Psychology, England) **La communication des attitudes d'infériorité et de supériorité par signaux verbaux et non verbaux.** [The communication of inferiority and superiority attitudes by means of verbal and nonverbal signals.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 540-548.—18 videotapes were prepared in which 2 young women presented attitudes of superiority, inferiority, and neutrality both verbally, by means of prepared statements, and nonverbally by means of action alone. 20 male and 20 female adults were asked to rate the attitudes, which were defined by 10 descriptive dimensions, on a 7-point scale following each presentation of a videotape. Ss later were administered the Neuroticism and Extraversion scales of the MPI, the Psychopathic Deviate scale of the MMPI, and an "anomie" scale. Data analysis demonstrated that women are relatively more affected by nonverbal signals than men. Neurotics were significantly more troubled by stimulus inconsistencies ("doubles") and were more sensitive to verbal signals. (18 ref.)—*R. E. Smith*.

2942. Bennett, Charles R. & Lindskold, Svenn. **Procedural artifact in risky-shift research.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 249-250.—It was hypothesized that the size of the group and the time spent in discussing 6 choice dilemmas items would be positively related to the magnitude of risky shift. 96 females were used in a 2×2 factorial design. 4- or 8-person groups discussed, without the requirement of consensus, each of the items for either 3 or 9 min. The hypotheses were disconfirmed; the results indicate that large groups and long periods of deliberation inhibit the shift to risk. The theoretical and practical implications of these results are discussed.—*Author abstract*.

2943. Bragg, Barry W. (U. Toronto, Ontario, Canada) **Resistance of conformity pressure without social support.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 363-364.—Previous attempts to obtain a generalization of the social support effect (reduced conformity) after the removal of the social supporter have failed. Several theoretical interpretations of the psychological effect of

the social supporter suggest that it might be impossible to obtain the effect. The 2 experiments ($N = 126$ undergraduates in Exp. I and 60 high school students in Exp. II) presented in this paper find a generalization of the social supporter effect after removal of the supporter. An explanation of the psychological effect of the social supporter is offered.—*Author abstract.*

2944. Brewer, Robert E., Terris, William, & Dunn, Thomas. (De Paul U.) **Stimulus ambiguity and discrepant information in judgment formation and change.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 389-390.—2 experiments studied effects of discrepancy, stimulus ambiguity, and number of persons giving discrepant information on change in judgments of a mean. In Exp. I, 104 Ss participated in a factorial design (2 levels of ambiguity, 3 levels of discrepancy, and 2 levels of number of confederates); in Exp. II, 98 Ss were exposed to 1 of 5 levels of discrepancy. The 2 experiments show a curvilinear relationship between change and discrepancy with height and breadth of inverted U curves determined by stimulus ambiguity. The results suggest stimulus ambiguity as a simpler explanation of data usually accounted for in terms of involvement.—*Author abstract.*

2945. Goodale, James G. & Flanders, James P. (Bowling Green State U.) **Predicting and explaining risky and cautious shifts with situational stimuli.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 253-254.—The main hypothesis was that 4 experimental conditions are necessary for risky or cautious shifts to occur. 120 coeds served in a $2 \times 2 \times 2 \times 3$ factorial design. Risky and cautious shifts appeared under optimal conditions, but removal of any of the experimental conditions eliminated shifting, thus confirming the hypothesis. In addition, features of dilemmas commonly used to study group risk taking were scaled, intercorrelated, and combined in a utility ratio to predict Ss' recommendations to hypothetical persons ($r = .77$) and shifts in their advice resulting from group discussion ($r = -.84$).—*Author abstract.*

2946. Heron, John. (U. Surrey, Guildford, England) **The phenomenology of social encounter: The gaze.** *Philosophy & Phenomenological Research*, 1970(Dec), Vol. 31(2), 243-264.—Distinguishes between physical and psychological dimensions in eye contact between 2 persons. Argues that the gaze represents a basic, unique phenomenal category. 3 striking features of the gaze are examined: its luminosity, its streaming quality, and its meaning. It is concluded that there can be a science of human relations conceived in terms of a much more radically constituted empiricism.—*L. J. Cantoni.*

2947. Leathers, Dale G. (U. California, Los Angeles) **Process disruption and measurement in small group communication.** *Quarterly Journal of Speech*, 1969(Oct), Vol. 55(3), 287-300.—Hypothesized that: "High-level abstractions, low-level abstractions, unequivocal personal commitments, implicit inferences, and facetious interpolations each produce measurably different effects on the communication that follows their introduction into a problem-solving discussion." Stimulus statements reflecting these types of statements were presented to 20 discussion groups composed of 2 male and 2 female undergraduates and 2 confederates. The 2 confederates systematically introduced the 5 stimuli statements and 2 trained judges rated the feedback. Results confirm the

hypothesis with high-level abstraction being rated as the most disruptive. Feedback following high-level abstraction was confused, tense, and withdrawn; following implicit inferences it was signal, irrelevant, and digressive; and following facetious interpolation, it was personal and inflexible.—*S. Knapp.*

2948. Levy, Stephen J. & Atkins, Alvin L. (Albert Einstein Coll. of Medicine, Yeshiva U.) **An empirical investigation of disclosing behavior in a verbal encounter group.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 297-298.—The encounter-type group represents a contemporary form of small group interaction which is being offered as an approach to a wide range of social ills. This study represents an effort to investigate this unique type of setting, using empirical tools drawn from the field of group dynamics. The areas under study are: (a) the relative success of several encounter groups; (b) the effects of an important variable for the group setting, self-disclosing behavior; and (c) a comparison of the results with that of a group organized to discuss women's liberation but without the emphasis on an encounter approach. Results "demonstrate strong support for the contention that the AST [attitudinal skills training] philosophy, methodology, trainers, and demand characteristics are necessary for the achievement of such goals as greater self-awareness, etc."—*Author abstract.*

2949. Lewis, Steven A. & Pruitt, Dean G. (State U. New York, Buffalo) **Orientation, aspiration level, and communication freedom in integrative bargaining.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 221-222.—Integrative bargaining may be viewed as a process in which alternatives are found that provide greater benefit to both parties than those initially known. The present study ($N = 92$ male undergraduates) examined the effect of 3 variables—orientation (a distributive, in which persons consider their own needs only vs. a problem solving, in which the other person's needs are also considered), aspiration level (high vs. low), and communication freedom (free vs. restricted) on the integration process. Results indicate that when high goals are coupled with a problem-solving orientation high level agreements are obtained. High goals and a distributive orientation increase the occurrence of negotiation collapse.—*Author abstract.*

2950. Lewit, David W. & Saville, Margaret R. (U. Hawaii) **Can groups be conservative? The case of realism.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 251-252.—The rarity of conservative shifts in the group decision literature is attributed in part to limitations of the Wallach-Kogan-Stoner procedure, especially the hypothetical quality of the problems, the lack of relationship between the S and the advisee, and the lack of norms within the S group. A significant conservative shift was found by presenting 2 Wallach and Kogan problems in narrative form in a televised interview. 48 groups of 5 female undergraduates each ($1/2$ of Japanese ancestry, $1/2$ of Caucasian ancestry) were Ss. Conservative shift was found when advisee and Ss were of the same race (Oriental or Caucasian), but not when they were of different races, or when the narrative was presented as a typewritten transcription.—*Author abstract.*

2951. Rubin, Jeffrey Z., Mowbray, Carol T., Collett, Lora J., & Lewicki, Roy J. (Tufts U.) **The perception of**

attempts at interpersonal influence. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 391-392.—Examined the extent to which persuasive communications sharing a common intent are differentially perceived as a function of their implied reinforcement contingencies and semantic structure. A questionnaire was administered in which Ss were asked to evaluate 8 hypothetical influence statements from both a sender's and receiver's vantage point. Findings indicate that communications of contingent reward or nonpunishment are seen as more attractive than those expressing contingent punishment or nonreward. The former were rated as more likely to gain compliance and to engender positive affect. A 3-dimensional structural model for the study of simple influence statements is briefly developed.—*Author abstract.*

2952. Smith, R. Bob. (State U. New York, Albany) **Coercive influence as a function of frustration and fantasy aggression.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 231-232.—Investigated the influence of frustration and fantasy aggression upon a source's exercise of coercive power. $\frac{1}{2}$ of the Ss were frustrated and $\frac{1}{2}$ were not; further, each of these 2 groups were subdivided into those Ss who were given the opportunity to express fantasy aggression and those who were not. All Ss were then given coercive power (in the form of threats and punishments) in a conflict-of-interests interaction. Frustration caused Ss to establish higher credibility for their threats, and the opportunity to express aggression in fantasy had an accommodative effect on the use of coercive power.—*Author abstract.*

2953. Stone, Vernon A. (U. Wisconsin) **Individual differences and inoculation against persuasion.** *Journalism Quarterly*, 1969(Sum), Vol. 46(2), 267-273.—A study concerned with inoculation strategies and individual differences in recipients was conducted on 108 male and 148 female college-age Ss. Base-line measures were used to establish source-message orientation and self-esteem and all experimental cells were balanced for sex. Each S served in all conditions: source inoculation, message inoculation, and attack-only control. Source and message inoculation strategies conferred immunization but neither source-message orientation nor sex yielded the predicted attitude change interaction. Source inoculation was effective for persons with low self-esteem and message inoculation conferred immunization for both kinds of persons. Message rather than source inoculation tended to be more effective regardless of recipient. *J. A. Kline*

2954. Wallace, William F. (U. Alabama) **Primacy and recency warnings and order effects in persuasive communications.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4375.

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2955. Albert, Stuart. (City Coll., City U. New York) **Motivational properties of observed competition.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 347-348.—Presents 2 studies (N = 400 New York pedestrians) investigating the motivational implications of competition. The goal was to generate a paradigm to document the greater motivational potential of competition as compared to noncompetition by noting the

increased frequency of a response that was functionally attached to competition as a choice situation. A preference for competitive vs. noncompetitive choice was documented (1 wk. before a mayoralty election) and attributed to the activation of a set of cultural values that selectively reinforce certain kinds of choices and not others. The cross-cultural and value implications of the paradigm are pointed out.—*Author abstract.*

2956. Banikiotes, Paul C., Russell, John M., & Linden, James D. **Interpersonal attraction methodology: Oversimplified or related to real interaction?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 279-280.—Tested the assumption that an individual responds the same way to a test protocol as he would respond in a real-life situation to the individual depicted by the protocol. In order to test this assumption, interpersonal attraction methodology and sociometric ratings were contrasted. Ss were 44 18-22 yr. old male members of an undergraduate living group (cooperative). Some evidence was found to support the assumption tested with regard to an attitude measure (Attitude Survey). Topic importance, however, was found to be critical in determining attraction in real-life relationships. The assumption tested received inconsistent support with regard to a personality measure (Eysenck Personality Inventory).—*Author abstract.*

2957. Barazani, Ronald W. **Attribution of attitude as a function of perceived choice, normativeness, and strength of conviction in behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3686.

2958. Becker, Lee A. (Ohio State U.) **Component response characteristics in impression formation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4353.

2959. Berkowitz, William R., Nebel, Jeffrey C., & Reitman, Jonathan W. (U. Massachusetts, Boston) **Height and interpersonal attraction: The 1969 mayoral election in New York City.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 281-282.—Ss do tend to choose friends close to themselves in physical height; in this study, it was hypothesized that voters would prefer candidates of relatively similar height. 276 male pedestrians were interviewed just prior to the 1969 mayoral election in New York City, where the leading candidates were John Lindsay (6' 3") and Mario Procaccino (5' 6"). Ss reported both their own height and their voting preference. Shorter Ss were about evenly divided, taller Ss preferred Lindsay by 3:1. Results are discussed in terms of a 2-factor theory of attraction, where both absolute qualities and relative similarity of qualities are salient.—*Author abstract.*

2960. Berman, John J. & Brickman, Philip. (Northwestern U.) **Standards for attribution of liking: Effects of sex, self-esteem, and other's attractiveness.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 271-272.—A computer dating situation was employed to assess the effects of the sex and self-esteem of perceivers and the attractiveness of the persons perceived, on both attributions of liking and standards for attribution. It was hypothesized that attribution standards would be better measures of Ss' realistic expectancies of being liked than actual attributions. Males and Ss matched with an attractive other attributed greater liking to the other; females, low self-esteem Ss, and again Ss matched

with an attractive other reported stricter attribution standards. Differences are taken to indicate that attribution standards may be especially useful as indicators of the reasoning behind attributions of liking.—*Author abstract*

2961. Bickman, Leonard. (Smith Coll.) The effect of different uniforms on obedience in field situations. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 359-360.—Concern over methodological difficulties encountered in laboratory studies of obedience made it desirable to examine obedience in a field situation. It was hypothesized that the dress of another person can serve as a cue for obedience. It was predicted that compliance to an order would be related to the degree of authority represented by the E's uniform. Results from 3 field situations showed that a demand from a person in a guard's uniform was obeyed more frequently than a demand from a person in civilian dress. The data are examined in terms of social power theory.—*Author abstract*

2962. Brenner, Malcolm. (U. Michigan) Caring, love, and selective memory. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 275-276.—48 17-24 yr. old dating couples showed specific memory distortions when their girlfriend or boyfriend performed in their presence, but no distortions when a stranger performed. These distortions were related to the length of the relationship, to touching behavior, to Rubin love scores, and to both self-report and behavioral measures of caring for the dating partner.—*Author abstract*

2963. Brown, Bert R., Garland, Howard, & Mena, Manuel. (Cornell U.) Effects of another's dependency and expectations of meeting with him on the reduction of face-saving behavior. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 299-300.—A 2 x 2 factorial experiment was conducted to determine effects of an intervention designed to reduce face-saving in a situation which normally produces high face-saving. Face-saving, defined as sacrificing tangible (monetary) rewards to avoid public embarrassment, was measured by time Ss performed embarrassing task publicly. Lowest performance increased payoff. It was hypothesized that face-saving is reduced when (a) another is dependent on S for his payoff, and (b) S expects to meet other afterwards. Significant main effects confirmed the hypotheses. The results were interpreted in terms of arousal by not helping a dependent other and further embarrassment at confronting him afterwards.—*Author abstract*

2964. Bryan, James H., Gault, Una, & Barnett, Mark. (Northwestern U.) Effects of preachings, practices, and hypocrisy on adult judgments of the exemplar. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 341-342.—Assessments were made of the effects of exhortations and practices concerning altruism and the inconsistency of the two, upon adults' judgments of an exemplar. Ss were shown a videotape scene in which a model did or did not contribute to charity. With each of these 2 groups, 1/2 of the Ss heard the exemplar extol the charity, another 1/2 heard her indicate the desirability of retaining her winnings, and the remaining Ss heard the exemplar verbalize normatively neutral material. Ss then rated the exemplar on a variety of adjectives. The main

effects of preachings and practices were significant. No interaction of hypocritical effects were found.—*Author abstract*

2965. Fine, Robert H. & Lindholm, Steven. Subjects' experimental history and subject-based artifact. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 299-290.—Ss were provided experimental history of participation in 2 experiments involving deception, nondeception, or 1 of each. A subject's decision to participate was intended. The 1st criterion was a measure of tasks providing measures of truthfulness, honesty, honesty, negativism, and evaluation appropriate. Compared to the nondeception group, deception group resulted in higher scores. Both groups showed mixed deception, resulted in greater evaluation of deception than the other 2 groups. The 1st criterion of the faithful S was rejected, suggesting that the 1st criterion be a simple matter of truth or honesty.—*Author abstract*

2966. Fischer, Edward H. (Cornell U.) Altruistic attitudes and volunteering for companionship with mental hospital patients. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 343-344.—During the 1st recruitment, community college students volunteered to join a computer group, participate in a study, or later participate in a study. Ss were assessed for social desirability. Of several dimensions, the 1st dimension analyzed (birth order, religion, socioeconomic class) only 1 was distinguished, voluntariness from the 1st group (p < .0001). Greater social desirability and higher attitudes correlated significantly with higher volunteering. That did not apply to the 2nd group. A 2nd intervention in which Ss were asked to volunteer for a study had moderate scores and 1/2 of the Ss volunteered. The last finding suggests that a 1st intervention factor rather than specific factors caused the volunteering intervention.—*Author abstract*

2967. Jones, Russell A. & Ashmore, Richard D. (University of Illinois) Dimensions underlying the perceptions of national, religious and other ethnic groups. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 341-342.—A study was conducted to determine the underlying dimensions of the perceptions of national, religious and other ethnic groups. Ss were shown a videotape scene in which a model did or did not contribute to charity. With each of these 2 groups, 1/2 of the Ss heard the exemplar extol the charity, another 1/2 heard her indicate the desirability of retaining her winnings, and the remaining Ss heard the exemplar verbalize normatively neutral material. Ss then rated the exemplar on a variety of adjectives. The main

effects of preachings and practices were significant. No interaction of hypocritical effects were found.—*Author abstract*

2968. Kasper, Anthony A., Maier, Richard A., & Johnson, James I. Perception of physical attractiveness: The influence of group interaction and group cohesion on ratings of women. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 317-318.—Investigated the influence of group interaction and group cohesion on ratings of women's faces to 53 females and 53 males; the attractive-

ness of each photograph was rated by each S in a coaction setting and, then, in either a group interaction setting where a consensus rating was required, or a coacting setting a 2nd time. The interacting Ss gave the photographs a significantly lower rating on the 2nd (critical) viewing than the coacting Ss, suggesting that group interaction functions to lower ratings of attractiveness.—*Author abstract.*

2969. Lewicki, Roy J. (Yale U.) **The effects of exploitative and cooperative relationships on subsequent interpersonal relations.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 225-226.—Explored the impact of conducting either a successfully exploitative or cooperative relationship on the actor's subsequent behavior. Experimental Ss were induced to successfully exploit or cooperate with another person, and then given information about a 2nd other in a new task. For previously exploitative Ss, subsequent exploitation was maximally elicited when no information about the other was given; previously cooperative Ss cooperated most with a similar other. Recent evidence, suggesting that socially undesirable behavior is facilitated when the other is anonymous, was cited to explain the behavior of the exploitative Ss.—*Author abstract.*

2970. Merenda, Peter F., Shapurian, Reza; Bassiri, Torab, & Clarke, Walter V. (U. Rhode Island) **Iranian perceptions of the Reza Shah and President Johnson.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 239-241.—56 faculty members of an Iranian university were asked for their perceptions of the public image of the Reza Shah, the Great, and of President Johnson. The instrument used in obtaining these public image profiles was the Activity Vector Analysis (AVA). Findings showed a very tight cluster around AVA "Administrative Pattern" for perceptions of the Reza Shah and a less tight cluster about the same reference pattern for perceptions of President Johnson in terms of profile shape. Differences in profile scatter and elevation, however, were noted. As expected the Iranian nationals yielded significantly higher scatter and elevation scores in their perceptions of the Shah.—*Journal abstract.*

2971. Nelson, Don A. & Meadow, Barry L. (Purdue U.) **Attitude similarity, interpersonal attraction, actual success, and the evaluative perception of that success.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 283-284.—Ss differing in the degree to which they were led to believe that a stranger's attitudes were similar to their own worked together on an actual task, the success of which depended upon their ability to work together. Each pair of Ss was independently varied so as to believe that their partner's similarity was either high or low. Thus, the independent categories of similar-similar, dissimilar-dissimilar, and similar-dissimilar were established. Significant differences were found in task success and the perception of team success and the partner's contribution to that success. Hypothesized differences were found for within independent groups.—*Author abstract.*

2972. O'Brien, Gregory M. (Boston U., Graduate School) **The effects of information accessibility and Machiavellianism on interpersonal perception and bargaining behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3041.

2973. Parrott, George L. & Coleman, Georgetown. (Sacramento State Coll.) **Sexual appeal: In black and white.** *Proceedings of the Annual Convention of the*

American Psychological Association, 1971, Vol. 6(Pt. 1), 321-322.—Facial pictures were ranked from characteristically Negro to clearly white and organized into 3 comparable 6-picture sets of male and female photographs. Pictures were rated for sexual appeal by opposite-sex raters; the raters were either Negro or white. Results show no sexual appeal effect due to physical characteristics of face for female raters, but a strong affect for males. Negro and white males show the same basic response pattern on their ratings while Negro females gave generally lower ratings to all pictures than white females.—*Author abstract.*

2974. Raymond, Beth J. & Unger, Rhoda K. **The effect of deviant and conventional attire on cooperation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 357-358.—2 studies were conducted to determine whether deviantly dressed youths would receive differential cooperation as compared to their conventionally dressed Negro and white counterparts. Results indicate that white Ss complied less with the requests of both Negro and white deviants than with the requests of their conventional counterparts. Negro Ss cooperated with the white deviant to the same extent as the white Ss did; however, they cooperated more with the Negro deviant. The results are explained in terms of Rokeach's theory of belief congruity.—*Author abstract.*

2975. Regan, Judith W. (Wells Coll.) **Guilt, perceived injustice, and altruistic behavior.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 124-132.—Hypothesized that 2 separate mechanisms may lead to altruism after harm-doing: expiation of guilt and attempts to bolster belief in a "just world." 37 male and 47 female undergraduates served as Ss. For 56 Ss the experiment in which they were participating was ruined: 28 Ss were led to believe that their own negligence caused the misfortune, and 28 Ss were not at fault (responsible and witness conditions). As expected, Ss in both conditions contributed to a charitable fund more than controls, for whom no misfortune occurred. To distinguish between the guilt and just-world mechanisms, $\frac{1}{2}$ the Ss were encouraged to cathart and/or rationalize their guilt in an interview. As predicted, this experience did not affect the altruism of Ss in the witness condition, but did reduce altruism in responsible-condition Ss. Internal analyses further strengthened the thesis that guilt is the source of altruistic acts in Ss who cause harm, and perceived injustice is the motive in witnesses.—*Journal abstract.*

2976. Reznikoff, Marvin & Hirsch, Tannah. (Fordham U.) **Over troubled water.** *Psychology Today*, 1970(May), Vol. 3(12), 36-39.—Contract bridge requires both an analytical grasp of the technical aspects of the game and an understanding of the psychological nature of one's partner and opponents. Thus, bridge "inspires litigation, accusation, addiction, tribulation, recrimination, vexation...and an occasional murder."—E. J. Posavac.

2977. Richman, Joel. (Syracuse U., Psychological Research Center) **The concept of cooperation in the Prisoner's Dilemma and other tasks: Some need structure correlates.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 227-228.—Investigated the relationships between behavior in the Prisoner's Dilemma game (PDG), perception of human nature, and other tasks relevant to the study of cooperative behavior. Principal component analyses for each sex indicated that 4 measures of the perception of human nature were highly

related. 2 traditional PDGs defined a 2nd factor. The last 2 factors were defined by a measure of altruism and a mock PDG, respectively. The different indices of cooperation were seen to be unrelated to one another and to the perception of human nature. Subsequent analyses showed no stable relationships between need structure and cooperative behavior, although need structure was useful in the prediction of attitudes concerning the nature of other people.—*Author abstract.*

2978. Rosen, Sidney & Tesser, Abraham. (U. Georgia) **Fear of negative evaluation and the reluctance to transmit bad news.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 301-302.—Attempted to determine whether reluctance to transmit an overheard message intended for a stranger depends on fear of negative evaluation by, and the message's anticipated consequences for, that stranger. It was reasoned that a messenger would fear negative evaluation if he were identifiable by the recipient. The hypothesis that bad news would be transmitted less completely and spontaneously than good news was supported. Unexpectedly, anonymity did not interact with news content. Instead, greater communication occurred under nonanonymity than anonymity. These findings, along with some supportive correlational data, were reinterpreted from an attribution-theoretical viewpoint.—*Author abstract.*

2979. Scherer, Klaus R. (Harvard U.) **Attribution of personality from voice: A cross-cultural study on interpersonal perception.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 351-352.—American and German listener-judges rated personality traits of American and German speakers on the basis of content-masked voice samples. Using peer ratings as external personality criteria, it was found that American judges accurately attributed extroversion to American speakers and assertiveness to German speakers, and that German judges accurately attributed conscientiousness, emotional stability, and assertiveness to German speakers. Results are discussed in terms of modal personality patterns affecting the availability of expressive cues in speakers' voices, the sensitivity of listeners to such cues, and the congruence between cognitive inference structures of listeners and empirical voice-personality covariations.—*Author abstract.*

2980. Schlenker, Barry R., Brown, Robert, & Tedeschi, James T. (State U. New York, Albany) **Subjective probability of receiving harm as a function of attraction and harm delivered.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 285-286.—Ss were asked to estimate the probability that a liked or disliked confederate would deliver shock on each of 10 trials. Ss received 1, 5, or 9 shocks. An interaction between attraction and actual probability of shock was found on probability estimations. Ss in the low attraction-90% probability condition estimated greater probabilities of shock than Ss in either low attraction-10% or high attraction-90% conditions. Postinteraction measures indicated that liking for the confederate was determined by initial liking and was inversely related to number of shocks received.—*Author abstract.*

2981. Schneider, David J., et al. (Amherst Coll.) **Effects of visual contact on verbal self-presentation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 303-304.—It was hypothesized that Ss would be less positive

in their self-presentations when they were uncomfortable. It was assumed that Ss would be relatively uncomfortable when they could not be seen by and see (monitor) an interviewer. Results indicate that they were more positive when they could be seen and when they could not see the interviewer. These results do not seem to be a function of comfort in the situation, and a tentative explanation based on informational advantage and disadvantage is advanced.—*Author abstract.*

2982. Squier, Roger W. (Stanford U.) **The effect of feedback information and behavior consistency on accuracy of social prediction.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 255-264.—120 male undergraduates predicted a stimulus-person's responses to the EPPS. The amount of feedback given the Ss about the stimulus-person's responses was varied, and the degree of consistency in his responses was measured. Ss' predictive accuracy was increased by feedback only when the stimulus-person's responses were consistent, and was decreased by feedback when they were inconsistent. Results of the study were consistent with a probabilistic, expectancy theory of interpersonal perception.—*Author abstract.*

2983. Steele, John M. (U. Oklahoma) **Cue interactions in the attitudinal stereotyping of schematized faces with variations of head and facial hair.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3044.

2984. Stein, R. Timothy. (U. Delaware) **Accuracy in perceiving emergent leadership in small groups.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 295-296.—Studied accuracy in perceiving emergent task and socioemotional leadership. 149 undergraduates viewed a videotape of a small leaderless task group and guessed the order in which the group would rank its members on leadership functions. Tapes of 6 groups were used. Ss' judgments were accurate ($p < .01$). Accuracy was highly correlated with the agreement among stimulus group members in their rankings of each other. Data suggest some generalized ability to perceive group structural variables. Accuracy appears to result primarily from personal evaluations rather than from knowledge of how the group members evaluate each other.—*Author abstract.*

2985. Wahler, H. J. (Washington State Div. of Institutions, Office of Research, Ft. Steilacoom) **Winning and losing in life: A survey of opinions about causes.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 91-95.—A survey of nonprofessional personnel at a mental hospital in regard to "5 personal characteristics or conditions that you feel are essential for people to cope successfully and get what they want from life," and "most important causes for people defeating themselves and failing to get what they really want in life" (losing). Responses indicate that "Winning is associated with concepts implying the Protestant ethic." "Losing" statements were classed as expressing a socially undesirable attribute, and lack of some desirable characteristic. The terms "winning" and "losing" are interchanged with mental health and mental illness. A. M. Cawley.

COMMUNICATION

2986. Bickley, A. C., Ellington, Billie J., & Bickley, Rachel T. (Moorehead State U.) **The cloze procedure: A conspectus.** *Journal of Reading Behavior*, 1970(Sum),

Vol. 2(3), 232-249.—Presents brief reviews of research on the cloze procedure, especially those references concerned with readability, comprehension, language, and methodological aspects of constructing and scoring cloze tests. (6 p. ref.)—*W. L. Chovan.*

1987. Bükky, Béla. (Hungarian Academy of Sciences, Budapest) **A kommunikáció-kutatás legfőbb megállapításai, valamint néhány példa ezek nyelvészeti, pedagógiai és pszichológiai alkalmazására.** [The main results of communication research, and some examples of their linguistic, educational and psychological application.] *Pszichológiai Tanulmányok*, 1967, No. 10, 147-151.

1988. Chombart de Lauwe, Marie J. (National Center of Scientific Research, Paris, France) **L'image de l'enfant et sa signification personnelle et collective.** [The child's image and its personal and collective significance.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 614-620.—Writers and film-makers possess the capability of "fixing" representations of the world as well as controlling the impact of these representations on both a personal and collective basis. The study of these representations helps in the understanding of children's social integration and their identification with the portrayed models. The "child image" as created for an adult audience, the portrayal of adults to children, the identification frustration (mythization) the child encounters when he discovers the real world, and the values systems involved are discussed.—*R. E. Smith.*

Language

1989. Anderson, Norman H. (U. California, La Jolla) **Two more tests against change of meaning in adjective combinations.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 75-85.—Describes 2 experiments with 224 undergraduates. No-Paragraph Ss formed an impression of a person described by 3 trait-adjectives, rated the person on likableness, and then rated each component trait. Paragraph Ss were treated identically after writing a paragraph describing the person in their own words. A strong positive context effect was obtained. Component ratings were displaced toward the values of the other traits; quantitatively, this effect followed the parallelism prediction of information integration theory. Since this positive context effect was equal for Paragraph and No-Paragraph conditions, it was interpreted as a generalized halo effect, not as contextual change of meaning. A 3rd experiment with 40 undergraduates obtained greater context effect for larger sets of equal-valued traits, casting doubt on an assimilation of meaning explanation. Limitations on the results are noted. (28 ref.)—*Journal abstract.*

1990. Dalrymple-Alford, E. C. & Aamiry, Arwa. (Trent U., Peterborough, Ontario, Canada) **Word associations of bilinguals.** *Psychonomic Science*, 1970(Dec), Vol. 21(6), 319-320.—176 Arabic-English bilingual undergraduates gave a greater number of identical associations when they responded to the same word twice, than when they responded the 2nd time to the translation of the stimulus word. It is suggested that this result may be due to translation equivalents having the status of synonyms and not to bilinguals' setting up associations independently in each language.—*Journal abstract.*

1991. Danks, Joseph H. & Glucksberg, Sam. (Kent State U.) **Psychological scaling of adjective orders.**

Journal of Verbal Learning & Verbal Behavior, 1971(Feb), Vol. 10(1), 63-67.—Investigated whether violations of implicit adjective-ordering rules affect scalings of grammaticality. 51 undergraduates ranked sentences containing 1 of 6 different orders of 3 prenominal adjective classes, using a multiple rank ordering procedure. The scale values were consistent with expectations based upon the assumption that Ss integrate a pragmatic communication constraint and a semantic-grammatical rule. Implications for language research are discussed.—*Journal abstract.*

1992. Hamilton, Helen W. & Deese, James. (Johns Hopkins U.) **A study of associations to combinations of words.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 57-58.—Tested an aspect of an abstract feature model of semantic processing (see M. G. Johnson, PA, Vol. 44:15914) and examined the associative responses to marked and unmarked adjective triads. Predominantly noun associates occur even where the model predicts adjective responses. Ss were 100 undergraduates. Unmarked adjective triads elicited more positively evaluated associates for both noun and adjective response words. Marked triads elicited more negatively evaluated associates for adjectives. The evidence is negative for Johnson's model and suggests, instead, a model incorporating propositional reactions to the triads.—*Author abstract.*

1993. Kováč, Damián. (Slovak Academy of Sciences, Inst. of Psychology, Bratislava, Czechoslovakia) **A többnyelvűség pszichológiai aspektusai.** [Psychological aspects of multi-lingualism.] *Pszichológiai Tanulmányok*, 1967, No. 10, 51-58.

1994. McGinley, Hugh. (U. Wyoming) **Relationship between denotative and connotative meaning as an intrasubject phenomenon.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 207-211.—67 undergraduates responded to a multiple-choice type vocabulary test and then marked semantic profiles for stimulus words and response words which were selected from the test. Ss who responded correctly to stimulus words marked more similar semantic profiles between the stimulus words and their respective correct response words than Ss who missed the stimulus words on the test. Ss who incorrectly responded to stimulus words but who indicated that they knew the words and that their chosen responses were good synonyms of them, marked more similar profiles between the stimulus words and their chosen response words than between the stimulus words and the correct response words.—*Journal abstract.*

1995. Neelley, James N. & Vaughn, Bill E. (U. Kansas) **Visual discrimination of certain consonant sounds.** *Quarterly Journal of Speech*, 1969(Oct), Vol. 55(3), 301-307.

1996. Rubenstein, Herbert; Lewis, Spafford S., & Rubenstein, Mollie A. (Lehigh U.) **Homographic entries in the internal lexicon: Effects of systematicity and relative frequency of meanings.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 57-62.—In an experiment with 45 undergraduates, the task was to distinguish between English and nonsense words, which were displayed singly. The display persisted until S pressed the yes-key if he thought the stimulus was English or the no-key if he thought it was nonsense. In an earlier study it was found that the response time is shorter when the English word is a homograph than when it is a nonhomograph. The

present study shows that this facilitating effect of homography is observable when the meanings of the homograph (a) are not systematically related, and (b) tend to equiprobability.—*Journal abstract.*

2997. Shapiro, S. I. & Gordon, G. Paul. (U. Hawaii) **Contemporary norms of word and phonetic frequencies.** *Journal of Verbal Learning & Verbal Behavior*, 1971(Feb), Vol. 10(1), 92-94.—Discusses recent sources of normative word and phonetic frequency data, including an easily available source of American English word frequencies compiled by H. Kučera and W. N. Francis, and phonetic frequency data compiled by A. H. Roberts.—*Journal abstract.*

2998. Steinberg, Danny D. (U. Hawaii) **On semantic sentence categories.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 45-46.—The validity of the semantic sentence categories of informative, redundant, contradictory, and amphigorous (categories derived from the analytic-synthetic distinction and the philosophical notion of "meaninglessness") was investigated, as was the effects of negation and the truth-value assigned such categories. The findings strongly support the validity of the categories and establish various systematic relations among the categories with negation. Analysis unexpectedly showed that contradictory sentences never involved a semantic feature conflict on animateness or humanness but that amphigorous sentences always did. Contrary to Pap's thesis, affirmative amphigorous ("meaningless") sentences were rated as false and their negations as true.—*Author abstract.*

Psycholinguistics

2999. Donley, Richard E. & Winter, David G. **Measuring the motives of public officials at a distance: An exploratory study of American presidents.** *Behavioral Science*, 1970(May), Vol. 15(3), 227-236.—Scored the inaugural addresses of American presidents from 1905-1969 for the need of achievement (n Ach) and the need for power (n Power), using procedures originally developed for scoring individual TAT protocols. The resulting motive scores are closely related to the consensus judgment of historians and political scientists concerning those presidential administrations. Thus the technique of scoring speeches for psychological imagery appears to be a promising way to measure the personality characteristics of significant political actors, who are usually unavailable for standard personality assessment procedures. The technique appears to have promise for predicting the future course of political action, given the motive scores of actors. Several methodological issues are discussed. (40 ref.)—*Journal abstract.*

3000. Goodman, Kenneth S. (Wayne State U.) **Psycholinguistic universals in the reading process.** *Journal of Typographic Research*, 1970(Spr), Vol. 4(2), 103-110.—Literate speakers in any language have 2 alternative surface language forms which are realizations of the same deep structure and which represent alternate encodings of the same meaning. For the proficient reader, written language becomes parallel to speech and not a secondary representation of it. Listening and reading are processes in which the language user may sample, select, and predict from the available signal. Readers are users of language who process graphic, syntactic, and semantic information simultaneously.

Readers develop strategies for the efficient sampling of the graphic signal in relation to the syntax of their language and the concepts and experiences with which the passage is concerned. The essential characteristics of the reading process are universal.—*Journal abstract.*

3001. Halwes, Terry & Jenkins, James J. (U. Connecticut) **Problem of serial order in behavior is not resolved by context-sensitive associative memory models.** *Psychological Review*, 1971(Mar), Vol. 78(2), 122-129.—Associative-chain theories have trouble accounting for the basic fact that the elements of behavior are ordered serially. W. A. Wickelgren (see PA, Vol. 43:6871) attempted to avoid these difficulties by postulating a "context-sensitive associative theory," "which assumes that serial order is encoded by means of associations between context-sensitive elementary motor responses." This reply argues that (a) such theories are not adequate to account for serial ordering and the other facts of speech production, (b) that arguments advanced in their support are incorrect, and (c) the nonassociative alternative considered and rejected by Wickelgren is in no way related to seriously held nonassociative theories.—*Journal abstract.*

3002. Ohnmacht, Fred W. (State U. New York, Albany) **Psycholinguistic research: A psychometric point of view.** *Journal of Reading Behavior*, 1970(Sum), Vol. 2(3), 213-220.—Assumes that individual difference variables are helpful in the explanation of linguistic behavior. An understanding of linguistic behavior can be improved if contributions from both experimental and psychometric approaches are considered. A "marriage" between experimental and psychometric values is proposed. (16 ref.)—*W. L. Chovan.*

AESTHETICS

3003. Claus, David B. (Yale U.) **Psyche: A study in the language of the self before Plato.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2895.

3004. Halfer, Ronald S. (Brandeis U.) **Sterne's affective art and eighteenth-century psychology.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2877.

3005. Halász, László. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Az írói tehetség néhány pszichológiai sajátosságának vizsgálata.** [Examination of some of the psychological features of literary talent.] *Pszichológiai Tanulmányok*, 1967, No. 10, 485-495.

3006. Henry, Otto W. (Tulane U.) **The evolution of idiomatic and psychoacoustical resources as a basis for unity in electronic music.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2957.

3007. Lindauer, Martin S. (State University Coll. New York, Brockport) **Preference for abstract art as a function of complexity and free and controlled exposure time.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 409-410.—Investigated preference for a sample of abstract art in 2 studies. In Exp. I, 43 volunteers from an advanced perception course were Ss; in Exp. II, 4 groups of 13 undergraduates each were Ss. The parameters of interest, related to general psychological issues as well, included stimulus complexity and the amount of free and controlled exposure time. Preference was minimally related to complexity, the latter arousing a strong and well-defined response. The duration of looking behavior

moderately but irregularly affected preference. The findings are discussed in terms of the ambiguous nature of an emotional evaluation of abstract art.—*Author abstract.*

3008. McWhinnie, Harold J. (U. Maryland) **Is psychology relevant to aesthetics?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 419-420.—Reviews the issues involved in the question of the relevancy of psychological matters to questions of aesthetics. G. Dickie's 1962 paper on the relevancy of psychology to aesthetics sparked a considerable debate within both psychology and philosophy. Dickie's paper to some degree at least reflected a discouragement and disillusionment with over 50 yr. of research in empirical aesthetics and the psychology of art. Considering the fact that Dickie wrote in the early 1960s, such a disillusionment was no doubt justified; since the field of empirical aesthetics at that point in time in its historical development was truly "spinning its wheels in mud." However, recent work (since 1962) by Berlyne, Eisenman, Child, and McWhinnie necessitates a fresh look at the question as posed by Dickie. Psychological aesthetics needs to explore questions within the Eiland frame of reference. It ought to avoid studies such as: (a) factor analytic studies designed to assess some general aesthetic factor, (b) comparison of preference and/or judgments of naive Ss with expert judges, (c) large scale correlational studies with a multitude of variables compared, and (d) studies in which there is a lack of any clearly manipulated variables.—*Author abstract.*

3009. Peterson, John M. & Rudd, J. William. (U. Cincinnati) **Stimulus complexity and the cube: A handcarving task revisited.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 415-416.—From previous research and the "new look" in motivation theory, predictions were made about structural choices, product quality, and general design performance for advanced design students. A handcarving in a 6-in cube of wood was assigned to 4th-yr architecture students (most had done a similar task as freshmen). Though the quality of both sets of handcarvings reflected the ability of the designers, the 2 tasks appeared to be different. These advanced students tended to do better with complex cube edge combinations and contrary to prediction more selected these combinations. Also initial design performance tended to predict subsequent design performance.—*Author abstract.*

SMOKING & DRUG & ALCOHOL USE

3010. Baer, Daniel J. (Boston Coll.) **Political views of high school and college students and attitudes about legalization of marihuana.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 337-338.—Compared beliefs about the legalization of marihuana with political views for a sample of 1350 high school and college student users and nonusers of the drug. Conservatives in contrast to liberal nonusers of marihuana more likely agreed that users and sellers should be severely punished and less likely agreed that present penalties for users were too severe. However, for those Ss with some experience taking marihuana, no significant association occurred between political beliefs and response to these state-

ments. Results suggest that with regard to attitudes about legalization of marihuana and political views, experience with the drug is an important factor.—*Author abstract.*

3011. Chamberlin, Cecil. (Menninger Foundation, Children's Div., Topeka, Kan.) **Youth and drugs.** *Menninger Quarterly*, 1969(Win), Vol. 23(4), 12-21.—Outlines the developmental tasks of the adolescent as follows: (a) finding new ways of coping with inner tensions, (b) severing dependent ties with parents, and (c) establishing an identity. Drug usage is described as a possible method for youth to be antiadult and anti-establishment, to establish identity, to seek release from tensions, or to seek new and exciting experiences. The generation gap is discussed in terms of the difference between adolescent and adult values. It is suggested that in addition to his concern about young people who use drugs, the adult should also concern himself with bridging the generation gap. A project designed to establish communication between the generations is described.—*S. Knapp.*

3012. Grossman, Jan C., Goldstein, Ronald, & Eisenman, Russell. (Temple U.) **Openness to experience and marihuana use: An initial investigation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 335-336.—Studied personality correlates of nonusers and 3 groups varying in frequency of marihuana use. It was predicted and confirmed that as the level of marihuana use increased, adventuresomeness and creativity would increase, and authoritarianism would decrease. Also, regular marihuana users were found to be no more anxious or impulsive than nonusers. Biographical data revealed that males were heavier users than females, and Jews, heavier users than Catholics or Protestants. Users did just as well as nonusers academically. Results are discussed and explained by an "openness to experience" factor.—*Author abstract.*

3013. McGlothlin, William H., Arnold, David O., & Rowan, Paul K. (U. California, Los Angeles) **Marihuana use among adults.** *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 433-443.—Examines data on marihuana use from a subsample of 247 persons who received LSD from physicians during the period 1955-1961. 108 Ss (44%) reported some experience with marihuana, and 29 of these began use prior to 1961 and used it regularly at some time. Of these 29, 14 were still using marihuana frequently and 7 were not using it at all. This group was composed of 22 males and 7 females, mean age 40, and all but 4 had attended college. 23 had at some time been heavy alcohol consumers and 20 had at some time shown frequent use of stimulants. It is concluded that alcohol and marihuana are likely to remain drugs of major social use in that they (a) "appeal to a relatively large proportion of the population; (b) ... are suitable for regular use over long periods of time; and (c) ... produce significant physical, psychological, or social behavioral change." (16 ref.)—*E. M. Uprichard.*

3014. Pillard, Richard C. (700 Harrison Ave., Boston, Mass.) **Marihuana.** *New England Journal of Medicine*, 1970(Aug), Vol. 283(6), 294-303.—Presents a summarization of what is known about marihuana, its derivation, and its chemical analysis. Physiological effects on animals and humans are described. Psychological effects and adverse psychological reactions are described. An idea of the prevalence of marihuana use is

given. There is a section on the legal status of marihuana. The inadequacy of a purely medical approach to the question of marihuana use is stressed. It is concluded that the "ultimate place of marihuana in our culture will reflect social as well as medical pressures." (92 ref.)—S. R. Diamond.

3015. Sadava, Stanley W. (U. Colorado) **College student drug use: A social psychological study.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3043.

3016. Sharoff, Robert L. (12 E. 86th St., New York, N.Y.) **Character problems and their relationship to drug abuse.** *American Journal of Psychoanalysis*, 1969, Vol. 29(2), 186-193.—Uses examples from history, theatre, motion pictures, and previous studies to characterize types of individuals who abuse various types of drugs. People who use alcohol or nonnarcotic sedatives are characterized as trying to resolve character problems related to conflicts of aggression and sexuality by acting them out. Narcotic drug addicts attempt to resolve a lack of self-esteem by withdrawal as well as by attacking society by the problems they create for it. Hallucinogen users are also characterized as having problems of self-esteem. However, drugs enable them to substitute love for competition while feeling, through perceptual distortion, that they have become what they believe they are in imagination.—M. Maney.

3017. Willinger, Kenneth L. (U. California, Berkeley) **Adolescent drug use and antinomianism.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4350-4351.

PERSONALITY

3018. Campana, Carole D. (Columbia U.) **Aspects of personality development in late adolescence and early adulthood.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4330-4331.

3019. Osipova, E. V. **Nekotorye problemy teorii lichnosti.** [Some problems pertaining to the theory of personality.] In G. V. Osipov (Ed.), "Sotsial'nye issledovaniya: Problemy truda i lichnosti." (See PA, Vol. 46: Issue 2) 5-37.—Describes a general type of personality in a capitalistic society as seen by Marx and Lenin and the formation process of a socialistic type of personality. The following factors were considered: (a) attitude of an individual towards society and work, (b) social environment and its effects, (c) structure of a personality, and (d) formation process of a personality in a communistic society. Marx and Lenin considered an individual in a capitalistic society to be living an egoistic life, to regard manual work as degrading, and whose future is predetermined by belonging to a certain social class. The 4-sided structure of a personality was considered, i.e., social background, temperament, experience, and individual characteristics. Formation process of a new man would include: overcoming of the ideological separation between the individual and his work; equalizing of opportunities, e.g., educational opportunities, social security, etc.; and participation in economic and political decision making.—I. Halev.

PERSONALITY TRAITS & PROCESSES

3020. Ace, Merle E. & Barth, Richard T. (U. British

Columbia, Vancouver, Canada) **Content and score as sources of response inconsistency.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt 1), 121-122. Reviews evidence indicating that response inconsistency is interpretable as a personality trait, rather than simply as an artifact of a psychometric instrument. 3 inventories were developed, 1 in each of 3 content areas. 3 types of scores were developed in each inventory. Results of 2 1-way repeated measurements designs, across scores, and across contents, show that scores and individual differences are about equally important as has been previously found, but that these contents did not contribute to inconsistency variance. Ss were 160 undergraduates. Response inconsistency thus may be attributable to the person responding.—Author abstract.

3021. Barthell, Charles N. (Northwestern U.) **Affiliation, birth order and extroversion-introversion.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4324-4325.

3022. Burnes, Kay; Brown, Walter A., & Keating, Gordon W. (National Inst. of Health, Bethesda, Md.) **Dimensions of control: Correlations between MMPI and I-E scores.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 301. Administered Rotter's Internal versus External Locus of Control (I-E) scale and the MMPI to 25 volunteer members of a suburban rescue squad. I-E scores correlated with 3 MMPI scales: negatively with the K and Hy scales and positively with the F scale. A comparison of these relationships with those found in a sample of alcoholics is made. It is suggested that the correlations observed indicate "that a sense of control over external events is related to self-control and competence in handling internal events."—S. Knapp.

3023. Cohen, David. **Personality of professionals.** *Science Journal*, 1971(Jan), Vol. 7(1), 85-87. Reviews the studies of Roe, McClelland, and Lidzson which were concerned with personality differences among professionals. Physicists and biologists tended to be isolated during childhood and become less person-oriented and more thing-oriented. Psychologists experienced great parental conflict but placed a high value on human relations. Business executives had high achievement needs. Artists displayed different thought patterns and a high degree of self-discipline. The author's preliminary research on actors indicated they were more sensitive, more neurotic, and more person-oriented than the control group. It is concluded that the profession one chooses is chosen because it enables one to resolve certain psychological problems.—A. Santi.

3024. Foulds, Melvin L. & Warchime, Robert G. (Bowling Green State U.) **Relationship between repression-sensitization and a measure of self-actualization.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 287-289. Tested 55 male and 55 female undergraduates on Byrne's Repression Sensitization (R-S) scale and the Personal Orientation Inventory (POI), a measure of self-actualization, to determine the relationship between these variables. Findings reveal significant sex differences on 10 of 12 POI scales with females scoring higher than males. All 12 POI scales were found to be negatively and significantly related to female R-S scores and for total Ss and all but 2 of the comparisons were significant beyond the .001 level. Results provide additional confirmation of the hypoth-

esis that the relationship between R-S and personal adjustment may be linear. (23 ref.)—*Journal abstract.*

3025. Gáspárné-Zauner, Eva. (Tanítóképző Inst., Budapest, Hungary) Személyiségfejlesztés pszichológiai gyakorlatokkal. [The development of personality by means of psychological practices.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 492-502.—Offers a system for personality development, directed toward a subjective reality. (English & Russian summaries) (28 ref.)—*M. Moore.*

3026. Gorman, Bernard S. & Katz, Bernard. (Nassau Community Coll.) Temporal orientation of anality. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 367-368.—The role of time orientations in the structuring of reality and social relationships has been conceptually related to certain personality factors. Freud initially discussed the potential effect of behavioral phenomena occurring in the anal stage on the internalization of temporal experience. The present study (N = 110 undergraduates) used a measure of anality, a composite time scale, 4 factorially-derived time scales, and measures of rigidity and social desirability in order to quantitatively define the relationship between anality and time. Specific relationships were found between an anal expulsive character type and several temporal orientations. An "obsessional" or "rigid" factor was obtained.—*Author abstract.*

3027. Haak, Ruth A. (U. Texas) The superior perceiver: A model of the cognitive components and personality correlates of perceptiveness. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4311-4312.

3028. Harvin, Rita C. (U. Texas) The true believer: Who is he? An analysis of the relationship of self-esteem, responsibility and interest in an extremist group. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4363.

3029. Horner, Matina. (U. Michigan) Fall: Bright women. *Psychology Today*, 1969(Nov), Vol. 3(6), 36-38, 62.—The general hypothesis that women possess a motive to avoid success was tested with 90 female and 88 male undergraduates. Stories which were written about a female (or male) who finished at the top of her (or his) medical school class indicated that, compared to males, females fear rejection after a success, worry about the definition of their sex, or distort the success. Putting the Ss into competitive groups showed that the achievement scores of women dropped off. Women with the lowest fear of success behaved more like men when competing.—*E. J. Posavac.*

3030. Jackson, Dorothy W. (Ohio State U.) Self as process: Implication of role behavior. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4314-4315.

3031. Koenig, Frederick. (Tulane U.) Definition of self in France and Sweden. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 257-258.—Definition of self profiles were obtained by giving the Twenty Statement Test responding to the phrase "I am—?" to 80 Swedish and 96 French university students. The average percentage of unusual responses was computed for both groups. The Swedish students showed greater social independence in their responses compared to the French, by having fewer consensual responses. Both had fewer consensual re-

sponses than United States students had in a previous study.—*Author abstract.*

3032. Levine, Frederic J. (U. Michigan) A reply to Wolitzky's "Note on 'Color-Word Test performance and drive regulation in three vocational groups.'" *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 294-295.—Argues that the theoretical objections proposed by D. L. Wolitzky (see PA, Vol. 46:Issue 2) to the premises of a study by F. J. Levine (see PA, Vol. 43:4002) are based on some misunderstandings of the study's rationale, and to a difference in definition of the concept of constricted vs. flexible control. It is suggested that this difference reflects a serious lack of clarity in the field, and that the study tested an important, widely held interpretation of the control concept. Wolitzky's statistical comments are seen as a valuable caution in interpreting the study, but as not significantly weakening its conclusions.—*Journal abstract.*

3033. Looft, William R. & Baranowski, Marc D. (U. Wisconsin) Birth order, sex, and complexity-simplicity: An attempt at replication. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 303-306.—Birth order, sex, and preference-for-complexity data were obtained from 119 undergraduates in order to test 4 hypotheses derived from the findings of several studies reported by Eisenman. Only 1 of these hypotheses concerning birth order and sex differences for complexity preference was statistically supported, though other differences were in the hypothesized directions. Mean complexity scores and correlations of the complexity measure with sex and birth order were widely discrepant with those reported in earlier studies by Eisenman. The presence of marked differences between the present population and those sampled by Eisenman may account for the discrepancies.—*Journal abstract.*

3034. MacDonald, A. P. (West Virginia U.) Birth order and personality. *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 171-176.—Investigated 6 personality variables for birth order differences in 339 male and 447 female and 210 male and 266 female undergraduates. Ss in the former were studied for dogmatism, ambiguity tolerance, and rigidity. Measures of (a) internal-external locus of control, and (b) social responsibility were administered to the latter. Both samples were given the Marlowe-Crowne Social Desirability Scale. Data were analyzed in 2 x 3 factorial analysis of variance design: 2 levels of sex and 3 levels of birth order (only child, 1st born, and later born). It was found that (a) later borns from 2-child families were more external than those from larger families; (b) later borns from 2-child families were more external than only children or 1st borns from 2-child families; (c) only children and 1st borns were more socially responsible than later borns; (d) 1st borns were more rigid than only-child and later-born Ss; and (e) only-female Ss manifested higher need for approval than only males. (26 ref.)—*Journal abstract.*

3035. Marshall, Nancy J. (U. California, Berkeley) Orientations toward privacy: Environmental and personality components. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4315-4316.

3036. Mealiea, Wallace L. & Farley, Frank H. (U. Wisconsin) Birth order and expressed fear. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 239-240.—148 female college students were given the Wolpe Fear

Survey Schedule and divided into 6 groups on the basis of birth order and family size. General fear scores and extreme fear scores were computed for each S. No significant differences were found among the groups on general fear. However, analyses of extreme fear indicated that 1st-born Ss expressed a significantly greater proportion of extreme fears, especially those of an interpersonal nature, than did later-born Ss. The results were related to previous birth-order findings.—*Author abstract*

3037. Mikesell, Richard H. & Tesser, Abraham. (U. Georgia, Inst. for Behavioral Research) **Life history antecedents of authoritarianism: A quasi-longitudinal approach.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 369-370.—719 male college freshmen completed an objectively scorable Biographical Information Blank and a measure of their current authoritarian attitudes. The Biographical Information Blank was factor analyzed and the resulting factor scores were correlated with Jackson and Messick's F scale. A multiple regression coefficient using F scale as a criterion was obtained. Bio-data factors of idealized parental relations, athletic activity and interest, ideological intellectual independence, religious activity, and anomie correlated significantly with F score. The multiple correlation was .44. The extent to which these empirical relationships mirror previously hypothesized theoretical relationships is discussed.—*Author abstract*

3038. Ryckman, Richard M. & Rodda, William C. (U. Maine) **Locus of control and initial task experience as determinants of confidence changes in a chance situation.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 116-119.—Studied the effects of differences in locus of control and initial task experience on confidence rating changes under chance conditions using a $2 \times 2 \times 15$ factorial repeated-measures design. 40 internal and 40 external undergraduates were required to solve 15 line-matching problems after experiencing success or failure on 5 practice problems. Results indicated that Ss who experienced initial success were more confident over the last series of problems than Ss who experienced initial failure. Externals made more typical confidence shifts than internals following success, but contrary to expectation, internals made more shifts than externals after failure. Interpretations of this outcome include a hypothesized need by externals to defend against failure by refusing to change their confidence ratings.—*Journal abstract*

3039. Ryckman, Richard M., Stone, William F., & Elam, R. Richard. (U. Maine) **Emotional arousal as a function of perceived locus of control and task requirements.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 185-191.—Studied the effects of differences in sex, locus of control, and task requirements on emotional arousal in 78 Ss using a $2 \times 2 \times 2$ factorial design. Results indicate a general reluctance by male Ss to display emotion after E criticism of performance on a dart throwing task under nearly all of the experimental conditions. Female Ss, by contrast, behaved as expected, with externals reacting more strongly to criticism under chance conditions and internals reacting more strongly under skill conditions. Suggestions are made for a more direct test of the generality of R. B. Rotter and R. C. Mully's recent contention that internals and externals differ in the degree to which they value rewards obtained

under chance and skill conditions.—*Author abstract*

3040. Sheehan, Peter W. (U. New England, Armidale, New South Wales, Australia) **Measurement of a construct of the student-activist personality.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 297.—Obtained a definition of the activist personality from 8 judges. 32 items were selected from an initial pool to measure (a) ideological commitment, (b) rejection of authority, (c) replacement of authority, (d) conflict between real and ideal self, (e) self-punitiveness, and (f) need for self-actualization. The scale was administered individually to 41 male undergraduates and in group sessions to 84 male undergraduates. Results show a factor pattern corresponding to the ideology, authority, and conflict between real and ideal self constructs. Item content also suggested a self-punishment need. Validation tests were positive. It is suggested that the construct may be of value in studies "of the psychological attributes of subgroups of the student population."—S. Knapp

3041. Starr, Jerold M. (Brandeis U.) **Cross-cultural encounter and personality change: Peace Corps volunteers in the Philippines.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3043.

3042. Statham, Hershel W. (Southern Illinois U.) **A study of the relationships among test anxiety, instructions, and conflict.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4346.

3043. Stefic, Edward C. & Lorr, Maurice. (Catholic U. of America) **Analysis of defensiveness in relation to psychopathology.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 205-209. Attempted (a) to determine what factors account for relationships among items representative of 5 well-known measures of defensiveness, and (b) to relate the factors found to homogeneous measures of psychopathology and extroversion-introversion. A 246-item inventory was administered to 217 undergraduate and graduate students. An initial analysis of the 110 defensive items yielded 8 factors of which the 1st, admission of common frailties, was defined by items from the Lie, the Good Impression, the Marlowe-Crowne, the K, and the Cofer malinger scales. Items best defining 6 of the defensive factors, 6 psychopathology factors, and an extroversion scale were grouped into homogeneous subsets. The 2 main factors yielded by the factor analysis of the subset correlations were interpreted as dimensions of extra- and intro-punitiveness. (18 ref.)—*Journal abstract*

Behavior Correlates

3044. Ack, Marvin. (Menninger Foundation, Div. of School Mental Health, Topeka, Kan.) **Toward understanding irrationality.** *Menninger Quarterly*, 1969(Sum), Vol. 23(2), 2-13. —Discusses irrationality as the results of unconscious drives and processes. "Although the form of expression of drives is determined by other agencies of the mind, 1 of the major characteristics of the unconscious is that it does harbor these forces, that they are powerful, and they constantly search for expression. Only such a postulation makes reasonable the behavior we see around us." Illustrative examples are included.—S. Knapp

3045. Baker, William G. (U. Oklahoma) **Personality correlates of stock market speculation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4376.

3046. Baron, Robert A. (U. South Carolina) **Effects of presence of an audience and level of prior anger arousal on adult aggressive behavior.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 235-236.—60 undergraduate males were first angered or not angered by a confederate of the E, and then permitted to attack this individual under 1 of 3 conditions: alone in the experimental room (no audience), in the presence of an audience which witnessed their treatment at the hands of the confederate (early audience), or in the presence of an audience which failed to witness these events (late audience). Results indicate that aggression was reduced by the presence of the early audience, but not affected by the presence of the late audience.—*Author abstract.*

3047. Bergquist, William H. (U. Oregon) **An interpersonal-cognitive approach to repression-sensitization: Individual differences in short term memory and conceptual skills.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4354.

3048. Byars, Bernyce I. (U. California, Los Angeles) **Aggressive humor as a stimulus to aggressive behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4329.

3049. Carr, Gordon D. (Veterans Administration Outpatient Clinic, Boston, Mass.) **Introversion-extraversion and vigilance performance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 379-380.—80 Ss (40 introverts and 40 extroverts) performed an auditory vigilance task including pre- and posttests with knowledge of results. The extroverts displayed significantly more vigilance decrement during the watch and significantly greater increases in correct detections and commission errors in the posttest. The results support Eysenck's hypothesis that extroverts will show more performance decrement on vigilance tasks because of a greater accumulation of reactive inhibition over the course of a watch. The advent of the posttest appeared to function as a disinhibitor, allowing the extroverts to resume their initial level of responding.—*Author abstract.*

3050. Clark, Lynn F. & Neuringer, Charles. (Western Kentucky U.) **Repressor-sensitizer personality styles and associated levels of verbal ability, social intelligence, sex knowledge, and quantitative ability.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 183-188.—Utilized Byrne's Repression-Sensitization scale to assign 164 male undergraduates to repressor, neutral, or sensitizer groups. Scores from measures of verbal ability, social intelligence, sex knowledge, quantitative ability, and scholastic grades were obtained. Sensitizers, who use such defenses as intellectualization, rumination, and approach, were hypothesized to score higher on selected intellectual measures than repressors who use repression, denial, and avoidance. Results were opposite to those hypothesized, with repressors significantly exceeding sensitizers on 6 of 12 measures, using *t* tests. Sensitizers did not significantly exceed repressors on any of the measures. When verbal aptitude was held constant through covariance, the groups did not differ. It is concluded that repressors exceed sensitizers on verbal aptitude and that other obtained differences are artifacts of this variable.—*Journal abstract.*

3051. Entin, Elliot E. (Ohio U.) **The effect of achievement-oriented tendencies and extrinsic tendencies on performance.** *Proceedings of the Annual*

Convention of the American Psychological Association, 1971, Vol. 6(Pt. 1), 383-384.—Investigated the hypothesis that the addition of a positive tendency extrinsic to the achievement-oriented tendency causes a decrement in high achievement-oriented Ss. Ss high in the achievement-oriented tendency working under a private (achievement-oriented) condition performed better than Ss low in the achievement-oriented tendency. This was not true for the high achievement-oriented Ss working under the public (multiincentive) condition. Furthermore, high achievement-oriented public Ss performed significantly poorer than high achievement-oriented private Ss. The results were in accord with earlier studies and supported the contention that high levels of positive motivation can be counterproductive.—*Author abstract.*

3052. Gotts, Linda L. (U. Texas) **The effects of depressive tendencies upon accuracy, criterion, and latency measures of recognition memory for social stimuli.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4336-4337.

3053. Harris, Beatrice. (New York U.) **Personality factors and information demand in decision making: The influence of category width, the need to achieve, fear of failure, utility of reward, and payoff on information demand on an expanded judgment task.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4312-4313.

3054. Hershkowitz, Murray L. (U. Texas) **Recognition memory for hostile and friendly stimuli as a function of neuroticism, Introversion-extraversion and arousal: A signal detection approach.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4338-4339.

3055. Kahn, Malcolm & Schill, Thomas. (U. Miami) **Anxiety report in defensive and nondefensive repressors.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 300.—Selected groups of 24 undergraduate sensitizers, defensive repressors, and nondefensive repressors from scores on a questionnaire combining the Byrne Repression-Sensitization scale and the Marlow-Crowne Social Desirability Scale. Each S then took the Institute for Personality and Ability Testing Anxiety Scale. Nondefensive repressors scored significantly higher than defensive repressors. Results confirm "previous findings that repressors are not homogeneous in their reactions to threat and that defensiveness" may be used to identify the 2 subgroups.—*S. Knapp.*

3056. Lester, Gene & Lester, David. (State University Coll. New York, Buffalo) **The fear of death, the fear of dying, and threshold differences for death words and neutral words.** *Omega*, 1970, Vol. 1(3), 175-179.—25 Ss were tested for differences in recognition thresholds for death-related and neutral words, and were given a fear of death test. Significantly lower thresholds were found for death-related words. Ss with a higher fear of death tended to have relatively low thresholds for words related to the active process of dying, and relatively high thresholds for words related to the state of being dead. The reverse was true for Ss with low fear of death.—*Author abstract.*

3057. Looft, William R. (U. Wisconsin) **Conservatives, liberals, radicals, and sensation-seekers.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 98.—119 university students made self-ratings on a 5-point conservative-liberal political continuum and also completed 3 questionnaires which purport to measure the

need for "sensation-seeking" or stimulus variation. The correlations between the questionnaires and the self-ratings were significant and indicated that high sensation-seekers tend to perceive themselves as possessing a liberal-left political orientation.—*Author abstract.*

3058. Nowicki, Stephen. (Emory U.) **Ordinal position, approval motivation, and interpersonal attraction.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 265-267.—Attempted to incorporate ordinal position effects within approval-dependency theory. 257 undergraduates completed the Marlowe-Crowne Social Desirability Scale (SDS) and birth-order data prior to the actual experiment. Bogus SDSs were completed by the E to correspond to the same score level of the individual Ss but with either 75 or 50% item agreement. The 3×2 analyses of variance for SDS scores and expressed attraction indicate that 1st- and middle-born females had higher SDS scores and expressed more attraction. A separate analysis indicates that although only-born females had similar SDS scores, they expressed significantly more attraction. Correlations between SDS scores and expressed attraction were significant. Results are interpreted as being congruent with approval-dependency theory.—*Journal abstract.*

3059. Spellman, Charles M., Baskett, Glen D., & Byrne, Donn. (Woods County Guidance Clinic, Alva, Okla.) **Manifest anxiety as a contributing factor in religious conversion.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 245-247.—Investigated the relationship between manifest anxiety and religious conversion. 3 groups of 20 residents in a predominantly Protestant town were identified by the community's 2 ministers: (a) Ss having had a sudden religious conversion experience, (b) Ss having had a more gradual religious development, and (c) Ss who were not religious at all. The MA scale was administered to the members of each group. Group b and Group c did not differ significantly from each other on manifest anxiety, but Group a obtained significantly higher scores on the MA scale than the other 2 groups combined.—*Journal abstract.*

3060. White, Barbara O. & Kernaeguen, Anne P. (Utah State U.) **Comparison of selected perceptual and personality variables among college women deviant and non-deviant in their appearance.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 87-92. —40 college women, 20 designated as deviant and 20 as nondeviant on the basis of skirt length, were administered measures of field-dependence, psychological security-insecurity, inner-other directedness, and orientations to dress. The hypothesized difference between deviant and nondeviant Ss on selected variables of perception and personality was largely confirmed. Deviant Ss were significantly more field-independent, psychologically more secure, and had a stronger orientation to dress to seek rewards and to be different from others than nondeviant Ss. The latter were more field-dependent, more insecure, and had a greater orientation to dress to avoid punishment and to be like others. Deviants and nondeviants were not significantly different in inner-other directedness; both groups scored within the other-directed range.—*Journal abstract.*

3061. Williams, James G. (George Peabody Coll. for Teachers) **Internal-external control as a situational variable in determining information-seeking by Negro students.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-B), 3718-3719.

3062. Wolitzky, David L. (New York U.) **A note on "Color-Word Test performance and drive regulation in three vocational groups" by Levine.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 292-293.—Disputes the conclusion of F. J. Levine (see PA, Vol. 43:4002) that there was a lack of support for the concept of constricted vs. flexible cognitive control measured by the Color Word Task. It is suggested that this conclusion is misleading in view of issues concerning the logic of the derived predictions and the statistical power of the study.—*Journal abstract.*

INTELLIGENCE

3063. Bodmer, Walter F. & Cavalli-Sforza, Luigi L. (U. Oxford, England) **Intelligence and race.** *Scientific American*, 1970(Oct), Vol. 223(4), 19-29.—From a review of research assessing environmental and genetic determinants of intelligence, it is concluded that (a) the question of whether reported racial differences in IQ scores have a genetic basis cannot be adequately answered on the basis of available data, and (b) there are no theoretical or practical reasons for encouraging the support of such research.—*P. Tolin.*

3064. Cooper, Gertrude V. (American U.) **Effects of anxiety and color among male and female subjects on the Block Design subtest of the Wechsler Adult Intelligence Scale.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3701.

3065. Elithorn, Alick & Telford, Alex. (Inst. of Neurology, Medical Research Council, London, England) **Game and problem structure in relation to the study of human and artificial intelligence.** *Nature*, 1970(Sep), Vol. 227(5264), 1205-1210.—Attempts to define those parameters of a limited subset of games—fully 'rational' board games, which determine the characteristics and the complexity of the skills involved and hence the possible roles of different games in psychological research." Hierarchical problem sets, interaction complexity, and puzzles and games, are defined, illustrated, and discussed (19 ref.)—*S. Appelle.*

3066. Fischbach, Thomas J. & Walberg, Herbert J. (U. Wisconsin, R & D Center for Cognitive Learning) **Weighted and unweighted means for estimation: A note on the Humphreys-Dachler and Jensen papers.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 79-80. Demonstrates that the methods used by L. G. Humphreys and P. Dachler (see PA, Vol. 44:3467) to estimate effects in their analysis of Project TALENT data to test A. R. Jensen's theory of intelligence produced biased estimates. A statistical model appropriate for the problem and Humphreys and Dachler's definitions of parameters are presented and alternative estimators which are unbiased and have other desirable statistical properties are proposed.—*Journal abstract.*

3067. Garnis, Joe D. (Children's Medical Center, Tulsa, Okla.) **Factor analysis of the WISC and ITPA.** *Psychology*, 1970(Nov), Vol. 7(4), 30-31.—Subscales from the WISC and the revised Illinois Test of Psycholinguistic Abilities (ITPA) were factored by a principal components solution with a varimax rotation of the factor matrix resulting in 2 factors: verbal organizational and integrative ability, and nonverbal organization and integrative ability. This study suggests that the WISC and ITPA measure somewhat the same dimensions.—*J. A. Blazer.*

3068. Shore, Celia; Shore, Howard, & Pihl, R. O.

(McGill U., Montreal, Quebec, Canada) **Correlations between performance on the Category Test and the Wechsler Adult Intelligence Scale.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 70.—29 16–35 yr. old Ss were administered the Category Test (CT) and the WAIS. Product-moment correlations were significant for 102 of the 108 comparisons between CT subsets and WAIS subtests and factors. The WAIS Full Scale Total appeared to be the best predictor of CT performance.—*Author abstract.*

CREATIVITY

3069. Baker, Marjorie A. (Washington U.) **The relationship of creativity to several selected personality variables.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4324.

3070. Domino, George. (Fordham U.) **Cinematographic creativity and personality.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 413–414.—Cinematography has long been recognized as a form of creative endeavor, but only recently has it become a medium of expression available to the individual artist; such recency is reflected by the absence of relevant psychological studies. Personality profiles of a group of cinematographers participating in a regional film exhibition were compared with those of a control group. Cinematographers were more active and insightful, possessive of greater self-confidence, more psychologically minded, and characterized by greater flexibility and femininity of interests. Substantial similarities with personality characteristics of creative architects were observed.—*Author abstract.*

3071. Fruin, David J. (Johns Hopkins U.) **Response styles and creativity.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4361.

3072. Grossman, Jan C. & Eisenman, Russell. (Temple U.) **Experimental manipulation of authoritarianism and its effect on creativity.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 238–244.—Examined the hypothesis that authoritarianism and creativity may be opposite poles of the same continuum. 500 undergraduates were administered the California F Scale and the Personal Opinion Survey measure of creativity. A total of 80 Ss were chosen to fit 4 groups: males high in authoritarianism and low in creativity, females high in authoritarianism and low in creativity, males high in creativity and low in authoritarianism, and females high in creativity and low in authoritarianism. A modified Asch-type conformity situation was used to see if changing authoritarianism would affect creativity scores. All 4 groups had their authoritarianism manipulated in the predicted direction, and this resulted in changed creativity scores for all groups except the high-authoritarian males. Results support the hypothesis. (24 ref.)—*Journal abstract.*

3073. Helson, Ravenna. (U. California, Berkeley) **Women mathematicians and the creative personality.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 210–220.—Compared 16 creative women mathematicians with 28 other women PhDs in mathematics. The 2 groups differed slightly, if at all, on measures of intelligence, cognition, and masculine traits, but creative Ss had a stronger cathexis of research activity and were highly flexible, original, and rejecting of outside influence. Personality inventories, observa-

tions of the assessment staff, and self-descriptions of research style gave consistent results. $\frac{1}{2}$ the creatives were foreign born, and most had professional men as fathers. Interviewers judged that they had identified primarily with their fathers, and that their interest in mathematics had arisen from sublimation or search for autonomy in fantasy rather than from reaction formation or withdrawal. As compared with creative male mathematicians, the creative women had less assurance, published less, and, if they had a job at all, occupied less prestigious positions. (33 ref.)—*Journal abstract.*

3074. Jawa, Sarala. (Baroda U., India) **Creativity and orientation type.** *Psychology Annual*, 1970(Mar), Vol. 4, 45–48.—Hypothesized that creative individuals are more task- than interaction-oriented. 61 undergraduates completed the Pre-Conscious Activity Scale and the Orientation Inventory. Results confirm the hypothesis. Highly creative Ss were more task-oriented, less self-oriented, and even less interaction-oriented. (21 ref.)—S. Knapp.

3075. Keillor, James S. (Wayne State U.) **The effects of experimentally induced consciousness expansion and consciousness control upon creativity and intellectual functioning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4339.

3076. Kilborn, Susan K. (Michigan State U., Coll. of Human Ecology) **Perception and creativity in clothing.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 24–26.—152 college women were administered perception and creativity measures developed to test relationships between aspects of such performance in areas of clothing. The hypothesized relationships between extent and type of verbalized perception in clothing and level of judged success on selected factors of creativity for a design exercise in clothing were not confirmed. The data gave no insight into possible relationships between the 2 behaviors.—*Journal abstract.*

3077. Miller, Laurence W. (U. Oklahoma) **Conflict: Facilitator or inhibitor of creative performance.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4316.

3078. Schaefer, Charles E. (Children's Village, Dobbs Ferry, N.Y.) **Imaginative elements in the thematic fantasies of creative young women.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 417–418.—Thematic protocols of highly creative girls were rated by clinical psychologists as exhibiting more vivid imaginative elements than the protocols of matched controls. In particular, the protocols of the creative girls were found to contain a significantly greater proportion of the following figurative and animated elements: metaphor, symbolism, animism, and dialogue. Results indicate that a vivid imagination is a definable thought process that has specific measurable characteristics.—*Author abstract.*

3079. Torrance, E. Paul. (U. Georgia) **Stimulation, enjoyment, and originality in dyadic creativity.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 45–48.—Hypothesized that Ss taking a test of creative thinking in dyads would attain a higher level of originality and experience stronger feelings of stimulation, enjoyment, and originality of expression than Ss working alone under standard test conditions. 74 female and 26 male undergraduates were assigned randomly to the experimental and control conditions. In the experimental condition Ss were instructed to sit together and to call out their responses as they wrote them, to

hitchhike on one another's responses, but not to repeat one another's responses. The Ask-and-Guess Test of the Torrance Tests of Creative Thinking (Form A) was used as a warm-up task and the Product Improvement Test of this same battery was the test task. A set of 10-point rating scales was used to obtain self-ratings of feelings of stimulation, enjoyment, and originality of expression. Findings support all 4 of the hypotheses.—*Journal abstract.*

PERSONALITY MEASUREMENT

3080. Coe, William C. & Sarbin, Theodore R. (Fresno State Coll.) **An alternative interpretation to the multiple composition of hypnotic scales: A single role-relevant skill.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 1-8.—Reexamines factor-analytic studies of hypnotic scales and concludes that item clusters represent similar levels of item difficulty, rather than underlying traits or mechanisms. A continuous ability, a role skill, is postulated to account for the variable difficulty of items in hypnotic scales. 2 parameters are suggested to account for the difficulty variable: the increasing dependence on a cognitive process (imagining) and the decreasing believability of the S's response. The cognitive process is identified as a skill in taking a hypothetical attitude and the ability to concentrate or become involved in a role. It is postulated that this role skill accounts for the behaviors usually attributed to "real" hypnosis, "hypnotic trance," or "hypnotic state." (22 ref.)—*Journal abstract.*

3081. Conde Lopez, V., Escibá P., J. A., & Izquierdo T., J. A. (Faculty of Medicine, Salamanca, Spain) **Evaluación estadística y adaptación castellana de la escala autoaplicada para la depresión de Zung.** [Statistical evaluation and Spanish adaptation of the Zung Self-Rating Depression Scale.] *Archivos de Neurobiología*, 1970(Jul), Vol. 33(3), 281-302.—Administered the Self-Rating Depression Scale (SDS) to 600 male and female Ss divided by age and sex into groups of 50. Results show that the SDS index increases systematically with age, is higher in females, is very definitely influenced by social status, and is higher in rural areas. Other sociocultural factors, including marital status, are analyzed with respect to their effect on adapted SDS results in Spain. (English, French, & German summaries)—*T. N. Webster.*

3082. Cone, John D. (West Virginia U.) **Social desirability scale values and ease of responding to personality statements.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 119-120.—It was predicted and found that it is easier for Ss ($N = 160$) to give socially desirable (SD) than socially undesirable (SUD) responses to personality statements ($p < .001$). Moreover, high SD Ss ($N = 80$) reported significantly greater ease of responding than low SD Ss ($N = 80$), regardless of whether they had just made an SD or SUD response ($p < .001$). However, ease of both SD and SUD responding varied with the social desirability scale value of the item, but in opposite directions. Thus, omitting offensive items from a scale may improve certain of its psychometric properties while, paradoxically, increasing its offensiveness.—*Author abstract.*

3083. Fisch, Rudolf & Schmalt, Heinz-Dieter. (Ruhr U. of Bochum, Inst. of Psychology, W. Germany) **Vergleich von TAT- und Fragebogendaten der Leist-**

ungsmotivation. [Comparison of TAT and questionnaire data on achievement motives.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(4), 608-634.—Used 3 questionnaires in this study: the Test Anxiety Questionnaire (TAQ), Achievement Anxiety Test (AAT) both translated into German, and Ehler's Achievement Motivation Questionnaire (LM). Questionnaire and TAT data from 105 students were factor analyzed. Contrary to expectations only weak or no correlations were found between TAT and AAT, TAQ, and LM. An attempt is made to explain the results by analyzing the psychological dimensions that each of the test instruments seizes. (English & French summaries) (32 ref.)—*W. J. Koppitz.*

3084. Georgas, James G., Vassiliou, Vasso, & Kutakis, Harris. (Athenian Inst. of Anthropos, Athens, Greece) **The verbal intelligence of Athenians.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 165-173.—Studied the verbal intelligence of Athenians through the Information, Comprehension, and Similarities subtests of the WAIS. The 3 scales were given to 400 Athenians, 18 yr. and above, representative in terms of sex, age, education, and socioeconomic status. Mean scores of males were higher than females on the 3 subtests. Females correlated higher than males with education. Older Ss correlated lower than younger Ss with education. Retest reliability, internal consistency, and average scores in relation to age were consistent between the 2 cultures. The effects of sex role, literacy level, and other cultural variables on verbal intelligence are discussed. The overall findings suggest that verbal intelligence, as measured by these subtests, is valid across these 2 cultures.—*Journal summary.*

3085. Jaffe, Joseph & Brodie, H. Keith. (Columbia U.) **The narcissometer: An apparatus for quantification of "self-preoccupation."** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 9-10.—A task requires a visual fixation point incompatible with that for S's mirror image of his own face. Time on target, recorded as optokinetic nystagmus, is proposed as a distraction index.—*Journal abstract.*

3086. Jernigan, Larry R. & Demaree, Robert G. (Southern Methodist U.) **An item factor analysis of the Guilford-Zimmerman Temperament Survey.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1) 111-112.—Reports the results of an item factor analysis of responses to the Guilford-Zimmerman Temperament Survey (GZTS) provided by an industrial sample of 4186 Ss. Following the extraction of 20 factors from the matrix of phi coefficients for this data, 3 separate sets of varimax and promax rotations were performed. Identifications and interpretations of varimax factors obtained in a 10- and a 13-factor solution are offered. Results indicate that at least 10 fairly distinct factors underlie the GZTS; 13 relatively well-defined and content homogeneous factors were obtained in the 13-factor solution. The factorial validity of the 10 GZTS traits was not confirmed in either the 10- or 13-factor solution.—*Author abstract.*

3087. Lessing, Elise F. & Harrod, Alan R. (U. Illinois, Chicago) **Comparative predictive validity of the IPAT Jr.-Sr. High School Personality Questionnaire for white and black subsamples.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1) 245-246.—Question has been raised as to the applicability of personality tests to minority groups since these groups have rarely been

adequately represented in standardization samples. This study compared the predictive validity of the Institute for Personality and Ability Testing Jr.-Sr. High School Personality Questionnaire (HSPQ) in subsamples of 154 white and 56 Negro girls. The HSPQ Neuroticism score correctly identified 90% of the well-adjusted girls (white and Negro), but only 33% of the maladjusted white and 22% of the maladjusted Negro girls. Results of a regression analysis indicated that when appropriate new weights were used, the HSPQ had higher predictive validity for Negroes than for whites.—*Author abstract.*

3088. Love, Henry G. & Ashcroft, Lindsay M. (Porirua Hosp., New Zealand) **Errors in the A.C.E.R. scoring stencils for the M.M.P.I. Group Form.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 193-195.—Points out discrepancies between items punched on the Australian Council for Educational Research scoring stencils at the Porirua Hospital and MMPI handbook scale items. Pd and Pt scale values are found to distort the K scales which in turn, affect 5 clinical scales. When converting raw scores to T scores, T score values vary from 1-3 units, while K score errors range from -2 to +3. Table IV of the MMPI Handbook shows 4 of both 14 and 16 to be 6, while .5 of 14 and 17 are 7 and 9. "Errors in the size of 3-4 may make some difference in interpretation at the T-score range 65-75, and errors of 8-12 will almost certainly distort interpretations."—B. A. Stanton.

3089. Orvik, James M. (U. Colorado) **Social desirability for the individual, his group, and society.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3041-3042.

3090. Schmidt, Harald E. (National Inst. for Personnel Research, Johannesburg, South Africa) **Use of the "Famous Sayings" test in South Africa.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 135-141.—The Famous Sayings test consists of 4 measures: Conventional Mores, Hostility, Fear of Failure, and Social Acquiescence. The test was applied to 2 samples of South African students, 338 College of Education students whose data were analyzed according to sex, education, and age; and a nearly all male group of 110 1st-yr students of the Department of Architecture, whose data were combined for analysis. The mean scores for each total group on 2 of the 4 scales, Conventional Mores and Social Acquiescence, were considerably higher for the college group. The correlations among 4 scales for the 2 groups were similar and significant ($p \leq .01$). The item-analyses (internal consistency) performed for both groups show similar reliability coefficients for Conventional Mores and Social Acquiescence, but lower reliability for the College of Education group on Fear of Failure and Hostility. On the whole, the measures are sufficiently reliable and independent for screening purposes.—*Journal abstract.*

3091. Stanton, H. E. (Flinders U., Tasmania, South Australia) **An Australian validation study of the Taylor Manifest Anxiety scale.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 182-186.—Administered a modified MA scale to a group of Australian Ss and computed the coefficient from the proportion of Ss answering "true" in the highest 50 scorers and lowest 50 scorers. Results indicate that 4 items from the 50-item scale do not differentiate the 2 groups, and 7 more items differentiate minimally. The remaining 39 items are suggested to provide a valid measure of manifest anxiety for Australian students. Results generally confirm a number of previous investigations of the validity of the

MA scale conducted on American populations, and to support previous contentions that a shortened version of the MA scale may, if items are chosen carefully, be as valid a measure as the longer scale.—R. Wiltz.

3092. Strahan, Robert. (U. Rochester) **Subject satisfaction with questionnaire assessment a function of response format.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 125-126.—Compared S satisfaction with a personality questionnaire under true-false and graded response format conditions. When 40 male undergraduates were exposed to both conditions, they expressed a clear preference for the graded format questionnaire. When only 1 condition was experienced, format differences in S satisfaction were nonsignificant. It is suggested that in this latter situation format differences might still be present, but masked by large individual differences in absolute rating behavior. One attempt at partial reduction of idiosyncratic rating did not result in significant format differences.—*Author abstract.*

3093. Tringer, László. **A Brengelmann-féle személyiségvizsgáló kérdőív magyar változata.** [A Hungarian version of the Brengelmann Personality Inventory.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3 4), 477-491.—An adaptation of the German version of the MPI was standardized and validated on a Hungarian sample. (English & Russian summaries) (27 ref.)—M. Moore.

3094. Unger, Betty L. (Washington U.) **The repression-sensitization scale as a measure of repression.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4348.

Inventories

3095. Smith, Roger C. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Affect adjective check lists and the assessment of psychological effects of stress: A study of response bias.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 123-124.—Developed an index to identify simulation of stress in responses to affect adjective checklists. An 80-item composite of 3 adjective checklists was administered twice to each of 154 paid student volunteers. The 1st administration was with standard directions, while instructions for the 2nd administration requested either maximal or subtle exaggeration of stress. A 6-item index was found which yielded 78-95% correct identifications of simulated profiles for 5 and 12% false-positive error rates, respectively. The index was, as expected, more effective in identifying maximal exaggeration of stress than subtle response distortion.—*Author abstract.*

Projective Techniques

3096. Lavit, Ronald J. (Maricopa County Health Dept., Phoenix, Ariz.) **Variables underlying the perception of inkblots by high test anxious students.** *Psychology*, 1970(Nov), Vol. 7(4), 58-60.—From a group of 374 college students, 40 high anxious Ss were selected from the upper 15th percentile of a distribution of Test Anxiety Questionnaire scores. The variables which emerged in the analysis of high test anxious Ss were (a) reality oriented cognitive process, (b) avoidance of emotional reactivity and denial of inner needs, (c) denial

of fantasy processes, and (d) denial or repression of anxious and hostile feelings.—*J. A. Blazer.*

3097. Lavit, Ronald J. & Garms, Joe D. (Maricopa County Health Dept., Phoenix, Ariz.) **Factors in the perception of inkblots for male college students.** *Psychology*, 1970(Nov), Vol. 7(4), 48-50.—The Holtzman Inkblot Technique was administered to 28 male college students. 7 factors emerged reflecting: (a) mature perceptual integration differentiation, (b) emotional reactivity (hostility and anxiety), (c) awareness and sensitivity to inner needs and outer reality, and (d) emotional immaturity characterized by a bodily preoccupation and sexual fantasy.—*J. A. Blazer.*

3098. Lavit, Ronald J. & Garms, Joe D. (Maricopa County Health Dept., Phoenix, Ariz.) **Factors in inkblot perception of college students.** *Psychology*, 1970(Nov), Vol. 7(4), 27-29.—The Holtzman Inkblot Technique was administered in groups to 80 Ss (28 male, 52 female), chosen from a group of 374 summer school students. 7 factors emerged reflecting: (a) mature integrative and ideational capacity; (b) objective, stereotyped cognitive processes; (c) preoccupation with body parts and sexual concerns; (d) sensitivity to inner feelings and needs; and (e) avoidance of anxiety-producing reality and emotional conflicts.—*J. A. Blazer.*

3099. Lavit, Ronald J. & Garms, Joe D. (Maricopa County Health Dept., Phoenix, Ariz.) **Factors in the perception of inkblots for female college students.** *Psychology*, 1970(Nov), Vol. 7(4), 38-40.—The Holtzman Inkblot Technique was administered to 52 female college students. 6 factors emerged reflecting: (a) capacity for mature interpersonal relationships, (b) emotional reactivity, (c) free-floating anxiety, (d) controlled hostility, and (e) preoccupation with sexual and somatic themes.—*J. A. Blazer.*

Rorschach Test

3100. Bolzinger, A. & Durand de Bousingen, R. (Strasbourg U., Psychiatric Clinic, France) **Constitution et structure dans l'histoire du test Rorschach.** [The history of the formation and structure of the Rorschach test.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 621-627.—Presents a history of the development of the Rorschach test, and discusses diagnostic theory particularly emphasizing Minkowska's typology. (33 ref.)—*R. E. Smith.*

3101. Bottenberg, Ernst H. (U. Würzburg, Inst. of Psychology, W. Germany) **Exploration der Struktur des Rorschachtests (Ro 30).** [Exploration of the Rorschach test structure (Ro 30).] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(4), 553-591. Based on 414 protocols collected from male Ss, a psychometric version of the Rorschach test interpretation, Ro 30, was factor analyzed. Results yielded 4 dimensions called ego maturity, emotional psychophysiological activation, cognitive control of breaking established patterns of reality testing, and cognitive control of expression. The model of a multi-level decision process representing the Rorschach test performance is used in the explanation of the factor analytic results. (English & French summary) (133 ref.)—*W. J. Koppitz.*

3102. Craft, Robert B. (U. Tennessee) **The effects of inkblot meaning upon the approach-avoidance response characteristics of repressors and sensitizers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4332.

3103. Schachter, M. (Comité de l'Enfance Déficiante, Marseille, France) **Contribution à l'étude des interprétations des espaces blancs (détails intermaculaires, Dbl.) dans le test de Rorschach et de leur signification.** [The interpretation of Rorschach white-space responses and their meaning.] *Annales Médico-Psychologiques*, 1970(Mar), Vol. 1(3), 329-351.—Focuses on the interpretation of responses made to white space and presents a review of the available literature and several kinds of data from the author's experience. Generally, an above-normal use of white space has been thought to reflect oppositional behavior. Some authors further suggest that their frequent use may also denote a mental flexibility, in the sense that an adaptation is being made to a transposition of objective sense data. Reported here is the white-space use made by 250 mentally subnormal children (selected for oppositional character disorder), by a group of 40 physicians (who must show a capacity for reinterpretation of the same sense data from many different points of view), by 40 patients with cranial trauma (held by some to show an increased mental fluidity), and by 30 suicidal adults (who may be said to be in severe opposition to themselves, their environment, or both). A clinical description is also included of a single case who produced an unusually large number of white-space responses. Contrary to the views of H. Rorschach and others, these data show that white-space use is not a rarity among normal Ss. It does not characterize "oppositional tendency," but rather typifies evasiveness and an inclination to dissimulate and cloak the real personality. White-space response must always be interpreted in terms of the global qualitative level of the protocol elicited.—*H. E. King.*

3104. Thakur, G. P. & Thakur, Manju. (Ministry of Railways R.D.S.O., Lucknow, India) **Symbolic meaning of Rorschach Cards II, IV and VII.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 190-104 undergraduate males of Bihar University were asked to study the 10 Rorschach picture cards and designate the cards which reminded them of father, mother, and brother/sister. The study did not support the hypothesis that Cards II, IV, and VII symbolically represent sibling, father, and mother, respectively. Verification with other procedures seems appropriate.—*Author abstract.*

3105. Wagner, Edwin E. & Hoover, Thomas O. (U. Akron) **Exhibitionistic M in drama majors: A validation.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 125-126.—8 student drama majors gave significantly more exhibitionistic M on the Rorschach than a matched control group. Results were construed as supporting Piotrowski's interpretation of the human movement response. Additional connotations of M are suggested.—*Journal abstract.*

CLINICAL PSYCHOLOGY

3106. ———. **Medicines in the 1990's.** *Canada's Mental Health*, 1971(Jan), Vol. 19(1), 24-27.

3107. Adar, Lea D. (New York U.) **An investigation of the relationship of some aspects of frustration to pulmonary tuberculosis.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4322-4323.

3108. Bazelon, David L. (U.S. Court of Appeals, Washington, D.C.) **The right to treatment: The court's role.** *Hospital & Community Psychiatry*, 1969(May), Vol.

20(5), 129-135.—Reviewed an opinion by the author (Rouse vs. Cameron) that a young man committed to a mental hospital following an acquittal for insanity had the right to adequate treatment, failing which the hospital might have to release him. That opinion has attracted mixed reviews. The author explains some reasons why courts are and must be involved with the right to treatment and also the physician's and court's role in protecting this right.—*B. A. Burkard.*

3109. **Beakel, Nancy G.** (U. California, Los Angeles) **Parental verbal and nonverbal communication and psychopathology.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4325.

3110. **Becker, Jeffrey L.** (U. Nevada) **The effects of instructional audio-tape in self-directed encounter groups.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4325-4326.

3111. **Bhagat, M. & Fraser, W. I.** (Victoria Hosp., Kirkcaldy, Scotland) **The meaning of concepts to the retarded offender.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 260-267.—Administered the semantic differential, a technique for measuring meanings, to 81 mentally retarded Ss and 40 young offenders of average intelligence, and found it to be a feasible instrument with retardates. The retarded offenders' responses to concepts relevant to delinquency were similar to those of their intellectually-average counterparts, but there were significant differences. There was no evidence that the therapeutic milieu had engendered objectivity about self or surroundings.—*Journal abstract.*

3112. **Bonnaud, M.** **Enquête sur la santé mentale en Polynésie française.** [Inquiry into mental health in French Polynesia.] *Annales Médico-Psychologiques*, 1970(Mar), Vol. 1(3), 375-421.—Reports an epidemiologic study of the impact of urbanization and other recent social changes on psychological maladaptation among the French Polynesian island population. The incidence of behavior disorder can only be approximated, owing to geographic isolation and a tendency to keep the afflicted in the home as long as possible (and beyond the optimum for effective treatment). Social changes wrought by World War II and the subsequent development of air transport have modified markedly the work and economic life of the island people. Juvenile delinquency has increased, but the major mental disorders are found to resemble those known in European countries, and are in much the same proportions. Despite magical beliefs concerning the origin and treatment of mental disorder, long-established native terminology indicates a clear recognition of all the principal syndromes. Sociopathic behaviors (absenteeism, delinquency, alcoholism, socioaffective aggression) are the more specifically Polynesian problems, aggravated by massive population shifts to the principal island (Tahiti) and capital. The treatment of the behavior disorders brought about by accelerated social mutation will require social action on social problems, supported by improved psychiatric hospitals and the development of specialized psychiatric personnel.—*H. E. King.*

3113. **Boszörményi, Zoltán.** **Az összehasonlító társadalmi, kulturális vizsgálatok jelentősége a kóreléktanban.** [The significance of comparative social-cultural research in psychopathology.] *Pszichológiai Tanulmányok*, 1967, No. 10, 533-539.

3114. **Broustra, J. & Godin, J.** (5, Rue Mondésir, Bordeaux-Cauderan, France) **Psychiatrie transculturelle: A propos d'un séminaire.** [Transcultural

psychiatry: A seminar.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 215-220.—Presents a description of an "ethno-psychiatric" seminar in Bordeaux, France with the participation of a group of psychiatrists and ethnologists. It is stressed that an "open-minded" collaboration between the 2 is not only necessary but could yield fruitful results, specifically in the comparative approach to common vocabulary. Such an approach would help in the unification of various concepts with an interdisciplinary mind. Formation of various groups consisting of psychiatrists and ethnologists is recommended. (English summary)—*I. Sirotnin.*

3115. **Burke, Edward L.** (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Patient values on an adolescent drug unit.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 400-410.—Reviews observations of a clinician in a drug therapy unit. Although none of the teen-aged patients would openly discuss a value system, the therapist inferred that such implicitly existed. Noninterference was the basic premise to this value system. It was seen as a direct reaction to the paternalism that each patient seemed to have experienced. All patients seemed to exhibit ambivalence about the pleasure, yet destructiveness of a situation. "Thou shalt not fink" was put forth as a 2nd moral tenet. These patients were observed to exhibit inhibitive rather than promiscuous sexual behavior. The patients' attitudes toward religion, jobs, money, private property, and the meaning of love were all assessed. Critical self-examination was not only a negative aspect of therapy; for some it was an impossibility. It is concluded that this inability for self-appraisal may be a crucial reason for turning to drug use.—*C. O'Donnell.*

3116. **Dalton, Katharina.** (University Coll. Hosp., London, England) **Children's hospital admissions and mother's menstruation.** *British Medical Journal*, 1970(Apr), Vol. 2(5700), 27-28.—Interviewed mothers of children admitted as emergencies to the children's ward (30 beds) of a general hospital in North London when they were visiting their children. Of 100 children's emergency admissions to hospital, 49% were admitted during the mother's paramenstruum. There was a statistically significant association between the mother's menstruation and the child's admission both for accidents and for illnesses. The eldest child in the family appeared to be most affected. *Journal abstract.*

3117. **DeWolfe, Alan S., Barrell, Robert P., Becker, Bruce C., & Spaner, Fred E.** (Veterans Administration Hosp., Downey, Ill.) **Intellectual deficit in chronic schizophrenia and brain damage.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 197-204.—Studied scores on the WAIS and the Halstead Battery of Neuropsychological Measures (HB) of 100 chronic schizophrenic and 100 brain-damaged patients divided into equal groups of younger (ages 26-59) and older (ages 60 and over) Ss. A significant interaction of WAIS scores with diagnosis and of HB scores with diagnosis and age was found. Pattern analysis indicate that the younger Ss in both groups differed in WAIS Comprehension and Digit Span and HB Category. Older Ss differed in WAIS Comprehension, Digit Span, Picture Completion, Block Design, and HB Speech Discrimination. Results suggest differing intellectual deficit patterns in chronic schizophrenia and brain damage. (16 ref.)—*Journal abstract.*

3118. **Illyés, Gyulá.** (Training School for Special Education, Budapest, Hungary) **Bevezetés a gyó-**

gyepedagógiai lélektan tudományelméleti kérdéseibe. [Introduction into the epistemologic questions of orthopsychology.] *Pszichológiai Tanulmányok*, 1967, No. 10, 635-640.

3119. Lesse, Stanley. (15 W. 81st St., New York, N.Y.) **The medicine machine versus today's super-specialist: A study in anachronization.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 377-379.—Presents an editorial plead for an efficient yet humanistic approach to the practice of "medical and paramedical" specialities. It is suggested that the pressures from population growth, great technological advances in machines adaptable for medical practice, and current trends in medical education have laid the framework for a "cybernated" type of medical practice. A schema for this type of medicine is elaborated. The medical academicians would be trained in comprehension and application of the interrelationship in human systems. The medical technical expert would function in a computer-based environment much as the contemporary physician. It is concluded that we now have a choice to attempt this highly mechanized system on a personal level.—C. O'Donnell.

3120. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **The concept of an appropriate death.** *Psychology*, 1970(Nov), Vol. 7(4), 61-66.—"An appropriate death... is defined as one which is consistent with the individual's life-style." 4 kinds of death are described, i.e., physical, psychological, social, and anthropological. It is suggested that from the viewpoint "of counselor, therapist, or doctor it is perhaps 1 of our responsibilities to ensure that a person dies an appropriate death. To do this we must first be aware of the alternative concepts and then we must seek the concept that the patient has. If death for him is more appropriate in one way, then perhaps it is our duty to allow him to die in that way.... For many of us, there may be times when it is impossible to act against our own values and beliefs, but even at these times, if we are aware of these issues, we can perhaps aid the patient therapeutically to adjust to the circumstances that we are going to impose upon him regardless of his values and beliefs."—S. Knapp.

3121. Mathieu, M., Thirion, D., Bosson, P., & Chouraqui, J. **Réflexions sur l'hygiène mentale des jeunes adultes a partir de la sélection psychiatrique dans l'armée.** [Reflections regarding the mental health of young men separated from the Army through psychiatric screening.] *Hygiène Mentale*, 1970(May), Vol. 59(2), 33-62. Approximately 15% of a total of 29,000 men called for preinduction examination during the last quarter of 1968 and the 1st quarter of 1969 were rejected for psychological reasons. The principal reasons for rejection were reduced mental capacity without psychopathological complications, closely followed by neurotic disorders associated with immaturity. Homosexuality and dependence on drugs accounted for less than 1% each. 12 case histories are presented to illustrate candidates who adjusted or did not adjust to military service. (26 ref.)—K. J. Hartman.

3122. McKee, James L. (U. Denver) **Intellectual and behavioral correlates of chronic exposure to toxic chemicals.** *Dissertation Abstracts International*, 1971-(Jan), Vol. 31(7-B), 4341.

3123. Mende, Werner. (Tübingen U., Neuropathic Clinic, W. Germany) **Forensisch-psychiatrische Fragen bei Sterilisation und Kastration.** [Forensic-

psychiatric problems of sterilization and castration.] *Nervenarzt*, 1969(Oct), Vol. 40(10), 463-466.—Discusses the advisability of sterilization and castration of diseased persons and sex criminals from the legal, medical, and psychological angles. New legislation concerning sterilization is pending in West Germany at this time. It is believed that such drastic interventions should only be permissible on a voluntary basis and in extreme cases. Neurologists agree on the medical indication of sterilization of women which is, in psychiatry and neurology, practically a prophylactic intervention in order to avoid pregnancy when life is endangered. More controversial is sterilization for reasons of hereditary genetics. Castration is an even more serious and controversial intervention, due to its organic and psychological implications. It has been considered for criminological indications, but its "curative" effects are doubtful. Surgical castration as a "therapeutic" method will surely lose its practical significance as other and more dependable types of treating the "oversexed" are found and improved. (15 ref.)—P. von Toal.

3124. Menninger, Karl. (Stone-Brandel Center, Chicago, Ill.) **Psychiatry in a changing society.** *Hospital & Community Psychiatry*, 1969(Feb), Vol. 20(2), 55-58.—The restatement of diagnoses is perhaps the greatest current change. It is suggested that psychiatric diagnosis should not mean attaching a label to the patient. What do we say about stealing, raping, killing, overpopulation, poverty, unemployment, and the uses of war? It is suggested that psychiatrists must have views and profess them and must make moral judgments. There is a beginning toward making common cause with the sociologists. The "sins" of elective ignorance, of vengeance, of exclusive tribalism, of sloth, of indolence, of greed and stinginess and of wastefulness are emphasized. To combat our problems, it is suggested that people speak out against self-destructive habits. "We can strive to teach the alternative: to replace labeling by understanding; selective ignorance by information; and cynicism, depression and tribalism by cultivated trust in mankind."—B. A. Burkard.

3125. Pisani, D., Ardizzone, E. C., & Nigro, A. (U. Messina, Italy) **Passatizzazione dell'EEG per "blocco" dell'ammiccamento e della zona afferenziale specifica della motricità.** [The past state of the EEG "block" of winking and of motility's specific afferential zone.] *Rivista di Neurobiologia*, 1969(Oct), Vol. 15(4), 719-724.—Studied particular conditions defined as "blocking" of winking and "blocking" of the specific afferential zone of motility in normal, neurotic, and epileptic adolescents. It has been found that by applying silicone on the palm of the hand of an epileptic, the EEG progresses from a present to a past state. The "past" index of the EEG through reflex action is considered useful in epileptic therapy. 1st winking was blocked and variations of the GSR were recorded, then winking was blocked simultaneously with the application of silicone on the palm, and variations were recorded of EEG and GSR. The value of the 2 blocking techniques was confirmed, along with the attitude of "living in the present" and "living in the past" in neurotics and epileptics. A contribution was made also to the understanding of the mechanism which preserves its conditions of cerebral balance. (English summary) *A M Farfaglia*.

3126. Robertson, G. G. & Baizerman, Michael. (Veterans Administration Hosp., Sheridan, Wyo.) **Psy-**

chiatric consultation on two Indian reservations. *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 186.

3127. Semenov, S. F. (Moscow Research Inst. of Psychiatry, USSR) **Autoimunnye protsessy u lits s nervno-psikhicheskimi zabolevaniyami.** [Autoimmune processes in persons with neuropsychic diseases.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1971(Jan), Vol. 26(1), 78-81.—Presents and discusses the results of systematic research, undertaken in the author's clinic, on the autoimmune processes in neuropsychic diseases, particularly in the so-called endogenic psychoses running a progressive course in which exogenic factors do not appear to exert a direct influence. On the basis of findings derived from clinical and immunological research a hypothesis on the role of autoimmune processes in the pathogenesis of schizophrenia, epilepsy, and other neuropsychic diseases pursuing a progressive course is advanced. New data on the possible presence of antibodies against the brain in neonate and maternal blood are cited. It is suggested that autoimmune processes can take part in the development of embryopathies and postnatal organic affections of the brain. (English summary) (27 ref.)—*I. D. London.*

3128. Shepherd, Michael & Cooper, Brian. (U. London, Psychiatric Inst., England) **Epidemiologia y psiquiatria.** [Epidemiology and psychiatry.] *Archivos de Neurobiologia*, 1970(Jul), Vol. 33(3), 339-365.—The potential contribution of epidemiological concepts and techniques to the study of mental disorders has become increasingly apparent in the past 20 yr. In a comprehensive review, the historical development of this trend is sketched and major problems of method are outlined. Applications of the epidemiological approach to psychiatry are discussed under 7 headings, each illustrated by several examples: (a) etiological studies, (b) illness-expectancy studies, (c) completion of the clinical picture, (d) delineation of syndromes, (e) community diagnosis, (f) historical studies, and (g) studies of health services in action. Mention is also made of the future implications of psychiatric epidemiology. (French summary)—*English summary.*

3129. Stewart, Horace. (West Georgia Coll.) **Kindling of hope in the disadvantaged: A study of the Afro-American healer.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 96-100.—In an exploratory study of the healing activities of the Afro-American healer, 8 healers and 25 clients were interviewed to ascertain the healer's ability to restore the ailing to health. Evidence was gathered that indicated healers engaged in a wide range of activities common illnesses, more serious illnesses, emotional problems, advice and guidance, and removing magical spells. The study was limited in that over 1/2 of the healers would not allow an interview.—*Journal abstract.*

3130. Torda, Clara. (Mt. Sinai Medical School, New York, N.Y.) **Observations on an effective method to shorten the psychotherapy of LSD-users.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 499-508.—Observed that most current methods of therapy for LSD users are unsatisfactory. A new procedure is reported which consisted of combined individual and group therapy, occasionally adding the LSD users to groups of abstinent patients. This method apparently shortened the initial phase of psychotherapy. The LSD user was characterized as possessing strong fixation in the oral-sucking phase coupled with a few anal traits.

Use of LSD permits decreased psychological efficiency. The character of the LSD user and the heroin addict are completely dissimilar; hence, treatment techniques should vary.—*C. O'Donnell.*

3131. Vel'tishchev, Yu. E., Badalyan, L. O., & Tabolin, V. A. **Uspekhi sovremennoi meditsinskoj genetiki i ikh znachenie dlya pediatrii.** [Achievements of contemporary medical genetics and their significance for pediatrics.] *Pediatriya*, 1970(Dec), Vol. 49(12), 3-8.—Surveys recent findings concerning 3 main types of hereditary pathology: (a) chromosomal aberration, (b) genetic mutation, and (c) hereditary predisposition responding unfavorably in the presence of external factors in the environment.—*I. D. London.*

3132. Voronin, L. G., Kononov, V. F., & Serikov, I. S. (Inst. of Biophysics, Moscow, USSR) **K voprosu o vzaimodeistvii osoznannykh i neosoznannykh sledovykh protsessov v nervnoi sisteme.** [Interaction of conscious and unconscious trace processes in the nervous system.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 195(5), 1237-1239.—123 Ss in 4 age groups between 6-30 yr. of age, a group of 20 chronic alcoholics, and a group of 8 patients with cerebral arteriosclerosis memorized a digit or an animal picture. The E attempted to identify it by calling out digits and picture names and observing GSR and other physiological responses when the Ss replied either "yes" to all questions, "no," or did not give any reply at all. It was impossible to make correct identifications from GSR recordings in the 6-7 yr. old group. Identification improved in the older groups. With adults (18-30 yr. old) who replied "no," the E's guesses were 87% correct. With the adult patients the percentage of correct identifications was the same as with the 14-16 yr. old group: 40-47%.—*L. Zusne.*

3133. Weinstein, Raymond M. & Brill, Norman Q. (Wilkes Coll.) **Conceptions of mental illness by patients and normals.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 101-108.—Mental patients' conceptions of the causes of their illness were recorded and compared to data from 5 other investigations dealing with public attitudes toward the etiology of mental disorders. Results indicate that both patients and normals saw environmental problems and personality or emotional disorders as the main causes of mental illness. Normal persons emphasized hereditary and organic factors; patients, interpersonal and behavioral difficulties.—*Journal abstract.*

3134. Wilder, Joseph. (Main St., Tannersville, N.Y.) **Alfred Adler in historical perspective.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 450-460.—Presents a synopsis of the basic teachings of Alfred Adler. It is suggested that Freud and Adler derived a great deal of their philosophies from Nietzsche. He had postulated the concepts of: (a) subconscious motives, (b) repression, (c) will to power, and (d) the pain-pleasure principle. Major similarities and differences in the theories of Freud and Adler are outlined. The importance of many of Adler's ideas as a major contributor to contemporary dynamic psychology has been greatly underestimated.—*C. O'Donnell.*

3135. Yolles, Stanley F. (National Inst. of Mental Health, Chevy Chase, Md.) **Social policy and the mentally ill.** *Hospital & Community Psychiatry*, 1969-(Feb), Vol. 20(2), 37-42.—"Social policy toward the mentally ill in the United States is now based on the patient's right to receive treatment, and his right to receive it in the most convenient place—his local

community." Unless the health professions can provide adequate treatment, this right is of little importance. Good health care should be comprehensive, have continuity, be focused on the family, and of the highest quality. The role of community mental health centers, the responsibility of mental health professionals, and the relationship between public health and mental health are topics discussed.—*B. A. Burkard.*

PERSONNEL

3136. Alvord, Jack R. (Utah State U.) **The training of speech-pathologists as behavioral engineers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4352.

3137. Balcanoff, Eugene J. (Suffolk Superior Court Clinic, Mass.) **The psychiatrist in a superior court setting.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 45-50.—The development of the psychiatrist's role in Suffolk Superior Court is traced through 10 yr. of its operation. Mutual understandings enhanced the gradual numerical increases in pretrial referrals. The most impressive gain to the psychiatrist is the increase in the number of defendants at pretrial level who have been eager to talk about their motivations.—*A. M. Cawley.*

3138. Bagues, Maryvonne & Bagues, Jean-François. (Bethany Clinic, Talence (Bordeaux), France) **Quand on devient psychiatre.** [When one becomes a psychiatrist.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 101-106.—Going back as far as infancy, an attempt is made to determine why and how a person decides to become a psychiatrist. It is explained that such a wish is usually based on 2 factors: choice and field. The former relates itself to medicine; the latter to a particular field, in this case psychiatry. Some of the prerequisites of psychological profession, e.g., closeness to the patient and the discovery of symptoms are analyzed. (English summary)—*I. Sirotnin.*

3139. Burton, Arthur. (307 Balboa Ave., Davis, Calif.) **The adoration of the patient and its disillusionment.** *American Journal of Psychoanalysis*, 1970, Vol. 29(2), 194-204.—Discusses the distinctive aspects of schizophrenia and its treatment, and analyzes questionnaires from 27 psychoanalysts who deal with schizophrenics to determine: (a) why they elected to become healers of schizophrenia; (b) how they perceive themselves as people and in relationship to their healing work; and (c) if they experienced an adoration of the patient, and was there subsequent disillusionment. Results indicate that Ss came from families in which relationships were in constant jeopardy and were never resolved. They need to adore someone in a way they do not and cannot find at home, and they need "to participate in the miracle and mystique of existence in the fundamental way provided only by the psychotic patient." Thus, they attempt to integrate themselves, find joy, and satisfy the healer role which developed from their family experience. The frequent frustration in attaining these goals leads to disillusionment manifested in Ss' admittance to feelings of giving up healing or leaving psychiatry altogether.—*M. Maney.*

3140. Conway, Ronald. (St. Vincent's Hosp., Melbourne, Victoria, Australia) **On basic assumptions about training for clinical psychologists: A reply to professor S. H. Lovibond.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 115-119. Suggests that traditional psychodynamic systems of psychotherapy cannot

be disregarded as irrelevant to problems of psychological disorder. Studies comparing traditional and behavioral approaches are questioned on the basis of the definition of improvement. Behavioral control techniques, particularly those involving aversive conditioning procedures, are criticized and the behavioral emphasis upon molecular areas of personality disorder is contrasted with the traditional emphasis on molar behavior. The question of who should practice clinical psychology is discussed; it is suggested that the personality of the clinician, rather than his ideological orientation, is the important variable influencing client improvement. The question of research in clinical practice is also raised, and it is concluded that in general behaviorists have failed to create any useful body of personality theory.—*R. Wills.*

3141. de Boer, R. A., et al. (Netherlands Inst. for Preventive Medicine TNO, The Hague) **An evaluation of long-term seminars in psychiatry for family physicians.** *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 468-481.—Attitudes of 378 (out of about 470) general practitioners (GPs) who attended 49 different long-term seminars in psychiatry were compared with attitudes of nonseminar GPs ($n = 734$) and 24 psychiatrists. A concept profile based on the semantic differential technique was used to measure attitudes toward patients with somatic, psychosomatic, and neurotic problems. The seminar members' profile was between that of nonmembers and psychiatrists. Self-concepts of members and nonmembers toward "myself as a family physician" were the same indicating that although their attitudes had changed, seminar members still saw themselves primarily as experts in somatic disease. A significant but modest shift in attitude was found, however, the question remains as to whether this "really matters in terms of effective treatment?" (16 ref.)—*E. M. Upchurch.*

3142. Doron, Roland; Gehmann, Claudine, & Gehmann, Pierre. (4 Rue du General André Talence (Bordeaux), France) **Séminaires de contrôle et de sensibilisation à la psychothérapie d'inspiration psychanalytique: Expérience de 5 ans** [Seminars of control and assimilation of psychotherapy based on psychoanalysis: Experience of 5 years.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 159-179.—Discusses efforts to use young psychiatrists and psychologists in treating backward children and those with scholastic problems as well as domestic incompatibility. Describes the methods used in 5 yr. of training psychiatrists who were unfamiliar with psychoanalysis. The method included a 2-yr seminar. To prevent the intervention of children's parents, a social director was appointed to handle the problems of this nature, while the therapy was being conducted. The seminars included 6-8 participants, each of whom related his personal experiences when coming in contact with a disturbed child. (English summary)—*I. Sirotnin.*

3143. Flint, Robert T. (U. Minnesota) **The relationship of women's tenure in occupational therapy to Strong Vocational Interest Blank and demographic variables.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4379.

3144. Holmes, T. S. & Holmes, T. H. (U. Washington, Medical School) **Short-term intrusions into the life style routine.** *Journal of Psychosomatic Research*, 1970, Vol. 14(2), 121-132.—Questionnaires about life changes and health changes were answered daily by 55 16-60 yr. old (median age, 23) hospital employees (37

male, 18 female). Results indicate that there are significantly more life changes on the day when a person reports a physical sign or symptom.—*W. G. Shipman.*

3145. **Horányi, Béla.** (Medical U. of Budapest, Hungary) **Az orvosi személyiségről.** [The personality of the physician.] *Pszichológiai Tanulmányok*, 1967, No. 10, 527-531.

3146. **Mueller, Betty S. & Sherman, Clinton C.** (Brentwood Hosp., Los Angeles, Calif.) **Nurses' experiences as psychiatric patients.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 24-25.—For the past 5 yr., each new nurse has been invited to spend a day as a patient, as part of her orientation to a 2400-bed Veterans Administration hospital. 8 out of 9 accept this invitation—to date, 30 nurses. The nurse stays 8 hr. on a closed ward for women and participates in whatever the patients do. After completing her day the nurse writes a summary of her impressions and discusses it with her instructor and other new nurses. Some of the nurses' impressions are included. "The day-long experience, although it obviously is limited, does sometimes spark the nurses' interest in making changes on their own wards whenever possible, to reduce some of the dehumanizing effects of hospitalization."—*B. A. Burkard.*

3147. **Petty, Joseph G.** (Utah State U.) **Predicting counselor trainee success.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4317-4318.

3148. **Randolph, Christie C.** (Michigan State U.) **Multiple therapy: Co-therapist satisfaction as related to the variables of affection and self-disclosure.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4344.

3149. **Rogers, Ruth & Wright, Geneva.** (Larue D. Carter Memorial Hosp., Indianapolis, Ind.) **Psychiatric training for homemakers.** *Hospital & Community Psychiatry*, 1969(Mar), Vol. 20(3), 81-82.—Presents a report by a local family service association, which temporarily places trained homemakers in households that need outside help to care for the children or the home. It is reported that about 30% of the families needed help because of a mentally ill member, usually the mother. A program was developed in which homemakers were included in portions of a hospital's basic training for new psychiatric aides. They receive about 35 hr. of instruction at the hospital, plus several hr. of ward experience.—*B. A. Burkard.*

3150. **Ross, Bonnie; Anderson, Rose, & Koutsky, Carl D.** **Increasing the therapeutic potential of nurses.** *Hospital & Community Psychiatry*, 1969(May), Vol. 20(5), 140-141.—At the Alaska Psychiatric Institute there is an abundance of trained nurses and a shortage of psychiatrists. In preparing nurses for a role that complements the psychiatrist's role, task-oriented approach 5-day workshops are held for all nurses to develop their skills in discovering and meeting patient's emotional needs.—*B. A. Burkard.*

3151. **Roth, Nathan.** (New York U., Medical School) **The strange society of the physician.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 494-498.—Analyzed the apparent life style of the physician in terms of compensating for lacks in medical knowledge. Doctors tended to seek each other out socially to remedy the emotional setbacks of not always being able to successfully treat a patient. The layman then perceived the doctor as a socially exclusive clique. The patient also developed ambivalent attitudes toward the physician. A method for improving doctor-patient relationships is described.—*C. O'Donnell.*

3152. **Schwartz, Steven H., Simon, Roger I., Kirchoff, Laurence, & Bouchard, Kenneth.** (Wayne State U.) **Representation of medical knowledge.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 47-48.—Studied organization of medical knowledge in a group of 13 experienced physicians, 13 residents, and 13 senior medical students, by means of a sorting task involving symptoms of diseases associated with shortness of breath. Results indicate that the experienced physicians took longer and used more items but agreed less among themselves than the other groups. Hierarchical tree structures constructed for each sort revealed that residents differentiate more horizontally (more branches emanating from each node), while the experienced physicians develop their structures more vertically (a greater number of levels in the tree). Qualitatively different schemes of organization were also noted between groups. Limitations in interpretation were pointed out and future research indicated.—*Author abstract.*

3153. **Vörös, László.** (Medical U. of Budapest, Hungary) **A pszichológia oktatásának helye a jelenlegi orvosképzési rendszerekben.** [The place of the teaching of psychology in the prevailing systems of medical training.] *Pszichológiai Tanulmányok*, 1967, No. 10, 323-328.

3154. **Walsh, Joan E.** (New York U.) **A study of the relationship between instruction in psychiatric nursing, level of anxiety, and direction of attitudes toward the mentally ill.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4162-4163.

3155. **Williams, J. S.** (Royal Children's Hosp., Melbourne, Victoria, Australia) **Training in clinical psychology: A reply to Professor S. H. Lovibond.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 120-122.

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3156. **Battegay, Raymond.** (Psychiatrischen Universitäts-Poliklinik, Basel, Switzerland) **Regressionssphänomene aus klinischer Sicht unter besonderer Berücksichtigung analytischer Kurzpsychotherapie.** [Regression phenomena from the clinical viewpoint, with special consideration of analytic short therapy.] *Praxis der Psychotherapie*, 1970(Aug), Vol. 15(4), 151-162.—Discusses several typical cases of regression and recommends helpful attitudes for the therapist. After accepting a patient, the therapist should decide early whether short therapy will suffice in relation to the conflicts, awareness, suffering, and intelligence of the patient. With regression, it is especially important to direct a patient into a spontaneous recognition of the type of his conflicts. The patient should be led to assume responsibility and overcome his troubles by his own efforts. The therapist should keep in mind that maturity cannot be reached without a temporary regression. In regression, a latent hope of the future is hidden. If regression is still possible, there is a chance for that kind of flexibility which leads men to new knowledge, understanding, and transformation. (18 ref.)—*P. van Toal.*

3157. **Bellak, Leopold.** (New York U.) **The role of psychoanalysis in contemporary psychiatry.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 470-476.—Postulated that psychoanalysis as a profession has been firmly incorporated with the rest of psychiatry

and medicine. Psychoanalysis as a personality theory has remained the richest store of hypothetical information. As a specific therapy, its role decreased to an informative level. It is concluded that, role decreased to an informative level. It is concluded that, as a science, psychoanalysis will probably assume an "etiological" overtone.—C. O'Donnell.

3158. Caldwell, Louis O. (U. Houston) **A statistical analysis of selected Houston area pastors' responses to the postulates of O. Hobart Mowrer's integrity therapy.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2678-2679.

3159. Ceccato, Silvio. (U. Milan, Cybernetics Center, Italy) **Freud oggi: Considerazione di indole metodologica.** [Freud today: Considerations of methodological nature.] *Archivio di Psicologia Neurologia e Psichiatria*, 1970(Jul), Vol. 31(4), 330-351.—2 aspects of Freud's work should be considered separately: the therapeutic and the methodological. The former may be valuable whereas the position of the latter looks questionable since it is related to idealistic philosophy. Freud introduced a great many concepts whose definition is destined to remain magical rather than scientific and technical. (French, English, & German summaries)—L. L'Abate.

3160. Committee on Therapy. (Group for the Advancement of Psychiatry, New York, N.Y.) **Psychotherapy and the dual research tradition.** *GAP Report*, 1969(Oct), Vol. 7(73), 97-157.—Reports a clinician's view of psychotherapy, limited to the traditional 2-person relationship. The participants, the aims and assumptions of each, the structure of the relationship, the setting, and the compact are described. A set of reciprocal features, or polarities are proposed that enter into the process of therapy: trusting-mistrusting; gratifying-frustrating; revealing-concealing; encouraging fantasy testing reality; reliving-new experiencing and regressing-progressing. A hypothetical description is given of psychotherapist and research scientist, highlighting differences between the 2 as idealized types. A brief historical sketch is given of the dual tradition that runs through much of research emphasizing the cyclic nature of scientific revolutions and the prestige of those approaches that are in the ascendance at a given time. At present the experimental approach has such prestige. The variety of efforts to study psychotherapy using experimental models is described. An alternative approach, the naturalistic, is also described, along with its strengths and weaknesses. An integrated view of psychotherapy and research is presented and points to ways in which naturalistic and experimental approaches are inevitably combined. Some of the conflicting aims, and the confluent purposes, between psychotherapist and scientist are discussed. (118 ref.)—*Journal summary*.

3161. Cooper, A. J. (U. Edinburgh, Scotland) **Frigidity, treatment and short-term prognosis.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 133-147.—Reports results of a year's treatment of each of 50 frigid women. 48% responded to a treatment which included progressive relaxation, improving partner's stimulation techniques, sexual education, and biweekly individual psychotherapy of variable depth. Variables found predictive of outcome included recent onset and short duration of frigidity plus favorable attitudes toward the spouse, coitus, and the genitalia of self and spouse. (46 ref.)—W. G. Shipman.

3162. Cornelissen, Reinout L. (Maarsen, Zandweg 31,

Netherlands) **Regressive Tendenzen und Symptome der Patienten in der ärztlichen Sprechstunde.** [Regressive tendencies and symptoms of the patient in the consultation room.] *Praxis der Psychotherapie*, 1970-(Oct), Vol. 15(5), 220-221.—Regression may be necessary in therapeutic contact, but too much of it causes ambivalence and aggression, and too little indicates insufficient contact. Regressive symptoms can be recognized on the assumption that there are 3 strata: a primary, mainly chromosomally coded; a secondary, exogenously coded, and a 3rd that is "immaterially" coded or not coded at all. Human sexual behavior serves as an example. The lower animal stratum is directed to collective sex without morality. In the 2nd stratum, loyalty to 1 person is reached. The 3rd stratum again leads to collective but immaterial (spiritual) love in the sense of the New Testament. Evolution seems to move in the direction of the 3rd stratum. The functions of the 1st and 2nd stratum could be regarded as a regression in relation to the 3rd stratum and long process of evolution. To achieve optimum therapeutic results, the therapist must learn to systematically relate his own experiences, especially in regard to the 1st and 2nd stratum. The essential, therapeutic result can only be achieved by personal devotion resulting from the 3rd stratum.—B. Schay.

3163. Deutscher, Max. (William Alanson White Inst., New York, N.Y.) **Brief family therapy in the course of first pregnancy: A clinical note.** *Contemporary Psychoanalysis*, 1970(Fal), Vol. 7(1), 21-35.—Assumes that "pregnancy has begun to be seen as one of the later growth phases in young adult life, one taking place within the structure of a developing family." Study is based on taped and transcribed interviews with 10 middle-class, white, Protestant couples in their middle or late 20s with each spouse seen individually in the 2nd trimester and together at the 3rd postpartum mo. Data were established from clinical impressions of the protocols. Findings and observations revealing factors such as general family philosophy of mutual decision-making, motivation for pregnancy, shock of pregnancy, various fantasies, uneventful delivery with husband's presence, and reorganization of family around presence of child, constitute the framework for brief psychotherapy with "pregnant couples" which were considered successful. 2 case examples are given. (24 ref.)—M. J. Stanford.

3164. Dignam, Patrick J. (Anclote Manor Hosp., Tarpon Springs, Fla.) **Monetary transactions as a therapeutic issue.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 112-114.—Describes Anclote Manor, a 76-bed nonprofit hospital in which most patients were permitted to set up a budget and to deposit and withdraw money through the business office. Some were permitted to handle all their financial obligations, in and out of the hospital. A composite case history illustrating some of the problems and benefits that resulted is included. Money can be used pathologically and it offers clues to underlying emotional issues. "The acquisition and use of money is a vital feature of our society, and it should therefore be a vital part of a psychiatric treatment program designed to help patients function successfully in society."—B. A. Burkard.

3165. Feiner, Arthur H. (Young Adult Treatment Center, New York, N.Y.) **Toward an understanding of the experience of inauthenticity.** *Contemporary Psychoanalysis*, 1970(Fal), Vol. 7(1), 64-83.—Explores communications among people which in some instances

result in behavior symptomatic of mental disease. This "inauthentic" communication, a word coined by the author, "refers to the verbal articulation of our inner experience of an interaction with another person when we come to believe that his communicative gestures reflect his attempt at finding himself in the other." Reification, mystification, double-bind, boundary invasion, privacy invasion, and attributions are discussed as aspects of inauthentic communications. The theory of antecedents is viewed as a theory of technique concerned with the problem of experience of inauthentic communications. Bringing antecedents into a patient's awareness helps him to discover himself as an autonomous, separate being. This therapy of antecedents as one of experience and not of excavation forces the therapist to question "Who says what to whom, in what way, under what conditions, with what intention and how is it experienced." (28 ref.)—*M. J. Stanford.*

3166. Garonne, G. & Thévenoz, L. (U. Geneva, Medical School, Switzerland) **Los problemas planteados por la readaptación social del enfermo mental: Factores determinantes de una organización psiquiátrica sectorial.** [Problems presented by the social readaptation of mental patients: Determining factors in a sector organization in psychiatry.] *Revista de Psiquiatría y Psicología Médica*, 1970(Jan), Vol. 9(5), 297-311.—The social readaptation of the mental patient has become the primary goal of psychiatric therapy. At first, the notion of readaptation was conceived of primarily as recovery of the patient after having lost his social and occupational ties because of prolonged hospitalization. The notion has now been enlarged to pervade the entire field of psychiatry. Psychiatry, as a result, has evolved toward a social psychiatry. While initially readaptation was a type of reeducation for work and depended on organizations separate from the mental health system, it is now more of a reintegration by means of work accomplished by organizational entities within the psychiatric system itself. In the canton of Geneva, this system is called a sector and its structure, personnel, and functioning are described in some detail.—*L. Zusne.*

3167. Geleerd, Elisabeth. **Introducción a la mesa redonda sobre análisis de niños: La fase de separación-individuación: Observaciones directas y reconstrucciones en análisis.** [Introduction to the roundtable discussion on analysis of children: The separation-individuation phase: Direct observations and reconstructions during analysis.] *Revista de Psicoanálisis*, 1970(Jan), Vol. 27(1), 141-148.—Bearing in Mind M. Mahler and K. Perriere's observations on the 4 subphases of individuation (initial differentiation of the mother-child dual unit, practice period, rapprochement, and object constancy), conclusions are drawn from clinical material that (a) the subphases of practice and rapprochement cannot easily be reconstructed, and (b) the symbiotic phase lasts until object constancy is achieved. Although minute observations of these subphases cannot be made during clinical psychoanalysis, the latter is seen as essential (by supplying data on drives, defenses, and ego and superego development) to their understanding. Data are presented on 2 clinical cases, illustrating conflicts related to symbiosis and the repetition of conflicts founded in the anal phase of libidinal development which coincides with the practice and rapprochement subphases. (English & French summaries)—*T. N. Webster.*

3168. Gordon, Alan S. (U. Tulsa) **A comparison of**

homogeneous versus heterogeneous grouping using client-centered therapy with neurotics and schizophrenics. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3705.

3169. Graf Dürkheim, Karlfried. **Das problem der Regression auf dem Weg zum wahren Selbst: Initiatische Therapie.** [The problem of regression on the road to the true self: Initiatory therapy.] *Praxis der Psychotherapie*, 1970(Jun), Vol. 15(3), 107-121.—Regression is commonly defined as a temporary or permanent stepping back to the state of an earlier ontogenetic or phylogenetic stage. At first glance, regression appears in its negative meaning as an evasion, chiefly of new responsibilities. Positive aspects appear due to the fact that all growth implies a change, and that progress is often preceded by a temporary regression for the regeneration of the whole. Thus it can be applied in therapeutic treatments for the restoration of suppressed developments. In depth psychology, regression appears as a retreating through peak experiences into a new dimension of consciousness, comparable to the experiences of the mystics throughout the ages; if of short duration, a "regression" into everyday consciousness follows. To achieve a permanent consciousness of "higher realities," a "transparency of transcendence" should be developed. For this purpose, "initiatory therapy" is recommended. It might be called "creative regression in serving a depth beyond the single-minded activities of the ego mentality."—*P. von Taal.*

3170. Grinberg, León. (Pueyrredón 2395, 10°, Buenos Aires, Argentina) **Ideas nuevas: Conflicto y evolución.** [New ideas: Conflict and change.] *Revista de Psicoanálisis*, 1970(Jan), Vol. 27(1), 43-71.—Reviews past, present, and future perspectives of psychoanalysis, stressing the problem of stagnation in psychoanalytic development, and pointing up how prejudicial resistance to new ideas can hinder the development of psychoanalysis. Dogmatic attitudes and parochialism are pernicious factors which can hinder the advances of analytical theory, and impede genuine communication between analysts. The fate of the Kleinian theory is offered as a model of this conflict between dogmatists and innovators. Further areas discussed include (a) characteristics of the Latin American psychoanalytic community, described for the benefit of other analysts in the International Psychoanalytical Association; (b) ideas for the future of psychoanalytical research, discussed on the basis of improved communication between analysts of different schools of thought by means of the common denominator: clinical language; and (c) current social problems, to which analysts should apply their particular skills to aid in their solution. (61 ref.)—*T. N. Webster.*

3171. Gross, Ján & Sváb, Ludvík. (Psychiatric Research Inst., Prague, Czechoslovakia) **Die experimentelle sensorielle Deprivation als Modellsituation der psychotherapeutischen Beziehung.** [Experimental sensory deprivation as a model situation of psychotherapeutic relations.] *Nervenarzt*, 1969(Jan), Vol. 40(1), 21-25.—It has been proven experimentally that the feeling of social isolation greatly influences human behavior. Social isolation is mainly perceived in 2 ways: as an absence of undesirable controls, or as a lack of possible help from an outside source. The predominance of 1 of these aspects seems to depend on time organization. Tests made with 33 healthy male pilots, placed in an isolation chamber, have shown that the lack of information coming from the outside and, at the same

time, the inability of testing the surrounding realities makes the Ss, tested in sensory deprivation, dependent on the outside E to such a degree that his relation to the E changes into a specific interpersonal relation, which might be viewed as a model of the relation of the patient to the psychotherapist. (19 ref.)—*P. von Toal*.

3172. **Guerello, Maria D.** **Abandono del tratamiento de psicoterapia infantil.** [Abandonment of treatment in child psychotherapy.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Dec), Vol. 16(4), 361-364.—A child's illness is seen as the expression of the family group's illness in him. Therefore, reasons for desertion of treatment may be of 4 types: (a) when the group denies the child's illness and the necessity of a reparative psychotherapist; (b) when the group feels so destroyed that hopelessness causes it to stop treatment; (c) when the group perceives the therapist as a persecutor and the child as their threatened part; and (d) when the group perceives both the therapist and the child as persecutors, its defensive mechanisms are not sufficient, and fear of annihilation makes it stop the treatment.—*English summary*.

3173. **Hirsch, Margit.** **Nevelés és pszichoterápia.** [Education and psychotherapy.] *Pszichológiai Tanulmányok*, 1967, No. 10, 797-801.

3174. **Kopp, Sheldon.** (George Washington U.) **The Wizard of Oz behind the couch.** *Psychology Today*, 1970(Mar), Vol. 3(10), 70-73, 84.—Many psychologically troubled people are similar to the characters in the story of the *Wizard of Oz* in that they possess the resources to obtain relief but they do not believe that they do. Just as Dorothy and her friends asked the wizard to cure them, many patients ask their therapists to direct them to a cure. Therapists are also very much like the wizard because they cannot cure but they can help the patient to become involved in helping others and thus to discover the resources they possess.—*E. J. Posavac*.

3175. **Kraft, T.** (Claybury Hosp., Woodford Bridge, England) **Some thoughts on the role of the therapist in behavior therapy.** *Perceptual & Motor Skills*, 1971-(Feb), Vol. 32(1), 277-278.—Comments on the relation of the form of therapy chosen by therapists to their personality characteristics are made.—*Journal abstract*.

3176. **Kriegsfeld, Michael.** (New York U.) **An investigation of the relationship of some psychotherapist variables to the outcome of treatment with patients of different social classes.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4339-4340.

3177. **Lebovici, S.** **Indications et contre-indications de la psychanalyse.** [Indications and contra-indications for psychoanalysis.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 533-539.—Psychoanalysis is most successful with conversion symptoms, phobias, obsessional neuroses, and other neurotic reaction patterns. It is not likely to be successful with those individuals whose self-structure is fundamentally masochistic, nor with homosexuals, psychopaths, delinquents, and mental retardates. Perverts, addicts, psychotics, psychosomatics, habitual criminals, and children have been analyzed with varying success.—*R. E. Smith*.

3178. **Lesse, Stanley.** **Prophylaxis and psychotherapy.** *Canada's Mental Health*, 1971(Jan), Vol. 19(1), 21-23.—Suggests that in the future the orientation of psychotherapy will shift from disease to health and prevention. Diagnosis will become the province of automated systems, and therapists will be concerned with prophylaxis, with evaluation of the impact of social

changes and systems on the individual. A new field will emerge, psychosociology, which will encompass psychiatry, psychology, social science, and political science. Health science memory banks will contain all the medical data of an individual and periodic scanning by a computer will identify those in need of therapy for incipient disorders. Treatment at that level will require new theories and techniques. It is concluded that at the present time psychotherapy is primarily concerned with psychodynamics and rehabilitation; in the future the interrelationship with sociodynamics will become more important and prevention will be the primary activity.—*S. Knapp*.

3179. **Lindenauer, Geoffrey G.** **Milieu therapy: A survey.** *Journal of Emotional Education*, 1970(Win), Vol. 10(1), 4-9.—Reviews the history of the use of environment as a form of therapy from 1929 to the present. A therapeutic community for the "normal" neurotic, an individual with inter- and intrapersonal difficulties who is still able to function in society, is described. The program uses work or education as a therapeutic tool, encourages deep interpersonal relationships, involves the client in the community, conducts workshops in interpersonal relations and identity, and concentrates on present activities rather than the client's past. Such activities in such an environment are described as providing the client with the opportunity to learn how to give and receive love.—*S. Knapp*.

3180. **Meissner, W. W.** (John La Farge House, Cambridge, Mass.) **El soñar como proceso.** [Dreaming as a process.] *Revista de Psicoanalistas*, 1970(Jan), Vol. 27(1), 73-110.—Reviews recent research in the fields of neurophysiology and psychoanalysis on the nature of the dream process, including: (a) activation patterns during dreaming; (b) REM concomitants (EEG, EMG, and EOG patterns); (c) dream deprivation; (d) sleep as a therapeutic method; (e) REM mental activity; and (f) metapsychological considerations. (61 ref.)—*T. N. Webster*.

3181. **Nikelly, Arthur G.** (U. Illinois) **Psychological politics.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 403-404. Psychological evaluation and therapy of student dissenters or draft evaders is a political process as the therapist fulfills the desires of political attitudes instead of promoting human welfare. While psychologists advance the aims of the establishment and support the status quo they suppress the common human well-being. Psychological evaluation and psychotherapy tend to weed out the misfit and to psychotherapize him into conformity usually disguised with the equivocal concept of "adjustment." Nonadjustment to psychologically harmful conditions is a healthy reaction but often labeled "maladaptive." The psychologist must be consistent with the goals of his profession and oppose the forces hindering psychological health. *Author abstract*.

3182. **Portela, Jarbas M.** (Federal U. Minas Gerais, Belo Horizonte, Brazil) **Social aspects of the psychoanalytic practice.** *Contemporary Psychoanalysis*, 1970(Fal), Vol. 7(1), 105-111. Remarks are based on the author's experience with a restricted group of 20-30 yr. old mainly unmarried students or graduates. A type of clash between old familial and new values is seen as demonstrated in a case cited. No structured symptom such as phobia, obsession, etc., exists. Patients present a world of protest. Their internal conflict is reflected in the disintegration of modern society. The analyst has to be

cognizant of the social conflicts of which he partakes. Often he and the patient are part of the same social scene. The analyst has to avoid emphasizing intrapsychic conflicts and should stress social problems. He cannot remain ideologically neutral and "must be aware of and critical of the reality principle he presents to the patient. Such criticism may lead to self-transformation and sufficient inner freedom to enable the analyst to respect and enhance the patient's freedom."—*M. J. Stanford.*

3183. **Rogers, Rita.** (U. California, Los Angeles) **The "unmotivated" adolescent patient who wants psychotherapy.** *American Journal of Psychotherapy*, 1970 (Jul), Vol. 24(3), 411-418.—Discussed the problem of successfully relating to, and treating, teen-aged patients who have assumed characteristics of not being motivated for therapy. 23 adolescents who were brought to the psychiatrist against their wishes were studied. The 1st encounter with the therapist and attempts at communication were dismissed by the patient who refused treatment. A period of "disengagement" (of varying lengths of time) was followed by patients return on his own will. A successful therapeutic relationship was then established. It is suggested that the teen-ager has a particular method of expressing his needs, and uses different ways of relating himself to his environment. Therefore, his methods of communication with the "adult" world remain unique to him.—*C. O'Donnell.*

3184. **Rosen, Victor H.** (262 Central Park West, New York, N.Y.) **Introducción a la mesa redonda sobre lenguaje y psicoanálisis.** [Introduction to the round-table discussion on language and psychoanalysis.] *Revista de Psicoanálisis*, 1970 (Jan), Vol. 27(1), 27-34.—Surveys various close relationships of linguistics and psychoanalysis, including (a) psychoanalytic contributions to the psychopathology of language; (b) linguistic aids in understanding basic ego organization patterns; (c) similarities in analytical methodology; (d) similarities of clinical theory and study of specific idioms; (e) shared interest in the communicative function of gestures and mimesis; (f) importance of each as an auxiliary discipline of the other; (g) recent interest in the particular relation between audition and psychic structure development; (h) vocal-auditory interchange peculiarities inherent in the analytical situation; (i) the linguist's role in exploring the symbolic significance of neurotic symptoms; (j) sharing in the examination of language and psychoanalysis from the clinical as well as the theoretical viewpoint; and (k) interest in the relation between language and both normal and pathological thought processes. (31 ref.)—*T. N. Webster.*

3185. **Rubins, Jack L.** (New York Medical Coll., New York) **Religion, mental health and the psychoanalyst.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 127-134.—Discusses changes in today's concepts and functions of religion, and the increasing involvement of psychoanalysts in mental health. Changes in religious concepts are described as (a) new concepts of God, (b) decentralization of authority, and (c) new dimensions in the role and functions of religion. 3 questions are discussed, raised by an article by A. Apolito (see PA, Vol. 46:Issue 2): (a) at what point and by what criteria can it be said that the patient's religious problems are sufficiently analyzed; (b) will the belief in the existence of the soul, in religious patients, pose an obstacle to analysis; and (c) will the analyst's personal unresolved conflicts prevent understanding of religious problems in the patient.—*H. Roemmich.*

3186. **Schofield, William.** (U. Minnesota) **The psychotherapist as friend.** *Humanitas*, 1970 (Fall), Vol. 6(2), 211-223.—5 basic theses are examined: (a) man has a need for close personal relationships with at least a few other individuals; (b) the essential nature of the relationship between friends entails selective interdependency; (c) several major characteristics of urban life either present or dilute the functions of friendship; (d) when the channels for forming, maintaining, and using the friendship relationship are closed or constricted, the deprived individual will look for approximations; and (e) in 20th century Western culture, the professional psychotherapist is a sanctioned substitute friend for the otherwise friendless, frequently without full awareness of the substitution by either parent to the contract. (18 ref.)—*O. Strunk.*

3187. **Spiegel, Rose.** (William Alanson White Inst., New York, N.Y.) **Psychoanalysis: For an elite?** *Contemporary Psychoanalysis*, 1970 (Fall), Vol. 7(1), 48-63.—This defense of psychoanalysis, a presentation at the 3rd International Forum of Psychoanalysis in Mexico City in 1969, is directed against criticisms and attacks "on the American scene" although they have not been unfamiliar to analysts in other lands. The topic is limited to discussion of psychoanalysis for an elite of patients and practitioners. Freudian and non-Freudian analysts concentrate their efforts upon "superior" types of patients who are essential for "successful" analysis. Others consider psychoanalysis an "aristocratic method" applicable for a few by a few, meaning that practitioners and patients have to possess high qualifications and certain qualities of potential excellence. This selectivity although having a wide range of variability limits the number of "treatable" patients considerably. Solution of this dilemma is seen in considering the individual as the elite emphasizing his uniqueness and thus involving "more than a select few." (25 ref.)—*M. J. Stanford.*

3188. **Vouin, Philippe.** (Psychiatric Hosp., Cadillac, France) **Approches linguistique et sémantique du discours.** [Linguistic and semantic approaches to speech.] *Evolution Psychiatrique*, 1970 (Jan), Vol. 35(1), 181-198.—Presents an individual and collective survey of the part played by language in clinical, psychopathological, and therapeutical approaches to the patients. Efforts were made to establish a linguistic and semantic method applicable to any kind of a language. This encompassed studies in stylistic speech, linguistic deviations, semantic relations, wording, and enunciation. The wording was found to be especially feasible in human communication. It is emphasized that communication is a big problem and that a breakthrough in this field might lead to more effective discoveries in the treatment of mental disorders.—*I. Sirotnin.*

3189. **Wenkart, Antonia.** (American Inst. for Psychoanalysis, New York, N.Y.) **Spatiality: A concern of the psychoanalyst.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 145-154.—Describes various instances of how spatiality has changed man's physical and psychological environment so that it has become an important aspect in man's daily life. Psychoanalytic practice that is limited to man's inner conflicts is not considered to be dealing with today's world as a total environment. It is concluded that "spatial extensions of the scope of human concerns is in order if we are to help increase the individual's responsibility toward the world and the world's responsibility toward the individual."—*H. Roemmich.*

3190. Wolf, William. (40 W. 59th St., New York, N.Y.) **Dealing constructively with our increased leisure.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 440-449.—Called for an extensive study of the implications of increased leisure time. A problem for the psychotherapist would be in attempting to determine what each individual really wants to do with his life. "Factorializing" each person's psychologic profile which would then be matched with a list of existing and/or potential activities is proposed. Social values and pressures would be subject to change. It is suggested that psychiatrists "gear" themselves to this changing society in order that they will be able to help their patients adjust to increased leisure time.—C. O'Donnell.

3191. Zupnick, Stanley M. (U. Louisville) **The effects of varying degrees of a peer-model's performance on the extinction of a phobic response in an individual or group setting.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3719.

Therapeutic Process

3192. Apolito, Arnaldo. (New Jersey Coll. of Medicine, Montclair) **Psychoanalysis and religion.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 115-126.—Examines the difficulties in dealing with religion in psychoanalytic therapeutic relationships. These are described as arising from the nature of man and his capacities to deal with internal and external forces, from the nature of religion, and from the therapist's personal attitude toward religion. No prescription is given for the therapist regarding religious affiliation, but, religious or not, the therapist must be aware of his own position in regard to religion in order to deal with a patient's religious conflict. In a discussion of Apolito's views, A. N. Franzblau deals with Apolito's discussion of Freud's attitude toward religion, the characteristics of a "mature" religion, and the analyst's religious orientation as a factor in his work with patients. Many ideas expressed in Apolito's article are supported. (19 ref.)—H. Roemmich.

3193. Betz, Barbara J. (Dartmouth Medical Coll.) **Attitudinal interactions in psychotherapy.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 477-484.—Viewed mental distress as a reflection of an immature personality. Through a series of attitudinal interactions, the therapist recognized the needs of the patient. While supporting these current goals, he directed the patients toward more mature perspectives. The basic functions of personality—initial perception of cues, processing of cues, and reactive behavior to the cues—are discussed in relation to narcissism, ego-centricity, and ability to transcend the personal viewpoint. The dynamics of therapy are seen as a series of "maturational sequences."—C. O'Donnell.

3194. Garfield, Sol L. & Bergin, Allen E. (Washington U.) **Therapeutic conditions and outcome.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 108-114.—Reports a study of the relationship of accurate empathy, warmth, and genuineness to outcome in psychotherapy with 21 predominantly non-client-centered therapists. No relationships were secured between tape-rated measures of the 3 therapeutic conditions and a variety of measures of outcome. While accurate empathy and warmth were significantly correlated in a positive direction, both were negatively correlated with genuineness. The 3 therapeutic conditions were not significantly correlated with measures of the therapists'

personal characteristics secured from the EPPS. Findings are discussed and questions are raised concerning the meaningfulness and generality of the 3 therapeutic conditions. (17 ref.)—*Journal abstract.*

3195. Melnick, Barry. (Michigan State U.) **Patient therapist identification in relation to both patient and therapist variables and therapy outcome.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4341-4342.

3196. Powell, Thomas L. (U. Arkansas) **An investigation of the effectiveness of therapist-patient dyads in an initial psychotherapy interview under conditions of A-B complementarity and similarity.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3713-3714.

3197. Searles, Harold F. (Washington Psychoanalytic Inst., D.C.) **Autism and the phase of transition to therapeutic symbiosis.** *Contemporary Psychoanalysis*, 1970(Fal), Vol. 7(1), 1-20.—This is the 2nd in a series of papers reporting the author's current concepts about autistic symbiosis and individuation. During the autistic phase of treatment an analyst's attempts at transference-interpretation meet with the patient either ignoring or deriding them or being deeply disturbed by them. During the phase of transition between autism and therapeutic symbiosis a patient's formerly autistic automaton-like mode of functioning begins to give way to a more fluid behavior where transference-interpretations can be made. In the subsequent phase of therapeutic symbiosis these interpretations "are almost limitlessly in order." In discussing some aspects of sessions with patients the author examines not only the patients' but also his actual responses and those he could or should have made for the good or detriment of the patient. M. J. Stanford.

3198. Wallace, Charles J. (U. California, Los Angeles) **The effects of perceived similarity on perception of the therapeutic relationship.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4349.

3199. Wittich, Georg H. **Regression und therapeutische Technik.** [Regression and therapeutic technique.] *Praxis der Psychotherapie*, 1970(Oct), Vol. 15(5), 221-238.—Regressive processes always take place between 2 or more persons, 1 of whom is the doctor himself. In treating the patient, therefore, the therapist has to consider and control both the patient's and his own regressive tendencies. There are many indications that society cannot do without the regressor. Doctors, hospitals, and society need the regressor to protect their own identity and satisfy their own needs. Sociometric studies show that in most psychosomatic clinics regressive groups of 2 or 3 are formed. It has been proven with patients suffering from organ neuroses that there exists a correlation between successful clinical therapy and social contact. Therefore, in the treatment of regression, psychotherapy has to be group-oriented. Pathogenetically significant processes have to be perceived not only in the patient but in the therapist and society as well. These processes and their interference have to be assessed correctly and increasingly directed in a more realistic manner. (19 ref.)

3200. Woody, Robert H. (Grand Valley State Coll., Counseling & Mental Health Service) **Self-induced age regression: A therapeutic technique for breaking a repression block.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 344-348.—This technique produces valuable therapeutic material, preserves the time of the therapist, and eliminates the requirement for specialized

training. Self-induced age regression is not a hypnotic technique per se. The therapist is merely training the patient to be more effective in his introspections; it is an educational technique.—*D. Prager.*

Group Therapy

3201. **Battegay, R.** (Basel U., Psychiatric Polyclinic, Switzerland) **Gruppenpsychotherapie versus individuelle Psychotherapie.** [Group psychotherapy versus individual psychotherapy.] *Nervenarzt*, 1970(Sep), Vol. 41(9), 429-433.—Notes that group therapy reaches deeper, under certain circumstances, than individual therapy; the latter, however, is a more thorough method. In therapeutic groups, patients can more easily evade the therapeutic effort than during individual treatment. Multiple transfers and resistances are more difficult to assess in a group than in individual sessions. The therapeutic goal in group treatment is mainly an attitude and behavior analysis, repeatedly founded, however, on basic conflicts. Conflict analysis acquires more weight in the more intimate relations between the therapist and his patient in single session. In group analysis, reconditioning and the social learning process are of special importance, while individual psychotherapy stresses the insight and the retraining of the mind. Intense group work is recommended for the reducing of secondary narcissism. A combination of both therapies can be indicated when thorough mind training of a patient in single session is to be combined with his gaining new perspectives in his social behavior.—*P. von Toal.*

3202. **Calhoun, Sally H.** (Northwestern U.) **Power relations in the setting of family pathology: Alignments and oppositions.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4330.

3203. **Chambers, William M. & Fickel, Daniel E.** (State Reformatory for Men, St. Cloud, Minn.) **An evaluation of marathon counseling.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 372-379.—"Because the positive results were gathered with some relatively untested types of evaluative instruments, the final conclusion is a guarded affirmation of the use of the marathon group with the type of client described in the sample. It would seem that enhancing the group through selective screening procedures is a desirable prerequisite for groups of this nature. The researchers suggest that the marathon group be included as a primary variable for additional research in therapeutic activities with other populations. If repeated positive results are obtained, the marathon can be considered a valid therapeutic activity."—*I. Linnick.*

3204. **Hidas, György.** (József Attila Hosp., Budapest, Hungary) **A kapcsolat kérdése egyéni és csoportos pszichoterápiában.** [The problem of relationship of individual and group psychotherapy.] *Pszichológiai Tanulmányok*, 1967, No. 10, 791-795.

3205. **Lafforgue, J., Demangeat, M., & Higounenc, C.** (Château-Picon Hosp., Bordeaux, France) **Langage et corps: Réflexions au terme du séminaire de relaxation.** [Language and body: Comments about a seminar on relaxation.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 199-214. Comments on a seminar conducted on Bordeaux, France with the participation of 5 identical, 12-person groups, stressing language and body articulation. In the course of the experiment, speech was given and transmitted by the commentator. Later this speech was again received, incorporated, and restored by the Ss

of the seminar. The ability to do so is attributed to the fact that the creator of the method personally was involved in the experiment. It is concluded that "the language of the method" is really a verbal transfer of the initiator's ideas to the Ss and their assimilation of the same by means of joint concentration. (English summary)—*I. Sirotnin.*

3206. **Lessor, Louis R.** (Family Service Assn. of Oak Park & River Forest, Ill.) **Time-extended group treatment sessions.** *Social Casework*, 1971(Feb), Vol. 52(2), 97-103.—Examines the extended session of group therapy, the marathon, focusing on format, process, and techniques. Some questions are raised about the utilization of this treatment mode. Diagnostic indicators need to be developed that will point to situations and individuals for whom this technique is indicated. In a society in which the human being is increasingly isolated and dehumanized, the marathon offers one creative way for the attainment of intimacy between people.—*M. W. Linn.*

3207. **MacLennan, Beryce W. & Levy, Naomi.** (3719 Reservoir Rd., Washington, D.C.) **The group psychotherapy literature 1969.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 380-411.—"The popularity of groups continues and the ferment and controversy grow." The highlights of the bibliography are discussed under the following categories: children, adolescents, inpatient treatment of adolescents, mentally retarded, college counseling, special problems, the therapeutic milieu in hospitals and halfway houses, professional and nonprofessional roles in group psychotherapy, training, technical questions in group psychotherapy, videotape, small-group research, and clinical research. (418 ref.)—*I. Linnick.*

3208. **Mohr, Kent E.** (Indiana U.) **An evaluation of marathon group procedures and leaders as measured by the Structured Objective Rorschach Test (S.O.R.T.).** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-A), 2741.

3209. **Parloff, Morris B.** (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) **Group therapy and the small-group field: An encounter.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 267-304.—"Admittedly the fields of 'small groups' and of group psychotherapy, like society itself, are in flux. . . . While there is little agreement regarding the definition or characteristics of groups variously labeled as personal growth, human relations, sensory awareness, sensitivity training, self-awareness, leadership training, love-ins, psychological karate, etc., it is generally agreed that they represent a potent force for great benefit or great mischief. . . . While leadership training and the adherence to sound ethical practices cannot guarantee elimination of negative effects, they can do much to minimize their occurrence. The dangers of indiscriminate application of these procedures by undisciplined leaders to the psychologically unstable are apparent." Although the author encourages the analytic group psychotherapist to explore the principles and techniques of the encounter group in order to expedite the treatment of patients, he questions his competence and goals with nonpatients. (53 ref.)—*I. Linnick.*

3210. **Pinney, Edward L. & Weidenbacher, Richard.** (21 E. 66th St., New York, N.Y.) **The outcome of group psychotherapy in a group used for teaching.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 271-280.—Utilized a psychotherapy group in an outpatient clinic to

teach psychiatry residents. 11 of 16 patients treated by these residents were reported as improved after a 1-yr period. Specific training and supervision for group psychotherapy is essential for a favorable outcome. It is concluded that group psychotherapy can be a worthwhile treatment for severely ill patients in an outpatient psychiatry clinic.—D. Prager.

3211. Reddy, W. Brendan. (U. Cincinnati) **Sensitivity training or group psychotherapy: The need for adequate screening.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 366-371.—Focuses on the changes in pathology indices of volunteer T-group participants. 4 groups were used in the study: 2 sensitivity training groups (Ns = 13 and 19), 1 psychotherapy group (N = 10), and 1 control group (N = 26). The groups included males and females and had median ages in the low 20s. The Tennessee Self-Concept Scale, Clinical and Research Form was administered to Ss in each group before the first meeting and following the final meeting. The T-groups met 1 evening a wk. for 12 wk. and were led by a National Training Laboratory developed trainer; the psychotherapy group met for 1 1/2 hr/wk. for 12 wk. with an experienced clinical psychologist as the group therapist; the control group was an introductory psychology class which met for 11 wk. The Number of Deviant Signs, according to the author of the test, is the instrument's best index of psychological disturbance. A summary of the results indicates that "The 2 personal-growth-oriented T-groups showed significant changes in the direction of greater pathology from pre- to postmeasurement. The psychotherapy group did not reach significance but approached this level in the opposite direction . . . The control group showed no significant change." It is concluded: "If sensitivity training is to take its rightful place as a major educational and re-educational technique, it is essential that there be adequate screening of prospective participants. Moreover, further research into the variables surrounding this technique should be initiated."—L. Linnick.

3212. Sperling, E. **Alters-und Bezugsgruppen: Spezifische Therapieprobleme; dargestellt am Beispiel der Studenten-und Familienbehandlung.** [Age and reference groups: Specific therapy problems exemplified by student and family treatment.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1969, (Apr), Vol. 15(2), 119-126. Presents a lecture delivered at the International Working Conference of the German Psychoanalytical Society and the International Forum for Psychoanalysis, which discusses the problems of including the social dimensions into psychotherapy and experiences with groups of students and married couples as well as joint sessions with anorectic families. The sociodynamic problem of alternating disturbances in different members of the family is emphasized. In treatment centering on reference groups, different forms of resistance against group formation were noticed. Student groups frequently remained in a "pregroup" state. Marital groups showed an extreme tendency to polarize, and in family sessions the role of the scapegoat was delegated alternately.—B. Schuy.

3213. Taylor, Davis W. (North Texas State U.) **Group systematic desensitization with test-anxious college students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4347.

3214. Wiesenhütter, Eckart. **Entwicklung, Reifung, Retardation, Regression.** [Development, maturity,

retardation, regression.] *Praxis der Psychotherapie*, 1970, (Jun), Vol. 18(3), 122-132. Stresses the necessity of the "gestalt-circular" approach by further explaining the concepts involved. A number of pertinent cases of family conflicts are presented. Concerning disturbed families, relief from retardation and regression caused by the narrowness of single-family life can be found in multiple family and interest groupings, leading to further development and maturity. The true task of modern psychotherapists is seen in eliminating retardation by opening the way to "transgression." The actual patients today are not troubled individuals but human society as a whole.—P. von Taal.

Behavior & Conditioning Therapy

3215. Berecz, John M. (Indiana U.) **The modification of smoking behavior through self-administered punishment of imagined behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4326.

3216. Cleaves, Craig M. (George Washington U.) **The control of muscle tension through psychophysiological information feedback.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4331.

3217. Cotler, Sherwin B. (Camarillo State Hosp., Calif.) **Sex differences and generalization of anxiety reduction with automated desensitization and minimal therapist interaction.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 273-285.—This study dealt with (A) the effectiveness of automated desensitization with minimal therapist-patient interaction, (B) the effects of therapist-patient sex differences on treatment outcome, and (C) the generalization procedure. Results indicated that automated desensitization was effective in significantly reducing anxiety toward the target behavior, snakes. Sex differences between therapist and client were not a critical factor in treatment outcome. Evidence for generalized anxiety reduction following automated desensitization was less conclusive due to changes that occurred in both experimental and control groups. It was concluded that automated desensitization can be a useful and time-saving psychotherapeutic approach; however, there are certain considerations (e.g. initial instructions, S's control of visualization and relaxation amount of relaxation practice, etc.) which should be taken into account.—A. Baruch.

3218. Cotler, Sherwin B. (Washington State U.) **Sex differences and generalization of anxiety reduction with automated desensitization and minimal therapist interaction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3301.

3219. Creer, T. L. (Children's Asthma Research Inst. & Hosp., Denver, Colo.) **The use of a time-out from positive reinforcement procedure with asthmatic children.** *Journal of Psychosomatic Research*, 1970(Jan), Vol. 14(2), 117-120.—Analysis of the effects of the time-out procedure in modifying the behavior of 2 asthmatic boys.—W. G. Shipman.

3220. Dec, Carla K. (U. Iowa) **Instructions and the extinction of a learned fear in the context of taped imitative therapy.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3301.

3221. Doctor, Ronald M. & Craine, William H. (San Fernando Valley State Coll.) **Modification of drug language usage of primary and neurotic psychopaths.** *Journal of Abnormal Psychology*, 1971(Apr), Vol.

77(2), 174-180.—Utilized verbal operant procedures to modify the dialectic drug language usage of 35 primary and 35 neurotic psychopaths toward more conventional word usage. It was predicted that neurotic psychopaths would evidence greater performance gains than primary psychopaths who, according to prevailing theories, should be less responsive to generalized social reinforcers. It was found, however, that primary psychopaths conditioned better than neurotic psychopaths and that conditioning performance was highly correlated with reports of awareness. Conditioners evidenced significantly greater generalization of reinforced responses than nonconditioners and controls. Results are discussed in terms of conflicting results on psychopathy and conditioning and social learning theory formulations of psychopathy. (28 ref.)—*Journal abstract*.

3222. **Donner, Lawrence.** (U. Maryland, Medical School, Baltimore) **Automated group desensitization: A follow-up report.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 241-247.—Reports results of a 5-mo follow-up study on an automated group systematic desensitization treatment for test anxiety. The study focuses on data relevant to: (a) the relative permanency of the automated group technique, (b) comparison of the longer-term effect of the therapist's presence vs. his absence on outcome, and (c) the issue of symptom substitution. The follow-up data indicate that the initial improvement following the automated treatment technique is not only maintained, but that further gains are also evident. The presence vs. absence of the therapist did make a significant difference in the amount of improvement found at the follow-up. 85% of the desensitized Ss did not experience side effects.—*A. Barclay*.

3223. **Freeling, Nelson W. & Shemberg, K. M.** (Bowling Green State U.) **The alleviation of test anxiety by systematic desensitization.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 293-299.—"28 test anxious Ss were randomly assigned to a relaxation group, a visual imagery group, and a systematic desensitization group in order to determine the relative effectiveness of each treatment in alleviating test anxiety. Following treatment, significant reductions in self-reported anxiety as determined by pre- and post-Test Anxiety Questionnaire (TAQ) scores occurred only for the systematic desensitization group. An analysis of the number of Ss per group showing reductions in TAQ score further supported the hypothesis that self-reported test-anxiety reduction occurs more reliably when both components of systematic desensitization are present. However, when the 3 groups were compared directly, only the visual imagery group was found to differ significantly from the systematic desensitization group, suggesting that relaxation alone may not be a totally ineffective treatment procedure. Results obtained with a 2nd index of anxiety-reduction, performance on an anagram solution task, were not consistent with the self-report data."—*A. Barclay*.

3224. **Glick, Burton S.** (City Hosp. Center, Mt. Sinai Hosp. Services, Elmhurst, N.Y.) **Some limiting factors in reciprocal inhibition therapy.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 223-230.—The improvement rate in 26 phobic patients immediately after desensitization therapy was 42%. Follow-up, 16-36 mo. later, showed a decline in the improvement rate to 31%. Considering the great difficulty in treating phobic patients successfully, these results should not be condemned. Reciprocal

inhibition treatment is a worthwhile addition to the psychiatrist's armamentarium and should be used wherever indications and expectations warrant it.—*D. Prager*.

3225. **Hekmat, Hamid & Vanian, Daniel.** (Wisconsin State U., Stevens Point) **Behavior modification through covert semantic desensitization.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 248-251.—Matched 12 male and 18 female snake-phobic undergraduates on degrees of behavioral avoidance and subjective fear. Ss were randomly assigned to (a) an experimental group who received a semantic counterconditioning of meaning treatment; or (b) a control group who were pseudodesensitized on a buffer task. Results show that snake-phobic Ss initially rated the word "snake" on the semantic differential scale as significantly negative in evaluative meaning. Ss in the experimental group showed significant alteration in their semantic differential rating of the word snake, significant decrement in their fear of snakes, and significant behavioral approach toward a live gopher snake. Semantic counterconditioning of meaning is interpreted to provide the basis for some desensitization procedures.—*Journal abstract*.

3226. **Hodgens, Timothy J.** (Boston Coll.) **An experimental study of the influence of accurate empathy on the verbal operant conditioning of verbal responses.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3708.

3227. **Jacobson, Howard A.** (Memphis State U.) **Reciprocal inhibition and implosive therapy: A comparative study of a fear of snakes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3708.

3228. **Kraft, T.** (St. Clement's Hosp., London, England) **Erotisierte Übertragung in der Verhaltenstherapie.** [Eroticized transference in behavior therapy.] *Zeitschrift für Psychosomatische Medizin und Psychoanalysen*, 1969(Apr), Vol. 15(2), 126-130.—States the case history of a 30-yr-old housewife who maintained her stability as long as she had both a husband and a lover. When she tried to live with her husband alone she developed phobic symptoms. In the course of behavior therapy in which the patient had to be desensitized against her fear associated with sexual intercourse with her husband and against her housebound syndrome, she developed an eroticized transference toward the therapist, substituting him for her lover. She overcame her phobic symptoms but needed additional treatment for her transference neurosis, which she found harder to overcome but did. Transference possibly explains the therapeutic effectiveness of the desensitization process.—*B. Schay*.

3229. **Krapf, Günther.** (36 Hiltenspergerstr., Munich, W. Germany) **Gedanken zum autogenen Training: Praktische Hinweise zur Zurücknahme.** [Reflections on autogenous training: Practical retraction hints.] *Praxis der Psychotherapie*, 1970(Aug), Vol. 15(4), 180-184.—Discusses the techniques of retraction taught in autogenous group training. The usual retraction involves straight arms, deep breathing, and eyes open. A variation is the Bavarian retraction, in which both arms are bent at the elbow with a simultaneous pronation and supination of the lower arms and bending and stretching of the wrists. Stretching of the legs and spinal muscles can be added; this is called the "extended autogenous form" and is comparable with the normal awakening after a good night's sleep. For falling asleep, the "walrus technique" is recommended: a slow, lazy

movement from the supine position into the customary sleeping position. The effects of interrupted retractions are discussed. After 1 or 2 wk. of group training, most patients are able to master the retraction technique. —P. von Toal.

3230. Lichtenstein, Edward. (U. Oregon) **Modification of smoking behavior: Good designs—ineffective treatments.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 163-166.—Cigarette smoking provides opportunities to investigate behavior change processes in a meaningful, naturalistic context that still permits adequate measurement and controls. Although several recent behavior modification studies, exemplified by the A. R. Marston and R. M. McFall (see PA, Vol. 46: Issue 2) paper, are well designed, the treatments employed remain ineffective. It is suggested that treatment ineffectiveness may be due to insufficient pilot (clinical) work and premature freezing of techniques into group programs. It is also argued that process studies of smoking modification must await demonstration of an outcome effect or, at the least, process variables must be shown to effect outcome. The problems involved in verifying smoking rates and whether Ss are performing the "homework" assignments frequently given by behaviorists are also discussed. (25 ref.)—*Journal abstract.*

3231. Lunde, G. E. & Vogler, R. E. (Pacific State Hosp., Pomona, Calif.) **Generalization of results in studies of aversion conditioning with alcoholics.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 313-314. "Problems of generalizing from the results of studies with inadequate S sample descriptions, lack of control groups, and insufficient follow-up are evaluated. Suggestions for change, including a scheme for characterizing the learning history of Ss, and implications for research and treatment are discussed."—A. Barclay.

3232. Marston, Albert R. & McFall, Richard M. (Psychological Research & Service Center, Los Angeles, Calif.) **Comparison of behavior modification approaches to smoking reduction.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 153-162.—Compared 2 experimental treatments for the modification of cigarette smoking with 2 control conditions, using a refined methodology for collecting daily smoking records and providing for an examination of therapist effects. 65 undergraduates served as Ss. The 1st experimental treatment employed a stimulus satiation technique in which Ss smoked 3 cigarettes on each smoking occasion. The 2nd, a hierarchy approach, involved gradual reduction beginning with the period of the day judged easiest for relinquishing cigarettes. In 1 control treatment, Ss used a pill designed to coat the mouth to make cigarettes aversive; the other control groups were instructed to quit entirely. Each of the 4 conditions showed its own characteristic reduction curve and all reduced to a mean level below 25% of base. There was a significant effect of therapist during treatment, but none at 6-mo follow-up by which time all groups had shown a considerable relapse. (15 ref.)—*Journal abstract.*

3233. Mather, Marcia D. (Warley Hosp., Brentwood, England) **The treatment of an obsessive-compulsive patient by discrimination learning and reinforcement of decision-making.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 315-318.—"The successful outcome of 1 obsessive-compulsive patient treated by 'blocking' of the compulsion and reinforcement of discrimination learning would seem to justify further investigation into the efficacy of this therapy. The

essential therapeutic variables are not established. It is not certain, for example, whether 'blocking' of the compulsive behaviour itself would have been sufficient. Meyer... successfully treated 2 obsessional by systematic prevention of the compulsive behaviour and this 'modified the expectancies' of his patients (i.e., the patient learned that the feared disasters did not occur if the compulsions were not carried out). However, in the present case (as with many other obsessionals) there seemed to be a problem of decision-making which resulted in the patient's hoarding many objects because she could not decide upon the best way of dealing with them. It is difficult to imagine that 'blocking' of rituals by itself would have abolished the hoarding response, the vacillation and the obsessional pondering. Many obsessionals do not, however, respond to systematic desensitisation. This may be because many of them have primitive fears or fears of natural disasters, which cannot be successfully avoided... and which, therefore, do not lend themselves to desensitisation. This would seem to be a further argument for removal of the compulsion supplementing the learning of an alternative response." —A. Barclay.

3234. Mausner, Bernard. (Beaver Coll.) **Some comments on the failure of behavior therapy as a technique for modifying cigarette smoking.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 167-170.—Attributes the failure of behavior therapy for smokers to 2 factors: 1st, the inadequacy of external contingencies, and 2nd, the lack of effect of aversive control. Smokers find it easy to return to smoking once they are outside the therapeutic situation. Data from a role-playing experiment are interpreted to signify that positive reinforcements for refraining from smoking might be more successful than aversive controls in changing smoking behavior. Neither of A. R. Marston and R. M. McFall's (see PA, Vol. 46 Issue 2) experimental groups showed greater reduction in smoking than their control groups. This was attributed to the weakness of aversive control for the "stimulus satiation" group which was instructed to smoke 3 cigarettes in rapid succession each time a cigarette was desired. For a "hierarchical reduction" condition in which cigarettes desired least were eliminated, it was proposed that cutting down by eliminating undesired cigarettes might strengthen rather than weaken smoking, since its rewards are, if anything, increased.—*Journal abstract.*

3235. Mira, Mary. (U. Kansas, Medical Center, Kansas City) **Results of a behavior modification training program for parents and teachers.** *Behaviour Research & Therapy*, 1970(Aug), Vol. 8(3), 309-311.—"Training parents as therapists or managers for their own children is a fairly recent development in behavior modification, one which is justified in terms of both efficiency and economy... To date, most published work in the area presents data from individual cases. The purpose of this paper is to summarize the results of a behavior modification program in which parents, and occasionally teachers, were trained to be managers for their children. The staff of the Psychology Dept. of a Children's Rehabilitation Unit conducted the program and acted as direct advisors to parents and teachers, or as trainers to doctoral students who advised parents and teachers. The emphasis was on training the managers to 1) focus on the child's behavior rather than on underlying psychopathology, 2) analyze the troublesome behavior in terms of the environmental events currently

maintaining it rather than to seek historical geneses, and 3) alter events subsequent to the behavior or to rearrange the contingencies with which consequential events were presented, rather than to develop insights into their own or their child's emotional states."—*A. Barclay.*

3236. **Prochaska, James O.** (U. Rhode Island) **Symptom and dynamic cues in the implosive treatment of test anxiety.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 133-142.—Divided 61 test-anxious college males, matched for IQ and level of test anxiety, into 5 treatment groups: (a) a symptom group given implosive therapy based on cues related symptomatically to test anxiety, (b) a dynamic group imploded with cues based on the assumed dynamics of test anxiety, (c) a general anxiety group imploded with a set of general anxiety cues assumed minimally related to test anxiety, (d) a placebo group which imagined scenes based on neutral cues, and (e) a no-treatment group. Following 3 sessions of treatment presented via tape recorders, Groups a and b improved significantly on Wonderlic intelligence scores, GPA, and reported level of anxiety on final exams, but not on the Alpert-Haber Test Anxiety Scale. Group c reported significant decreases in general anxiety as measured by Wolpe's Fear Inventory. Results support a general learning theory consonant with implosive therapy that conceives of test anxiety as being a combination of anxiety attached to both symptom and dynamic cues, and indicate that implosive therapy can be a rapid means of reducing test anxiety. (20 ref.)—*Journal abstract.*

3237. **Ramírez, Fortunato.** **La psicoterapia grupal dinámico-conductual en los alcoholistas.** [Dynamic behavioral group therapy among alcohol drinkers.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Dec), Vol. 16(4), 345-349.—Describes the use of a group therapy technique with alcoholic inpatients. The therapeutic technique is a combination of Schultz' autogenic training, Wolpe's reciprocal inhibition therapy (with a desensitization hierarchy adapted to alcoholics' problems), and a dynamic procedure aimed to strengthen ego functions.—*V. A. Colola.*

3238. **Schulze, Helmut.** (4 Maria Viktoria Str., Baden-Baden, W. Germany) **Die Aktivierung des Patienten im Kurort.** [Activating patients in spas.] *Praxis der Psychotherapie*, 1970(Aug), Vol. 15(4), 171-180.—Psychosocial and vegetative-functional factors account for 50% of all work absences in the United States and West Germany. A large percentage of patients going to spas suffer from neuroses or psychosomatic troubles. The average patient in a spa expects to be cured from his troubles with as little effort as possible through baths, massages, medicines, etc.. It is felt that to get and stay well, a man must add his own efforts. Verbal recommendations are not enough. For a successful behavior therapy, the therapist must direct his patients to new activities. 4 forms of therapeutic activity, with a gradually increasing effort of application, are recommended: play, exercise, work, and fighting. Fighting, as a maximum form of action, demands the engagement of the entire personality, including personal risks. It expresses a special type of directed behavior therapy and includes voluntary assumed responsibilities.—*P. von Toal.*

3239. **Steffy, Richard A.** (U. Waterloo, Ontario, Canada) **Trends in the development of behavior modification.** *Canada's Mental Health*, 1971(Jan), Vol. 19(1), 17-21.—Outlines the history, scope, and proce-

dures of behavior modification therapy. The definition of behavior therapies by the techniques used is considered inadequate and misleading due to the number of new techniques being developed, the difficulty in categorizing the techniques, and the lack of empirical work. It is proposed that "behavioral therapy must be identified with a clear specification of the target behavior, and an objective recording procedure to indicate variations in the frequency and intensity of the behavior that has been targeted." Assessment and treatment procedures are discussed. Various trends are outlined which include (a) a move into community services, (b) work with depression and obsessional thinking, (c) attentional training, and (d) self-instructional work.—*S. Knapp.*

3240. **Woy, John R.** (U. Rochester) **Effects of expectation on the outcome of systematic desensitization.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4351.

Special & Adjunctive Therapy

3241. **Azoubel Neto, David.** (Inst. of Dynamic Psychiatry, São Paulo, Brazil) **O valor terapêutico das atividades recreacionais no tratamento de pacientes psiquiátricos em semi-hospitalização (hospital diurno).** [The therapeutic value of recreational activities in the treatment of psychiatric patients in a day hospital.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Dec), Vol. 16(4), 341-344.—Points out the importance of recreational therapy as an auxiliary technique in the treatment of mental patients. Describes a 6-yr experience with this therapeutic procedure in a day hospital for psychiatric patients; clinical cases are presented and discussed.—*English summary.*

3242. **Gardner, Richard A.** (Columbia U., Coll. of Physicians & Surgeons) **The mutual storytelling technique: Use in the treatment of a child with neurosis.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 419-439.—Reviewed the problem of making use of information gained from storytelling in child psychotherapy. In the method described, the therapist psychodynamically interpreted the tape-recorded child's story and then retold a similar one of his own. The clinician's story was different in that he related healthier adaptations and proposed mature resolutions to the anxieties and problems originally expressed by the patient. A detailed case history of a 5½-yr-old old boy with severe posttraumatic neurosis is presented and the course of therapy is extensively reviewed. It is suggested that this type of therapy is "imaginative, constructive, and pleasure-giving."—*C. O'Donnell.*

3243. **Mallory, James D., Murphy, Daniel F., & Coppedge, Hallie.** (Highland Hosp., Asheville, N.C.) **An attitude therapy program in a teaching hospital.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 99-102.—Attitude therapy seems to offer a good approach to treating patients from lower socioeconomic levels. "We must accept them as they are, and make our therapeutic contract on their terms by initially concentrating on the relief of symptoms." The treatment milieu should offer each patient corrective learning experiences. The team approach is used and in this case, a psychiatrist is team leader. All staff members use 5 basic attitudes: matter-of-fact, passive friendliness, no demand, kind firmness, and active friendliness. Attitude therapy was found to be "helpful in dissolving the dichotomy of

organic vs. dynamic, which inexperienced clinicians tend to see as an either/or proposition." It appeals to personnel and to the public in general. "The lack of jargon, the common-sense approach, and the clear implications for action greatly enhance its acceptance." The patient knows what the treatment goals are for him, what programs he will take part in and what some of his reactions are likely to be.—*B. A. Burkard.*

3244. **Ritvo, Miriam M., Lyons, Marie, & Howe, Margot C.** (Lesley Coll.) **Planned or haphazard change.** *American Journal of Occupational Therapy*, 1970(Sep), Vol. 24(6), 409-412.—Looks at change through the lenses of applied behavioral science. Specific attention is given to the changes that have happened and will happen to the occupational therapy profession. Emphasized is the structural change resulting from the addition of the certified therapy assistant level to the profession.—*Journal summary.*

3245. **Schenck, Jeanne.** (U. Texas, Medical Branch, Galveston) **Relevance of physical therapy issues to occupational therapy.** *American Journal of Occupational Therapy*, 1970(Sep), Vol. 24(6), 418-422.—Although dissimilarities can be identified between occupational and physical therapy, commonalities exist between the professions. These are to be found in the ultimate goals of each therapy affecting human behavior and the procedures used in physical disability. Needs and resources within the community should be identified by therapists within each specific community and plans established by the therapist for utilization of the resources in that community. A need exists for interchange of ideas, identification of commonalities, and progressive steps toward self-control and the meeting of community needs.—*Journal summary.*

3246. **Schoenberger, Leonard & Braswell, Charles.** (Delgado Coll., Rehabilitation Center) **Music therapy in rehabilitation.** *Journal of Rehabilitation*, 1971(Jan), Vol. 37(1), 30-31.—Presents a brief review of the values of music therapy in the rehabilitation process. Both group and individual forms of music therapy are discussed.—*M. A. Seidenfeld.*

3247. **Zusman, Jack.** (State U. New York, Buffalo) **A rudimentary guide to social therapies.** *Hospital & Community Psychiatry*, 1969(Feb), Vol. 20(2), 59-62.—Attempts to "specify in clinical terms some important elements of the social therapies, as a rudimentary guide for therapists." Social therapies would include, e.g., remotivation, open wards, compensated work, attitude therapy, therapeutic community, patient government, and other socioenvironmental approaches. "Social therapists have 2 serious difficulties: describing to others what they do, and explaining how what they do is effective." Rules are presented based on published descriptions of effective social therapies, sociological studies of mental illness, theories of group behavior, and studies in criminology, and on the author's personal observations.—*B. A. Burkard.*

Drug Therapy

3248. ———. **11th Annual. Psychopharmacological Conference, Jeseník, Czechoslovakia, 14-18 January 1969.** *Activitas Nervosa Superior*, 1970, Vol. 12(1), 1-96.—Presents 44 short articles reporting findings and experiments in the psychopharmacological field (octoclotheptine, fluphenazine, noviril 240, ponsital, scopolamine, centrophenoquine, triperidol with perphenazine, methylperidol with perphenazine, thiopropazate, thiothixene with perphenazine, dibenepine, hydrophthaladen, tranlycypromine, chlorimipramine, desipramine, amitriptyline, chlormezanone, sterolibrin, cycloserine, and others).—*H. Bruml.*

3249. **Ban, T. A.** (Douglas Hosp., Montreal, Quebec, Canada) **Psychopharmacology and psychiatric practice in the seventies.** *Canada's Mental Health*, 1971-(Jan), Vol. 19(1), 8-12.—Outlines the impact of psychopharmacology on psychiatric treatment, education, theory, and research. With the advent of psychotherapeutic drugs, treatment has shifted from the hospital to outpatient care based in community mental health centers. In association with this development, there are mounting pressures on psychiatric education for a shift from a psychodynamic to a social-medical approach to mental illness. Research with psychopathic and psychotherapeutic drugs has provided insight into the mechanisms and treatment of many types of disorder. Various forms of schizophrenia are distinguished by the drugs which are most effective in treatment and the underlying physiological disorder which is thus indicated. It is suggested that research within the next decade will center on 2 areas: (a) the exploration and treatment of disorders associated with the common use and abuse of drugs in everyday life, and (b) attempts to control conditioning and learning through drugs. *S. Knapp.*

3250. **Bernardini, Bino & Bruni, Dario.** (Neuropsychiatric Hosp., Volterra, Italy) **Valutazioni cliniche e psicometriche sull'impiego di un derivato delle benzodiazepine per via parenterale nelle manifestazioni depressive di psicopatolici ospedalizzati.** [Clinical and psychometrical evaluations in regard to the use of a derivative of benzodiazepine by injections in psychiatric patients' with manifestations of depression] *Rivista di Neurobiologia*, 1969(Oct), Vol. 15(4), 725-748.—Studied the effects of oxazepam, a benzodiazepine derivative, which was administered by injection to 30 hospitalized depressives. Clinical criteria and rating scales were used to control effects. It is concluded that oxazepam has the same molecular structure and the same pharmacological and clinical characteristics as other benzodiazepines, but has the advantage of not producing side effects or only slight ones. It was also found that: (a) long treatments can be continued without interruption even to the aged, (b) by administering the drug by injection, results are more rapid, (c) it indirectly aids insomnia and some aspects of depressive symptomatology, e.g., hypochondriac delirium, (d) it has a sedative action, and (e) in the area of depressive psychosis, the varieties which were most sensitive to the drug appeared, e.g., symptomatic depressions. (English summary) (3 p. ref.) *A. M. Fartaglia.*

3251. **Bruno, A. & Bruno, S. Cumer.** (P. Pini Provincial Psychiatric Inst., Milano, Italy) **Effetti dell'amitriptilina sul metabolismo delle catecolamine e della serotonina in pazienti depressi.** [Effects of amitriptyline on the metabolism of the catecholamines and of serotonin in depressed subjects] *Rivista di Neurobiologia*, 1969(Oct), Vol. 15(4), 749-761.—Studied the urinary excretions of the metabolites of norepinephrine, dopamine, and serotonin acids vanilmandelic acid (VMA), homovanillic acid (HVA), and 5-hydroxyindoleacetic acid (5-HIAA) in 10 Ss affected with neurotic or psychotic depression and treated with amitriptyline. Amitriptyline results in a decrease of VMA and an increase of HVA and 5-HIAA. However, these are slight modifications

and there was no connection between these metabolic modifications and the pharmacological effects of amitriptyline. It is concluded that any hypothesis regarding the exclusive role of noradrenalines in the antidepressive action of amitriptyline cannot be accepted without reservations. (English summary) (3 p. ref.)—A. M. Farjaglia.

3252. Ey, Henri & Bohard, François. (Psychiatric Hosp., Bonneval, France) **Résultats d'une thérapeutique médicamenteuse dans les délires chroniques: Association de la prochlorpérazine (téméntil) et de la lévomépromazine (nozinan).** [Therapy with medication in chronic deliriums and its results: Association of prochlorperazine (tementil) and of levomepromazine (nozinan).] *Evolution Psychiatrique*, 1970 (Jan), Vol. 35(1), 251-295.—Presents an experiment conducted on 100 selected patients, who were subjected to treatment with medication. The patients were divided into 5 groups: neurotics, psychotics, schizophrenics, paranoid personalities, and paranoid psychotics. Notes were made on every patient with proper background data and the type and dosage of the administered medication in each case. The best results were noted in paranoia cases, with 8 out of 13 patients showing positive results. Patients suffering from acute neurosis were the least responsive to the treatment.—I. Sirotin.

3253. Mawdsley, C. (U. Edinburgh, Scotland) **Treatment of parkinsonism with Laevo-dopa.** *British Medical Journal*, 1970 (Feb), Vol. 1(5692), 331-337.—Treated 32 patients with parkinsonism with L-dopa. 9 were markedly and 14 moderately improved. 20 patients tolerated the drug well, derived definite improvement, and were treated for an average period of 6 mo. Improvement was sustained during this period even though the average daily dosage of L-dopa was reduced. Dose dependent side-effects occurred in 25 patients. It is suggested that dosage schedules should be flexible and tailored to the needs of the individual patient, and that treatment should be continued for 6 mo. before presuming it to be ineffective. It is concluded that L-dopa often ameliorates parkinsonism for long periods, but its effect on the natural history of the disease is undetermined. (27 ref.)—*Journal abstract.*

3254. Pisani, D. & Nigro, A. (U. Messina, Medical School, Italy) **Decondizionamento aspecifico farmacologico.** [Pharmacological deconditioning.] *Rivista di Neurobiologia*, 1970 (Jul), Vol. 16(3), 329-336.—Proposed a neurophysiological theory on the pathogenesis of psychoneurosis, which includes the presence of a state of fusil hypercontrol of muscular activity. On the basis of this hypothesis a form of deconditioning is proposed which would be valid for any type of reaction. This deconditioning would be brought about through pharmacological intervention. 2 preparations should be studied: 1 which could act on the general orientation level of the organism, i.e., the condition of "living out of the past"; and the other should act toward the state of fusil hypercontrol. (English summary)—A. M. Farjaglia.

3255. Rego, A., Guimón, J., Sánchez Vega, J., & Dávila, R. (Martorell Neuropsychiatric Center, Barcelona, Spain) **Tratamiento de las psicosis crónicas y neurosis obsesivas graves con monoclór-imipramina.** [Treatment of chronic psychoses and severe obsessive neuroses with monochlorimipramine.] *Revista de Psiquiatría y Psicología Médica*, 1970 (Jan), Vol. 9(5), 340-357.—35 female inpatients were given iv, then im, and finally oral administrations of anafranil (mono-

chlorimipramine). Pre- and posttreatment ratings of behavior on the Overall and Gorham Brief Psychiatric Rating Scale showed greatest improvement in the group of 11 obsessive neurotics and the 5 patients suffering from paranoid depression. 1 case of catatony responded spectacularly, while another failed to respond. 1 case of hebephrenic schizophrenia improved slightly. Improvement in the remaining 16 patients with process schizophrenia, when present, was slight and temporary. Attention is drawn to the initial effect of anafranil to alleviate anxiety and to the good tolerance shown by patients. (English, French, & German summaries)—L. Zusne.

3256. Schnee, Jack. (American Inst. for Psychoanalysis, New York, N.Y.) **Pharmacological and dynamic factors in psychotropic drug therapy.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 169-177.—Describes the multiple factors to be considered in psychotropic drug treatment including (a) the pharmacology of the drug, including primary effects, side effects, and idiosyncratic sensitivity reactions; (b) the dynamics of drug therapy; and (c) the environmental effects. The significance of these in the total therapeutic situation is considered.—H. Roemmich.

3257. Seidenberg, Robert. (State U. New York, Upstate Medical Center, Syracuse) **Drug advertising and perception of mental illness.** *Mental Hygiene*, 1971 (Jan), Vol. 55(1), 21-31.—Since the advent of psychotropic drugs for the treatment of mental illness, advertisements promoting their usage have provided a great financial advantage for psychiatric and medical journals and societies, in addition to leading to the establishment of a host of drug-industry supported, gratuitously circulated, periodicals. It is contended that many of the advertisements in the above publications suggest the use of these drugs to psychiatrists as well as to other physicians as the "treatment of choice" before psychotherapy or possible social action, often for life situations and problems beyond the traditional medical and psychiatric concepts of illness or disease; this at the very time when such usage by the young and others is being roundly condemned by much of society, including organized medicine. Many of the advertisements appear to reinforce subtly, prejudices against women.—*Journal abstract.*

3258. Soullairac, A., et al. (I.N.S.E.R.M., St. Anne Psychiatric Center, Paris, France) **L'activité posturale au cours de traitements neuroleptiques: Etude expérimentale clinique, psychométrique et statokinésimétrique.** [Postural activity in the course of neuroleptic treatment: An experimental clinical study, psychometric and statokinésimetric.] *Annales Médico-Psychologiques*, 1970 (Mar), Vol. 1(3), 353-364.—The study of 8 patients under heavy neuroleptic treatment for 6 mo. permitted a test of the hypothesis that statokinésimetric and psychomotor measures would reveal infraclinical changes in postural activity. Despite an absence of defects visible on standard neurological examination and the EEG, or clinical signs that the patient group was impregnated with neuroleptic agents, a slowing was found to characterize their psychomotor movements (shown on tests of tapping, manual precision, speed, and coordination). An oculoencephalographic dissociation was also evident following visual stimulation. The reticular structures of the mesencephalon appear to be involved, the importance of which for the regulation of vigilance levels is well known. Although stato-

kinesimetric and psychomotor techniques revealed these insufficiencies clearly at a subclinical level, the question of the correlation of such changes with the efficacy of neuroleptic therapy remains open.—H. E. King.

3259. Usdin, Gene. (Touro Infirmary, New Orleans, La.) **The coin needn't smell: A response to the Seidenberg thesis.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 32-34.—In this response to an article by R. Seidenberg (see PA, Vol. 46:Issue 2) it is argued that if the charge of drug use prior to psychotherapy is true, then the "medical education system and the manufacturers" are to blame. It is agreed that some advertisements may be phony, and they may to some extent persuade as well as inform. It is concluded that it is "something to which we should continue to provide careful attention."—A. M. Cawley.

HOSPITAL CARE & INSTITUTIONALIZATION

3260. Bartz, Wayne R. (DeWitt State Hosp., Auburn, Calif.) **A small-group approach on state hospital wards.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 390-393.—In the small-group approach, hospitalization is seen essentially as a temporary measure, and success in the ward program suggests readiness to return again to society. A program organized around 2 small groups that included from 8-13 members is discussed, and favorable follow-up data for all patients taking part in the program over a 13-mo period are reported. Several of the program's features are: Self-help and dependence upon the patient's own abilities and their group rather than upon staff members was encouraged. Ward problems were first handled by the patient groups, then by the ward nursing staff. Weekly team meetings, including a social worker, ward physician, psychologist, and the ward nursing staff were held, with the ward physician as coordinator of the team activities. Patients elected their own group chairmen and some meetings were held without staff member attendance. A mailbox and note system provided a means of communication, and the group's reactions and recommendations were returned to the staff for discussion in the staff group meetings. A level system of greater responsibility was designed to reflect a realistic life situation in a relatively simple and clear-cut format. Follow-up data showed a return rate from the small-group ward of approximately 39%, while the return rate for the other wards in the hospital was approximately 53%.—R. B. Sivley.

3261. Bigelow, Newton & Roberts, Edwin. (Marcy State Hosp., N.Y.) **The state hospital golf course.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 327-336. Discusses the essentials for organizing and developing the most impressive part of a full recreational armamentarium, the hospital golf course. It is felt that at the Marcy State Hospital patients get better care because more staff and employees are healthier and freer of tension, as are the participating patients. *Journal summary*.

3262. Blatt, Vivian M. (Lakin State Hosp., W. Va.) **VISTA workers camp with patients.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 182-183. Focuses on a pilot camping program, in which 32 patients spent 4 days at a camp 12 miles from the hospital. The success of the 1st camp led to the establishment of a camping program in which all state establishments in West Virginia participate.—B. A. Burkard.

3263. Brice, James A. & Gonda, Harry H. (Suffolk Psychiatric Hosp., Central Islip, N.Y.) **New state hospital develops comprehensive county program.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(6), 184-185.

3264. Check, Frances E., Maxwell, Robert, & Weisman, Richard. (New Jersey Neuro-Psychiatric Inst., Princeton) **Carpeting the ward: An exploratory study in environmental psychiatry.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 109-118. Recently, attention has been directed toward the consequences of the physical environment of the psychiatric ward for the attainment of psychotherapeutic goals, but little progress has been made in delineating the social process variables involved. This is an exploratory study aimed at helping investigators develop basic theoretical and methodological approaches, and is concerned with the social processes associated with the introduction of carpeting to chronic wards at 2 state hospitals. 2 classes of social variables appeared relevant to the differential success of the carpeting in 2 settings: (a) what might be called "definitions of the situation," and (b) social organizational variables.—*Journal abstract*.

3265. Chimenz, B. (U. Messina, Italy) **Ruolo delle condizioni socio-familiari in rapporto alla riammissione in ospedale psichiatrico.** [Role of socio-familial conditions in relationship to readmission to psychiatric hospitals] *Neuropsychiatria*, 1968(Oct), Vol. 2(4), 909-915. Readmission to psychiatric hospital in 300 patients of a mental hygiene clinic was related to: (a) lower socioeconomic status, (b) lack of adequate treatment, and (c) poor family finances. After treatment in the mental health clinic a startling decrease in admission to the psychiatric hospital was found. (French, English, & German summaries)—L. L'Abate.

3266. Dunigan, Janeth. (Case Western Reserve U.) **Mental hospital career and family expectations.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3047-3048.

3267. Gálfi, Béla. (Health Ministry Labor Therapy Inst., Pomáz, Hungary) **Páros kapcsolatok nyitott pszichiátriai osztályon.** [Dyadic associations in open psychiatric wards] *Psychologiai Tanulmányok*, 1967, No. 10, 555-558.

3268. Goldenberg, Mauricio & Shukl, Carlos F. ("Professor G. Araoz" Alfaro Hosp., Lanús, Argentina) **Setting up a psychiatric service in a general hospital.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 85-90. Establishing a psychiatric service in a general hospital requires a 2-pronged attack on the "internal" and "external" fronts. Described in detail are the efforts made to make the service acceptable and available to other services in the hospital and to the community at large.—*Journal abstract*.

3269. Gralnick, Alexander & D'Elia, Frank. (High Point Hosp., Port Chester, N.Y.) **A psychoanalytic hospital becomes a therapeutic community.** *Hospital & Community Psychiatry*, 1969(May), Vol. 20(5), 144-146. Basic to the psychotherapeutic hospital's organization is "the belief of the administrator and the medical staff that the process of mental illness originates in a staff that the process of mental illness originates in a noxious environment and therefore may be arrested and reversed in an environment that is in harmony with the patient's real needs." The characteristics of a psychotherapeutic hospital which create its therapeutic qualities is the main focus of the article. The psychiatrist as administrator is the authority on whom all responsibility

ultimately falls. The qualifications of an effective administrator are stressed.—*B. A. Burkard.*

3270. **Grimson, Wilbur R.** (National Inst. of Mental Health, Buenos Aires, Argentina) **La transformación del hospital psiquiátrico: Una experiencia de comunidad terapéutica.** [Transformation of a psychiatric hospital: An experience of therapeutic community.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Dec), Vol. 16(4), 354-360.—Describes the reorganization of a psychiatric hospital into a therapeutic community: there was a flattening in the authoritarian hierarchy, a free flow of communication through all channels; the patients assumed several responsibilities, including care of themselves and of their sleeping quarters. Community meetings, physiotherapy, group therapy, and recreational activities were established. (16 ref.).—*V. A. Colotta.*

3271. **Hasbargen, Arthur.** (Kankakee State Hosp., Mental Retardation Div., Ill.) **Educational considerations in discharging juveniles.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 401.—Discusses which educational factors are most needed to be considered by the staff in planning for the discharge of juveniles from a psychiatric hospital. Remedial and supportive services are likely to be needed for the majority of juvenile patients returning to community schools. Other considerations include: (a) whether or not some visual, hearing, or orthopedic problems are present; (b) behavioral and physical factors relating to classroom performance; (c) timing of the youngster's discharge; and (d) whether to communicate with the school where the youngster is to be placed. It is suggested that if the school has a psychologist, consultant psychiatrist, or clinically trained counselors or teachers, the hospital may transmit such information as the following: description of the child's behavior, intelligence level, results of other pertinent tests, nature and progress of the child's schooling in the hospital, and suggestions the school can carry out to promote the child's educational and emotional growth.—*R. B. Sivley.*

3272. **Heath, Richard M.** (Colorado State Hosp., Pueblo) **Administrative aspects of decentralization.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 109-111.—"Most people agree that decentralization is more a philosophy than a procedure, and that many different procedures can be used effectively, once the principles have been agreed on." The advantages and problems of decentralization and some basic administrative steps that must be taken to accomplish such a major reorganization are included.—*B. A. Burkard.*

3273. **Hess, Roger N.** (Case Western Reserve U.) **Behavior change as a function of the autonomy atmosphere of the mental hospital and the patient's belief in personal control.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3707.

3274. **Hoffling, Charles K.** (St. Louis U., Medical School) **A current problem in milieu therapy.** *Hospital & Community Psychiatry*, 1969(Mar), Vol. 20(3), 78-81.—Focuses on the danger of a psychiatric hospital becoming too much like the outside world. Years ago an emotionally ill patient could behave in his confusion and desperation the way he needed to behave without alienating personnel. Modern milieu therapy must strive to recapture tolerance of deviation when it is in the interest of eventual healing.—*B. A. Burkard.*

3275. **Horn, Anna; Bóna, György, & Tarkovics, Ágnes S.** **Adatok a hospitalizáció káros hatásáról Rorschach-jegyzőkönyvek alapján.** [Data obtained from

Rorschach records concerning the injurious influence of hospitalization.] *Pszichológiai Tanulmányok*, 1967, No. 10, 809-813.

3276. **Kiss-Vámosi, József.** (Occupational Therapy Inst., Pomáz, Hungary) **Pszichiátriai osztály struktúrájának kialakítása: Autodeterminatív organizációes tömegpszichológiai hatótényezők alkalmazása.** [Structuring of a psychiatric-ward complex: Application of autodeterminative organization and mass-psychological action.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 98-106.—A democratic set of rules established in a psychiatric ward proved to be effective in fighting the hospitalization syndrome. (English & Russian summaries)—*M. Moore.*

3277. **Kolb, Lawrence C.** (New York State Psychiatric Inst., New York) **Who should administer psychiatric facilities?** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 170-173.—Psychiatric training would seem to qualify a man to become the ideal professional leader. However, the psychiatrist often lacks knowledge of institutions and organizations as functioning systems, and outside manpower resources are limited. A non-medical administrator guided by a medical board is suggested. "The ultimate dilemma of who is to direct our mental health facilities will be resolved by the public."—*B. A. Burkard.*

3278. **Kraus, Robert F.** (Woman's Medical Coll. of Pennsylvania, Philadelphia) **Informal social groupings on psychiatric wards.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 27-30.—Describes 3 recognizable subgroups of patients in a women's psychiatric ward which could be described in terms of gross behavioral, affective, psychological, and spatial referents. The "wells" were characterized by their ability to behave in a superficially normal manner. They constituted a close knit group which exercised leadership on the ward, were often angry, and denied and projected their illnesses. The "sicks" were more obviously and consistently psychotic with high levels of anxiety and low group cohesiveness. The "intermediates" had few distinctive characteristics, tending to be depressed and apathetic, utilizing withdrawal, isolation, and fantasy as defenses. Interaction of the groups is described. It is concluded that these subgroups may characterize general psychotic social behavior. Other categorizations are mentioned and theories on socially determined psychopathology discussed.—*S. Knapp.*

3279. **Linn, Lawrence S.** (U. Southern California, Medical School) **Measuring the effectiveness of mental hospitals.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 381-386.—12 mental hospitals, located in 11 different states, provided data on 15 different characteristics including (a) release rate, (b) hospital size, (c) ward size, (d) nurses per patient, (e) attendants per patient, (f) doctors' time on ward, (g) staff-patient interaction, (h) ward atmosphere, (i) ward facilities, (j) open-door policy, (k) patient mobility, (l) smoking restrictions, (m) patients in therapy, (n) patients working, and (o) poorly-groomed patients. A matrix of rank-order correlations was created, and findings suggested that there are 2 major clusters of characteristics that seem to relate to 2 different hospital goals. Cluster 1 included the size of the hospital, the amount of staff attention to patients, and the amount of patient involvement in hospital activities; this cluster was significantly related to the rapid release of patients. Cluster 2 was less concrete, involving such factors as

hospital atmosphere, hospital facilities, and human interest policies toward patients. This cluster was not significantly related to patient release rate.—*R. B. Sivley.*

3280. Marshall, Robert J. (Lincoln Hall, Lincolnale, N.Y.) **Stages in the development of a patient government: A case study.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 303-316.—During 10 mo. of evolution of a patient council which represented 90 chronic schizophrenics, 8 stages of development were noted: conception and preparation, inception and helplessness, helplessness and activity, group identification, internal differentiation, omniscience and omnipotence crisis, turning toward reality, and loss of staff support and reorganization. Similar stages were noted in the council's approach to specific major tasks. Parallels between patients' histories and their performance in the council were noted.—*D. Prager.*

3281. Meislin, Jack. (Rockland State Hosp., Orangeburg, N.Y.) **The need for an intermediary institution.** *Hospital & Community Psychiatry*, 1969(Mar), Vol. 20(3), 88-89.—Asserts that both Veterans Administration and state hospitals should help create intermediary facilities on a regional basis. They would be for those whose underlying illness is in remission but who cannot live independently. They would offer various therapeutic, social, and vocational services, including work for pay opportunities.—*B. A. Burkard.*

3282. Nilsen, John A. (Capital District Psychiatric Center, Albany, N.Y.) **Immediate treatment expedites hospital release.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 20-22.—The responsibility to relieve psychiatric symptoms is as binding on physicians as the responsibility to relieve physical distress. A procedure to ensure that new admissions receive prompt and intensive psychiatric treatment is described. The effectiveness of the program is shown by recent release figures. 95% of the patients were discharged, and the rate of readmission within 6 mo. was 19%.—*B. A. Burkard.*

3283. Overbaugh, Thomas E. & Bucher, Bradley. **Use of operant conditioning to improve behavior of a severely deteriorated psychotic.** *American Journal of Occupational Therapy*, 1970(Sep), Vol. 24(6), 423-427.—Attempted to determine if operant techniques could be applied to an extremely deteriorated, elderly psychotic to enable him to acquire behaviors that would aid in more effective functioning in the hospital. A behaviorally debilitated schizophrenic who was not cooperating in a token economy, on a locked ward, was removed from the system and placed upon food and cigarette deprivation. Reinforcement was provided, on a response-contingent basis, for activities appropriate for the token system. After 3 wk. of this treatment, the patient was participating fully in 3 hospital activities. A 9-mo follow-up indicated that the patient had maintained the criterion level of performance in the token system.—*Journal summary.*

3284. Pandiscio, Anna R. (Simmons Coll., School of Social Work) **A strategy for discharging long-term patients.** *Hospital & Community Psychiatry*, 1969(Feb), Vol. 20(2), 62-63.—In August 1965, a building of Boston State Hospital was chosen as the site of a night hospital, which was to be set up as part of a hospital improvement project. The building housed 7 men and 44 women inpatients, aged 17-80 who had been hospitalized 4-48 yr. They were untroublesome, in good contact, and able to care for themselves but had resisted efforts to dehospitalize them. Instead of transferring the patients,

they were moved out of the hospital itself. How the resistance of the patients, staff, and families were dealt with are described. 13 mo. after the project began, all 51 patients had left the building. Of the 41 returned to the community, 13 are living and working independently, 3 work at the hospital, 3 live with their families, 1 is in family care, 1 is in a halfway house, and 16 are in nursing homes. Of the 10 transferred to other hospital buildings, 3 were discharged through an unrelated project, and 7 remain in the hospital.—*B. A. Burkard.*

3285. Rowitz, Louis & Levy, Leo. (Illinois State Pediatric Inst., Chicago) **The state mental hospital in transition: An approach to the study of mental hospital decentralization.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 68-76.—The stages through which a mental hospital passes in the process of decentralization include (a) the development of specialized treatment programs which leads to a concern for organizational accommodation of these programs, (b) the subhospital model is adopted which divides the hospital into large program areas, and (c) decentralized hospital model or unit system.—*A. M. Cawley.*

3286. Royo, D. & Steimer, R. **Quelques aspects rétrospectifs de la morbidité psychiatrique en Suisse.** [Some retrospective views on the incidence of psychiatric diseases in Switzerland.] *Hygiène Mentale*, 1970(Jul), Vol. 59(3), 69-95. Reports results of differences observed between 1950-1954 and 1960-1964 in rates of first admission to psychiatric institutions for 11 categories of mental illnesses. Sex differences within 6 age categories are also provided. For both sexes, the frequency of admission was significantly greater in the age group 20-29 for several types of illnesses. Frequencies in admissions increased with increasing age for women but not for men. Admissions increased among adolescents and young adults in several categories but especially those related to drug abuse. *A. J. Hartman.*

3287. Schulberg, Herbert C. & Baker, Frank. (Harvard Medical School, Lab. of Community Psychiatry, Boston, Mass.) **The changing mental hospital: A progress report.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 159-165. "Is there any evidence that the mental hospital is functioning differently, that its effectiveness has increased, that the way the community perceives it has improved, and that its relationships with other caregivers have been appropriately modified?" A progress report on a long-term project, in which these basic questions concerning the changing mental hospital are studied, is presented. *B. A. Burkard.*

3288. Shaw, Sandra J. (U. Kansas) **Staff conceptions of the role of the institutionalized psychiatric patient and the relationship between predicted patient improvement and perceived conformity to the patient role.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3715-3716.

3289. Silverman, Claire G. **Psychiatric ward environment and patient behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3717.

3290. Spiro, Saul M. (Northern State Hosp., Sedro Woolley, Wash.) **The dual management therapy model: Theme and variations.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 323-332. Describes a different form of dual management of the hospitalized mental patient. The split in management is usually between therapist and administrator. This paper focuses on a different split—between the medical and the psycho-

therapeutic approach (M/P), the latter not necessarily being a physician. This new approach is believed to facilitate the treatment of the hospitalized patient. It is suggested that the therapy-administrator split is anachronistic, confusing, and inefficient. The M/P split is efficient, efficacious, and instructive. (19 ref.)—*D. Prager.*

3291. Stanton, Duncan & Vetter, Harold J. (Florida State U.) **The mental health specialist as consultant in a chronic disease hospital.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 282-296.—Reviews some of the problems encountered by the mental health specialist who enters into a consultational relationship with the personnel in a nonpsychiatric chronic disease hospital. The mental health problems characteristically encountered in the chronic disease hospital and the general nature of such an institution are contrasted with those of the typical long-term psychiatric facility. Chronic disease hospital consultation with both individuals and groups is discussed and various instrumental aspects are related to these settings. Considerations for the design and continuation of a mental health consultation program are presented, and learning theory is suggested as a possible approach to chronic disease hospital consultation. (56 ref.)—*Journal summary.*

3292. Thompson, Lorene. (Topeka State Hosp., Kan.) **Training patients for maintenance jobs.** *Hospital & Community Psychiatry*, 1969(May), Vol. 20(5), 155.—Patient trainees are responsible for all cleaning and some repair work in assigned areas of Topeka State Hospital as part of a formal training program. The more dependent patients can gain confidence as they acquire work skills in a supportive setting.—*B. A. Burkard.*

3293. Völgyesi, Ferenc. (Péterfy Sándor Hosp., Budapest, Hungary) **A pszichés áthangolás és a stressz.** [Mental returning and stress.] *Pszichológiai Tanulmányok*, 1967, No. 10, 569-573.

3294. Wilson, Earl D. & McCulley, Charlene. (Lincoln State Hosp., Nebr.) **The use of patient-teachers in a maximum-security psychiatric unit.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 25-26.—Describes the use of patients as teachers of other patients in a mental hospital ward in which behavior-therapy techniques had been introduced. Patients were assigned to teach the telling of time, counting, simple arithmetic, and basic reading skills to various brain damaged or retarded patients on the ward. Basic teaching aids and skills were supplied to the teacher. 2 cases are described and their benefits to both teacher and student outlined. It is concluded that the program was successful in increasing the capabilities of the students and provided meaningful activity to the teachers.—*S. Knapp.*

3295. Wilson, Wayne M. & Helm, Stanley T. (National Inst. of Mental Health, Div. of Narcotic Addiction & Drug Abuse, Chevy Chase, Md.) **An alcoholism program tailored to community needs.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 406-408.—Suggests a comprehensive conceptualization as a promising way to deal with alcoholism and drug dependence. A demonstration program at the Mendocino State Hospital is described. In an 8-yr period, voluntary admissions rose from 600 to over 3500 a yr., suggesting that when a program is designed to meet their needs, alcoholics will seek it out. Among the problems cited was the necessity of staff members dealing with their own awareness of how they were protecting themselves against having to serve alcoholics. Their own

excuses for rejecting them, such as labeling them ineligible, describing them as unsuitable for treatment, and saying they were unmotivated had to be dealt with. At first, commitment was insisted on, but it is generally agreed now that voluntary admission is preferable. A 60-day program is carried out, with a variety of treatment modalities, e.g., family therapy, social group therapy, therapeutic community, psychodrama, behavior modification, synanon-type games, marathon sessions, and encounter groups. The treatment modality should be matched to the therapist as well as to the patient. Aftercare appointments improved from 10-95% when arrangement was made for a community social worker and an indigenous alcoholism worker to come to the hospital before a patient was released to get acquainted with him. It is further emphasized that a community mental health agency treating alcoholics cannot confine treatment to set office hours; therapists must be available during the alcoholic crisis for therapeutic intervention. Services of AA may be utilized as part of the treatment plan.—*R. B. Sivley.*

3296. Winston, Arnold & Papernik, Daniel S. (Kings County Hosp. Center, Brooklyn, N.Y.) **Establishing a therapeutic community in a municipal hospital.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 397-400.—Describes a therapeutic community in a 19-bed, urban hospital. Staffed by 2 supervising psychiatrists, 4-6 psychiatric residents, 2 social workers, 2 psychologists, 1 secretary, and a nursing staff, the unit has, since June 1967, developed from a traditional psychiatric unit to the present therapeutic community. Regular meetings are held, with patient officers often functioning as chairmen. Both staff and patients voice their opinions and attempt to answer other patients' questions directly. Various administrative changes have taken place gradually, though staff resistance had to be overcome at some points. Also patients felt that the staff were abdicating the responsibilities and that the burden was too great for patients to assume at times. Community meetings do not replace individual or group psychotherapy, as these continue. The hospital staff feels that this program demonstrates that a municipal hospital can provide a therapeutic community and an adequate aftercare program.—*R. B. Sivley.*

3297. Wiseman, Richard J. (State Dept. of Mental Health, Hartford, Conn.) **Connecticut Service Corps helps patients build a camp.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 180-182.

PSYCHOANALYTIC INTERPRETATION

3298. Aberastury, Arminda. (Copérnico 2360, 6° "A," Buenos Aires, Argentina) **La importancia de la organización genital en la iniciación del complejo de Edipo temprano.** [The importance of genital organization in the initiation of the early Oedipus complex.] *Revista de Psicoanálisis*, 1970(Jan), Vol. 27(1), 5-25.—Develops personal views, while reevaluating and modifying those of Freud, Klein, and others, on the organization of the early genital phase, and the influence of dentition and genitality upon initiation of the Oedipus complex both in female and male infants, thus favoring the onset of heterosexuality. This early genital organization, occurring between the oral and anal phases (in the 2nd yr. of the 1st yr.), and manifested by exhibitionism, voyeurism, body exploration, masturbation, projective identification with the primal scene, and play

activity, precedes the perverse-polymorphous phase (accounting for the meaning Heimann attaches to primary anal organization), and offers a new approach to frequent disturbances occurring during the 2nd $\frac{1}{2}$ of the 1st yr. of life which had hitherto been related to orality, but which can be understood only by including the phenomenon of castration anxiety. (English & French summaries) (29 ref.)—*T. N. Webster.*

3299. **Bick, Esther.** (36 Compayne Gardens, London, England) **La experiencia de la piel en las relaciones de objeto tempranas.** [Experience of the skin in early object relations.] *Revista de Psicoanálisis*, 1970(Jan). Vol. 27(1), 111-117.—In all patients with disturbed 1st-skin formation, severe disturbance of the feeding period is indicated by analytic reconstruction, though not always observed by the parents. This faulty skin-formation produces a general fragility in later integrations and organizations. It manifests itself in states of unintegration as distinct from regression involving the most basic types of partial or total, unintegration of body, posture, motility, and corresponding functions of mind, particularly communication. The "2nd skin" phenomenon which replaces the 1st-skin integration, manifests itself as either partial or total type of muscularity. Analytic investigation of the 2nd-skin phenomenon tends to produce transitory states of unintegration. Only an analysis which perseveres to thorough working-through of the primal dependence on the maternal object can strengthen this underlying fragility. It must be stressed that the containing aspect of the analytic situation resides especially in the setting and is therefore an area where firmness of technique is crucial. (French summary)—*English summary.*

3300. **Goldstein, Raquel Z.** (Peña 2452, 6°, "12." Buenos Aires, Argentina) **Demian: El mito de la latencia y la adolescencia: Versión literaria del tratamiento psicoanalítico del autor.** ["Demian": The myth of latency and adolescence: Literary version of the author's psychoanalytic treatment.] *Revista de Psicoanálisis*, 1970(Jan), Vol. 27(1), 119-140.—Discusses the way in which Herman Hesse, in *Demian*, unconsciously gave a literary version of his own analytic treatment. To that purpose, this study deals with an analysis of the novel and the function it performed for its author. Certain problems inherent in the passage from latency into adolescence are noted. The obstacles are discussed which Sinclair, the main character, faces in order to achieve an adequate maturity, which is replaced by the idealization of a narcissistic homosexual attachment, with incestuous, masturbatory, and thanatic contents. It is suggested that the novel is in the nature of a resistance, an acting out of Hesse's ongoing analytic treatment, which he symbolizes with different models. Hesse develops an ideology designed to institutionalize homosexuality and narcissism through an attempt to seduce the reader. (French summary)—*English summary.*

3301. **Hermann, Imre.** **Újabb adatok a magyar lélektan történetéhez: Alom és álommagyarázat a régi magyar irodalomban.** [New contributions to the history of Hungarian psychology: Dream and dream interpretation in old Hungarian literature.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 459-461.—Describes dreams reported in 18th century Hungarian literature along with relevant quotations from medical texts of the same period.—*M. Moore.*

3302. **Kaufmann, Pierre.** (U. Nanterre, School of Letters & Humane Sciences, France) **La théorie freudi-**

enne de la culture. [The Freudian theory of culture.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(9 10), 549-559.—Describes the development of social values, ethics, and mores from the viewpoint of Freudian theory.—*R. E. Smith.*

3303. **Laplanche, J.** **La sexualité: I-IV.** [Sexuality: I-IV.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(9 10), 489-501, 591-603.—Presents 4 lectures on sexuality from the Freudian point of view. Freud's cases of Anna O. and Elizabeth are discussed.—*R. E. Smith.*

3304. **Laplanche, J.** **La sexualité: V.** [Sexuality: V.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 683-687.—Presents the 5th in a series of lectures on sexuality from the Freudian viewpoint. Childhood "seduction," the Oedipus complex, the primal scene, and similar concepts are discussed.—*R. E. Smith.*

3305. **Moulton, Ruth.** (William Alanson White Inst., New York, N.Y.) **A survey and reevaluation of the concept of penis envy.** *Contemporary Psychoanalysis*, 1970(Fal), Vol. 7(1), 84-104.—Surveys the theories of Freud, Horney, Josine Muller, Carl Muller-Brown, Schweig, Greenacre, Kestenberg, Dooley, Mary Jane Sherfey, Melanie Klein, Lorand, and Clara Thompson on penis envy. Suggestion is made that penis envy as an "evanescent phase" may occur with little girls' awareness of its existence, is part of childhood curiosity, and may be transitory if the role as a girl is satisfying. No significant conflict will result if healthy growth ensues. However, under certain circumstances secondary reinforcing factors which may have importance in a later neurotic problem may appear such as sibling rivalry, deep dependency needs for the mother, or disappointment at the hands of a rejecting or remote father. Accepting this approach leads to reevaluation of other assumptions, e.g., that acceptance of passivity and masochism is essential for healthy femininity, the need to change erotic zones, etc. 2 case presentations illustrate this viewpoint. (29 ref.)—*M. J. Stanford.*

3306. **Schwidder, Werner.** (Nieders. Landes-Krankenhaus, Tiefenbrunn/Göttingen, W. Germany) **Vorträge der 20. Lindauer psychotherapiewoche: Regression als Abwehrphänomen.** [Lectures given at the 20th psychotherapy week in Lindau: Regression as a protective phenomenon.] *Praxis der Psychotherapie*, 1970(Aug), Vol. 15(4), 145-150.—Discusses the correlations between regression and fixation. The significance of the concept of regression as a protective phenomenon is stressed in modern psychoanalytic literature by von Viebahn and Kuiper. An earlier study discussed the fact that the protection mechanisms are reactions to inhibited impulse expressions. A case study is presented of a patient who had suffered since early childhood from feelings of neglect, rejection, and isolation, with phases of regression to the early oral state, with an autoerotic object relation. As an outgrowth of the protection mechanism, further sequences appeared which provided points of departure for therapeutic application. It is shown that regression, just as any other protection phenomenon, is embedded in complicated neuroconstructural contexts.—*P. von Toal.*

PSYCHODIAGNOSIS

3307. **Apostal, Robert A.** (U. North Dakota, Dept. of Counseling & Guidance) **Personality descriptions of mental health center patients for use as pre-therapy information.** *Mental Hygiene*, 1971(Jan), Vol. 55(1),

119-120.—Based on a study of 66 terminated patients whose folders contained results of MMPI testing, profile analyses were made for men and for women, to be submitted as pretherapy personality descriptions.—A. M. Cawley.

3308. Brunell, Shirl. (U. Houston) **Measurement of conceptual deficit in brain-damaged and schizophrenic subjects.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4328-4329.

3309. Buckham, H. F. **The Group Personality Projective Test: An Australian application.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 153-154.—Administered the Group Personality Projective Test (GPPT) to 31 delinquent Australian Army soldiers and compared results to a previously reported sample of 430 delinquent or imprisoned individuals from the United States. Analysis of performance reveals that the Australian sample scored significantly higher on the Tension scale, and significantly lower on the Neuroticism and Affiliation scales than the United States sample. Total scores, as well as scores on the Nurturance, Withdrawal, and Succorance scales did not differ between the 2 samples. The high Tension scales of the Australian sample were suggested to be a consequence of testing the day after court-martial; lower Neuroticism and Affiliation scores were attributed to cultural differences. It is concluded that "the results in general indicate an applicability of the GPPT to Australian delinquents and further studies on other populations could prove profitable."—R. Wiltz.

3310. Conforto, C., Giberti, F., Menduni, G., & Seminara, B. (U. Genoa, Italy) **Rilevati sull'applicazione ambulatoriale del MMPI.** [Comments of the application of the MMPI on an outpatient basis.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 763-778.—Out of 124 MMPI profiles, a small percentage was invalid. A significant agreement was found between psychometric and clinical diagnosis, especially in psychotic patients. However, such an agreement decreased in the diagnosis of borderline and neurotic patients. The profiles of depressed patients are discussed.—L. L'Abate.

3311. Davis, Kenneth R. & Sines, Jacob O. (Willmar State Hosp.) **An antisocial behavior pattern associated with a specific MMPI profile.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 229-234.—Describes a narrowly defined MMPI profile and the behavior pattern associated with it in a state hospital, a state prison, and a university medical center. The MMPI 4-3 profile pattern, with the psychopathic deviate and hysteria scales elevated in a particular configuration, entailed a behavior pattern that includes hostile-aggressive acting out. The hostile-aggressive behavior pattern characterized most of the 60 male Ss with this MMPI profile in each of 3 settings studied. The frequency of this profile pattern and the social and psychological importance of the behavior pattern associated with it suggest that clinical investigators can profitably study this group of Ss. The method used to establish the relationship between this particular MMPI profile and the hostile-aggressive behavior pattern is recommended for more general use.—*Journal abstract.*

3312. Enachescu, Constantin. ("Pr Dr G. Marinescu" Hosp., Psychiatric Section of Bălăceanca, Bucharest, Romania) **Analyse psychopathologique des rêves et des états oniro-hallucinatoires dans la peinture des malades mentaux.** [Psychopathological analysis of dreams and oniro-hallucinatory states by drawings of the mentally ill.] *Annales Médico-Psychologiques*, 1970(Feb),

Vol. 1(2), 185-232.—Dreams of psychopathological Ss offer a useful aid to diagnosis and can help to guide a program of therapy. Neurotic dreams have been well-studied, but comparatively little attention has been given to the dreams of psychotic patients, although they offer in pure form (no entry of reality) a glimpse of the troubled intrapsychic state. Drawings made of dreams by patients suffering with toxic psychoses, psychoneuroses and psychoses reveal a nosologic specificity. They differ fundamentally from similar productions made by healthy individuals. Despite the obstacle that such reports must be derived from patients with a disturbed waking state, they are superior to merely verbal reports of thought content and relationships obtained by the usual interview. Sample drawings and their psychopathological analyses are offered for schizophrenic, depressive, toxic-psychoneurotic, and other psychopathological conditions.—H. E. King.

3313. Ernhart, Claire B. (U. Missouri, St. Louis) **The Peabody Picture Vocabulary Test: Automated application in a statewide psychiatric system.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 317-320.—The Peabody Picture Vocabulary Test (PPVT) is easily and quickly administered by trained subprofessional personnel and is quite acceptable to most patients. The PPVT correlated .86 with the Full Scale IQ scores of the WAIS.—D. Prager.

3314. Fagiani, M. B. & Ravizza, L. (U. Turin, Inst. of Clinical Psychiatry, Italy) **Il test di Rorschach negli etilisti.** [The Rorschach test of alcoholics.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 741-761.—Chronic alcoholics displayed little ability to formulate abstract thoughts. Superficial thinking predominated over affectivity. The latter was characterized by inhibition, immaturity, lability, and egocentricity. Fantasy was the defense most used to escape feelings of inferiority. (French, English, & German summaries) (18 ref.)—L. L'Abate.

3315. Fleiss, Joseph L., Lawlor, William; Platman, Stanley R., & Fieve, Ronald R. (New York State Dept. of Mental Hygiene, Biometrics Research, New York, N.Y.) **On the use of inverted factor analysis for generating typologies.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 127-132.—Inverted, or Q-, factor analysis has been 1 of the most frequently employed methods in numerical typology. Its application to a sample of 52 manic-depressives using data from a battery of tests, including the MMPI and structured clinical interview, yielded 5 types which seemed to make clinical sense. Examination of the data, however, pointed to the existence of just 1 type of depressives and either 1 or 2 types of manics. It is concluded that the data must be examined for heterogeneity before an exercise in numerical typology is undertaken. If the univariate and multivariate distributions on all variables for a sample are unimodal and symmetric, then the sample is most likely homogeneous as far as the variables employed are concerned, and it would be hard to justify using the given data for generating types. If the data suggest the existence of types, then a method other than inverted factor analysis might better be used to find them. Some problems in validating numerically derived typologies are discussed. (25 ref.)—*Journal abstract.*

3316. Graham, John R. (Kent State U.) **Feedback and accuracy of clinical judgments from the MMPI.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 286-291.—21 judges from each of 3 clinical

experience levels judged 90 MMPI profiles as being either neurotic or psychotic. Judges receiving feedback after each trial achieved a higher accuracy rate than judges receiving no feedback. Although experience level was not significant as a main effect, the differences among feedback groups were greatest for the more experienced judges. Accuracy increased as a function of number of trials, but the greatest accuracy achieved by any group of judges after 90 trials was 72%. Several possible reasons for the low accuracy rates are suggested. (24 ref.)—*Journal abstract.*

3317. Kleininger, Ottó. (Debrecen U. of Medicine, Hungary) **A debilítás és pszichopátia differenciál-diagnosztikai problémái.** [Differential diagnostic problems of debility and psychopathy.] *Pszichológiai Tanulmányok*, 1967, No. 10, 615-620.

3318. Lachar, David. (U. Minnesota) **The development of a Childhood Psychosis Scale, using the Personality Inventory for Children (PIC).** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4340.

3319. Mercer, Jack. (Illinois Inst. of Technology) **Faking ability on the MMPI and prognosis in a state hospital population.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3710-3711.

3320. Morra Pellegrino, M. L. (U. Genoa, School of Medicine & Surgery, Italy) **Studio analitico dell'intelligenza di adolescenti antisociali per mezzo della scala di Wechsler-Bellevue.** [Analytic study of intelligence in antisocial adolescents with the Wechsler-Bellevue scale.] *Neuropsichiatria*, 1968(Oct), Vol. 24(4), 729-739.—Compared the Wechsler-Bellevue Intelligence Scale scores of 375 14-18 yr. old delinquent boys to those of 293 controls. Delinquents showed lower IQ scores, and were relatively higher on Performance scale scores than on Verbal scale scores. (French, English, & German summaries) (15 ref.)—L. L'Abate.

3321. Painton, Max B. (U. Oklahoma) **A clinical validation of the Szondi test.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3712.

3322. Pelc, Robert E. (Fitzsimons General Hosp., Denver, Colo.) **Advancement along a complexity gradient in perceptual level and brain damage.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 251-254.—A comparison of human figure drawings of 40 brain-damaged, 40 psychiatric, and 40 normal Ss. employing a modification of the Goodenough Draw-a-Person Test, suggested a regression in perceptual maturity along a complexity gradient for the brain-damaged while other cognitive processes were essentially unaffected. Bender-Gestalt scores, computed using the Pascal and Suttell method, were compared with the complexity ratings for brain-damaged and psychiatric Ss. Reproduction of visual stimuli was significantly correlated to the level of complex form perception.—*Journal abstract.*

3323. Szabó, Pál. **A lassúbb pszichés fejlődés koral felismerésének prognosztikus jelentősége az iskolaérettség szempontjából.** [Prognostic significance of recognizing early signs of retarded psychic development.] *Pszichológiai Tanulmányok*, 1967, No. 10, 367-371.

3324. Tupin, Joe P., Overall, John E., & Patrick, Jerry H. (U. Texas, Medical School, Galveston) **Data processing enhances clinical evaluations.** *Hospital & Community Psychiatry*, 1969(Feb), Vol. 20(2), 64-65.

3325. Watkins, Julia M. (U. Utah) **Comparison of a normal and emotionally disturbed sample of chil-**

dren using the Plenk scoring system for the Bender Gestalt Test. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2750.

3326. Zimmermann, Robert L. (U. Minnesota) **Validation of family ratings of psychiatric patients.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4352.

BEHAVIOR DISORDER

3327. György, Júlia. (Eötvös Lóránd U., Budapest, Hungary) **Az antiszociális állapotok okairól, patomechanizmusáról és strukturális sajátosságairól.** [On the causes, pathomechanisms and structural characteristics of antisocial states.] *Pszichológiai Tanulmányok*, 1967, No. 10, 717-725.

3328. Halleck, Seymour. (Wisconsin Div. of Corrections, Madison) **Stimulus/response: You can go to hell with style.** *Psychology Today*, 1969(Nov), Vol. 3(6), 16, 70-73. The "stylist" is a new form of behavioral disorder found among college students who focus on style without content. Frequently the stylist demands immediate relevance and easily becomes bored. He seldom possesses any depth of interest in activities which would permit a beginning of a rectification of the problems he diagnoses so well. This disorder is partially caused by society's emphasis on immediacy and by current uncertainties about the future.—L. J. Posner.

3329. Jenkins, Richard L. (U. Iowa) **Typen von Verhaltensstörungen bei Kindern.** [Types of children's behavior disturbances.] *Aerzenztz*, 1969(May), Vol. 40(5), 197-203. Discusses the relationship of 6 symptomatic types of children's behavior to characteristic family situations. The overanxious type is usually found in educated middle-class families, where high goals of success are stressed. These children feel that their acceptance depends on their reaching high goals. The withdrawing type is found where life does not offer enough satisfaction. Parents appear to such children to be strange, uninteresting, and inclined to mete out hard punishments. The hyperkinetic type is the usual result of slightly diffused brain damage. The unsocially-aggressive type results from the rejection of a child by his parents who may also, however, be overprotective. Runaway children suffer, as a rule, from a direct rejection from their parents. A delinquent group reaction is usually the result of group rebellion of young people due to lack of parental supervision. Problems of treating such children are discussed. (18 ref.)—P. von Foel.

3330. Liebermann, Lucy P. (Medical U. of Budapest, Children's Clinic, Hungary) **Gyermek- és ifjúkori magatartási zavarok komplex terápiája.** [Complex therapy of behavioural disorders of children and adolescents.] *Pszichológiai Tanulmányok*, 1967, No. 10, 729-732.

Drug Addiction

3331. Jaffe, Jerome. (U. Chicago, Pritzker Medical School) **Whatever turns you off.** *Psychology Today*, 1970(May), Vol. 3(12), 42-44, 60-62. Since it is likely that drug users have heterogeneous motivations for taking drugs, a multimodal approach to drug abuse taking drugs, a multimodal approach to drug abuse would be useful. Major current methods include (a) drug substitution programs such as methadone maintenance, (b) prevention of narcotic action by an antagonist drug such as cyclazocine, (c) compulsory

119-120.—Based on a study of 66 terminated patients whose folders contained results of MMPI testing, profile analyses were made for men and for women, to be submitted as pretherapy personality descriptions.—*A. M. Cawley.*

3308. Brunell, Shirl. (U. Houston) **Measurement of conceptual deficit in brain-damaged and schizophrenic subjects.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4328-4329.

3309. Buckham, H. F. **The Group Personality Projective Test: An Australian application.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 153-154.—Administered the Group Personality Projective Test (GPPT) to 31 delinquent Australian Army soldiers and compared results to a previously reported sample of 430 delinquent or imprisoned individuals from the United States. Analysis of performance reveals that the Australian sample scored significantly higher on the Tension scale, and significantly lower on the Neuroticism and Affiliation scales than the United States sample. Total scores, as well as scores on the Nurturance, Withdrawal, and Succorance scales did not differ between the 2 samples. The high Tension scales of the Australian sample were suggested to be a consequence of testing the day after court-martial; lower Neuroticism and Affiliation scores were attributed to cultural differences. It is concluded that "the results in general indicate an applicability of the GPPT to Australian delinquents and further studies on other populations could prove profitable."—*R. Wiltz.*

3310. Conforto, C., Ghiberti, F., Menduni, G., & Seminara, B. (U. Genoa, Italy) **Rilevi sull'applicazione ambulatoriale del MMPI.** [Comments of the application of the MMPI on an outpatient basis.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 763-778.—Out of 124 MMPI profiles, a small percentage was invalid. A significant agreement was found between psychometric and clinical diagnosis, especially in psychotic patients. However, such an agreement decreased in the diagnosis of borderline and neurotic patients. The profiles of depressed patients are discussed.—*L. L'Abate.*

3311. Davis, Kenneth R. & Sines, Jacob O. (Willmar State Hosp.) **An antisocial behavior pattern associated with a specific MMPI profile.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 229-234.—Describes a narrowly defined MMPI profile and the behavior pattern associated with it in a state hospital, a state prison, and a university medical center. The MMPI 4-3 profile pattern, with the psychopathic deviate and hysteria scales elevated in a particular configuration, entailed a behavior pattern that includes hostile-aggressive acting out. The hostile-aggressive behavior pattern characterized most of the 60 male Ss with this MMPI profile in each of 3 settings studied. The frequency of this profile pattern and the social and psychological importance of the behavior pattern associated with it suggest that clinical investigators can profitably study this group of Ss. The method used to establish the relationship between this particular MMPI profile and the hostile-aggressive behavior pattern is recommended for more general use.—*Journal abstract.*

3312. Enachescu, Constantin. ("Pr Dr G. Marinescu" Hosp., Psychiatric Section of Bălăceanca, Bucharest, Romania) **Analyse psychopathologique des rêves et des états oniro-hallucinatoires dans la peinture des malades mentaux.** [Psychopathological analysis of dreams and oniro-hallucinatory states by drawings of the mentally ill.] *Annales Médico-Psychologiques*, 1970(Feb),

Vol. 11(2), 185-232. Dreams of psychopathological Ss offer a useful aid to diagnosis and can help to guide a program of therapy. Neurotic dreams have been well-studied, but comparatively little attention has been given to the dreams of psychotic patients although they offer in pure form (no entry of reality) a glimpse of the troubled intrapsychic state. Drawings made of dreams by patients suffering with toxic psychoses, psychoneuroses, and psychoses reveal a nosologic specificity. They differ fundamentally from similar productions made by healthy individuals. Despite the obstacle that such reports must be derived from patients with a disturbed waking state, they are superior to merely verbal reports of thought content and relationships obtained by the usual interview. Sample drawings and their psychopathological analyses are offered for schizophrenic, depressive, toxic-psychoneurotic, and other psychopathological conditions.—*H. E. King.*

3313. Ernhart, Claire B. (U. Missouri, St. Louis) **The Peabody Picture Vocabulary Test: Automated application in a statewide psychiatric system.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 317-320.—The Peabody Picture Vocabulary Test (PPVT) is easily and quickly administered by trained subprofessional personnel and is quite acceptable to most patients. The PPVT correlated .86 with the Full Scale IQ scores of the WAIS.—*D. Prager.*

3314. Fagnani, M. B. & Ravizza, L. (U. Turin, Inst. of Clinical Psychiatry, Italy) **Il test di Rorschach negli etilisti.** [The Rorschach test of alcoholics.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 741-761.—Chronic alcoholics displayed little ability to formulate abstract thoughts. Superficial thinking predominated over affectivity. The latter was characterized by inhibition, immaturity, lability, and egocentricity. Fantasy was the defense most used to escape feelings of inferiority. (French, English, & German summaries) (18 ref.)—*L. L'Abate.*

3315. Fleiss, Joseph L., Lawlor, William; Platman, Stanley R., & Fieve, Ronald R. (New York State Dept. of Mental Hygiene, Biometrics Research, New York, N.Y.) **On the use of inverted factor analysis for generating typologies.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 127-132.—Inverted, or Q-, factor analysis has been 1 of the most frequently employed methods in numerical typology. Its application to a sample of 52 manic-depressives using data from a battery of tests, including the MMPI and structured clinical interview, yielded 3 types which seemed to make clinical sense. Examination of the data, however, pointed to the existence of just 1 type of depressives and either 1 or 2 types of manics. It is concluded that the data must be examined for heterogeneity before an exercise in numerical typology is undertaken. If the univariate and multivariate distributions on all variables for a sample are unimodal and symmetric, then the sample is most likely homogeneous as far as the variables employed are concerned, and it would be hard to justify using the given data for generating types. If the data suggest the existence of types, then a method other than inverted factor analysis might better be used to find them. Some problems in validating numerically derived typologies are discussed. (25 ref.)—*Journal abstract.*

3316. Graham, John R. (Kent State U.) **Feedback and accuracy of clinical judgments from the MMPI.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 286-291.—21 judges from each of 3 clinical

experience levels judged 90 MMPI profiles as being either neurotic or psychotic. Judges receiving feedback after each trial achieved a higher accuracy rate than judges receiving no feedback. Although experience level was not significant as a main effect, the differences among feedback groups were greatest for the more experienced judges. Accuracy increased as a function of number of trials, but the greatest accuracy achieved by any group of judges after 90 trials was 72%. Several possible reasons for the low accuracy rates are suggested. (24 ref.)—*Journal abstract.*

3317. Kleininger, Ottó. (Debrecen U. of Medicine, Hungary) **A debilítás és pszichopátia differenciáldiagnosztikai problémái.** [Differential diagnostic problems of debility and psychopathy.] *Pszichológiai Tanulmányok*, 1967, No. 10, 615-620.

3318. Lachar, David. (U. Minnesota) **The development of a Childhood Psychosis Scale, using the Personality Inventory for Children (PIC).** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4340.

3319. Mercer, Jack. (Illinois Inst. of Technology) **Faking ability on the MMPI and prognosis in a state hospital population.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3710-3711.

3320. Morra Pellegrino, M. L. (U. Genoa. School of Medicine & Surgery, Italy) **Studio analitico dell'intelligenza di adolescenti antisociali per mezzo della scala di Wechsler-Bellevue.** [Analytic study of intelligence in antisocial adolescents with the Wechsler-Bellevue scale.] *Neuropsichiatria*, 1968(Oct), Vol. 24(4), 729-739. Compared the Wechsler-Bellevue Intelligence Scale scores of 375 14-18 yr. old delinquent boys to those of 293 controls. Delinquents showed lower IQ scores, and were relatively higher on Performance scale scores than on Verbal scale scores. (French, English, & German summaries) (15 ref.)—*L. L'Abate.*

3321. Painton, Max B. (U. Oklahoma) **A clinical validation of the Szondi test.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3712.

3322. Pele, Robert E. (Fitzsimons General Hosp., Denver, Colo.) **Advancement along a complexity gradient in perceptual level and brain damage.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 251-254. A comparison of human figure drawings of 40 brain-damaged, 40 psychiatric, and 40 normal Ss, employing a modification of the Goodenough Draw-a-Person Test, suggested a regression in perceptual maturity along a complexity gradient for the brain-damaged while other cognitive processes were essentially unaffected. Bender-Gestalt scores, computed using the Pascal and Suttell method, were compared with the complexity ratings for brain-damaged and psychiatric Ss. Reproduction of visual stimuli was significantly correlated to the level of complex form perception.—*Journal abstract.*

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3330. Lieberman, Lucy P. (Medical U. of Budapest, Children's Clinic, Hungary) **Gyermek- és ifjúkori magatartási zavarok komplex terápiája.** [Complex therapy of behavioural disorders of children and adolescents.] *Pszichológiai Tanulmányok*, 1967, No. 10, 729-732.

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institutional treatment, and (d) half-way houses run by ex-addicts. This diversity can be traced to differences in opinion about the causes of addiction. However, all have some validity. The author was instrumental in starting a treatment program in which all methods are used so that patients may find the approach which is best for them.—E. J. Posavac.

3332. McDermott, Raphael. **Maintaining the methadone patient: A study of 20 narcotic addicts and their families provides clues to the problems they faced while in a methadone maintenance program.** *Nursing Outlook*, 1970(Dec), Vol. 18(12), 22-26.—Interviewed 20 selected patients on a methadone regime in their homes to ascertain whether they were adjusting to treatment. Since previous epidemiological inquiries had sorted out narcotic history and family background, the interviewer, a public health nurse, concentrated on the current family situation. A wide variety of physiological responses were exhibited and physical and attitudinal extremes manifested. It is suggested that (a) wives of patients on a methadone regimen can be a stabilizing force and lend much support to their husbands; (b) recreation is an important factor in the patient's rehabilitation; and (c) while the methadone program offers protection against readdiction to heroin, there are diversified problems which former addicts encounter in rehabilitating themselves.—S. Diamond.

3333. Rosenthal, Mitchell S. & Biase, D. Vincent. (Addiction Services Agency, New York, N.Y.) **Phoenix houses: Therapeutic communities for drug addicts.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 26-30.—Addicts come into the program through 12 neighborhood storefront units called Phoenix Centers which are manned by former addicts. Encouragement and counseling plus group therapy, called "encounters," are offered. "Candidates for Phoenix House programs usually spend from 1-3 mo. in a center program while they break the drug habit." Treatment at 1 of the 8 Phoenix Houses usually takes 12-18 mo. after which the person is transferred to 1 of 2 Phoenix Reentry Houses for 6-12 mo. for the final phases of social and vocational rehabilitation. The Phoenix Houses are 4 or 5 story tenements which have been renovated by Phoenix House work crews. They are located in neighborhoods that have high rates of drug abuse. Encounters are an important element of the treatment program, as are the work and educational programs.—B. A. Burkard.

3334. Rozecki, Edmund D. (State U. New York, Albany) **A comparison of the effects of short-term counseling with heroin addicts in two settings: Counseling office and living quarters.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2692.

Alcoholism

3335. Goldfarb, Stephen. (U. Kansas) **The alcoholic's perception of time: An exploratory study.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3704-3705.

3336. Hárđi, István & Saághy, Margit. **Dinamikus rajzvizsgálat alkoholistáknál.** [Dynamic drawing test in alcoholics.] *Pszichológiai Tanulmányok*, 1967, No. 10, 777-787.

3337. Kola, Lenore A. (Boston U., Graduate School) **Alcohol instructional set, subjective expectation and tension reduction in alcoholics.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3692-3693.

3338. Parigi, Silvano. (Arezzo Provincial Neuro-psychiatric Hosp., Italy) **Considerazioni sulle alterazioni ipotalamiche e talamiche nella insorgenza del comportamento di gelosia degli alcolisti.** [Hypothalamic and thalamic changes and their possible role in jealous behavioral features of alcoholics.] *Rivista di Neurobiologia*, 1970(Jul), Vol. 16(3), 255-266.—Studied the effects of alcohol which produces lesions in the brain. Experimental pathology in animals indicates that these lesions are formed in the hypothalamic and thalamic regions. On the basis of what is already known about anatomical and functional relationships, the importance of sexuality in alcoholics is studied as well as amorous behavior pattern. Jealousy in love plays a part in the instincts of human beings in the socio-cultural evolution of our race. On a psychopathological level, it is considered an abnormality in amorous behavior. The lesion could represent a motive of interference for the liberation of instinctive behavioral designs, which explains the constant existence of jealousy in the alcoholic occurring with hypothalamic and thalamic lesions. (English summary) (17 ref.)—A. M. Faraglia.

3339. Snibbe, John R. (U. Utah) **The effects of various therapeutic episodes on dependency feelings in alcoholics as measured by four tests.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4345.

3340. Supprian, Ulrich. (Hamburg U., Psychiatric & Neuropathic Clinic, W. Germany) **Über einen Fall von Antabusintoxikation.** [Discussion of a case of antabuse intoxication.] *Nervenarzt*, 1969(Jun), Vol. 40(6), 276-277.—Outlines the course of an antabuse (disulfiram) intoxication due to an overdose. A massive exogenic psychosis and a polyneuritis were caused, and, in contradiction to data contained in the literature, a definite hypertonicity. After a few notes concerning the effect of antabuse, the history, the development of the psychopathological and neurological picture, the chronological continuities of the individual symptoms, the course of healing, and the results of a later examination are discussed. The special characteristics of hypertonicity are pointed out and its etiology is briefly outlined. The case involves a 27-yr-old married woman, who had been an alcoholic for many yr.—P. von Tösl.

3341. Vannicelli, Marsha L. (Tufts U.) **Changes in mood and self-perception of alcoholics: A comparison of sober and intoxicated states.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4348-4349.

Suicide

3342. Close, Henry T. (Georgia Mental Health Inst., Atlanta) **Forgiveness and responsibility: A case study.** *Pastoral Psychology*, 1970(Jun), Vol. 21(205), 19-25. Discusses the case of a 24-yr-old suicidal and depressed girl. The processes of forgiveness and responsibility are analyzed.—O. Strunk.

3343. Kochansky, Gerald E. (Boston U., Graduate School) **Risk-taking and hedonic mood stimulation in suicide attempters.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3709.

3344. Lak, Lajos. (Home Dept., Budapest, Hungary) **Az öngyilkosság okainak vizsgálata.** [Inquiry into the causes of suicide.] *Pszichológiai Tanulmányok*, 1967, No. 10, 621.

3345. Lettieri, Dan J. (U. Kansas) **Affect, attitude**

and cognition in suicidal persons. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3039.

3346. Martínez Pardo, F. **El deterioro intelectual en la intoxicación etílica crónica.** [Intellectual deterioration in chronic alcoholic intoxication.] *Archivos de Neurobiología*, 1970(Jul), Vol. 33(3), 273-279.—Hypothesized that alcoholic deterioration possesses features distinguishing it from general organic deterioration, or schizophrenic or thymic deterioration. The WAIS was administered to 33 30-59 yr. old male alcoholics, recently admitted to a psychiatric hospital (using Wechsler's formula to calculate deterioration). Results indicate that 12 Ss had certain deterioration; 10, possible deterioration; 4, insignificant deterioration; and 7, no deterioration. Scatter and patterns revealed discrepancies between alcoholic and organic deterioration (but not extreme negative deviation in the code and Kohs block subtests). It is concluded that during intoxication the alcoholic's pattern is practically the same as that of the organic brain syndrome, but after withdrawal the pattern varies with reversibility of the deterioration (psychomotor coordination almost completely recovering its normal state). The subtest that showed the most profound and uniform negative deviation was that of immediate memory of numbers, therefore considered to be the most efficient for distinguishing alcoholic deterioration from other types. (English & French summaries)—*T. N. Webster.*

3347. McGee, Richard K. (U. Florida, Coll. of Health Related Professions) **Suicide prevention programs and mental health associations.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 60-67.—Examined and evaluated the activities of mental health associations in 2 states over a 5-yr period. Conclusions indicate that mental health associations are the most appropriate agencies to initiate suicide prevention programs, should as quickly as possible turn them over to other administrative bodies to maintain and support, and should refrain from any continuing management relationship over the program.—*A. M. Cawley.*

3348. Raphling, David L. (5225 Connecticut Ave., Washington, D.C.) **Dreams and suicide attempts.** *Journal of Nervous & Mental Disease*, 1970(Dec), Vol. 151(6), 404-410.—Compared the manifest content of dreams of patients who had attempted suicide with the manifest content of nonsuicidal (but seriously disturbed) patients' dreams. Themes of death, violence, and destruction were found significantly more often ($p < .01$) in the dreams of the suicidal patients. The presence of these themes did not appear to be related to the seriousness of patients' suicide attempts. (35 ref.)—*R. A. Denis.*

3349. Seiden, Richard H. (U. California, Berkeley) **We're driving young blacks to suicide.** *Psychology Today*, 1970(Aug), Vol. 4(3), 24-28.—While overall suicide rates of Negroes is lower than that for whites, young Negroes (ages 15-24) commit suicide at a higher rate than whites. If victim-precipitated homicides are considered suicides, then the young, male Negro suicide rate soars. 2 cases are presented to illustrate how an explosive masculine rage can serve to end life while still exhibiting the norms of the ghetto. The behavior of Black Panthers bears many similarities to the behavior of people precipitating their own murders. Life in the urban ghetto is such that this kind of behavior is foreseeable and indicates that "the nation is in bad trouble."—*E. J. Posavac.*

3350. Siegmund, Georg. (28 Abt-Richard-Str., Fulda-Nevenberg, W. Germany) **Die Frage nach dem Krankheitscharakter des Selbstmordes.** [Type-of-illness problems of suicide.] *Praxis der Psychotherapie*, 1970(Apr), Vol. 15(2), 70-81.—Zilboorg stated in 1936 that suicide was not "antimoral", but an illness, comparable with tuberculosis, an idea expressed already by Goethe in his "Werther" in 1774. Based on data obtained from modern psychiatric practice, it is shown that the percentage of suicidal psychotics is low compared with other cases. Schultze points out, however, that all depressive and schizophrenic types have suicidal tendencies. Findings of this study indicate that suicide is committed mainly out of feelings of inner emptiness, uncertainty, lack of essential goals, and conflict. It is stressed that the percentage of young people committing or attempting suicide is very high, and that suicide may appear as an escape. As a preventive, a task or mission in life is recommended to give life a true value.—*P. von Toal.*

3351. Tabachnick, Norman & Klugman, David. (Los Angeles Suicide Prevention Center, Calif.) **Anonymous suicidal telephone calls: A research critique.** *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 526-532.—In a 1965 study N. Tabachnick and D. Klugman (see PA, Vol. 39:10621) reported on a group of callers to a suicide center who refused to give their names. In a later study by J. Wilkins (see PA, Vol. 44:16936), a replication in another suicide center, none of the conclusions of the 1st study were supported. Problems of method and research replication are discussed. Large scale follow-up studies are in progress and may answer some of the problems.—*E. M. Uprichard.*

Crime

3352. Beit-Hallahmi, Benjamin. (Michigan State U.) **Aggressive and sexual fantasies in violent and non-violent prison inmates.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4353.

3353. Brodsky, Annette M. (U. Florida) **The effect of environmental stimulation on sensation seeking behavior of criminals and noncriminals.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4327.

3354. Eysenck, Sybil G. & Eysenck, H. J. (U. London, Inst. of Psychiatry, England) **Crime and personality: An empirical study of the three-factor theory.** *British Journal of Criminology*, 1970(Jul), Vol. 10(3), 225-239.—Tested the prediction that prisoners would differ from normal controls with respect to 3 personality variables: psychoticism, extroversion, and neuroticism. 603 male prisoners were tested and compared with 3 control groups, consisting of 534 married men, 423 students, and 185 unmarried industrial apprentices. It was considered that no single group presented a good match for the prisoners, but that results from 3 such diverse control groups would throw more light on the personality differences hypothesized. Results strongly supported the hypothesis that prisoners would have higher Neuroticism scores, and only weakly supported the hypothesis that prisoners would have higher Extroversion Scale scores. It was argued that the smallness of the differences observed with respect to extroversion might not necessarily invalidate the hypothesis under investigation, and reasons were adduced why questionnaire measurements of extroversion in prisoners might present unusual difficulties.—*R. Gunter.*

3355. Ferracuti, Franco. (U. Rome, Law School, Italy) **Criminal violence.** *Bolettino di Psicologia Applicata*, 1970(Feb), No. 97-99, 33-39.—Illustrates some reasons why psychological approaches to the study of criminal violence have not succeeded. Violence is an interdisciplinary field, yet few interdisciplinary concepts can be found in the literature of violence. 2 problems emerge when behavioral scientists and legal scholars attempt cross communication: (a) In the field of law, the variety of concepts makes common concepts difficult. For the behavioral scientist, the object of the search is for general truths, irrespective of legal variations, although they are aware of social and cultural differences. (b) There is difficulty in comparing legal and behavioral definitions of psychopathological violence. An additional problem is which acts should criminal violence cover. Other reasons for skepticism about studying criminal violence are the "separatist myth," the tendency in criminological research to consider criminal behavior as unique and separate from other forms of behavior; and the "correlational fallacy," the attempt to find something different about criminals. (16 ref.)—*A. M. Farfaglia*.

3356. Jensen, Diana E., Prandoni, Jogues R., & Abudabbeh, Nuha N. (D.C. Public Health, Legal Psychiatric Services, Washington) **Figure drawings by sex offenders and a random sample of offenders.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 295-300.—Tested the relationship between the Draw-a-Person Test (DAP) and sexual pathology. Drawings by 53 sex offenders were compared with drawings by 63 nonsexual offenders randomly chosen from the clinic files. Drawings were compared for overall quality on a special scale, and presence or absence of signs often considered indicative of sexual disturbance. There were no significant differences between the drawings of the random sample and the drawings of sex offenders. It is concluded that the measures used were poor indicators of sexual disturbance and were not sensitive to sexual pathology in this sample. (15 ref.)—*Journal abstract*.

3357. Joselson, Maurice L. (U. Florida) **The role of language skills within the perspective of other psychosocial factors in a select prison population.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4385-4386.

3358. Persons, Roy W. & Marks, Philip A. (Ohio State U.) **The violent 4-3 MMPI personality type.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 189-196.—Attempted to replicate and extend the study of K. R. Davis and J. O. Sines (see PA, Vol. 46:Issue 2) which found the MMPI high point pattern of 4-3 to be associated with commission of violent acts. 48 4-3 male inmates were compared with the 3 most frequently occurring other MMPI code types in a prison and with the institutional base rate for commission of violent criminal offenses. 4-3 Ss committed significantly more violent acts than any of the other personality groups and significantly more violence than the base rates of inmates in general. The other 3 personality groups did not differ from the base rate. Of the 4-3 Ss, 85% had a history of violence. Personality variables, e.g., guilt and anxiety, and race of the offender, are discussed. (24 ref.)—*Journal abstract*.

3359. Rotenberg, Mordechai & Sarbin, Theodore R. (Hebrew U., Jerusalem, Israel) **Impact of differentially significant others on role involvement: An experiment with prison social types.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 97-107.—Exam-

ined whether prison social-type behavior is congruent with self or is a function of the significance of different audiences, and assessed the degree of involvement in different roles in the presence of different audiences. 40 adult male prisoners were assigned to 3 experimental and 1 audience group. Results show that (a) when fellow inmates served as audience, the typical prisoner "con" role was rated higher in involvement; (b) when social welfare students comprised the audience, the social worker's role was rated higher in involvement; and (c) involvement in the custodial officer role before a custodian audience was not rated higher. When Ss were classified according to social type, the rated involvement in prisoner roles was congruent with the expectations for each social type. Prison social-type behavior is interpreted as a situational response to specific primary deprivations influenced by the degree of significance of specific audiences. (51 ref.)—*Journal abstract*.

Juvenile Delinquency

3360. Bapp, Fred B. & Blazer, John A. (Ft. Worth State Mental Health Clinic, Tex.) **Social characteristics of recidivist and non-recidivist male delinquents.** *Psychology*, 1970(Nov), Vol. 7(4), 67-81.—Attempted "to determine whether differences exist in the 20 social characteristics displayed by each of 2 groups of adjudicated delinquent boys seen for counseling. . . ." 2 random samples were comprised of a recidivist group of 93, and a nonrecidivist group of 234. A schedule of 20 demographic items based on the Court Delinquency Report was constructed. Each item was tested for significance of the difference by chi-square. Findings support the significance of the following items: custody of the child, age, and the counselor's personal evaluation of the child's character. (24 ref.)—*S. Knapp*.

3361. Brown, Rosa L. (U. Oklahoma) **Changes in views of self and parents among a group of first time incarcerated delinquent girls.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4328.

3362. Crews, Norma C. (U. Oklahoma) **An assessment of the perceptions of life and attitudes toward school orientation of juvenile delinquents living in detention.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2758-2759.

3363. Davis, Glenn C. & Brehm, Mary L. (Duke U.) **Juvenile prisoners: Motivational factors in drug use.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 333-334.—3 distinct groups of juvenile prisoners were studied by means of an attitude questionnaire, MMPI, a drug-use inventory, and social history data. A group composed of narcotic law violators was shown to differ from other drug-using as well as non-drug-using criminals on various personality characteristics. Responses on attitude factors corresponded to differentiation of the groups in terms of drug-use patterns. MMPI profiles for all groups were similar and generally typical of juvenile delinquents.—*Author abstract*.

3364. Deitz, George E. (Ohio State U.) **The development of self-concept during adolescence and its relationship to adjustment.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4306-4307.

3365. Dubeck, John A., Schuck, Solomon Z., & Cymbalisty, Bohdan Y. (State Home for Boys, Jamesburg, N.J.) **Falsification of the forced-choice guilt**

Inventory. *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 296.—Administered D. Mosher's Forced-Choice Guilt Inventory (FCGI) to 70 male adjudicated delinquents. All Ss took the test under standard instructions and then under "fake bad" and "fake good" instructions. Results were significantly different under the 3 conditions. Ss had high guilt scores under the good condition and low scores under the bad. Standard condition scores were not highly related to the other scores. The difference in scores in the bad and good conditions was significantly related to IQ, indicating that only brighter Ss could fake successfully on the test. It is concluded that the FCGI is a useful research tool, but that caution must be exercised in evaluation when used as a diagnostic tool.—S. Knapp.

3366. Epstein, Norman. (New York U.) **A study of the self beliefs of male adolescent delinquents compared with non-delinquent male adolescents and the variable of institutionalization amongst delinquents.** *Dissertation Abstracts International*, 1971-(Jan), Vol. 31(7-B), 4334-4335.

3367. Kole, Delbert M. & Busse, Howard. (Oregon Regional Medical Program, Portland) **Trail camping for delinquents.** *Hospital & Community Psychiatry*, 1969-(May), Vol. 20(5), 150-153.—Describes Youth Adventures, a voluntary organization incorporated to provide programs and facilities to combat juvenile delinquency in Oregon. Last summer 8 groups of 20-40 teen-age boys and girls were taken on wk. long camping trips. Principles effective in reshaping delinquent behavior, e.g., exposure to nondelinquent models, intense small-group interaction, immediate rewards and punishments, and mutual interdependence are performed.—B. A. Burkard.

3368. Kolos, Tamás. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A fiatalkori kriminalitás és a dadogás néhány összefüggése: Előzetes közlemény.** [Some correlations of juvenile delinquency and stammering.] *Pszichológiai Tanulmányok*, 1967, No. 10, 707-710.

3369. Krauss, Herbert H., Coddington, R. Dean, & Smeltzer, Donald J. (U. Georgia) **Ethical risk sensitivity of adolescents in legal difficulty: First contact and repeat contact groups.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 213-217. The ethical risk sensitivity of 46 adolescents confined for evaluation and disposition for the 1st time by an agency of the juvenile court was compared to a group of 39 adolescents who had been to this center previously and were returned. While no difference was noted between the 2 groups in sensitivity to reinforcement value of censure, 1 component of ethical risk sensitivity, the 1st-timers were more attentive to expectation of gain than were the repeaters. Results are thought to be attributable to differences which existed in the 2 groups prior to their admission to the center.—Author abstract.

3370. Majláth, György. (Medical U. of Budapest, Hungary) **Az igazságügyi pszichológiai szakértői tevékenység néhány kérdése fiatalkorúak büntetőügyeiben.** [Problems to be faced in jurisprudence by the psychological expert in causes of juvenile crime.] *Pszichológiai Tanulmányok*, 1967, No. 10, 711-715.

3371. Stein, Kenneth B., Sarbin, Theodore R., & Kulik, James A. (U. California, Berkeley) **Further validation of antisocial personality types.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 177-182.—Describes more fully the 7 delinquent per-

sonality types previously derived by J. Kulik, K. Stein, and T. Sarbin (see PA, Vol. 42:17429). Personality types were based on the scores of 346 institutionalized delinquent boys on 4 dimensions: delinquent role, drug usage, parental defiance, and assaultiveness. Validation was tested in relation to 5 classes of psychological and social variables: family relations, verbal and intellectual achievement, self-acceptance, delinquency, and miscellaneous. A 3-yr follow-up of police records as a measure of recidivism was included. Significant findings were utilized as definitional characteristics in describing each of the 7 types. Several general findings emerged: (a) a combination of typological pattern and magnitude of dimensional scores rather than either factor alone was a better predictor of future recidivism; and (b) among milder delinquent types, race may be operating as a bias in determining incarceration. Future research on the problem of discovering differential methods of intervention and behavior change in relation to the 7 types is discussed. (17 ref.)—Journal abstract.

3372. Velez-Diaz, Angel & Mcgarree, Edwin J. (Veterans Administration Hosp., San Juan, P.R.) **An investigation of differences in value judgments between youthful offenders and nonoffenders in Puerto Rico.** *Journal of Criminal Law, Criminology & Police Science*, 1970(Dec), Vol. 61(4), 549-553.—To determine if differences in criminality, social class, educational level, language, or cultural background might influence such ratings. Puerto Rican offenders and nonoffenders rated the seriousness of the same 141 criminal offenses rated by Sellin and Wolfgang in Pennsylvania. There were few significant differences, a high degree of agreement and a similarity between the mean, with no differences in variability which might be expected if 1 group was manifesting greater value confusion. The implications of these findings for popular theories of delinquency are discussed.—R. Gunter.

3373. Zaidel, Susan R. (U. California, Los Angeles) **Affect awareness, intelligence, and the Interpersonal Maturity Level Classification.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4351-4352.

Homosexuality & Sexual Deviation

3374. Klimmer, R. **Annoncen in einer Zeitschrift für Homosexuelle.** [Advertisements in a magazine for homosexuals.] *Nervenarzt*, 1969(Jan), Vol. 40(6), 212-275.—Homosexuals, especially those living in the country or small town, often have difficulties in finding suitable sexual partners. Therefore, many of them place want ads in magazines catering to homosexuals. In this respect, Denmark is an open country. Advertisements for partners or friends taken from a magazine published in Copenhagen are analyzed according to nationality, body characteristics, interest and hobbies of the advertisers, and of the partners desired. Psychiatric and somatic interests as well as occupation of the partner involved are discussed and critically analyzed. P. von Tsch. 3375. Lopez, Thomas W. (Boston U. Graduate School) **Emotional expression in the adult sex offender.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3709-3710.

3376. Petri, H. (Free U. Psychiatric & Neurologic Clinic, Berlin, W. Germany) **Exhibitionismus: Theoretische und soziale Aspekte und die Behandlung mit Antandrogenen.** [Exhibitionism: Theoretical and social aspects and treatment with antiandrogens.] *Nervenarzt*,

1969(May), Vol. 40(5), 220-228.—Outlines aspects of exhibitionism in its psychological complexities and social consequences, with the purpose of showing that this perversion should be treated as a disease and not as a crime, thus creating preconditions for an intensive therapeutic treatment. It is believed that the symptoms of exhibitionism are an expression of structural distortions, including aggressive and sexual drives, conflicts, and inhibitions. Among therapeutic methods, the necessity of psychotherapeutic group work is stressed. The recently introduced treatment with antiandrogens is described. Possibilities and advantages of a combined therapy with hormonal, psychotherapeutically oriented, and social-psychiatric means are outlined. (35 ref.)—*P. von Toal*.

3377. Poole, Kenneth A. (U. Southern California) **A sociological approach to the etiology of female homosexuality and the lesbian social scene.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3068.

MENTAL DISORDER

3378. ———. **C.S.F. protein in psychiatric disorders.** *British Medical Journal*, 1970(Mar), Vol. 1(5696), 582.—Reviews a study by R. Hunter, M. Jones, and A. Malleon, on the relationship between an abnormally high level of protein in the cerebrospinal fluid and psychiatric disorders. No definite conclusion on the relationship between specific psychiatric pictures and specific pathological processes is drawn.—*S. R. Diamond*.

3379. Anepetu, L., Bria, P., & Mazza, S. (Catholic U., Clinic for Nervous & Mental Diseases, Rome, Italy) **Analisi antropofenomenologica di un'esperienza in una istituzione manicomiale del Meridione.** [An antropofenomenological analysis of an experience in a southern psychiatric institution.] *Archivio de Psicologia Neurologia e Psichiatria*, 1970(Jul), Vol. 31(4), 363-386.—The acute physical and psychological alienation and discomfort of patients in a psychiatric hospital in southern Italy are related to structural patterns in the family and the society of southern Italy. Goffman's work is cited. (French, English, & German summaries)—*L. L'Abate*.

3380. Behrman, Joan & Levy, R. (Middlesex Hosp. Medical School, London, England) **Neurophysiological studies on patients with hysterical disturbances of vision.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 187-194.—Studied the tubular or spiral visual fields of 14 patients with reduced vision in whom organic disease was excluded to determine if neurophysiological techniques such as the recording of cortical evoked potentials provide a new means of investigating hysterical conversion reactions. Visual evoked responses were recorded in each patient to low intensity light stimuli under conditions of dark adaptation. The normal dark adapted final threshold obtained in this way was compared with the abnormal threshold recorded on the standard dark adaptation curve found in most patients. The significance of the results are discussed. (30 ref.)—*W. G. Shipman*.

3381. Biryukov, P. V. (Ed.) **Problemy psikhiiatrii: Endogennyye psikhozy.** [Problems in psychiatry: Endogenous psychoses.] Kiev, USSR: Zdorov'ya, 1970. 232 p. 1 R. 69 K.—Investigated endogenous psychoses, mainly schizophrenia, manic-depressive psychosis, and epilepsy. The following factors were considered: (a) types and

syndromes of schizophrenia and other psychoses encountered in clinico-experimental practice; (b) pathophysiology of higher nervous activity; and (c) endogenous psychoses and connected disturbances of somatic processes, e.g., metabolism. 3 types of schizophrenic state of mind are established: pseudooligophrenic, apathetic-hyponic, and apathetic-dissociative. Schizophrenic defectology, schizophrenia in its terminal phase, circular schizophrenia, and differential diagnosis of hypochondriacal schizophrenia underwent a special analysis. Epilepsy, manic-depressive psychosis, and arterosclerotic state of mind were similarly examined. Formation of temporary connections and the interrelationship of stimulating systems was studied in psychiatric patients and compared with normals. A method was developed to determine the type of higher nervous activity characteristic of each mental disease being analyzed. The metabolism of substances, e.g., tryptophan and amino acids, was investigated and the disturbances found were examined.—*I. Halev*.

3382. Bloch, R. **Zur Stellung der Monomanien und Süchte in der speziellen Psychiatrie.** [Reflections on the place of monomanias and addictions in special psychiatry.] *Nervenarzt*, 1969(Jan), Vol. 40(1), 28-32.—Compares and defines the concepts of "monomania" and "addiction," and the histories of these concepts, which have often been substituted for each other, are given. As a difference, it is noted that, while an addicted person is anxious to withdraw from unpleasant realities (e.g., an alcoholic), a monomaniac strives to strengthen his position among his fellow men and dares to challenge his environment. With an addiction, the wishes of the id for protection against a sense of discomfort and for a reduction of irritations predominate, while monomanias, integrated in the ego, are characterized by expansive strivings for superiority. For the latter, the term of "egomanias" is introduced; they clearly serve for the attainment of egoistic interests. It is suggested that the vague concept of monomania should only be used as a historical term. An affinity for an addiction is found with asthenic-depressive personalities, while an affinity for egomaniacal actions is found with sthenic-paranoid personalities. (20 ref.)—*P. von Toal*.

3383. Cheek, Frances E. & Wolcott, Roy. (New Jersey Neuro-Psychiatric Inst., Princeton) **Hospitalized disturbed children: Demographic, family background and behavioral characteristics.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 349-370.—Burdock and Hardesty Children's Behavior Inventory was filled out for 336 children by ward staff who knew them well. Demographic and background data confirmed some previous findings and amplified others. Brain-damaged children showed higher scores on Incongruous Behavior and Lethargy-Dejection. Psychotics and children with behavioral disturbances were higher on Anger-Hostility, Fear and Worry, Conceptual Dysfunction, and Physical Complaints. There were significant differences between male and female mentally ill adolescents and adults. (22 ref.)—*D. Prager*.

3384. Chesteen, Hilliard; Bergeron, Veronica, & Addison, William P. (Louisiana State U.) **Geographical mobility and mental disorder.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 31-32.—Reexamined the relationship of geographical mobility and mental disorder in 326 patients. Contrary to previous findings, an inverse relationship between the factors was found. Whereas the United States Census Bureau reported a

national mobility rate of 20% for the year of the study, 57% of the patients had never moved, and only 4% averaged 1 move/yr. It is suggested that in the present society mobility has become a positive value and that the inability to move may represent emotional problems, that the person who stays in 1 place too long may lose touch with reality.—S. Knapp.

3385. Ey, Henri. (Psychiatric Hosp., Bonneval, France) **La dissolution de la conscience dans le sommeil et le rêve et ses rapports avec la psychopathologie: Esquisse d'une théorie de la relativité généralisée de la désorganisation de l'être conscient et des diverses maladies mentales.** [The dissolution of consciousness in sleep and dream state and its relation to psychopathology: Outline of a theory of generalized relativity of the disorganization of consciousness and various mental disorders.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 1-37.—Theorizes that dreams are rooted in sleep and that mental illnesses can be related to the forms of dreams, basing this on theory that fantasies are developed by the conscious. These fantasies are used as a common denominator for the sleep-dream phenomena and it is stipulated that the difference between various forms of mental disorders and dreams in relation to normality is attributed to the forms of fantasies developed in the conscious surroundings. Sleep is considered as a negative structure and dreams as a positive one, enabling the psychiatrist to narrow down the sleep-dream patterns generated by the subconscious. A conscious being is defined and what this definition entails is explained.—I. Sirotnin.

3386. Gordon, Robert. (Case Western Reserve U.) **Paradoxical behavior studied within a framework of functional processes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3705-3706.

3387. Kayton, Robert & Biller, Henry B. (Prince George's County Mental Health Center, Cheverly, Md.) **Perception of parental sex-role behavior and psychopathology in adult males.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 235-237.—Studied matched groups of 20 normal, neurotic, paranoid schizophrenic, and nonparanoid schizophrenic adult males. Perception of parental sex-role behavior was measured by Heilbrun's Parental Description Survey in which Ss judge whether certain characteristics are more typical of their mother or father. Results indicate that normal Ss generally perceived their parents as exhibiting sex-appropriate behaviors to a greater extent than did disturbed Ss. A smaller proportion of disturbed Ss viewed their fathers as possessing masculine-instrumental traits, and, particularly among the schizophrenic groups, their mothers as having feminine-expressive characteristics.—*Journal abstract*.

3388. Kupfer, David J., Wyatt, Richard J., & Snyder, Frederick. (Yale U., Medical School) **Comparison between electroencephalographic and systematic nursing observations of sleep in psychiatric patients.** *Journal of Nervous & Mental Disease*, 1970(Dec), Vol. 151(6), 361-368.—Compared 2 sleep measurements. Vol. 151(6), 361-368.—The measurements were in agreement with high reliability for patients diagnosed as schizophrenic, but poor agreement was obtained for depressed patients. Possible explanations and implications of using the observational method in sleep research are discussed. (23 ref.)—R. A. Denis.

3389. Loch, Wolfgang. (Tübingen U., Nervenlinik,

W. Germany) **Seelische Ursachen psychischer Störungen: Versuch einer Systematik.** [Emotional-mental causes of psychic disturbances: An attempt at a systematic presentation. I.] *Praxis der Psychotherapie*, 1970(Apr), Vol. 15(2), 49-59.—Discusses proximal causes which consist of certain events to which a person gives a definite meaning. As causes of dispositions, which are considered to be psychosocial developmental products, periphrastic and cumulative dreams are discussed. The substantial character of emotional-mental disturbances is mainly caused by the fact that experiences are screened from consciousness by defense mechanisms and thus from further intersubjective communication. Mental abnormalities appear where, due to defense mechanisms, the symbolic action is cut off from any further development, so that symbolic distortions and faulty interpretations are formed, thus limiting or excluding the capacity of learning from experience.—P. von Toal.

3390. Loch, Wolfgang. (Universitäts-Nervenklinik, Tübingen, W. Germany) **Seelische Ursachen psychischer Störungen: Versuch einer Systematik.** [Emotional-mental causes of psychic disturbances. An attempt at a systematic presentation. II.] *Praxis der Psychotherapie*, 1970(Jun), Vol. 15(3), 97-107.—Explains disposition as an expression of physical structure and its dynamics, with psychic trauma considered to be the primary cause. It is concluded that the emotional-mental causes discussed are based on 3 fundamental assumptions: (a) that emotional-mental life is characterized by sense and meaning identified with the emotional-mental life itself; (b) that the symbol-creating function is a basic characteristic of the emotional-mental life; and (c) that the creating and processing of the emotional-mental experiences takes place in a highly differentiated exchange between conscious and unconscious issues. The 1st are determined by the law of primary processes, and the 2nd by the law of secondary processes. (2 p. ref.)—P. von Toal.

3391. Malmö, Robert B. (U. Montreal, Allan Memorial Inst. of Psychiatry, Quebec, Canada) **Emotions and muscle tension: The story of Anne.** *Psychology Today*, 1970(Mar), Vol. 3(10), 64-67, 83.—EMGs have proved useful in therapeutic settings because the EMG can detect otherwise unobservable reactions to stimuli such as sound and pain. Even patients with severe hysterical symptoms do not initially inhibit the control mechanisms which produce muscle tension. Conversely, EMGs show that patients with chronic anxiety reactions lack an adequate regulatory mechanism to bring muscle tension back to normal levels after strong stimuli. Combining EMG measurement with learning techniques may result in training procedures permitting patients to control their muscle tension.—E. J. Posavac.

3392. Naylor, G. J., McNamee, H. B., & Moody, J. P. (U. Dundee, Scotland) **Erythrocyte sodium and potassium in depressive illness.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 173-177.—"The erythrocyte sodium potassium concentrations were determined in 26 female patients suffering from a depressive illness, and in 12 female controls." The mean erythrocyte sodium concentration of the patients was significantly lower than that of the control group. The patient group was subdivided by diagnostic scales into 11 psychotics and 15 neurotics. No difference between the psychotic group and the controls was shown. The erythrocyte sodium concentration of the neurotic group

was significantly lower than that of the control and the psychotic group. "After correction for age, there was no significant difference in erythrocyte potassium concentration between any of the groups."—*W. G. Shipman.*

3393. Naylor, G. J., McNamee, H. B., & Moody, J. P. (U. Dundee, Scotland) **The plasma control of erythrocyte sodium and potassium metabolism in depressive illness.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 179-186.—The erythrocyte transport of sodium and potassium in an artificial electrolyte was determined in 24 female patients suffering from a severe depressive illness to determine if active and passive erythrocyte transport of Na and K between patients classified as neurotic and psychotic are due to the intrinsic state of the erythrocytes or to plasma factors. The results showed that there was no change in the active or passive erythrocyte transport of the psychotics with recovery, and that the active and passive erythrocyte transport of sodium increased with recovery in the neurotics. The erythrocyte sodium permeability of both groups when depressed and recovered was lower than that of the control groups. The active erythrocyte transport of sodium was lower in the psychotics than in the neurotics. (15 ref.)—*W. G. Shipman.*

3394. Pirozynski, T. (Spitalul Socola Iasi, Psychiatric Clinic, Jassy, Romania) **La signification onto-analytique de la motivation dans les syndromes psychiques réactionnels.** [The onto-analytic significance of motivation in psychic reaction syndromes.] *Annales Médico-Psychologiques*, 1970(Mar), Vol. 1(3), 365-373.—Abnormal "psychic reactions" (i.e., disturbed behavior following a dramatic existential situation, such as a death or disappointment in love or work) provide a subject for study not only by clinical psychiatry but bear on our understanding of group interpersonal relations generally. Reactional problems derive from an interaction of stressful external events, usually social, with particularities of the individual personality structure. Neurophysiologic models describe this as faulty homeostasis, while biologic explanations regard it as a disruption in the rhythm of functions. The dynamic concept of stress leads to a more motivational mechanism, by which pathological psychic reactions are understood as stages of dissolution in the psychic life of the individual, reflected in his social behavior. Examining the subjective content of the psychological decompensation permits an observation of the nature of the conflict between event and structure, and a tracing out of the latter is determined by ontologic development of the personality.—*H. E. King.*

3395. Quinnett, Paul G. (Washington State U.) **Imitative behavior in the chronic mental patient.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3713.

3396. Stegner, Paul F. (Washington State U.) **An investigation of the internality-externality attitude dimension in a psychiatric patient population.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3717.

3397. Stolorow, Robert D. (Postgraduate Center for Mental Health, New York, N.Y.) **Mythic consonance and dissonance in the vicissitudes of transference.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 178-179.—Studied fantasy productions of Ss manifesting obsessive vs. hysterical personality traits. Statistically significant differences were found in "personal myths" between the 2 groups. Results indicate that the obsessive

personality tends to attribute causative powers to his own volitional acts, while the hysteric attributes causative powers to external forces. The dynamics in the treatment of these 2 types are discussed.—*H. Roemmich.*

3398. Wieser, Stefan. (Municipal Nerve Clinic, Bremen, W. Germany) **Aspekte des paranoiden Mechanismus.** [Aspects of the paranoid mechanism.] *Nervenarzt*, 1969(Mar), Vol. 40(3), 101-106.—Discusses the psychopathology of paranoia and examines a form of the delusion which occurs exclusively in human interaction. Persons suffering from this condition may be aggressive or sensitive paranoids who see their own shortcomings confirmed in the behavior of their environment. This is illustrated by the case of a paraphrenic 42-yr-old housewife. The subjective conviction of being different, of deviating from certain standards, is found at the beginning of paranoia. As a direct result, the person develops delusions of persecution. For the group the paranoid is a problem carrier who disturbs its established order, and the initially 1-sided process later becomes reciprocal. It is suggested that there is no conclusive evidence that delusion has an organic-cerebral substrate, as was believed 20 yr. ago, but that paranoid behavior is based on a normal, omnipresent, psychological regulatory process. The paranoid deviance of a person induces the group to apply mostly negative sanctions against him and decrease interaction, both of which increase his paranoid behavior and lead to his isolation. (17 ref.)—*B. Schay.*

3399. Zuger, Bernard. (New York U., Medical School) **Self-consciousness considered within a theory of self.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 135-144.—Attempts to place various manifestations of self-consciousness within a theory of self. These manifestations are discussed with reference to the young individual and to patients with neuroses, with obsessive-compulsive phobic symptomatology, and with depression. A theory of self to accommodate expressions of self-consciousness is thought to be constructed along a configurational model in which consciousness is the "figure" for the "ground" constituted by the rest of the organism. Applied to intra-organismal functioning, the terms "awareness" and "being" are used. In this sense, it is hypothesized that normally there is a gradual decrease in self-consciousness as the individual's identification with being increases.—*H. Roemmich.*

Neurosis & Emotional Disorder

3400. Bálint, István. (National Inst. of Labor Hygiene, Budapest, Hungary) **Foglalkozási tényezők szerepe neurózisok keletkezésében.** [The role of occupational factors in the development of neurotic diseases.] *Pszichológiai Tanulmányok*, 1967, No.10, 467-471.

3401. Curran, Frank J. (St. Luke's Hosp., New York, N.Y.) **Emotional problems and hospital treatment of adolescents.** *Hospital & Community Psychiatry*, 1969-(Feb), Vol. 20(2), 44-49.—Presents the history of psychiatric treatment of adolescents emphasizing the ward for adolescent boys open at Bellevue in 1937. The author directed this ward until 1945. Asked if the problems of adolescents in the 1960s are different from those of the 1930s, the author feels that although the basic problems are the same, some of the manifest symptoms are different. There has been a marked

3408. Lesić, Željko & Zdravković, Petar. (Military Medical Academy, Clinic for Mental Disease, Belgrade, Yugoslavia) **Neki problemi neuroza u okviru trupnog saniteta.** [Some problems of neurosis in troop medical service.] *Vojnosanitetski Pregled*, 1970(Oct), Vol. 27(10), 456-458.—Discusses general problems of dealing with neuroses in troop medical service, including the problem of simulation, the role of the troop physician, and his education. States evidence that incidence of neuroses in troop examinations is 5%, but when other nondiagnosed minor disorders are added, most of which are of a neurotic nature, the incidence of neuroses varied from 19% in 1965 to 25% in 1969.—S. Slak.

3409. Liazos, Alexander. (Brandeis U.) **Processing for unfitness: Socialization of "emotionally disturbed" lower-class boys into the mass society.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3058.

3410. Montanari, A. J. (Montanari Residential Treatment Center, Hialeah, Fla.) **A community-based residential program for disturbed children.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 103-108.—The Montanari Clinical Center was founded in 1952 with 3 paying students and now has 220 children living in 17 ranch-style homes scattered throughout several blocks in the heart of Hialeah's residential area. The children (4-20 yr. old) have been characterized as children who have great difficulty in controlling their impulses, in learning, and in getting along socially. "The community setting is particularly important to our basic goal of social education." Flexibility, stability, and informality are integral parts of the environment. In the educational program, classes consist of occupational therapy as well as regular academic subjects. Family counseling is an important part of the program. 1 of the basic goals is to provide treatment as economically as possible.—B. A. Burkard.

3411. Paci, A. & Freddi, A. (S. Maria Hosp., Terni, Italy) **In tema di enuresi ed encopresi.** [On the subject of enuresis and encopresis.] *Rivista di Neurobiologia*, 1969(Oct), Vol. 15(4), 835-848. Studied the difference between urinary incontinence and enuresis which is a complex neuropsychic syndrome. Existing analogies between the 2 syndromes are studied extending the criteria of etiopathogenic univocity to disturbances of the psychomotility (tics and stuttering). 6 recordings of EEG are reported with emphasis on the great percentage of irritative type traces. The use of antiepileptic drugs is suggested in the treatment of the 2 syndromes. (French summary) (31 ref.)—A. M. Faraglia.

3412. Pisztor, Ferenc. (Medical U. of Budapest, Psychiatric Clinic, Hungary) **A személyiség meghatározó szerepe a coenaesthesias-hipochondriás körképek patogenezésében.** [The determining part of personality pattern in the pathogenesis of coenaesthetic hypochondrias.] *Pszichológiai Tanulmányok*, 1967, No. 10, 575-579.

3413. Réti, László. **Neurotikus tanulók teljesítő-képességének vizsgálata.** [Examination of the achievements of neurotic students.] *Pszichológiai Tanulmányok*, 1967, No. 10, 755-760.

3414. Rockland, Lawrence H. (Albert Einstein Coll. of Medicine, Yeshiva U.) **"What kind of fool am I?": A study of popular songs in the analysis of a male hysteric.** *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 516-525.—Describes the occurrence of fragments of popular songs during the analysis of a 30-yr-old male.

The patient was able to communicate emotions through song titles that were difficult to verbalize.—E. M. Uprichard.

3415. Szinetár, Ernő. (Joseph Attila Hosp., Budapest, Hungary) **Neurózist okozó konfliktusok tipológizálási kísérlete.** [A typological approach of conflicts causing neurosis.] *Pszichológiai Tanulmányok*, 1967, No. 10, 541-546.

3416. Volkan, Vamik. (U. Virginia Hosp.) **Typical findings in pathological grief.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 231-250.—Patients exhibiting pathological grief reactions are those in the middle portion of a spectrum between those on 1 end who suffer from full-blown neurosis, psychosomatic symptoms, etc., which are directly related to a known loss. After examining 23 cases, it is suggested that patients who suffer from pathological grief share a relatively predictable symptomatology. The typical symptoms and signs, as well as typical events in the case histories of such patients, are described. (30 ref.)—*Journal summary.*

3417. Volmat, R., Allers, G., Vittouris, N., & Dufay, F. (U. Besançon, Neurological & Psychiatric Clinic, France) **Statut actuel clinique et thérapeutique de l'anorexie mentale.** [The current clinical and therapeutic status of anorexia nervosa.] *Annales Médico-Psychologiques*, 1970(Feb), Vol. 1(2), 161-184.—Presents a description and historical summary of extreme feeding disorders of psychogenic origin, with examples of incidence and treatment drawn from current practice. These young patients, although usually adolescent and female, vary from 12-37 yr. in age and include several men. The refusal of food, associated with pubertal sexual awakening and fear of abandonment, is qualitative (selective) at first; becoming quantitative later with severe weight loss and possible cachexia. 13 cases are described to illustrate the important factors of family conflict, triggering events, treatment methods, and the importance of aftercare following hospital discharge. Diagnosis is easy and symptom treatment consists of isolation of the patient (20-40 days), supported by psychotherapy and the use of psychoactive drugs. Special diets are not important. Anorexia is considered a symptom not an autonomous disease, and the underlying psychogenesis must always be evaluated carefully for each patient.—H. E. King.

Psychosis

3418. Blankenburg, W. (U. Freiburg, Psychiatric & Neuro-Clinic, W. Germany) **Zur Leistungsstruktur bei chronischen endogenen Psychosen.** [Efficiency structure with chronic endogenous psychoses.] *Nervenarzt*, 1970(Dec), Vol. 41(12), 577-587.—Recognition of rehabilitation chances of patients suffering from chronic endogenous psychosyndromes demands precision concerning the changed structure of their efficiency. Besides, the background of their efficiency will have to be considered, as well as its structure and integration. The manner in which mental, social, and physical failures interlock is emphasized. Besides the course of the psychosis and the actual situation factors, the premonitory coining of the patient's attitude in facing himself and the world is of considerable importance, especially his primary life anchorage in the world. With endogenous depressive and schizophrenic types, certain polar structures stand out. These structures are sketched and examined with the purpose of ascertaining how far they

can serve for a reintegration into the processes of working in the "outside" world. (1 p. ref.)—*P. von Toul*

3419. **Braceland, Francis J.** (Inst. of Living, Hartford, Conn.) **Changes in the treatment of involuntional melancholia.** *Hospital & Community Psychiatry*, 1969 (May), Vol. 20(5), 136-140.—In the 1930s, the treatment of involuntional melancholia left a great deal to be desired. Drugs, mainly barbiturates, were employed. Other forms of treatment were continuous tubs, rehabilitation through "moral treatment," and narcosis therapy. These patients had a 50% chance of getting well and a 25% chance of destroying themselves. Endocrine replacement therapy was fashionable. In the mid-1930s insulin shock therapy was introduced but it did little for involuntional melancholia. With the advent of ECT in 1938, a form of treatment specific for depressions was found. The prognosis changed from a 50% recovery rate and a 25% suicide rate to a recovery rate of nearly 100%.—*B. A. Burkard*

3420. **Brunstetter, R. W.** (U. California, Medical School, San Francisco) **Every day on an inpatient ward for psychotic children.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 203-217.—In focusing on emotional support, gratification, and learning as its primary goals, the program in essence is providing what is needed for normal growth and development. When these goals are pursued with care and precision, the ward milieu in its most effective form is a framework of activities and opportunities which supports the psychotherapeutic task of conflict reduction and aids the psychiatric nurse with the daily functioning of the psychotic child. *Journal summary*.

3421. **MacVaugh, Gilbert S.** (U. Mississippi) **A comparison of the effects of cost and reward token reinforcement methods on the behavior of long-term mental hospital patients.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3732.

3422. **Olson, E. H.** (Outagamie County Hosp., Appleton, Wis.) **A social rehabilitation program in a county hospital.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 173-174. Describes the limitations of the prerelease program to patients with psychotic disorders who the staff feel need special preparation before discharge. A special unit with room for 8 women and 5 men and supervised by a resident housemother was set aside for this purpose. The development of individual responsibility and the ability to form new interpersonal relationships are the main goals. Off-grounds activities are encouraged and medications are self-administered. After the resident has worked full time to the unit with a mean of 10 yr. 2 mo. hospitalization, and they spent an average of 5 yr. mo. in the program, 7 were returned to the wards, 16 were discharged, and 14 of them are still living out of the hospital.—*B. A. Burkard*

3423. **Polez, Alain.** **A bábjáték alkalmazása felnőtt elmebetegeknél.** [Psychodiagnostics and complex therapeutic application of puppet-show in adult psychotics.] *Psychologiai Tanulmányok*, 1967, No. 10, 769-776.

3424. **Rohrl, Vivian J.** (San Diego State Coll.) **A nutritional factor in windigo psychosis.** *American Anthropologist*, 1970(Feb), Vol. 72(1), 97-101.—Reviews reports of windigo psychosis, particularly those cases which are cured before they become full-blown, and

studies evidence for an organic factor related to the development of the illness. Knowledge of biological factors related to ritual behavior in different cultures is reviewed in this context, together with examples of windigo cases and relevant information about treatment. It is indicated that the traditional cure of windigo symptoms, which frequently includes the ingestion of fatty meat, particularly bear meat, may reflect the result of long-term, not necessarily conscious, empirical observation by Chippewa and other northern Algonquian peoples. (19 ref.) *Journal summary*

3425. **Szegedi, Marton.** **Eimebetegek társas kapcsolatainak kialakulása a beteglogiatkozási során.** [Interpersonal relations of psychotic patients in the course of occupational therapy.] *Psychologiai Tanulmányok*, 1967, No. 10, 559-568.

3426. **Weadland, K. L. & Ahlswede, J.** (U. Kiel, Psychiatric Clinic, W. Germany) **Verlaufs-kontrollen bei phasischen Psychosen.** [Control of the course of phasic psychoses.] *Nervenarzt*, 1970(Sep), Vol. 41(9), 434-439.—Studied 206 patients suffering from phasic psychoses, based on their histories, in order to ascertain whether the aspects of the disease in their various phases are similar or whether important differences occur. The following essential results were obtained: The difference between cycloid psychoses in anxiety-happiness psychoses, excitement-inhibition confusion, and hyperkinetic-akinetik-motility psychoses is most difficult to diagnose in individual cases at the outset, as the symptoms of these 3 psychoses appear often to be combined and crossed. In longer multiphase courses, the aspects of the various cycloid psychoses can alternate. With the same patient, there are found various manic-depressive aspects of his disease pertaining cycloid aspects. The same holds true in paranoid anxiety psychoses. With phasic psychoses, a trend toward cycloid forms as well as toward pure depression in the sense used by Leonhard seems to be the larger, the stronger the schizothymic aspects are with the patient in question. (20 ref.)—*P. von Toul*

Schizophrenia

3427. **Adams, James R.** (Case Western Reserve U.) **Schizophrenic deficit on social concepts containing distractors.** *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-B), 3697.

3428. **Allon, Richard.** (Case Western Reserve U.) **Sex, race, social class and process-reactive schizophrenia ratings.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4323.

3429. **Arata, A.** (Provincial Psychiatric Hosp., Genoa, Italy) **Osservazioni sulla classificazione di Leonhard in tema di schizofrenia: Rilievi su 70 lungodegenti.** [Observations on the classification by Leonhard in the subject of schizophrenia: Notes on 70 long-term patients.] *Neuropsychiatria*, 1969, Vol. 1(4), 527-541. A classification of 70 long-term schizophrenics according to the criteria set by Leonhard (1958) is questioned the validity of his classificatory scheme. (29 ref.) *E. L. Olson*

3430. **Beck, Samuel J., Sunnally, J. C., & Rine, Donald A.** (Chicago) **Attitudes of schizophrenic children about parents and others in their environments: A semantic differential study.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 251-270.—Measured the judgments of schizophrenic children in respect to 16

concepts, using 14 scales. The internal environment necessary for the development of the psychopathology was investigated. Other studies report the effects of the external environment, the family, and society at large. There are different impacts of environment on children growing up, no matter how similar this environment may seem. The states of mind measured in the present study were learned. A person is not born with a need to be sad, cold, lazy, or hostile. Another optimistic conclusion in regard to psychotherapy is that learned attitudes can be unlearned. (15 ref.)—*D. Prager.*

3431. **Benedetti, Gustav.** *Dynamische Rollen der schizophrenen Spaltung.* [Dynamic functions of the schizophrenic split personality.] *Praxis der Psychotherapie*, 1970(Oct), Vol. 15(5), 194-200.—One of the fundamental objectives of perceptive psychiatry, e.g., psychiatry with a dynamic approach, is to examine the abnormal psychic phenomena to determine how much they reflect human norms, although distorted, which man cannot do without even in psychosis. The psychically abnormal can teach us about the "other" face of life. 3 examples of schizophrenic patients show how repressed or seemingly lost insight is manifested by dissociation. In all cases the schizophrenic patient looked at himself with the split-off side representing his insight into the real nature of the conflict. What the patient can no longer accomplish by self-reflection is realized by him in the structure of contradiction of his psychotic existence.—*B. Schay.*

3432. **Billig, Otto.** (Vanderbilt U., Medical School) *Structures of schizophrenic forms of expression.* *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 187-222.—When schizophrenic patients become aware of their inability to express themselves verbally, they may begin to draw and paint to make themselves understood. Disintegration of the ego boundaries are correlated with the spatial structure in the drawings. Reintegration of spatial structure is seen in paintings of recovering schizophrenics. Basic changes of spatial structure are seen to be similar regardless of cultural background. (26 ref.)—*D. Prager.*

3433. **Bleuler, Manfred.** (Inst. of Psychiatry, Zurich, Switzerland) *Some results of research in schizophrenia.* *Behavioral Science*, 1970(May), Vol. 15(3), 211-219.—Presents the text of a lecture outlining results of research in the history, influences, and role of physical damage in schizophrenia. Results of a 20-yr study of 208 schizophrenics and their families are emphasized. Diagnostic criteria and the typical course of the disease are described. No 1 specific form of therapy is considered correct. Results of the 20-yr study indicate that appropriate therapy can prevent the most severe forms of schizophrenia and improve all schizophrenic conditions. With therapy, "episodic courses with good intermissions are becoming more frequent, and chronic psychoses with constant hospitalization, rarer." However, the number of full recoveries has not increased, and the number of severe chronic psychoses has not diminished. In studies of the nature and genesis of schizophrenia, no single cause was found. Results of endocrine, psychodynamic, and hereditary studies are described. It is concluded that "the background of schizophrenia consists in both disharmonic, contradictory inborn dispositions in the development of personality, and disharmonic, contradictory human relationships." Studies of the children of schizophrenics found nearly 75% to be healthy. A selected bibliography is presented. (45 ref.)—*S. Knapp.*

3434. **Bürger-Prinz, H. & Schorsch, E.** (U. Hamburg, Psychiatric & Neuropathic Clinic, W. Germany) *Anmerkungen zum Begriff des Autismus.* [Remarks concerning the concept of autism.] *Nervenarzt*, 1969(Oct), Vol. 40(10), 454-459.—The scope of "autism" is critically examined. The term was coined by Bleuler in 1911 and defined as "detachment from reality, with a relative or absolute predominance of the inner life. Since then, the scope of autism, as used in the psychological literature, has been rather vague. It is suggested that this term be reserved for a specific schizophrenic and/or early-childhood lack of a social-relation system. Autism is discussed under 3 headings: (a) lack of relation to reality due to overevaluation or insufficiency of the "I system"; (b) lack of relation to reality due to a breaking "I system"; and (c) autism of the depressive type. In all these cases, the real world is substituted by an imaginary one, and in this "shell" the patient lives "by himself alone," sheltered by a strong belief in his own importance. (26 ref.)—*P. von Tol.*

3435. **Cord, Eugene L.** (Wayne State U.) *Proprioceptive and motor functions in schizophrenic, normal, and adoptive families: A behavior-genetic analysis.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4332.

3436. **Cutcliffe, Joseph G.** (Case Western Reserve U.) *Mnemonic reactions of paranoid schizophrenics to induced stress-experiences.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4332-4333.

3437. **Demangeat, Michel.** (115 Rue du Dr. Albert-Barraud, Bordeaux, France) *D'une approche phénoménologique de la schizophrénie: Réflexions et recherche.* [Phenomenologic approach to schizophrenia. Research and comments.] *Evolution Psychiatrique*, 1970(Jan), Vol. 35(1), 221-248.—Concentrates on the body language in schizophrenic patients. The phenomenologic aspects inherent in psychiatry are emphasized, and the alter-ego discussed relating it to the psychiatrist-patient relationship. The importance of language communication in such relations is stressed. An observation conducted on a schizophrenic patient and his family is presented. (English summary)—*I. Sirotn.*

3438. **Demcio, Myron M.** *Comparability of process-reactive criteria of schizophrenia.* *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3701-3702.

3439. **Flenning, Frank.** (Southern Illinois U.) *The effects of stimulus intensity on schizophrenic performance in a communication task.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4335.

3440. **Fougerousse, Myra E.** (U. Rochester) *Lexical ambiguity in sentences: Premature termination of perceptual processing in chronic schizophrenia.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4335-4336.

3441. **Grebel, Martin.** (Ohio State U.) *The effect of feedback on the cognitive and reaction time performance of schizophrenic and non-schizophrenic patients.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4337.

3442. **Hennessy, Rosalie M.** (Case Western Reserve U.) *Treatment outcome of process and reactive schizophrenics.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4338.

3443. **Johnson, James E. & Biellauskas, Linas A.** (Loyola U., Chicago, Ill.) *Two measures of over-inclusive thinking in schizophrenia: A comparative*

analysis. *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 149-154.—Compared the performance of 30 chronic schizophrenics and 30 patients with personality disorders on 2 measures of overinclusion. Consistent with previous research, schizophrenic Ss showed more overinclusion than nonschizophrenic Ss on an R. W. Payne-type test, and were more overinclusive on a Payne-type test than on an L. J. Chapman-type test. Results are interpreted within the framework of W. E. Broen and L. H. Storm's theory of partial collapse of response hierarchies in schizophrenia.—*Journal abstract.*

3444. Kardos, György & Mária, Béla. "Alkoholizmus" és szizofrenia. [Alcoholism and schizophrenia.] *Pszichológiai Tanulmányok*, 1967, No. 10, 547-554.

3445. Koh, Soon D. & Kayton, Lawrence. (Michael Reese Hosp., Psychosomatic & Psychiatric Research & Training Inst., Chicago, Ill.) **Free-recall learning by nonpsychotic schizophrenics.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 11-12.—It was hypothesized that nonpsychotic schizophrenics' mnemonic organization in free-recall learning should be loose and inefficient due to their associative dyscontrol and, consequently, their free-recall should suffer. Measures of subjective organization, categorical clustering, input-output concordance, and hierarchical clustering schemes all indicated that the organization of the nonpsychotic schizophrenics was poorest, the nonpsychotic-nonschizophrenic psychiatric patients next, and the normal controls highest. The recall performances of these 3 groups also corresponded to the organizational measures. The group differences in recall and organization both increased as the trials proceeded, but on the 1st trial the schizophrenics were comparable to the other groups in recall performances. Results are related to theories of information processing in schizophrenia.—*Author abstract.*

3446. Ludwig, Arnold M. (Mendota State Hosp., Madison, Wis.) **Chronic schizophrenia: Clinical and therapeutic issues.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 380-399.—Presents an extensive discussion of why patients continue to be schizophrenic. 3 theories have been advanced to explain "chronicity": (a) organic malfunctions, (b) institutional influences, and (c) "willful actions on the part of the patient himself." The 1st suggested that a genetic developmental disorder had brought about the illness and, therefore, the patient could not really help himself. The 2nd theory proposed that the debilitating atmosphere of the hospital is responsible for prolonging schizophrenia. The last theory recommended that at some level of consciousness the patient chooses to require lengthy hospitalization. It is assumed that, regardless of origin, the patient does undergo an altered state of consciousness (ASC) which causes him to perceive reality in an aberrant manner. It is suggested that the institution would not create such a profound effect if the patient were not susceptible to it. The behavior of patients, even under ASC, is always goal directed. Acceptance of these assumptions then implies the treatment techniques of gaining the patient's attention, and the use of techniques to arouse the patient.—C. O'Donnell.

3447. Magaro, Peter A. & Vojtisek, John E. (U. Maine) **Embedded figures performance of schizophrenics as a function of chronicity, premorbid adjustment, diagnosis and medication.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 184-191.

—Presents data on the Embedded Figures Test (EFT) performance of 487 schizophrenics and other hospitalized patients divided in terms of chronicity, premorbid adjustment, diagnosis, and medication. Results indicate that chronicity was related to EFT performance, with chronic Ss generally more field dependent than acute Ss. Some schizophrenics, however, were relatively field dependent when entering the hospital and did not change with extensive hospitalization. Medication interacted with premorbid adjustment and diagnosis, with the medicated poor paranoid performing in a field-independent manner while the nonmedicated poor paranoid was quite field dependent. The effects of institutionalization are discussed. (21 ref.)—*Journal abstract.*

3448. Meehl, Paul E. (U. Minnesota) **High school yearbooks: A reply to Schwarz.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 143-148. Examines the criticism of J. C. Schwarz (see PA, Vol. 44:14955) of the study by C. N. Barthell and D. S. Holmes (see PA, Vol. 42:17448) on preschizophrenics using archival data. The traditional assumption that nuisance variables like social class should routinely be "controlled" by case-matching or statistical suppression is challenged. Whether and how much, shared variance should be removed in archival studies is shown to hinge upon a prior causal framework. It is argued that in most archival studies the assumption is highly problematic, and no safer than the substantive theory of interest itself. It is further argued that statistical control of nuisance variables is not "playing it safe," since under several plausible assumptions such control will generate misleading results (e.g., will pseudofalsify a good causal theory). (22 ref.)—*Journal abstract.*

3449. Morrison, Delmont; Miller, Dale, & Mejia, Berta. (U. California, Medical Center, San Francisco) **Effects of adult verbal requests on the behavior of autistic children.** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 510-518.—The failure of autistic children to respond appropriately to verbal request may be due to developmental receptive aphasia or to the interpersonal conflicts of the autistic child. Using 2 8- and 10-yr-old boys as Ss, the effects of adult verbal request on the performance of autistic children were investigated in verbal discrimination tasks. Results demonstrate that the Ss' performances on a series of discrimination tasks shifted abruptly from random to better-than-chance discrimination when 1 of the objects to be discriminated was replaced by another object. Data is interpreted as indicating that failure to discriminate was not caused by inability to understand the request, but rather may have been due to Ss' conflicts concerning compliance and resistance to adult requests. *Journal abstract.*

3450. Neale, John M. (State U. New York, Stony Brook) **Perceptual span in schizophrenia.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 196-204.—Administered a forced-choice letter recognition task to assess the span of apprehension of 30 schizophrenics (good premorbid paranoids, good premorbid nonparanoids, and poor premorbid nonparanoids) and 20 anoids, and poor premorbid nonparanoids and penitentiaries (hospitalized nonpsychotics and penitentiaries). When the task required only that 1 target letter be detected, there were no significant differences between groups. When the target was presented in conjunction with varying numbers of irrelevant "noise" letters, however, the span of schizophrenics was significantly less than that of either control group. The span of

schizophrenics reached an upper limit at a small display size (4 letters) and showed no further increase. The constructs of premorbid adjustment and paranoid status bore no relationship to the deficit. Measures of the trial-to-trial variability in number of elements processed and consistency of scanning path did not differentiate schizophrenics and controls. The number of irrelevant noise letters surrounding a target was found to have no influence on detection in either group. (23 ref.)—*Journal abstract*.

3451. Nuttall, Ronald L. & Solomon, Leonard F. (Boston Coll., Inst. of Human Sciences) **Prognosis in schizophrenia: The role of premorbid, social class, and demographic factors.** *Behavioral Science*, 1970 (May), Vol. 15(3), 255-264.—Explored the relative prognostic significance of 7 premorbid factors derived from case history ratings and a set of demographic variables for a sample of 259 male schizophrenic patients. The prognostic significance of a number of indicators varied as a function of the social class of the patient. Multiple regression analyses indicate that the case history factors were more powerful in predicting a patient's outcome than were the demographic factors. Implications for diagnostic procedures and research are discussed. (33 ref.)—*Journal abstract*.

3452. Odhner, Fred. (New York State Dept. of Mental Hygiene, Albany) **Verbal ascendancy in process- and reactive schizophrenics.** *American Journal of Occupational Therapy*, 1971 (Jan), Vol. 25(1), 7-9.—Attempted to find if there were differences between process- and reactive-type schizophrenic Ss in verbal ascendancy when such Ss participated in small group discussions following group tasks. It was found that the process-type Ss were significantly lower in ascendancy than were those defined as having reactive-type pathology. Implications for further research and therapeutic approaches are discussed.—*Journal summary*.

3453. Owen, Jeannine D. (Washington U.) **The effects of chlorpromazine on performance of schizophrenic patients on two tests for brain damage and related measures.** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7-B), 4343.

3454. Pickford, R. W. (U. Glasgow, Scotland) **Disguise in the expression of fantasy: The "art-work" in painting.** *Bulletin of Art Therapy*, 1968 (Jul), Vol. 7(4), 167-184.—Discusses the paintings a young male schizoid patient produced following discharge from the Air Force. The varying degrees of disguise of the fantasy themes in the pictures are emphasized. Black and white reproductions of 20 of his drawings are included and discussed around 5 basic themes which center upon mother-infant relationships, sexuality, conflicts in the family, etc.—P. McMillan.

3455. Polidoro, Lewis G. (George Peabody Coll. for Teachers) **The use of a complex auditory task with acute good premorbid paranoid and acute poor premorbid nonparanoid schizophrenics.** *Dissertation Abstracts International*, 1970 (Dec), Vol. 31(6-A), 2763-2764.

3456. Rennert, H. & Mode, H. (Martin Luther U., Clinic & Polyclinic for Psychiatry, Halle-Wittenberg, E. Germany) **Mischwesen und Monstren in der Vorstellungs- und Ausdruckswelt der archaischen und psychotischen Menschen.** [Mixed beings and monsters in the concepts and expressions of archaic and psychotic people.] *Nervenarzt*, 1969 (Jan), Vol. 40(1), 8-17.—Compared monsters in ancient and modern art with drawings made by schizophrenics, displaying

similar characteristics, as shown by the illustrations of the article. "Mixed beings"— $1/2$ human, $1/2$ animal—symbolized in ancient times the animal characteristics which exist as latent or potential qualities in human beings. In classical mythology, "superhuman" characteristics (Zeus) appear besides "subhuman" ones (Leda and the Swan). In the drawings of schizophrenics, similar traits are common. In both cases, monsters represent the concretization of chaotic destructive fears of people, expressed in demoniac symbols, characterized by malevolence, cruelty, and superior power. While such beings in ancient drawings appear to be harmonious and plausible in their relations to religious symbolisms, they are grotesque, disproportionate, and repulsive in the expressions of schizophrenic minds. (34 ref.)—P. von Toul.

3457. Silverman, Lloyd H., Candell, Peter; Pettit, Tupper F., & Blum, Elizabeth A. (Manhattan Veterans Administration Hosp., N.Y.) **Further data on effects of aggressive activation and symbiotic merging on ego functioning of schizophrenics.** *Perceptual & Motor Skills*, 1971 (Feb), Vol. 32(1), 93-94.—Reports further data on the effects of subliminally presented aggressive and symbiotic stimuli on the ego functioning of schizophrenics. Ss were 48 relatively differentiated male schizophrenics seen individually for 3 sessions. The main positive findings were that the aggressive stimulus had an adverse effect on self-concept while the stimulation of the theme of symbiotic merging, as it had in earlier experiments, led to a reduction in pathological manifestations.—*Journal abstract*.

3458. Siomopoulos, V. (Illinois State Psychiatric Inst., Chicago) **Paralogic involvement of the notion of awareness in schizophrenic thinking.** *Psychiatric Quarterly*, 1970 (Apr), Vol. 44(2), 305-322.—Thought mechanisms underlying the delusional ideas of 4 schizophrenics were mostly unconscious and had to be inferred from verbal cues elicited after inquiry into the delusional ideas. The patients employed paralogic mechanisms involving the awareness of highly invested contents, resulting in a variety of delusional ideas despite an appearance of homogeneity in the clinical pictures.—D. Prager.

3459. Sojit, Cloë M. (1695 Posadas, Buenos Aires, Argentina) **La hipótesis del doble vínculo y los padres de esquizofrénicos.** [The double bind hypothesis and the parents of schizophrenics.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970 (Dec), Vol. 16(4), 327-340.—A double-bind situation was employed to compare the interaction patterns of the parents of schizophrenics, delinquents, ulcerative colitis patients, and controls (total N = 54 couples). The main finding was that the parents of schizophrenics have incongruent patterns of communication, as compared to the other parents. Results support the double-bind hypothesis as a theory of the current family situation of the schizophrenic. It is suggested that the different ways to respond to double-bind situations exhibited by the parents seem to be related to the different types of pathology presented by the offspring. (18 ref.)—*English summary*.

3460. Streiner, David L. & Watters, Derek A. (McMaster U., Hamilton, Ontario, Canada) **Instrumental conditioning of the GSR in normals and schizophrenics.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6 (Pt. 1), 33-34.—Normals and drug-free schizophrenics were given training involving associating verbal stimuli to the onset and offset of a noxious noise. Following this, they

were compared with 2 groups, not given the training, on the ability to control their GSR in an avoidance paradigm where producing and inhibiting GSRs were contingencies for avoidance of the noise. Training abetted the ability to control the GSRs for the normals and schizophrenics. Reactivity to the stimuli and number of correct responses were not related to diagnosis. It is suggested that previous findings of poorer conditioning in schizophrenics may be confounded by the effects of psychoactive medication.—*Author abstract.*

3461. Taylor, Irving A. & Knapp, Marion W. **Creative artistic production of chronic schizophrenics through simultaneous sensory stimulation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 411-412.—Attempted to induce creative artistic production in chronic schizophrenics through intensive simultaneous sensory stimulation (SSS). 10 experimental chronic schizophrenics were treated biweekly to SSS over an extended 6-mo period. Their art work during this period became more creative as evidenced by being more generative, original, complex, condensed, impactful, relevant, and transforming. A comparable control group of 10 chronic schizophrenics showed no appreciable change in their art production over a similar period of time. It is concluded that sensory stimulation, possibly through brain arousal, operates with chronic schizophrenics in inducing creativity as it does with normals.—*Author abstract.*

3462. Thayer, Jane & Silber, David E. (Alexandria Community Mental Health Center, Va.) **Relationship between levels of arousal and responsiveness among schizophrenic and normal subjects.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 162-173. Hypothesized that tonic arousal level, as measured by the basal skin resistance level, would be an important parameter influencing psychophysiological responsiveness to discrete stimuli. 32 schizophrenic Ss and 32 normal Ss were divided into subgroups on the basis of their resting skin resistance levels. Ss were then given 30 mild, discrete auditory stimuli, and their psychogalvanic responsiveness was assessed. The parameter of tonic arousal level accounted for the majority of variability, while psychiatric status was a negligible factor. In general, Ss manifesting high tonic arousal responded more rapidly, with more GSRs to discrete tone stimuli, with more nonspecific GSRs, and with greater amplitude of change than did Ss with low tonic arousal. Results of other studies are discussed within the framework of these findings, and it is suggested that controlling for this parameter may serve to reduce heterogeneity of results in future research. (46 ref.)—*Journal abstract.*

3463. Thornton, Charles C. & Gottheil, Edward. (Northeast Community Mental Health Center, Philadelphia, Pa.) **Social schemata in schizophrenic males.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 192-195.—Utilized J. L. Kuehne's felt figure replacement technique to investigate differences in social replacement schemata between 17 normal and 32 schizophrenic males. As predicted, the schizophrenic males, unlike the normals, did not display the schema that "people belong together." Schizophrenics, more often than normals, overestimated at least 1 of the parental-figure distances (i.e., woman-boy, and/or man-boy), a difference that was not observed for any combination of nonparental human-figure sets. Results are consistent with the notion that early parent-child conflict later generalizes to interpersonal relationships on the whole.—*Journal abstract.*

3464. Trappl, R., Heiss, W. D., & Bruck, J. (Vienna U., Inst. of General & Comparative Physiology, Austria) **Syndromanalyse und Rehabilitationsprognose chronisch Schizophrener: Anwendungsbeispiele statistischer Verfahren in der Psychiatrie.** [Syndromatic analysis and rehabilitation prognosis of chronic schizophrenics: Examples of using statistical methods in psychiatry.] *Nervenarzt*, 1969(Jun), Vol. 40(6), 264-268.—A precondition of any statistical examination is the recording of the symptoms according to a scale. Depending on the type of scale, various methods exist for the calculation of correlation coefficients describing the statistical connections between 2 symptoms. As an example, the use of the 4-field correlation for discovering the connections between the symptoms of chronic schizophrenics is mentioned. Correlations can serve as the basis for a factor analysis or a regression analysis. By using a special regression method, the so-called linear multiple regression, the possibility of a quantitative rehabilitation prognosis of chronic schizophrenics is shown.—*P. von Toal.*

3465. Wolff, Wirt M. & Morris, Larry A. (L. Texas, Southwestern Medical School, Dallas) **Intellectual and personality characteristics of parents of autistic children.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 155-161. Studied 5 sets of parents with autistic children, and 2 with schizophrenic offspring. Demographic, intelligence, and personality data on their families were examined. Runkel's retrospective checklist (Form E-1) was useful in distinguishing between autistic and schizophrenic disorders. Demographic and IQ findings were not supportive of conjectures about parents' remarkable intelligence and achievement levels. Parental MMPI and "A-B therapist" measures (the Kemp version of the Whitehorn-Betz A-B scale) seemed contradictory to related psychogenic hypotheses about severe childhood disturbances. Results are contrary both to positions depicting parents of autistic children as exceedingly brilliant people and as "emotional refrigerators." (26 ref.)—*Journal abstract.*

3466. Wynne, Lyman C. (National Inst. of Mental Health, Bethesda, Md.) **Communication disorders and the quest for relatedness in families of schizophrenics.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 100-114.—Describes 2 views of relatedness: (a) expressive—spontaneous, meaningful feelings, including experiences of warmth and affection, e.g., between mother and child and between romantic lovers; and (b) instrumental, in which greater value is given to tasks performed by interacting persons, and the focus of attention are external to themselves. Communication skills are thought to be a prerequisite for enduring relatedness in either view. Applications of these views are described in client-therapist and family relationships. Studies are described in which measures of communication deviances were useful in identifying parents of schizophrenic patients. A family case is also presented, using communication deviance results of different family members as a basis for understanding family dynamics and processes of family therapy. (30 ref.)—*H. Roemmich.*

Schizophrenia Treatment

3467. Córscico, Rubén & Chappa, Herbert J. (National U. of La Plata, Buenos Aires, Argentina) **Relaciones entre cambios clínicos y visomotores en un grupo de esquizofrénicos.** [The relationship between clinical

and visuomotor changes on a schizophrenic group.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Dec), Vol. 16(4), 350-353.—3 measures were employed to assess pre- and postclinical and visuomotor changes on a schizophrenic group of patients receiving psychopharmacological treatment: the Wittenborn Psychiatric Rating Scales, a clinical remission scale, and the Bender Gestalt Test as scored with the Pascal and Suttell technique. The 1st 2 measures showed a statistically significant reduction in scores after the treatment, but the Bender Gestalt did not result in significant data. It is concluded that the Bender Gestalt is useful to detect psychotic conditions, but is unable to assess changes in follow-up studies with psychotropic drugs of the type used in this study.—*English summary.*

3468. Foley, P. (Parramatta Psychiatric Center, New South Wales, Australia) **Some forgotten men: A remotivation programme.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 123-140.—Describes a project designed to provide therapeutic benefit for a selected group of 12 male schizophrenic patients located on a locked ward in a psychiatric clinic. Treatment consisted of a combination of the approaches of Allyon and Azrin and John Rosen. Data from 5-point scales covering 11 behavioral variables were analyzed for 10 of the patients, and significant group improvements were found in the areas of personal habits, communication, memory, socialization, and initiative. No significant change was found in psychotic behavior, orientation, cooperation, concentration, special skills, or family interaction. Further analysis indicates (a) significant changes in overall behavioral efficiency in patients 20-29 yr. old, but not in those 30-39 or 40-49; (b) no differences in intelligence; and (c) significant changes in those hospitalized under 6 yr. old, not found in those hospitalized for longer periods. The design of the program is discussed in detail, and a number of case histories are presented.—*R. Wiltz.*

3469. Levene, Howard I., et al. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **The aftercare of schizophrenics: An evaluation of group and individual approaches.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 296-304.—Placed 31 chronically ill schizophrenics who were on maintenance phenothiazines on indefinite home leave from a state psychiatric hospital. Ss were seen for their aftercare individually for 15 min. monthly or in a group for 1 hr. monthly. 13 were rehospitalized within 1 yr. Both methods of aftercare were inadequate for community maintenance or further improvement.—*D. Prager.*

3470. Sheckman, Ronald L. (U. Kansas) **The need for a predictable reality in schizophrenia: The interpersonal context, reinforcement and the subsequent performance and self-presentation of hospitalized schizophrenics.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3716.

3471. Sheiner, Sara. (390 West End Ave., New York, N.Y.) **Investigation of a learning block in a schizophrenic.** *American Journal of Psychoanalysis*, 1969, Vol. 29(2), 205-211.—Presents the case history of a 22-yr-old woman diagnosed as a paranoid schizophrenic, and describes the emotional, intellectual, and communicative interaction which developed between the woman and her therapist and the process of growth which was stimulated. The significance of relating to another human being on his level is stressed. It is suggested "that schizophrenia is a developmental process, cognitive,

emotional, and psychologically dynamic consequent to some conjectured interference with growth."—*M. Maney.*

PSYCHOSOMATIC DISORDER

3472. Arnds, H. G. & Studdt, H. H. (U. Freiburg, Medical Clinic, W. Germany) **Psychodiagnostische Beiträge zur Persönlichkeitsstruktur von Asthmatikern.** [Psychodiagnostic studies of the personality structure of asthmatics.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1969(Apr), Vol. 15(2), 113-119.—Compared 50 asthmatics with a control group of other patients in a psychosomatic clinic by using 3 psychodiagnostic methods: a test to examine the intelligence level and intelligence functions (Hawie test), the Rorschach technique, and a color selection or Color Pyramid Test (CPT). Statistically significant difference between the control group and asthmatics in the Hawie test showed that male asthmatics proved relatively less capable in the action part than in the verbal part of the test, i.e., they had a relatively high verbal IQ and relatively low action IQ. In the Rorschach test, both male and female asthmatics showed more shock phenomena on Table VI. Women differed in some determinants and interpretation content, men in some contents. In the CPT, male asthmatics chose more white, and females more red and less grey in the "beautiful pyramids" than the corresponding control groups. No separate studies were made of males and females, but differences showed up in the secondary findings. It is concluded that asthmatics have a greater potential for emotional reactivity and more unexpressed feelings against their social environment. Certain maladjustments may be typical for asthmatics but also may occur with other psychosomatic diseases. (17 ref.)—*B. Schay.*

3473. Condrau, Gion. **Psychosomatische Krankheitslehre.** [Psychosomatic nosology.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1969(Apr), Vol. 15(2), 90-99.—Presents a lecture, delivered at the International Working Conference of the German Psychoanalytical Society and the International Forum for Psychoanalysis, analyzing the 2 principal areas of psychosomatics, i.e., understanding of the illness and psychotherapy. 3 questions require an answer: (a) the reason for the occurrence of a certain disease or neurosis; (b) why a certain organ is affected or symptom occurs; and (c) the meaning of frequently occurring changes in disease and symptoms. Included are 4 tables indicating the basic forms of human illness, theories regarding organ specificity in psychosomatic diseases, and the possibilities of psychosomatically oriented therapy. Only by applying the insight of depth psychology and neuropsychology to the science of human illnesses will psychosomatics provide a truly new understanding of human illness. By taking into consideration the basic condition of human existence a better understanding of human illnesses and therapy is gained.—*B. Schay.*

3474. Epstein, R. S., Cummings, N. A., Sherwood, Elizabeth B., & Bergsma, D. R. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Psychiatric aspects of Behcet's syndrome.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 161-172.—*W. G. Shipman.*

3475. Fahrenberg, J. (U. Freiburg, Psychologic Inst., W. Germany) **Körperlich-funktionelle Beschwerden**

und Persönlichkeitsmerkmale. [Somatofunctional complaints and Personality traits.] *Nervenarzt*, 1969-(Mar), Vol. 40(3), 111-116.—Psychovegetative and psychomotor processes require a complementary psychophysiological examination. This means that the 3 methodological sides of psychosomatic processes—experience (state of health), behavior, and somatic processes—have to be covered by a specific and highly developed methodology and integrated into a comprehensive picture. A new questionnaire has been developed which measures the degree of somatofunctional complaints. Tables are included stating the results of 410 questionnaires of representative cases in the population and 183 questionnaires of students. It was shown in several investigations that the complaint frequency was based on relatively consistent personality traits, and that subjectively experienced nervousness depended very significantly on the individual manifestation of neuroticism and on the sex of S (women had more complaints), but not on extroversion, introversion, age, or education. The general factor hypothesis of nervousness can only be supported by questionnaires but not verified. However, this new questionnaire is an important means of measurement in multivariate, psychophysiological experimental studies. The statistical results offer insight into the type and frequency of the "complaints of the healthy."—B. Schay.

3476. Lazzaroni, Virgilio & Sirigatti, Saulo. *Struttura della personalità e psicosomatosi: Nota preliminare*. [Personality structure and psychosomatics: Introductory note.] *Bollettino di Psicologia Applicata*, 1969, No. 91 93, 91-96.—Initiated a revision in the existing literature on psychosomatics and of the methods used in clinical psychology. A detailed study was conducted regarding a group of syndromes traditionally defined as psychosomatic, e.g., arthritis, rheumatism, asthma, peptic ulcer, hypertension, sterility in women, and gastritis. The following methods were employed in the study: (a) questionnaires, (b) MMPI for psychological abnormalities, (c) Rosenzweig's Picture-Frustration Study for frustration, (d) Baum Test as a general projection test, (e) Progressive Matrices-38 as an intelligence test, and (f) a series of stimulations which permit the comparison of alpha rhythm modifications with respiratory and EKG modifications. 2 basic principles are emphasized as a result of the study: (a) behavior is defined as a function of the organism which tends to accept adjustment and whose structure is delimited, and (b) personality structure is considered as a careful study of the behavior structure by means of differential methods. Here, continuity between efficient and deviate behavior is implied as well as the validity of biological laws. (28 ref.)—A. M. Farfaglia.

CASE HISTORY

3477. Aaronson, Bernard S. (New Jersey Bureau of Research in Neurology & Psychiatry, Princeton) *Hypnosis, depth perception and schizophrenia. Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 271-275.—A series of experiments with a single S (a 22-yr-old male college student) on the effects of posthypnotically altered perception on behavior suggests a relation between a perception on behavior suggests a relation between a schizophrenic-like condition and loss of depth perception, and a psychedelic state with enhanced depth perception. These changes were not observed with

blurred vision or enhanced visual clarity.—*Journal abstract*.

3478. Bachman, Ronald; de la Cruz, Felix F., Al-Aish, Matti, & Santell, Fredricka. (Permanent Medical Group, 280 W. MacArthur Blvd., Oakland, Calif.) *Short arm deletion of an X chromosome in a 19-year-old girl*. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 435-441. Reports the 6th case of a 19-yr-old white female with a nonmosaic short arm deletion of her X chromosome. Findings are compared to the 5 other reported similar cases, and this group is compared to the 6 reported cases of nonmosaic long arm deletions of the X chromosome. Findings suggest that the region of the chromosome which determines the stature and phenotype in Turner's syndrome (XO) is located on the short arm of the X chromosome. (17 ref.)—*Journal abstract*.

3479. Earle, Brian V. & Theye, Frederick W. (12 1st Ave., Ithaca, N.Y.) *Automatic writing as a psychiatric problem*. *Psychiatric Quarterly: Supplement*, 1968, Vol. 42(2), 218-222.—This is believed to be the 1st case report in which automatic writing has given rise to a specific psychiatric problem. A woman's automatic writing production caused her considerable embarrassment by revealing a bomb threat which turned out to be false. She had learned the technique from a popular book. Automatic writing involves a dissociation of consciousness such as occurs in hypnosis. Relevant literature is reviewed. (15 ref.)—D. Prager.

3480. Grüneberg, F. & Helmchen, H. (Free U., Psychiatric & Neurologic Clinic, Berlin, W. Germany) *Impulsiv-Petit mal-Status und paranoide Psychose*. [Impulsive petit-mal state and paranoid psychosis.] *Nervenarzt*, 1969(Aug), Vol. 40(8), 381-385.—Reports on a 32-yr-old woman, who had suffered from an impulsive petit-mal epilepsy since she was 17. While hospitalized, an impulsive petit-mal state could be observed, followed by a short paranoid psychosis. The EEG findings indicate a general change during the postparoxysmal twilight state, while the state of paranoid psychosis indicates a partial "forced" normalization. During the interval between attacks, the EEG showed a focus with a temporal left front center of gravity. It is noted that, in the EEG proven temporal focus, an essential source for the complications of the impulsive petit-mal state could be looked for, by means of a psychotic episode and postparoxysmal automatisms. (30 ref.)—P. von Taal.

3481. Keiz, E. (Free U., Neurologic & Neuromuscular Clinic, Berlin, W. Germany) *Psychose und psychomotorische Epilepsie: Beobachtungen bei einem arteriovenösen Rankenangioma des Schläfenlappens*. [Psychosis and psychomotor epilepsy: Observations about an arteriovenous cirrus angioma of the temporal lobe.] *Nervenarzt*, 1969(Mar), Vol. 40(3), 133-137. Presents the case history of a 46-yr-old male patient suffering from an arteriovenous cirrus angioma in the left temporal lobe which after several subarachnoid bleedings (at the ages of 18, 28, and 40) led to a grand mal mixed epilepsy with impaired consciousness. After a carotid ligature the grand mal attacks ceased and a psychomotor epilepsy remained. 3 yr. after the last and bleeding a paranoid psychosis developed. Epilepsy and psychosis did not alternate but coexisted. The connections between psychomotor epilepsy, paranoid psychosis, and the limbic system are indicated and the pathogenetic role in their development is discussed. The patient's EEG improved slowly and continuously but was not forced by the uniformly decreasing psychosis. When the attack

syndrome was strong the psychotic symptoms intensified. The problems of psychopharmacological treatment are noted. (36 ref.)—*B. Schay.*

3482. **Noto Campanella, F.** (U. Milan, Inst. of Clinical Psychiatry, Italy) **Contributo clinico allo studio della verbigerazione: Analisi psicopatologica di casi personali.** [Clinical contribution to the study of verbigeration; Psychopathological analysis of personal case histories.] *Neuropsychiatria*, 1968(Oct), Vol. 24(4), 779-817.—Describes a schizophrenic-like process which is sometimes connected to hallucinations and delusions as well as stereotypes and mannerisms. A case study is presented to illustrate this process. (French, English, & German summaries) (49 ref.)—*L. L'Abate.*

3483. **Ploeger, A.** (Rhenish-Westphalian Technical School, Psychiatry Div., Aachen, W. Germany) **Anthropologische Aspekte der Hirntumorphobie.** [Anthropological aspects of brain-tumor phobia.] *Nervenarzt*, 1969(Aug), Vol. 40(8), 361-371.—Notes the difference between "anxiety" (a general feeling of being menaced) and "fear" (of objects and conditions). An anxiety neurosis without any fixed notions is to be distinguished from a "phobia," which is related to objectively unfounded but definitely expected dangers. An imaginary fear of sickness is designated as a phobia when it concerns a relatively constant notion. A fearful expectation of a sequence of organic or functional disorders is designated as "hypochondria." The cases and treatments of 2 women, each suffering from a brain-tumor phobia, are reported. A 28-yr-old office worker felt humiliated in her self-esteem in connection with sexual scruples; and a 29-yr-old ballerina suffered from fear of losing her intellectual functions (she was unhappily married and frigid). Brain-tumor phobia is believed to be an expression of a deeply felt menace to the personal self and of the fear that the personal existence may become extinct. (79 ref.)—*P. von Toal.*

3484. **Schneemann, N.** (Heidelberg U., Neuropathic Clinic, W. Germany) **Über einen Fall von psychomotorischer und Grand mal-Epilepsie mit phasischen anorektischen Zuständen.** [Concerning a case of psychomotoric and grand-mal epilepsy with phasic anorexia states.] *Nervenarzt*, 1969(May), Vol. 40(5), 215-220.—Describes a 52-yr-old female who had suffered from epileptic attacks since she was 14 yr. old and from phasic anorexia since she was 19. The periodicity of her anorexia is believed to indicate a connection with her epileptic condition, due to the drives centered in the oral and sexual regions which were suppressed by S. This seems to be confirmed by the Penfield-Jasper concept of "epileptic facilitation." A close interlacing of somatic and psychodynamic events may have a connection with the "rhinocephalic origin" of psychomotor epilepsy. (2 p. ref.)—*P. von Toal.*

3485. **Viscott, David S.** (Boston U., Medical School) **A musical idiot savant: A psychodynamic study, and some speculations on the creative process.** *Psychiatry, Washington, D.C.*, 1970(Nov), Vol. 33(4), 494-515.—Reviews previous literature on cases of idiot savants and presents a case history of a 40-yr-old woman who was considered "mentally retarded." The patient was seen after an accident had disrupted her routine life and she had become confused and suicidal. When she was a child she was isolated from the rest of the family and placed in a crib next to the piano in the studio where her mother taught music. She was able to give the day of the week for any date between 1920-1970 with 95%

accuracy and her musical knowledge is such that she can identify almost any major work of symphonic music with key, opus number, 1st performance, and vital sketches about the composer. She has absolute pitch, can play piano and violin, and can change keys in the middle of a piece without losing a beat. She is able to play a melody in the style of any given composer. Although she is not able to think abstractly in other areas, in the area of music she performs abstractions difficult for a serious music student. Ideas raised by this patient on the peculiarities of the creative process are also discussed. (17 ref.)—*E. M. Uprichard.*

MENTAL HEALTH & REHABILITATION

3486. **Beussee, Mary P., Hammes, John A., & Ahearn, Thomas A.** (U. Georgia, Civil Defense Research) **Effects of fallout shelter confinement on mental health.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 121-123.—While recognizing that volunteers for a 2-wk stay in a fallout shelter lack the stresses incident to a forced stay, nevertheless, certain behavior patterns emerged which could advantageously be made available to managers and other personnel in charge.—*A. M. Cawley.*

3487. **Bower, Willis H.** (Arizona State Hosp., Phoenix) **Recent developments in mental health manpower.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 11-17.—Describes the great need for personnel in the mental health field and the development of the subprofessional category of worker. Changes in the authoritarian structure of mental hospitals in the 1950s shifted the emphasis from control of the patient to liberation. Interdisciplinary relationships were also forced to change with a lessening of the direct relationship of the psychiatrist and patient, and a growth in the responsibility of the aides and nurses. The psychiatric technician category of worker developed and colleges inaugurated 2-yr programs leading to certification in this area. Current educational programs are outlined, and recommendations are made for the type, length, and orientation of training for the subprofessional.—*S. Knapp.*

3488. **Cruickshank, William M.** (U. Michigan) **Rehabilitation: Toward a broader spectrum.** *Psychological Aspects of Disability*, 1970(Nov), Vol. 17(3), 149-158.—Presents a summary statement on the past performance of psychologists in the rehabilitation program and the 5 issues to which they are to speak in the immediate future: (a) limited scope of rehabilitation training, (b) CA limitation, (c) rehabilitation and disadvantage, (d) interdisciplinary role, and (e) ecological training.—*N. De Palma.*

3489. **DeRosis, Helen A.** (Roosevelt Hosp., New York, N.Y.) **Parent group discussions: A preventive mental health technique.** *Family Coordinator*, 1970(Oct), Vol. 19(4), 329-334.—If the parent is the true primary preventive agent in a program for prevention of learning and behavioral disorders, the professional community has the responsibility to explore effective, economic methods for enhancing the parent's understanding and skills. This paper describes a procedure which has been found to have some effectiveness in parent group discussions in a public school setting.—*M. W. Linn.*

3490. **Dumas, Neil S. & Muthard, J. E.** **Coordinating research and practice.** *Journal of Rehabilitation*, 1971(Jan), Vol. 37(1), 34-37.—Describes the roles,

functions, and activities of the 7 Regional Rehabilitation Research Institutes (RRRIs) sponsored by the Social and Rehabilitation Service. The core research, selections from recent major publications, and key personnel of this nationwide network of institutes are listed. The original and continuing expectation of this grant program is the establishment of 1 RRI in each region. As vacancies occur in the list, other institutes will be established.—*M. A. Seidenfeld.*

3491. **Dunning, Helen.** (U. Southern California) **The territorial instinct and its relevance to the occupational therapy process.** *American Journal of Occupational Therapy*, 1970(Nov), Vol. 24(8), 569-571.—This discussion of territorial instinct presents a few introductory ideas on a subject with many questions and need for further exploratory research. How can the physical environment be manipulated for treatment purposes? Can territorial need be recognized and met through program planning? Does this grid contribute to program evaluation? The concept of territoriality is related to occupational therapy as a profession that acknowledges that space is one of the needs of an individual. For professional growth and maturity territorial needs must be perceived and integrated in life space. An effective treatment environment helps the staff and patients to fulfill biological, psychological, and social needs for space.—*Journal summary.*

3492. **Ellsworth, Paul D. & Colman, Arthur D.** (Tripler General Hosp., Honolulu, Hawaii) **The application of operant conditioning principles.** *American Journal of Occupational Therapy*, 1970(Nov), Vol. 24(8), 562-568. Discusses 6 planned motivational systems used to improve work therapy performance of character and behavior disorder in a military setting. All systems include leadership, decision-making, competition, social and point reinforcements. The reinforcement systems are presented in a historical fashion as they developed and should help other therapists plan and implement similar programs where the motivation of patients is a key concern.—*Journal summary.*

3493. **Ethridge, David A. & McSweeney, Maryellen.** (Dept. of Mental Health, Bureau of Operational Planning, Lansing, Mich.) **II. The hypothesis: Research in occupational therapy.** *American Journal of Occupational Therapy*, 1970(Nov), Vol. 24(8), 551-555.—The concept of the use of the hypothesis in research is developed as one of a series of articles on research methodology for the occupational therapist.—*M. A. Seidenfeld.*

3494. **Ginsberg, Stewart T., Manolio, Anthony P., & Salerno, Joseph.** (Veterans Administration Hosp., Lyons, N.J.) **SCOPE: A venture in hospital-community collaboration.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 21-23.—Describes the simulated conditions of practical employment (SCOPE) program, a sheltered workshop which functions within a mental hospital framework. Patients are assigned to the hospital factory on the basis of skills and potential for benefiting from the program. Various types of contracts are made with the business community involving work of different degrees of complexity. Of 432 patients assigned to SCOPE, 52% were returned to the community with a readmission rate of less than 5%. It is concluded that the program is beneficial not only to the patient but also in improving community relations for the mental hospital.—*S. Knapp.*

3495. **Gray, Robert M., Reinhardt, Adina M., & Ward,**

John R. (U. Utah, Medical School) **Psychosocial factors involved in the rehabilitation of persons with cardiovascular diseases.** *Rehabilitation Literature*, 1969(Dec), Vol. 30(12), 354-359 & 362.—Utilizing data from national (N=4463) and community (N=109) samples, it was found that cardiovascular Ss, as compared with comparable groups of otherwise disabled persons, tended to deny their illness more frequently and were less willing to accept their illness realistically or adopt the sick role. As a result, cardiovascular patients were rehabilitated less frequently than other disabled persons. When entered into a rehabilitation program emphasizing the need for acceptance of the impairment, the disparity in rehabilitation success rates vanished.—*S. L. Warren.*

3496. **Griffin, J. D.** (Canadian Mental Health Assn., Toronto, Ontario) **Mental health and its changing perspectives.** *Canada's Mental Health*, 1971(Jan), Vol. 19(1), 3-7.—Discusses changes and refinements in the principles of mental health treatment. The concept of mental health has been extended from a concern with strictly medical illness, e.g., psychosis, to areas where medical responsibility is less clear, e.g., divorce and poverty. Professional help is not available for the entire population and resulting varied needs. It is suggested that traditional psychotherapy is in any case inadequate for many of these people. Recommendations for changes emphasize "(a) the importance of interprofessional collaboration in mental health planning and services; (b) the need for further decentralizing and diversifying mental health services to meet the needs of isolated and impoverished groups; (c) the need for coordination of the mental health services to improve efficiency and decrease expensive overlap; and (d) the need for and role of lay participation in mental health planning."—*S. Knapp.*

3497. **Jackson, Barbara N.** (San Jose Hosp., The Oaks Extended Care Unit, Calif.) **The occupational therapist as consultant to the aged.** *American Journal of Occupational Therapy*, 1970(Nov), Vol. 24(8), 572-575.—The role of the occupational therapist working with the aged in the community has expanded greatly with the advent of Medicare. This paper is concerned with the direction of this outreach into the community and some of the problems that are encountered when the occupational therapist moves from the acute hospital or rehabilitation center into the community at large.—*Journal summary.*

3498. **Martin, Alexander R.** (Beaverbrook Rd., Lyme, Conn.) **Idle hands and giddy minds: Our psychological and emotional unpreparedness for free time.** *American Journal of Psychoanalysis*, 1969, Vol. 29(2), 147-156.—Focuses on 2 inner resources which are basically responsible for a healthy adaptation to free time—the innate capacities for effort and relaxation—and discusses blocks to their development. The predominant and harmful influence of our work culture on the development and free expression of these 2 adaptive inner resources is examined, and the necessity of education for life off the job is explored as a multidisciplinary responsibility, involving all the arts, sciences, and humanities. Case material from 10 patients is included to demonstrate our need to adapt successfully to ever-increasing free time. (29 ref.)—*M. Maney.*

3499. **Neff, Walter S.** (New York U.) **Work and rehabilitation.** *Journal of Rehabilitation*, 1970(Sep), Vol. 36(5), 16-22.—Provides a comprehensive overview of the

practical relationship that exists between work and employment and modern concepts of the rehabilitation process. In the 25 yr. preceding World War II and the similar time period that has passed since then, the emphasis has changed from a primary focus upon the physical correction of the overtly disabled to the current emphasis upon social and vocational adaptability to the demand of his society as well as the correction of his medical defects. Discussed are the methodological approaches to the assessment of work potential in the individual with particular emphasis on the disabled person, and to study the ways in which people adapt not only to work but to the adjustment to work. The work sample, situational assessment, and the rehabilitation workshop are discussed in this light. (16 ref.)—*M. A. Seidenfeld.*

3500. O'Morrow, Gerald S. (Indiana State U.) **Recreation counseling: A challenge to rehabilitation.** *Rehabilitation Literature*, 1970(Aug), Vol. 31(8), 226-233.—Contends that because our achievement-striving culture places a higher value on work than on leisure activities, professional rehabilitation efforts in behalf of the disabled have tended to concentrate on the former to the neglect of the latter. Reviewing some of the literature in recreation counseling, the author's own study of recreation services to psychiatric patients in relation to predischARGE planning and aftercare, as well as personal experiences in the field, it is concluded that recreation counseling is an effective and constructive service which can enhance the rehabilitation process and help disabled individuals to deal more successfully with the demands of daily living.—*S. L. Warren.*

3501. Shainess, Natalie; Tobach, Ethel, & Headley, Dorothy. (Columbia U., Coll. of Physicians & Surgeons) **The mental health movement meets women's lib.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 1-9.—3 women—a social work administrator, a clinical psychologist, and a research worker in animal behavior—discuss the impact of the women's liberation movement on various aspects of mental health fields: biological, psychological, cultural, directions and trends of research.—*A. M. Cawley.*

3502. Shearer, Robert M. (Georgia Regional Hosp., Augusta) **The structure and philosophy of Georgia's half-way houses.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 115-118.—In 1964 the state's 1st halfway house was opened for women and in 1965 one was opened for men. Each accommodates 15 clients, in addition to a married couple who serve as houseparents. Clients are kept 2-9 mo. They have spent an average of 3 yr. in a hospital. "The primary purpose of the rehabilitation residence is to help the former patient enter or re-enter employment, become self-sustaining, and reach the fullest extent of independence his capacity permits." Stability for a reasonable period is a prerequisite for entering the program. "The staff of the residence have learned to expect crises at 3 critical points: when the client 1st comes to the house, when he is seeking or beginning employment, and when he is preparing to leave the house to live elsewhere in the community." There are 3 levels of service to help clients achieve rehabilitation goals: meeting their basic needs, helping them solve problems, and helping them resolve conflicts or crises. As of 1967, 227 16-61 yr. old clients had entered the 2 residences. 163 cases were closed as rehabilitated and 52 were returned to the state hospital. 4

similar facilities have recently been opened.—*B. A. Burkard.*

3503. Siskind, George. (Larue D. Carter Hosp., Indianapolis, Ind.) **A case of counseling and confrontation with test performances.** *Rehabilitation Literature*, 1970(Mar), Vol. 31(3), 74-76.—Presents a case study which illustrates how growth and personality reorganization can be brought about through the use of the counseling process in arriving at a vocational objective. It shows how the creative and flexible use of formal test materials can aid in this process, and points out some of the differences between counseling and psychotherapy.—*S. L. Warren.*

3504. Stein, Franklin & Maletta, Donald. (Boston U., Sargent Coll. of Allied Health Professions) **The cognitive-media approach in occupational therapy.** *American Journal of Occupational Therapy*, 1970(Nov), Vol. 24(8), 545-550.—Presents a cognitive theory that can be incorporated into the field of occupational therapy. Use is made of Guilford's structure of intellect theory and the research findings obtained from the area of cognition are used in analyzing media and in creating new activities. In developing therapeutic media, consideration is given to the developmental level of the child, the cognitive regulator that filters information, the selection of the sensory channel, i.e., auditory, visual, or haptic, and the content form of the information. A therapeutic model is proposed for evaluating and treating children with learning problems, i.e., the mentally-retarded, brain-damaged, and emotionally disturbed. (25 ref.)—*Journal summary.*

3505. Stern, Walter F., et al. (United Community Services of Metropolitan Boston, Mass.) **Helping all the handicapped: State planning and vocational rehabilitation.** *Rehabilitation Literature*, 1970(Mar), Vol. 31(3), 66-73, 95.—This article is a condensation of the report of the Massachusetts Vocational Rehabilitation Planning Commission. It contains both general and specific recommendations which cover the entire rehabilitation field. It presents a graphic as well as narrative description of how the Federal-State rehabilitation agency should go about providing needed services to handicapped persons in their communities. It pinpoints existing bottlenecks and suggests innovative methods of organization, delivery, and financing of rehabilitation service.—*S. L. Warren.*

3506. Stone, Gayle V. (U. Minnesota) **The relationship between personality and work need-reinforcer correspondence.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4346-4347.

3507. Sturm, Israel E. & Lipton, Herbert. (Veterans Administration Hosp., Northport, N.Y.) **Preparing former patients for jobs.** *Hospital & Community Psychiatry*, 1970(Feb), Vol. 21(2), 68.—Presents 6 suggestions from a group of personnel consultants on how to make the patient a better job prospect: (a) a graded rehabilitation program geared to individual needs for vocation training; (b) active liaison between clinical and rehabilitation workers, employment personnel, and the patient; (c) deemphasis of the patient's clinical status when evaluating job potential; (d) awareness that a shortage of workers or skills will overcome some prejudices concerning the employment of the patient; (e) caution in committing details of hospitalization in writing; and (f) availability of after-care facilities.—*S. Knapp.*

3508. Wahler, H. J. & Marks, John. (State Dept. of Institutions, Ft. Steilacoom, Wash.) **Recover: An opportunity program for ex-patients.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 10-12.

3509. Wright, Logan. (U. Oklahoma, Medical Center, Oklahoma City) **Components of positive mental health.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 277-280.—Administered 30 items designed to measure behavior in the 6 areas described by M. Jahoda as comprising positive mental health to 256 and 393 undergraduates. Data were factor analyzed in order to determine if Jahoda's 6-component structure could be supported statistically. Results consistently reveal a 4-factor structure in which (a) 3 components collapse into a single 1st factor entitled task and perceptual effectiveness; (b) 2 other areas combine to produce a 2nd factor entitled autonomy and self-actualization; and (c) 2 factors, commitment and openness, not included in Jahoda's original 6, were also obtained. Results are interpreted as indicating some incompleteness in Jahoda's 6-category scheme.—*Journal abstract*.

COUNSELING & GUIDANCE

3510. Anderson, Herbert. (Princeton Theological Seminary, N.J.) **Alfred Adler's individual psychology and pastoral care.** *Pastoral Psychology*, 1970(Oct), Vol. 21(207), 15-26.—Discusses Adler's potential contribution to pastoral care and counseling in terms of his stress on community feeling, goal-setting, and style of life.—*O. Strunk*.

3511. Baker, Frances S. (Case Western Reserve U.) **A comparison between two methods of teaching prospective counselors to provide high therapeutic conditions.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-B), 3698.

3512. Bennett, George F. (Central State Hosp., Louisville, Ky.) **Pastoral care in psychiatric crisis.** *Pastoral Psychology*, 1970(Jun), Vol. 21(205), 35-40.—Case illustrations reveal 4 factors that can guide the pastor to dealing with instances of psychiatric crisis—consultation, continued communication of concern and care, respect for person, and fellowship.—*O. Strunk*.

3513. Bruhl, Richard G. (Vanderbilt U. Hosp.) **Creating the pastoral setting.** *Pastoral Psychology*, 1970(Jun), Vol. 21(205), 26-34.—The function of the pastor in pastoral care, as well as in counseling, is to create a setting—a definite, limited relationship—for which the pastor is ultimately responsible. The pastor should understand and own this setting so that he can offer it confidently to others for their benefit.—*O. Strunk*.

3514. Collie, Robert M. (United Methodist Church, Columbus, O.) **Pastoral counseling in the context of social action.** *Pastoral Psychology*, 1970(Oct), Vol. 21(207), 45-48.—"The epidemic stature of psychic contagion today demands new techniques on the part of those who have skills in working with unbalanced persons." Milieu, recreational, bibliotherapy, psychodrama, and other approaches will help ministers to be social psychotherapists as well as private counselors.—*O. Strunk*.

3515. Dubner, Harriet W. (Forum School, Ridgewood, N.J.) **A speech pathologists talks to the Parents of a nonverbal child.** *Rehabilitation Literature*,

1969(Dec), Vol. 30(12), 360-362.—Presents the text of a letter which the author uses as an aid in counseling parents of nonverbal children. It includes a description of the natural development of language in infants, the role of the speech pathologist, and the ways in which the parent can help the child with language problems.—*S. L. Warren*.

3516. Fritchey, Kathleen H. (U. Southern California) **The effects of anxiety and threat on self-disclosure.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4336.

3517. Marlatt, G. Alan. (U. Wisconsin) **Exposure to a model and task ambiguity as determinants of verbal behavior in an interview.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 268-276.—16 undergraduates listened to a tape-recorded model discuss personal problems within each of 5 topic areas, while the 16 control Ss did not receive a model. $\frac{1}{2}$ the Ss were then told they could talk about anything they wished to in the interview. The remaining Ss were told they could talk about the same 5 topic areas discussed by the model. It was found that significantly more problems in the interview were given by the group receiving the model followed by the ambiguous task instructions. Ss exposed to the same model but who received topic-oriented instructions tended to give fewer problems in the interview. Theoretical similarities between the presentation of a model and the administration of instructions are discussed in the interpretation of the results. (23 ref.)—*Journal abstract*.

3518. Newton, Robert L. & Draper, Edgar. (Campbell Coll.) **Implications of termination for the pastoral counseling "contract."** *Pastoral Psychology*, 1970(Jun), Vol. 21(205), 7-18.—Psychotherapy and its literature have many insights about termination which are translatable into the context of pastoral counseling, especially the idea of contract or covenant. Factors involved in termination, including forced termination, are outlined.—*O. Strunk*.

3519. Owen, Carolyn M. (U. Southern California) **Effects of activity oriented group counseling with selected outpatients.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2743-2744.

3520. Speer, David C. (Amherst H. Wilder Foundation Child Guidance Clinic, St. Paul, Minn.) **Behavior Problem Checklist (Peterson-Quay): Base-line data from parents of child guidance and nonclinic children.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 221-228. Reports parent symptom-rating data on 173 child patients, 357 siblings of child patients, and 445 nonclinic children. Analysis of the data indicate that parent ratings clearly differentiate child patients from their siblings and from nonclinic children on 3 of 4 Behavior Problem Checklist factor scales: Conduct Disorder, Personality Disorder, and Inadequacy-Immaturity. An unexpected finding was that parents rated nonclinic children as more deviant than siblings of child patients. Analysis of high point scale frequencies indicate that parents of nonpatient children report most frequent greatest concern on the Socialized Delinquency scale, while this was the least frequent dimension of greatest concern among parents of child patients. Interscale correlations by sex and patient-nonpatient status suggest considerable practical scale interdependence, and also suggest that interscale correlations are greater among the ratings of nonpatients than

among parental ratings of patients.—*Journal abstract.*

3521. **Sperling, Eckhard.** (U. Göttingen, W. Germany) **Das psychotherapeutische Angebot für Studenten.** [Psychotherapeutic offers made to university students.] *Praxis der Psychotherapie*, 1970(Aug), Vol. 15(4), 162-170.—The riots, suicides, and serious neuroses of university students have become a public problem. University health services were introduced, a few years ago, in West Germany. The problems of this service are discussed, based on the experiences of the Health Service of the University of Göttingen. Since this office opened its doors in 1966, 490 students (2.5% of the student body) have sought advice. The possibilities of this service will remain limited as long as no reforms of educational methods are introduced. The chief complaints of students are: subjective efficiency failures, depressions, fears of situations including examination fright, and sexual troubles. A lack of a protective group, such as the American campus, is felt in Germany. Students suffer from an artificially prolonged adolescent situation and feel unprotected. The integration of groups of psychotherapeutically treated students is recommended.—*P. von Toal.*

3522. **Stettner, John W.** (McCormick Theological Seminary, Chicago, Ill.) **Pastoral counseling in the age of Aquarius.** *Pastoral Psychology*, 1970(Oct), Vol. 21(207), 7-14.—"The growth of 'counter culture,' widespread interest in group work, and the development of pastoral counseling as a specialized ministry have important implications for pastoral care today." Pastoral counseling in the "Age of Aquarius" is a significantly specialized part of the church's total ministry involving good group work procedures and respectfully takes account of man's ineffable experience.—*O. Strunk.*

3523. **Vontress, Clemmont E.** (George Washington U.) **Racial differences: Impediments to rapport.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 7-13.—Discusses the difficulty of achieving and maintaining rapport between white counselors and black clients. A harmonious black-black relationship may be difficult also, depending on the extent to which the counselor projects himself as "black." In general, it is easier to establish (a) a working relationship with a colored person than with either a Negro or black; and (b) a harmonious dialogue with a black, Negro, or colored female than with her male counterparts. The counselor generally can achieve rapport more quickly with individuals of African descent still living in the South than with those living in other parts of the country. Urban-rural differences are explored. It is concluded that counselor education is remiss in not revamping the curriculum to help counselors learn to relate to racial and ethnic minorities. (18 ref.)—*Journal abstract.*

Marriage & Family

3524. **Laqueur, H. Peter; Wells, Carl F., & Agresti, Miriam.** (Creedmoor State Hosp., Queens Village, N.Y.) **Multiple-family therapy in a state hospital.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 13-20.

3525. **Leighton, Lennard A., Stollak, Gary E., & Ferguson, Lucy R.** (Michigan State U.) **Patterns of communication in normal and clinic families.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 252-256.—Found significant differences between and within 8 normal and 7 clinic families with young

children in behaviors, e.g., total number of times speaking, total and average duration of speech, number of times interrupted and interrupting, and incidences of simultaneous speech. Results, obtained from the families performing a series of experimental tasks, indicate that (a) there is more conflict in the clinic families, and (b) the normal family is characterized by a father dominance which appears to be accepted by the other members of the family, while the clinic family is characterized by a mother dominance which is unacceptable to the other family members. (15 ref.)—*Journal abstract.*

3526. **Matanovich, Jamie P.** (Arizona State U.) **The effect of short-term group counseling upon positive perceptions of male in marital counseling.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2688.

3527. **McClellan, Thomas A. & Stieper, Donald R.** (Veterans Administration Mental Hygiene Clinic, Ft. Snelling, St. Paul, Minn.) **A structured approach to group marriage counseling.** *Mental Hygiene*, 1971-(Jan), Vol. 55(1), 77-84.—A 9-mo, time-limited group therapy program for married couples was recently completed in an outpatient clinic. The program incorporated programed instruction, A. Ellis' rational-emotive psychotherapeutic approach, and structured psychodrama skits, plus extensive use of homework assignments. Group members verbally reported a positive interest in the experience and said they found it helpful. Various testing instruments indicate a variety of small changes over the 9-mo period. It is suggested that this approach be applied in those psychiatric clinics having a large number of chronic patients.—*Author abstract.*

3528. **Stevens, Don & Johnson, A. Ronald.** (Florida State U., Tallahassee) **Family group counseling.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 111.—Assigned a county social worker to a ward at a state hospital to help staff plan discharges. As part of his work, he acted as a cotherapist with the ward social worker for a group of parents of emotionally disturbed young patients. Their clinical impression is that parents want to be involved in their children's treatment.—*B. A. Burkard.*

Social Casework

3529. **Gáti, Ferenc.** (Általános Iskola, Budapest, Hungary) **A pszichológiai szemlélet érvényesülése a gyermekvédelemben.** [Assertion of the psychological approach in child-welfare.] *Pszichológiai Tanulmányok*, 1967, No. 10, 255-258.

3530. **Lima, David R.** (Lake County Mental Health Clinic, Mentor, O.) **Social group work with dependent children.** *Hospital & Community Psychiatry*, 1969(Apr), Vol. 20(4), 122-123.—Describes a psychiatric outpatient facility which has been working with an institution for dependent children operated by a county welfare department. The home which cares for up to 18 dependent children for a maximum of 3 mo. lacked social services and recreational programs. At the end of a yr. the program was taken over by a child welfare worker and a coworker. It is believed that the program has a positive impact on a high-risk group of children at the home.—*B. A. Burkard.*

3531. **Makowsky, Bernard & Oken, Donald.** (Michael Reese Hosp. & Medical Center, Psychosomatic & Psychiatric Inst., Chicago, Ill.) **The contribution of social group work to the therapeutic milieu.** *Hospital*

& Community Psychiatry, 1969(Apr), Vol. 20(4), 119-122.—Discusses the contributions of the social group worker at the 80-bed Psychosomatic and Psychiatric Institute (PPI) of Michael Reese Hospital and Medical Center. His functions at PPI included department head of adjunctive therapy, group leader on the most disturbed ward, and team member on the most open unit. The group worker was able to influence a milieu in the total hospital because he had the backing of top administration and because the staff considered him a member of the team, not a social worker concerned only with family affairs and placement work.—*B. A. Burkard.*

3532. Murphy, John G. (U. Southern California) **A comparative analysis of the attitudes of socio-economically deprived clients toward two treatment modalities.** *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-A), 3048.

3533. Rosenthal, William A. (U. Pennsylvania) **A theory of beginnings in social group work process.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3050.

3534. Török, István. **A pszichohigiénia, a pszichoprophylaxia és pszichoterápia szerepe a gyermekvédelemben.** [The role of mental hygiene, psychoprophylaxis and psychotherapy in child-welfare.] *Pszichológiai Tanulmányok*, 1967, No. 10, 743-747.

3535. Turner, Francis J. (Waterloo Lutheran U., Graduate School of Social Work, Ontario, Canada) **An expanded role in mental health.** *Canada's Mental Health*, 1971(Jan), Vol. 19(1), 12-16.—Proposes that within the next decade, social work, rather than becoming more particularized, will become more allied with the related professions. Interprofessional collaboration is seen as an increasingly important role. Social work is described as becoming more involved in (a) preventative education, (b) community organization and development, (c) social planning, (d) administration of programs and personnel, and (e) regional and generic services. While education of the social worker is not seen as providing special programs in mental health, the content of the present programs will expand to include more in the area and cross-disciplinary programs will increase in number. It is concluded that "As the differences between professions in the mental health field blur, so also will be boundaries of mental health services and settings, so that optimum mental health will be the goal and the responsibility of all human services in society."—*S. Knapp.*

PHYSICAL HANDICAP

3536. Columbus, Dorothy & Fogel, Max L. (U. Pennsylvania) **Housing for the disabled: II. Characteristics of those willing to move to specially designed facilities.** *Perceptual & Motor Skills*, 1971-(Feb), Vol. 32(1), 212-214. 455 physically disabled persons were surveyed regarding their attitudes toward moving to housing facilities designed to give more independence to the disabled. While the majority were satisfied with their present living arrangements, 134 of the total group expressed a desire to move to such a facility. Those willing to move were younger, had more severe disabilities, and were more dependent upon others for daily needs. They were more often city dwellers who had lived in their present homes for a shorter period of time than those not willing to move. *Journal abstract*

3537. Lustig, Paul. (U. Wisconsin) **Differential use**

of the work situation in the sheltered workshop. *Rehabilitation Literature*, 1970(Feb), Vol. 31(2), 39-42. 49. Describes a method of behavioral modification for disabled persons in a sheltered workshop involving manipulation of the structural components of the work environment to increase the client's tolerance for avoided work activities. The author finds this method preferable for those clients who are unable to respond initially to the traditional verbal techniques of counseling and supervision. At the very least, the method provides an opening for teaching the client and making available an alternate procedure for modifying behaviors that interfere with adequate work adjustment.—*S. L. Warren.*

3538. Nickerson, Eileen T. (Northeastern U.) **Some correlates of adjustment by paraplegics.** *Perceptual & Motor Skills*, 1971(1 eb), Vol. 32(1), 11-23.—Investigated some correlates of adjustment to paraplegia, a physically immobilizing disability, which involves a number of frustrating, lifetime handicaps—e.g., the loss of the ability to walk, to feel sensation, to procreate and the control of bowel and bladder function. 48 male paraplegics were rated on hospital adjustment using a 9-point Q-sort rating scale. From the results, it appears that the patient who was better able to adjust to a physically immobilizing handicap, was one who was better able to function in society prior to his disability, as indicated by his relatively higher educational and occupational attainments. Such a patient also was motivated by more theoretic-type interests than was the patient who adjusted less well to his disability (52 ref.) *Journal abstract.*

3539. Roberts, Marjorie K. (Catholic U. of America) **Change in self-concept of leg amputees after prosthetic replacement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3713-3714.

3540. Royer, Jacqueline. **L'expression de l'agressivité du débile à travers le test des métamorphoses.** [The expression of aggression by the handicapped on the Transformations Test.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 628-631.—Royer's Transformations Test which consists of 20 questions such as "What animal would you most like to be? Why?" and their negative parallels ("What animal would you least like to be? Why?") and 11 questions without negative parallel concerning such things as preferred sex, preferred age, what one would do if he had lots of money, etc., was used to assess the performance of 50 handicapped children. The test was administered to 50 handicapped children with WISC Verbal 13-18 yr. old handicapped children with WISC Verbal IQs averaging 75 and 100 controls with WISC Verbal IQs averaging 107. The handicapped group tended to think by the "association of ideas and by conditioning." Poverty of ideas and perseverations were commonplace. Trite rather than original responses appeared more often in the handicapped group. Aggressive responses appeared more frequently in both handicapped boys (13.7%) and girls (11%) than in their normal counterparts (boys, 13.5%; girls, 8.4%).—*R. E. Smith.*

Blindness & Visual Disorder

3541. Lindley, Sondra P. (Case Western Reserve U.) **Kinesthetic perception in blind adults.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4340.

3542. Pickford, R. W. (U. Glasgow, Scotland) **The frequency of colour vision defective students in a school of art and the influence of their defects.**

Journal of Biosocial Science, 1969(Jan), Vol. 1(1), 3-13.—In a study with 223 art students, it was found that the frequency of red/green defectives was not different in a school of art from that in the population as a whole, and that the distribution of frequencies of subtypes was not different for men or women. 1 color defective out of 7 did not know of the defect until tested in this research. In every case where it has been used by nonpsychologists, the Ishihara Test for Colour-Blindness, used here as a measure, has given unsatisfactory information. In this research it was very unsatisfactory except for crude screening. All Ss showed surprising powers of adaptation, partly as a result of realizing their difficulties and learning to avoid colors which would give rise to difficulty. It is clear that with better testing and an understanding approach by a psychologist trained to explain color difficulties and give insight into the problem, much help could be given. It should not be necessary that all red/green defectives be excluded from schools of art, because some may have considerable artistic ability. (22 ref.)—*Journal summary*.

3543. Shagan, Joan M. (George Washington U.) **Kinesthetic memory, comparing the blind and sighted.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4320-4321.

3544. Wilson, Edouard L. (New York Assn. for the Blind, Psychology & Counseling Services, N.Y.) **Group therapy in a rehabilitation program.** *New Outlook for the Blind*, 1970(Sep), Vol. 64(7), 237-239.—In 1965, the New York Association for the Blind, referred to as the Lighthouse, introduced group therapy into its summer diagnostic program. The group consisted of 3 boys and 4 girls of college level intelligence. All members felt they had benefited. Today the Lighthouse uses group therapy, group vocational counseling, and group discussions as a part of the diagnostic phase of the rehabilitation program. Those faced with a visual handicap may also have psychological problems, and group therapy is useful in helping them cope with reactions associated with disability. "The program is not conducted along traditional analytic lines, where the focus is upon the total alteration of the developed personality, but, rather along re-educative and supportive lines using the interview technique which allows clients to enter and withdraw from the groups as their own needs dictate."—A. Burkard.

Deafness & Hearing Disorder

3545. Banerjee, Chhabi; Dutta, Anath; Chatterji, S., & Mukerjee, M. (U. Calcutta, India) **An investigation into the interest pattern of deaf children.** *Psychology Annual*, 1970(Mar), Vol. 4, 40-44.—Administered the Chatterji's Non-Language Preference Record to 100 14-18 yr. old deaf and dumb children from 2 special schools and compared results with those from 200 12-16 yr. old normal children. It was found that normal and deaf Ss differed significantly in their interest in all 10 fields except literary work and crafts. Normal Ss scored higher in scientific, medical, and technical areas, whereas deaf Ss scored higher in fine arts, agriculture, outdoor, sports, and household work. Implications for counseling are discussed.—S. Knapp.

3546. Csányi, Yvonne. **Adatok a nagyothalló gyermek gondolkodásának vizsgálatához.** [Contribution

to the investigation of thinking in children hard of hearing.] *Pszichológiai Tanulmányok*, 1967, No. 10, 677-690.

3547. Pereslenii, L. I. (Inst. of Defectology, Moscow, USSR) **Osobennosti vospriyatiya slozhnykh taktilnykh signalov u glukhikh.** [Features characterizing the perception of complex tactile signals in the deaf.] *Defektologiya*, 1970(May), Vol. 2(5), 10-19.—7 20-30 yr. old normal Ss and 8 18-21 yr. old deaf Ss participated in a study of the features characterizing the identification of complex tactile (vibrational) signals—a process by which discrimination of complex stimuli, applied to different parts of the skin of both arms (upper and lower) under conditions of temporal deficit, was attempted. 5 series of experiments with the same Ss were undertaken; in each series Ss were asked to identify 2 complex tactile signals consisting of simultaneous vibrational stimulation of several parts of the skin. Recognition of complex tactile complexes remained reliable for both groups with the reduction of time of their action to 5-10 msec. For both groups probability of discrimination and, especially, duration of latency of choice were not a function of duration of stimulus presentation within the temporal range utilized. Latency was a function of (a) the complexity of the tactile complexes, (b) the mutual disposition of the masking components, and (c) the mutual disposition of those components bearing the recognition sign. The 1st factor was especially marked in deaf Ss. The duration of the latent periods was shorter for deaf Ss.—I. D. London.

3548. Schiff, William & Dytell, Rita S. (New York U., Deafness Research & Training Center) **Tactile identification of letters: A comparison of deaf and hearing children's performances.** *Journal of Experimental Child Psychology*, 1971(Feb), Vol. 11(1), 150-164.—Presented the letters of the alphabet tactly to 172 deaf and 121 hearing children and adolescents. Ss identified the letters by matching from memory or with visual letters present. Errors decreased significantly with age in both groups, and were significantly influenced by matching method. The deaf/hearing factor was not significant. The pattern of errors paralleled that found with letters presented visually to prereading children, older children, and adults. Tactual errors were predicted by E. J. Gibson's visual feature list for letters. Latencies were not strongly related to variables other than letter identification difficulty. Findings are discussed in the context of amodal or cognitive feature processing strategies. (29 ref.)—*Journal abstract*.

3549. Smith, Kenneth E. (U. Kansas) **An experimental study of the effects of systematic reinforcement on the discrimination responses of normal and hearing impaired children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3754.

3550. Stinson, Michael. (U. Michigan) **Group communication for the deaf.** *Journal of Rehabilitation*, 1971(Jan), Vol. 37(1), 42-44.—Discusses the problems associated with effective communication between the deaf or seriously hard-of-hearing individuals and their hearing cocommunicants in the group situation. This problem is shown to be a complex one. Some of the more important dimensions influencing the degree to which such communication can be established at the intrapersonal, the situational, and the interpersonal levels are discussed. Considerable emphasis is placed upon suggestions for both the hearing-impaired participants and for the group leaders and hearing members of the group

in creating the most favorable conditions for mutual understanding. *M. A. Serdenfeld*

SPEECH DISORDER

3551. Anderson, Elaine R. (Syracuse U.) **Performance of children with articulation disability on visuomotor and auditory-vocal memory tasks under conditions of visual-auditory stimulation.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3747.

3552. Bankson, Nicholas W. (U. Kansas) **The effect of word drill with a contingency for rate and accuracy of production on automatization of articulatory responses.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3747-3748.

3553. Boysen, Allen E. (U. Oklahoma) **The effects of nonreward on the object-naming latencies and response durations of normal-speaking and stuttering children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3748-3749.

3554. Crocker, John R. (Loyola U., Chicago, Ill.) **Breakdown of symbol processing in brain injury.** *Acta Symbolica*, 1970(Fal), Vol. 1(2), 25-30.—Presents some reflections on the nature of the symbol and of symbol degeneration as evidenced by a study of aphasia. The generation transformation model of competence and performance was utilized as the heuristic for the exposition. Aphasia is not an impairment in language competence, when competence is understood as a set of principles by which a native speaker can map a deep structure into a surface structure. The impairment is on the contrary in the area of performance, i.e., attention, memory, discrimination, perception, association, combination, integration, and the "mapping" operations. This model can contribute to our understanding of symbol functioning, to better definitions, and to a model for language therapy with aphasia. (15 ref.) *M. Cynamon*.

3555. Dabul, Barbara L. (U. Southern California) **The effects of stuttering on systolic blood pressure.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4384.

3556. Danwitz, Mary W. **A study of the human figure drawings of children with language disorders.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3749.

3557. Flynn, Pauline T. (U. Kansas) **Development and evaluation of videotaped discrimination training programs.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3749-3750.

3558. Kanizsai, Dezső. **Gyors beszédrel gyógyított dadogás.** [Stammering cured with fast talk.] *Psychológiai Tanulmányok*, 1967, No. 10, 651-655.

3559. Orgass, B., & Poeck, K. (Rhenish-Westphalian Technical Coll., Neurology Div., Aachen, W. Germany) **Aphasieprüfung mit psychometrischen Verfahren.** [Examining for aphasia by psychometric methods.] *Zeitschrift für Neurologie und Psychiatrie*, 1969(Mar), Vol. 40(3), 116-121.—Discusses the need for 2 types of tests in determining aphasia. The standard tests are devised to cover as many components of speech behavior as possible, and are suitable for the description and classification of aphasic language disturbances. However, to cover all components of speech behavior, tests of intelligence must be included which nonaphasic persons afflicted with brain disease and unintelligent normal persons will fail. Therefore, a new type of test, solely for the purpose of identifying aphasics, is needed. It should cover areas of ability in

which aphasics differ reliably from nonaphasics. The De Renzi and Vignolo Token Test showed that the area of language comprehension is sufficient. It is concluded that for clinical diagnostics and neurophysiological research it is necessary that psychometric tests exist for the identification of aphasics be devised as well. (18 ref.) *B. Schuy*.

3560. Palotás, Gábor. (Training School for Special Education, Budapest, Hungary) **Terápiás tapasztalatok a dadogás kezelésében** [Our therapeutic experiences in the field of stammering.] *Psychológiai Tanulmányok*, 1967, No. 10, 651-655.

3561. Sanders, Raymond E. (U. Akron) **Stuttering and the behavioral model.** *Annals of the New York Academy of Sciences*, 1971(Jan), Vol. 1(2), 47-53.—Stuttering is a speech disorder whose origin remains largely unknown. Definitive statements concerning the use of behavioral modification techniques are not warranted by the review of literature presented but operant behavior modification techniques appear to be more promising than desensitization and other procedures whose focal concern is with anxiety or fear. There is evidence that the various symptoms displayed by the stutterer are functionally independent. It is suggested that symptoms can be eliminated through direct application of learning principles. (39 ref.) *M. Cynamon*.

3562. Shokler, Howard A. (Ohio U.) **An investigation of actual and perceived social isolation of the preadolescent stutterer.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3752-3753.

3563. Silverman, Franklin H. (Illinois U.) **A rationale for the use of the hearing-aid metronome in a program of therapy for stuttering.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 31.—Outlines a rationale which is similar to one that has been suggested for using Van Riper's speech controls, i.e., to "reverse" the vicious circle responsible for the maintenance of stuttering by progressively reducing the fear of stuttering and hence the desire to avoid stuttering. *Author abstract.*

3564. Starkweather, Charles W. (Southern Illinois U.) **The simple, main, and interactive effects of contingent and noncontingent shock of high and low intensities on stuttering repetitions.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4386-4387.

3565. Weisberg, Doris E. (Columbia U.) **Effects of certain stimulus variables on the recognition and comprehension of verbal stimuli in aphasia.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3755-3756.

NEUROLOGICAL DISORDER

3566. Boeters, U. (Kiel U., Psychiatric & Neuropsychiatric Clinic, W. Germany) **Die Bedeutung von Antriebsstörungen beim posttraumatischen apallischen Syndrom und seinen Folgezuständen** [Significance of impulse disturbances with a posttraumatic apallic syndrome and its sequencies.] *Nervenarzt*, 1969(Jun), Vol. 40(6), 268-272.—The apallic syndrome is defined as a brain lesion through which the consciousness is reduced to a primary level and all psychically initiated activity is suspended. It is often designated as "acute motoric" or "posttraumatic catatonia." The impulse disturbances are analyzed in their defective stages in consequence of a posttraumatic apallic syndrome, based on experiences in treating 9 cases. The *extinction* of the fixation capacity proper appears 1st in a return of the fixation capacity.

Affective-emotional reactions follow, while the speaking capacity returns relatively late. A lack of spontaneity persists for a long time. A serious psychoorganic defect syndrome remains, however, in many cases. Impulse disturbances are considered the most serious problem in the clinical practice of rehabilitation, depending on the return of a sufficient acceptance of stimuli coming from outside sources. (35 ref.)—P. von Toal.

3567. Cline, Carolyn J. (Washington U.) **An investigation of cerebral interhemispheric transfer in normal and dyslexic children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4357.

3568. Connors, C. Keith. (Harvard Medical School, Boston, Mass.) **The effect of stimulant drugs on human figure drawings in children with minimal brain dysfunction.** *Psychopharmacologia*, 1971, Vol. 19(4), 329-333.—Reports 2 studies in which stimulant drugs (methylphenidate and dextroamphetamine) or placebo were administered to 69 children with minimal brain dysfunction. The drugs produced highly significant improvement in 1 study in the total raw scores of the figure drawings, compared with placebo. Scores presumed to measure social maturity or social interest were not affected by the drug treatments. It is suggested that the drugs probably change figure drawings by means of their influence on attention span or the child's need to perform well in the drawing task. Inconsistencies between results of different studies are accounted for by sample heterogeneity which becomes apparent when cluster analysis is employed to refine diagnosis.—*Journal abstract*.

3569. Gómírató, G. & Perfetti, C. (U. Pisa, Clinic for Nervous & Mental Diseases, Italy) **L'associazione terapeutica L-dopa amantadina: Primi risultati in un gruppo di 10 parkinsoniani.** [Therapeutical association of L-dopa and amantadine in the treatment of Parkinson's disease.] *Rivista di Neurobiologia*, 1970(Jul), Vol. 16(3), 247-254.—Studied the effects of L-dopa administered along with amantadine to 10 patients suffering from Parkinson's disease. In each case the disease had not reached climatic proportions. Initially Ss were hospitalized, and underwent clinical and electrophysiological tests. For clinical evaluation the NUDS point system was used; for electrophysiological evaluation the H reflex and blink reflex were used. After 2 mo., none of the Ss showed signs of worsening; 3 Ss showed no sign of improvement; and the rest showed improvement. There was improvement in the psychic conditions characterized by a greater participation in the environment and an ability for physical activity and for conversation. 3 Ss showed less rigidity. The greatest improvements were in walking, dressing, and attending to their own needs. (English summary)—A. M. Farjaglia.

3570. Grimaldi, Joseph. **A factor analytic study of WISC patterns in children with CNS dysfunction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3706.

3571. Hartlage, Lawrence C. & Green, Joseph B. (Indiana U., Medical Center) **EEG differences in children's reading, spelling, and arithmetic abilities.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 133-134.—Measured differences in children's reading, spelling, and arithmetic abilities based on EEG classifications of locus of dysfunction. 114 children were classified into categories of right- or left-hemisphere abnormality, diffuse abnormality, or normal EEG. When Wide Range Achievement Test scores on reading, spelling, and

arithmetic functioning were compared, no significant differences appeared among the 4 groups.—*Journal abstract*.

3572. Kleininger, Ottó. (Debrecen U. of Medicine, Hungary) **Parkinson-szindrómás betegek Rorschach-vizsgálata.** [Rorschach examination of Parkinson-syndrome patients.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(1), 90-97.—Neither the Rorschach nor the WAIS provided signs indicative of the Parkinson syndrome. (English & Russian summaries) (27 ref.)—M. Moore.

3573. Kleininger, Ottó; Gál, Julia; Hidasi, József, & Rusz, Sándor. (Debrecen U. of Medicine, Hungary) **Az intermittáló vertebralis szindróma pszichés megnyilvánulása a Rorschach-próbában.** [The psychic manifestations of the intermittent vertebral-basilar syndrome in the Rorschach test.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 520-525.—Rorschach signs, characteristic of the vertebral-basilar syndrome, were obtained from an investigation of 20 patients. (English & Russian summaries)—M. Moore.

3574. Warrington, Elizabeth K. & Weiskrantz, L. (National Hosp., London, England) **Amnesic syndrome: Consolidation or retrieval?** *Nature*, 1970(Nov), Vol. 228(5272), 628-630.—Manipulated both the method of learning and method of retrieval to determine the critical factor affecting performance of amnesics on tasks of retention (recall, recognition, and partial information). Controls and Ss were tested with the WAIS and the Lorge-Thorndike Intelligence Test. Learning for the amnesic group (N = 4) was nearly as efficient as the control group (N = 14), but a significant deficit on retention was found in the amnesic group, both by recall and recognition. It is concluded that "it is inappropriate to characterize the amnesic syndrome as being a failure of registration or consolidation." (16 ref.)—S. Appelle.

Brain Damage

3575. Beley, André P. (Hosp. of Vaucluse, Epinay-s/Orge, France) **A propos des séquelles neuropsychiques de traumatisme crânien chez l'enfant.** [Neuropsychiatric sequelae of cranial trauma in childhood.] *Annales Médico-Psychologiques*, 1970(Feb), Vol. 1(2), 233-238.—Current opinion on the concept of "rehabilitation" is questioned by means of clinical-historical analyses of head injury in 2 young patients, followed several years after their cranial accidents. Both Ss showed a gradual onset of severe emotional instability, hard neurologic signs, thought difficulty, and subnormal intellectual development. Modern life has much increased the chance for head injury to occur, but most study of posttrauma restoration of function has concerned adults (military cranial trauma). A special problem is met with child-patients whose cerebral tissue is in full process of organization through growth. Trauma may not destroy what has been already acquired, but may prevent further acquisition, which will result ultimately in a state of "acquired idiocy." The term rehabilitation is often used to mean a return to an original, or pretrauma state. Where age-related development is affected, however, it must be broadened in meaning to include expectable psychosocial growth to maturity.—H. E. King.

3576. Bergmann, Erzsébet. (Child Mental Health Care Center, Budapest, Hungary) **Korai idegrendszeri sérülés predispozíciós jelentősége beilleszkedési és tanulási problémáknál.** [Predispositional signifi-

cance of early injuries of the nervous system in problems of adaptation and study.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 395-402.—Describes the encephalopathic personality and a plan for treatment. (English & Russian summaries)—M. Moore.

3577. Curtiss, James W. (U. Denver) **A differential study of auditory sequencing ability in the presence of right and left hemisphere brain injury.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4383-4384.

3578. Lange-Cosack, H., Schlesener, H. J., & Tepfer, G. **Die traumatische Amnesie bei Kindern und Jugendlichen und ihre Bedeutung für die Beurteilung der Verletzungsfolgen.** [Traumatic amnesia occurring with children and young people and its significance for an assessment of the consequences of lesions.] *Nervenarzt*, 1969(Aug), Vol. 40(8), 355-361.—Traumatic amnesia, occurring after covered brain traumas and followed by an interruption of consciousness, can serve as an indication of the type and seriousness of the lesions suffered and as an important supplement to clinical findings. 86 children and young people were interrogated about their traumatic losses of memory. Starting with 7 yr. olds, correct answers could be obtained, comparing favorably with the statements of adults of similar traumatic experiences. Not quite as satisfactory were the correlations of the total durations of the posttraumatic functional psychoses, the duration of the neurological symptoms, and of the reconditioning. This may have been caused by the fact that there is not always a full accordance between the variables. (25 ref.)—P. von Toal.

3579. Lantos-Dabas, Erzsébet. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Koponyasérült gyermekek pszichés elváltozásai.** [Psychic lesions of children with skull injuries.] *Pszichológiai Tanulmányok*, 1967, No. 10, 609-613.

3580. Noyes, Marianne H. (Boston U., School of Education) **Perception of degraded synthetic speech by normals and hemiplegics.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3500-3501.

3581. Ormai, Vera. (Eötvös Lóránd U., Budapest, Hungary) **Elemi konstruáló tevékenység vizsgálata enkefalopathiás gyermekeknél.** [Examination of elementary constructing activity in encephalopathic children.] *Pszichológiai Tanulmányok*, 1967, No. 10, 581-589.

3582. Pishkin, Vladimir & Burn, Julian M. (Veterans Administration Hosp., Oklahoma City, Okla.) **Concept identification in the brain-damaged: Intertrial interval and information complexity.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 205-210.—Investigated the effects of information complexity and ITI in a gated concept identification (CI) problem, using 45 brain-damaged and 45 control Ss. The CI performance of the damaged and 45 control Ss. The CI performance of the damaged and 45 control Ss. The CI performance of the damaged and 45 control Ss. The CI performance of the damaged and 45 control Ss. There was but was not affected in the brain-damaged Ss. There was a linear increase in CI errors as a function of complexity in both groups, although brain-damaged Ss demonstrated a deficit on CI in terms of decision time and processing of available information. (19 ref.)—*Journal abstract*.

3583. Symmes, Jean S. (National Inst. of Child Health & Human Development, Bethesda, Md.) **Visual imagery in brain-injured children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 179-180.—Investigated the

incidence of eidetic imagery and prolonged afterimagery in a population of 5½-14 yr. old brain-injured children; all eideticers had prolonged afterimages, but not vice versa. Incidence of eidetic imagery was 19%, significantly higher than normal samples. Children with long, stable afterimages had a significantly higher mean IQ than those with short afterimages, capacity for fixation and task learning being controlled. A possible explanation of the IQ discrepancy in terms of how a longer time to process visual input into short-term memory may be functional for children of low intelligence is presented.—*Author abstract*.

3584. Wright, Logan & Jimmerson, Steve. (U. Oklahoma, Children's Hosp., Oklahoma City) **Intellectual sequelae of hemophilus influenzae meningitis.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 181-183.—10 6-15 yr. old patients who had experienced hemophilus-influenzae (H-flu) meningitis and 10 matched controls were administered 3 tests designed to measure various cognitive abilities. Significant differences were obtained on 5 of the 10 WISC subtests. No differences were found on 6 variables from Frostig's Developmental Test of Visual Perception or on the Bender-Gestalt Test. It is concluded that the effects of H-flu meningitis might be greatest in the area of perceptual-motor functioning and abstract thinking ability.—*Journal abstract*.

Epilepsy

3585. Dreyer, Rudolf. (Anstalt Bethel, Klinik für Anfallskrankheiten Mura, Bielefeld, W. Germany) **Extrapyramidale Symptomatik bei der Anwendung von krampfhemmenden Drogen.** [Extrapyramidal symptoms connected with the application of antispasmodic drugs.] *Nervenarzt*, 1969(Jan), Vol. 40(1), 17-20.—Reports on the treatments of 3 epileptic children (a 10-yr-old boy, a 6-yr-old boy, a 13-yr-old girl), with whom an additional prescription of ethosuximide and methsuximide produced an acute extrapyramidal hyperkinesia. After discontinuing the succinimides, the striated symptoms were reduced with an unchanged basic medication. The consciousness remained unaffected. A renewed dosage of methsuximide had the same effect with 1 of the patients. Akineton assuaged the extrapyramidal symptoms, but could not dislodge them. It is suggested that the succinimides can cause in serious therapy-resisting cases, acute extrapyramidal hyperkineses, and that methsuximide could change motor reflexes in the meaning of parkinsonism. The symptoms described proved to be reversible. The acute features are independent of the dosage to a large degree, parkinsonism, however, is dosage dependent. P. von Toal.

3586. Hallen, O. (U. Heidelberg, Neurolog. Clinic, W. Germany) **Zur Problematik der sog. psychomotorischen Anfälle.** [Problems of so-called psychomotor fits.] *Nervenarzt*, 1970(Sep), Vol. 41(9), 421-425. motor fits.] Notes that "psychomotor fits" are not synonymous with "temporal-lobe epilepsy." A psychomotor fit differs from all other epileptic equivalents by a multiple symptomatology, and mainly by the simultaneity of event, experience, and actions. A core of the fit can be established, which is typical for the various subforms of psychomotor fits. The oral type of the psychomotor fit is given as an example. The core of the fit is "framed" by psychopathological states, considered to be psychotic by a dreamy state with full recognitions, hallucinations,

experiences of heterogeneity, etc. The fit proper is followed by a regular dreamy state, in which the patient acts. In discussing the question of localization, it is pointed out that such fits can originate from other sources than the temporal lobe, e.g., from the thalamus and/or from the region of the orbitofrontal rings.—*P. von Toal*.

3587. **Oller-Daurella, L.** (Hosp. Sagrado Corazón, Barcelona, Spain) **La crisis tónico-automáticas: Descripción clínico-E.E.G.** [Tónico-automatic crises: Clinico-EEG description.] *Archivos de Neurobiología*, 1970(Jul), Vol. 33(3), 303-316.—Discusses the etiological, clinical, EEG, and nosological aspects of a new type of epileptic crisis manifesting bilateral tonic movements following gestural or oral automatisms. In 8 cases, over 50 crises were photographed and recorded, with clinical manifestations including: (a) loss of consciousness as the initial phenomenon, continuing to the end of the crisis; (b) tonic contraction of the proximal muscles of the upper extremities and the flexors of the neck, lasting 1-6 sec., with flexion of the head and raising of both arms horizontally; (c) occasional affection of the legs; (d) automatic phenomena of varied intensity, such as chewing, swallowing, licking the lips, or gestures; and (e) a postcritical obnubilation of short duration. EEG findings include a recruiting rhythm of 10-20 cps, corresponding exactly to the clinical manifestations, and spike and slow wave discharges of variable nature. The differential diagnosis is discussed and the place of these crises in international classification, specifying the types of epilepsy in which they appear. It is concluded that 7 of the 8 patients described presented the Lennox-Gastaut syndrome of late onset. (English & French summaries)—*T. N. Webster*.

3588. **Rabe, Franz.** (U. Düsseldorf, Neurological Clinic, W. Germany) **Diagnostische Probleme bei der Unterscheidung von hysterischen und epileptischen Anfällen.** [Diagnostic problems in distinguishing between hysteric and epileptic fits.] *Nervenarzt*, 1970(Sep), Vol. 41(9), 426-429.—In the modern literature, the difference between epileptic and hysteric fits has been neglected, in the belief that hysteric fits seldom occur, that their difference is etiologically and pathogenetically clear, or that they are hidden under the diagnosis of epileptic fits. Gastaut stressed the difficulty of a differential diagnosis of these 2 types of fits. The author reports his own observations on this diagnostic problem. His diagnoses are based on the clinical features and on the aspects of the disease, i.e., not on individual symptoms, but on the entire course of the fit. Epileptic fits cannot be changed, controlled, or interrupted "from the outside," but this can be done with hysteric fits. However, due to the similarity of symptoms in both types of fits, a correct diagnosis remains difficult, especially in differentiating between psychomotor and hysteric fits, in both of which no loss of consciousness occurs. As a differential diagnosis between epileptic and hysteric fits remains problematic, extreme diagnostic skepticism is recommended.—*P. von Toal*.

3589. **Wolf, P.** (U. Heidelberg, Neurological Clinic, W. Germany) **Zur Klinik und Psychopathologie des Status psychomotoricus.** [Clinic and psychopathology of status psychomotoricus.] *Nervenarzt*, 1970(Dec), Vol. 41(12), 603-610.—Psychomotor states are believed to be extremely rare. 2 forms can be distinguished: (a) a discontinuous state of psychomotor attacks with brightening intervals between individual attacks taking their

full course (this form causes no differential diagnostic difficulties); and (b) a form which, at 1st, appears to be continuous, proceeding under the clinical aspect of a twilight state. The latter is discussed in detail, based on the literature and on the author's observations. The symptoms are characterized by serious impulse disturbances, alternating between inhibitions and intensifications, insomnia and anorexia, a sense of discomfort, and disturbances of coherence and concentration. Disturbances of orientation, consciousness, mnestic functions, and aspects of higher intelligence often retreat entirely to the background. For this type of state, the term "psychosomatic state with rudiments of attack" is suggested. The problems of differential diagnosis are discussed.—*P. von Toal*.

MENTAL RETARDATION

3590. ———. **Care of mentally retarded.** *British Medical Journal*, 1970(Feb), Vol. 1(5695), 517.—Asserts that facilities for the care of the mentally retarded are dreadfully poor, and the urgent need for money is stressed. The allocation of more funds by Richard Crossman, Secretary of State for Social Services in England, is welcomed. It is charged, however, that Crossman's blame of the medical profession for the weaknesses of the service is motivated by political considerations. Parliament must find adequate resources for running the Health Service.—*S. R. Diamond*.

3591. **Bailey, Jon & Meyerson, Lee.** (Florida State U.) **Effect of vibratory stimulation on a retardate's self-injurious behavior.** *Psychological Aspects of Disability*, 1970(Nov), Vol. 17(3), 133-137.—Brief response-contingent and continuous, noncontingent vibration conditions were presented to a profoundly retarded, crib-bound child who exhibited several persistent self-injurious behaviors. Lever pressing, reinforced by 6 sec. of vibration, proved to be incompatible with these self-injurious behaviors and reduced them from base-line levels. Free continuous vibration, however, was even more effective. During the time it was in effect, self-injurious behavior in this S was almost completely eliminated.—*Journal abstract*.

3592. **Beck, Robert N.** (U. Kansas) **Syntactic abilities of normal, and mentally retarded children of similar mental age.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3748.

3593. **Calcedo Ordóñez, A. & Fornell Forcadás, J.** (Dispensary of Mental Hygiene, Cadiz, Spain) **Oligofrenia fenilpirúvica en primos hermanos: Aportación a la casuística nacional.** [Phenylpyruvic oligophrenia in first cousins: Contribution to the national casuistic.] *Archivos de Neurobiología*, 1970(Jul), Vol. 33(3), 261-271.—Presents 2 rare cases of phenylpyruvic oligophrenia. The existence of carriers of the disease within the families involved was investigated, and different results obtained with the same methods (chromatographic determination of phenylalanine in the blood and Guthrie's test) in the parents of the patients. The influence of ecological factors was discussed in the interpretation of the clinical picture, with special reference to 1 of the cases presented. (French summary)—*English summary*.

3594. **Collins, Hardin A., Burger, Gary K., & Doherty, Daniel.** (St. Louis U.) **Self-concept of EMR and nonretarded adolescents.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 285-289.—Compared

the self-concept of 42 educable mentally retarded (EMR) adolescents with 49 nonretarded adolescents attending a public high school. The Tennessee Self-Concept Scale was used as the measurement instrument. It was hypothesized that EMR adolescents would have significantly more negative self-concepts than nonretarded Ss. Significant differences were found for the variables of self-criticism, identity, social self, family self, and moral-ethical self scales. All differences were in the hypothesized direction.—*Journal abstract.*

3595. Cooperman, Warren L. (Northwestern U.) **Food as reinforcer for obese versus normals.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4306.

3596. Corey, Margaret J., Tischler, Bluma, & Sandercock, Joyce. (P. O. Box 111, Nackawick, New Brunswick, Canada) **Structural aberrations of autosomes in a mentally retarded population.** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 487-498. —Discovered structural autosomal aberrations in 9 of 217 children in a school for the mentally retarded. These include 1 balanced Robertsonian translocation (involving 2 D group chromosomes); 1 translocation Down's syndrome; 2 ring G chromosomes; deletion of the short arms of a B chromosome; deletion of both short and long arms of an E chromosome; elongated short arms on a D chromosome (B-D translocation); elongated long arms of a B chromosome; and a complex rearrangement apparently involving deletions of both long and short arms of a B and elongated short arms on an E chromosome. Familial transmission was observed in 2 of 6 cases in which both parents were studied. All Ss had rare deviant dermatoglyphic patterns. With the exception of the balanced carrier, all had at least 3 clinical anomalies in addition to the mental retardation, although the number and severity of the defects varied.—*Journal abstract.*

3597. Das, J. P. (U. Alberta, Edmonton, Canada) **Vigilance and verbal conditioning in the mildly and severely retarded.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 253-259. —Administered to 34 mildly and 27 severely retarded adolescent institutionalized Ss a verbal conditioning task consisting of acquisition and reversal phases, and a simple and a complex vigilance task. Severely retarded Ss were slower in response speed than mildly retarded Ss in conditioning. They required a larger number of trials to change from acquisition to reversal phase, and from reversal to a reacquisition and rereversal phase; this was attributed to their relative immobility of nervous processes. In vigilance, both groups showed similar trends in decrement as a function of time at task. Severely retarded Ss were inferior to mildly retarded Ss in their performance in complex vigilance. False detections did not follow any consistent pattern of decrement in complex vigilance, which required some theoretical explanation. The most remarkable result was obtained by comparing good and poor performers in 1 vigilance task, on performance in the other vigilance task, and in conditioning. A direct variation between proficiency in vigilance and conditioning performances was noticed, as also between the 2 vigilance tasks. These relations are explained in terms of orienting response, which provided a basic link between vigilance and conditioning. (22 ref.)—*Journal abstract.*

3598. Dilley, George M. (Idaho State School & Hosp., Nampa) **Retarded women teach self-help skills.** *Hospital & Community Psychiatry*, 1969(May), Vol. 20(5),

154-155. 10 profoundly retarded women called "little sisters" were moved from their building into 1 which housed moderately and mildly retarded women. There each was given a "big sister," 10 "big sisters," or less retarded women, were moved to the building housing the profoundly retarded and given a "little sister." The little sisters who moved into the higher level building improved dramatically. The accomplishments of the little sisters who remained in their building, although not as striking, was significant.—B. A. Burkard.

3599. Duché, D. J., Hammer, N., & Tomkiewicz, St. **Tableau clinique et aspects psychologiques des arriérations mentales.** [Clinical notes and psychological aspects of mental retardation.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 670-676.—Case records of 1513 children in 8 French hospitals with pediatric or child neuropsychiatric services were screened for evidence of severe mental retardation. Children with known brain pathology and those under 3 yr. of age when evidence of retardation was first noted were eliminated from the sample. Since test data were either unreliable or unattainable on many of the Ss, diagnosis of mental retardation was made on the basis of clinical descriptions and other nonpsychometric information. The result was a sample of 672 serious retardates: 132 were described as vegetative, 56 bedridden, 16 vegetative and bedridden, 214 ambulatory ineducables, 199 semieducables, and 55 of uncertain mental status because of physical-motor problems. 16.5% of the Ss showed visual defects, 62.1% had neurological problems, and a large but uncertain portion had auditory defects. Only 18% demonstrated mental retardation as their single symptom. Causality was uncertain, but it was estimated that in 6% of the Ss it was genetically determined, 11% resulted from rubella, toxoplasmosis, Rh incompatibilities, and other similar disorders occurring during the mother's pregnancy, 30% occurred postnatally, and 28% were unknown.—R. E. Smith.

3600. Felzer, Enid S. (Cornell U.) **Mothers' adjustment to their Mongoloid children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3703.

3601. Fenz, Walter D. & McCabe, Michael W. (U. Waterloo, Ontario, Canada) **Habituation of the GSR to tones in retarded children and nonretarded subjects.** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 470-473.—Studied habituation patterns of the GSR to auditory stimuli in 30 institutionalized retarded children and 30 8th grade nonretarded Ss. All children habituated to the 100- and 70 db tones but showed little change in response to the 35 db tones. At the 70 db change in response to the 35 db tones. At the 70 db intensity, control Ss had a greater initial response and responded throughout more strongly than retardates; the response to the 100-db tones was greater for the retardates.—*Journal abstract.*

3602. Fraser, William I. (Lynebank Hosp., Dunfermline, Scotland) **A retrospective and cross-sectional investigation of a deviant subcultural group.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 298-303.—Studied 513 behaviorally disturbed retarded and borderline-retarded males from a Scottish therapeutic community, retrospectively and by cross-sectional analysis 10 yr. after the community terminated. The patterns of prior crime appeared to be unaltered by the therapeutic environment, contrary to earlier claims. Subsequent offenders were recognizable by conduct in the hospital but not by historical antecedents, other than prior offenses. There was a spectrum of behavioral

symptomatology between the recidivist and nonrecidivist. The retardate required a stable adult figure after discharge with whom he could identify. (26 ref.)—*Journal abstract.*

3603. Galbraith, Gary C., Gliddon, Jack B., & Busk, Jytte. (Pacific State Hosp., Pomona, Calif.) **Visual evoked responses in mentally retarded and nonretarded subjects.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 341-348.—24 mentally retarded and 16 nonretarded Ss participated in the study. The visual evoked response (VER) was recorded from scalp electrodes placed over primary visual cortex and associative cortical fields. It was found that, in general, retardates showed: (a) significantly longer VER latencies, (b) failure to develop certain VER components, and (c) reduced amplitudes in the topographic distribution of VERs recorded over associative cortical fields. Findings generally support several postulates of retardate neural functioning derived from Gestalt field theory. (16 ref.)—*Journal abstract.*

3604. Gelman, Sheldon R. (Laurelton State School & Hosp., Pa.) **Admission groups for mentally retarded girls.** *Hospital & Community Psychiatry*, 1969(Jan), Vol. 20(1), 31-33.—Describes an orientation group established at Laurelton State School and Hospital, which serves mild to moderately retarded girls and women of child-bearing age, in order to help newly admitted students deal with the emotional impact of coming into the institution. The objectives were: (a) help the girls understand and accept the reasons for placement, (b) take some responsibility for making the best use of the program, (c) help them work through their feelings about being separated from their families, and (d) give them a chance to make friends. Each group met with a social group worker for an hr. twice a wk. for 3 wk. Training opportunities with the purpose of orienting the student toward leaving the institution are emphasized. After more than a year's experience, it is clear that the orientation group lacks effectiveness. 2 needs have been recognized: the need for a more integrated relationship with the families and community agencies responsible for placing the students, and the need for a more carefully planned process of rehabilitation.—*B. A. Burkard.*

3605. Goodstein, Henry A. (U. Connecticut) **Performance of mentally handicapped and average-IQ children on two modified cloze tasks for oral language.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 290-297.—Matched 22 public school educable mentally retarded (EMR) and 22 average-IQ children for MA (approximately 9.5 yr.) and reading age (approximately 8.6 yr.). Ss were administered 2 modifications of the cloze procedure that reflect 2 important processes in oral language: production and recognition. It was determined that (a) EMR Ss were significantly poorer than average-IQ Ss in cloze performance, and (b) the recognition cloze task was significantly easier than the production cloze task; no qualitative differences were found in the performance of the 2 samples. Results reflect inefficiencies in the organization and retrieval of linguistic stimuli of low-IQ children. Implications for potential language training programs utilizing cloze procedure are discussed. (15 ref.)—*Journal abstract.*

3606. Hashem, Nemat; Ebrahim, Assma, & Nour, Assma. (Ain-Shams U., Medical Genetics Unit, Cairo, Egypt) **Classical and atypical phenylketonuria**

among Egyptians: Study of 10 families. *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 329-335.—Studied 10 Egyptian families including 24 phenylketonuria (PKU) patients. Data indicate that the gene prevalence of classical PKU among Egyptians is .0067, with a carrier rate for the general population of 1 in 76. The finding of PKU Ss with normal intelligence is reported. 1 example of hyperphenylalaninemia with reduced intelligence presenting as atypical PKU is described. Dermatoglyphic findings for PKU patients are presented.—*Journal abstract.*

3607. Hogan, Donald D. (U. Michigan) **Cortical response of retardates for AER audiometry.** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 474-477.—Obtained averaged auditory evoked responses (AER) from 15 retarded and motor-handicapped Ss and from 15 nonretarded Ss to investigate comparative responsiveness and response features. Analyses were conducted on the averaged response to 128 40-msec presentations of auditory signals of 1 kHz, 10-msec rise time, at each of 6 sensation levels—0, 10, 20, 30, 40, and 50 db. Significant findings are that the retardates exhibited detectable responses that were fewer in number and longer in latency than the responses of nonretarded Ss. The motor impairment of the retardates had no apparent influence upon the overall success of AER audiometry.—*Journal abstract.*

3608. Kershner, John R. (U. California, Los Angeles) **Intellectual and social development in relation to family functioning: A longitudinal comparison of home vs. institutional effects.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 276-284.—Tested 42 mentally retarded children before entering an institution and 1 yr. later on measures of social quotient (SQ) (Vineland Social Maturity Scale) and IQ (Stanford-Binet, Form L or Cattell Infant Intelligence Scale). Ss' families were pre- and postinterviewed to assess the adequacy of family functioning. 27 community-based families and their children who were of similar CA and IQ were compared. Family functioning, SQ, and IQ/SQ discrepancy were found to be related to family decisions to seek long-term residential placement. Community families and children showed decreases over the year on all measures taken, whereas institutional families tended to improve in functioning. In the community group, significant positive correlation was found between IQ decrement and family pre-posttest losses. In the institution group, significant negative correlation was found between low initial SQ and family increments in functioning. Results illustrate the important reciprocal relations existing between the retarded child and his family. (32 ref.)—*Journal abstract.*

3609. Leanza, Victor F. (Case Western Reserve U.) **Tension in the adjustment of normal siblings of mildly retarded children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2739.

3610. Lobb, Harold. (U. Western Ontario, London, Canada) **Frequency vs. magnitude of GSR in comparisons of retarded and nonretarded groups.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 336-340.—Reanalyzed GSRs of 160 mentally retarded and 160 nonretarded adults from a prior study in terms of separate frequency and amplitude measures. No evidence was found to support the hypothesis that GSR persistence is generally greater in retardate than in nonretardate groups. In fact, retardates' responses were characteristically smaller and less frequent, except in

3619. **Petre-Quadens, O. & de Lee, C.** (Born-Bunge Foundation for Research, Antwerp, Belgium) **Eye-movements during sleep: A common criterion of learning capacities and endocrine activity.** *Developmental Medicine & Child Neurology*, 1970(Dec), Vol. 12(6), 730-740.—Electrooculographic recordings of eye

movements in 15 mentally retarded persons, 5 normal children, and 2 normal adults during paradoxical sleep (with REMs) show that normal Ss have a larger average duration of paradoxical sleep and have more eye movements. Frequency of eye movements did not vary with age in the retarded, but in the normal Ss the peak frequency was between 6-12 yr. (30 ref.)—*P. W. Pruyser*.

3620. Raiskaya, M. M. (Inst. of Defectology, Moscow, USSR) *O svoeobraznoi forme zaderzhki psikhofizicheskogo razvitiya u detei i podrostkov s anomaliami v sisteme polovykh khromosom*. [On a peculiar form of arrest of psychophysical development in children and adolescents with anomalies in the sex chromosomal system.] *Defektologiya*, 1970(May), Vol. 2(5), 30-36.—Presents the results of examinations of 50 cases, and 2 case histories of Shereshevskii-Turner's syndrome, a form of chromosomal anomaly involving females where there is an absence of 1 sex chromosome resulting in "arrest of psychophysical development, an asthenic state in somatically weakened children, residual effects of intrauterine lesion of the CNS, etc." Such cases experience difficulty in school, exhibit typical physical deficiencies and deformities, and disclose EEG deviations such as an increase in the frequency of α -rhythm and the presence of rapid low-amplitude oscillations in the tracings.—*I. D. London*.

3621. Rubinshtein, S. Ya. (Inst. of Psychiatry, Moscow, USSR) *L. S. Vygotskii o razvitii psikhiki umstvenno otstalykh detei*. [L. S. Vygotskii on the mental development of retarded children.] *Defektologiya*, 1970(May), Vol. 2(5), 3-10.—Discusses the role of hereditary and rearing factors in the mental development of the normal and retarded child, as expressed by a number of Soviet psychologists and by Vygotskii in particular.—*I. D. London*.

3622. Sailor, Wayne S. (U. Kansas) *An experimental analysis of linguistic development: Allophones of the plural morpheme*. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3714-3715.

3623. Taylor, John F. (Kent State U.) *A table for predicting retardate mental age growth*. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 499-503.—A recently developed Binet Mental Age Growth Curve for the mildly and moderately retarded formed the basis for an MA growth table which allowed pre- or postdiction of mental growth between the 5th and 19th yr. of CA. The predictive accuracy of the table was assessed by comparing obtained with predicted MA changes in 894 instances. Accuracy of prediction varied with the span of CA over which mental growth was being predicted, with the standard errors of estimate ranging from 4.5-16.7 MA mo. The table may possess practical utility both as a clinical instrument and as a research tool for studying the mental characteristics of the retarded.—*Journal abstract*.

3624. Teel, Sidney K. (U. Tennessee) *Operant conditioning of social behaviors in educably mentally retarded children in a free-field setting*. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4347-4348.

3625. Thompson, Travis; Grabowski, John; Erickson, Eric, & Johnson, Roger. (U. Minnesota) *Development and maintenance of a behavior modification program for institutionalized profoundly retarded adult males*. *Psychological Aspects of Disability*, 1970(Nov), Vol. 17(3), 117-124.—A behavior modification program was based on positive reinforcement of adaptive behav-

ior and extinction (ignoring) of maladaptive behavior. Grossly disruptive and injurious behavior resulted in brief removal from the training area. There were no additional funding, staffing, or outside resources. Patient training was conducted by technicians having 5 hr. of classroom training in principles of behavior modification. Basic self-help skills (dressing, toileting, self-feeding) substantially increased, and grossly disruptive and injurious behaviors markedly decreased.—*Journal abstract*.

3626. Whalen, Carol K. & Henker, Barbara A. (U. California, Irvine) *Pyramid therapy in a hospital for the retarded: Methods, program evaluation, and long-term effects*. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 414-434.—Describes a 9-mo hospital program with 5 16-24 yr. old female retarded "therapists" and 10 6-10 yr. old retarded "trainees." The program had 3 interrelated objectives: (a) extending the use of nonprofessional therapists to retarded patients in a hospital setting, (b) developing behavior modification procedures that could be taught to and used by mentally retarded persons, and (c) evaluating the effectiveness of this "therapeutic pyramid" approach. Children in 1 group were given 60 individual training sessions, then 60 play sessions; simultaneously, the matched control group was given play, then training. The training groups gained significantly in basic social behaviors over the play groups in each phase of the investigation. Children in the 1st play group also showed significant gains which were attributed to the general effects of participation in the program. Follow-up measures indicate that response acquisitions of the trainees and behavior modification skills of the therapists were durable. (18 ref.)—*Journal abstract*.

3627. Williamson, Malcom L. (U. Southern California) *Treatment effects on physical growth and mental development among phenylketonuric children*. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2751.

3628. Zigler, Edward & Balla, David. (Yale U.) *Luria's verbal deficiency theory of mental retardation and performance on sameness, symmetry, and opposition tasks: A critique*. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 400-413.—Discusses A. R. Luria's (see PA, Vol. 36:4GH48L) verbal deficiency theory of mental retardation and cites inconsistent empirical evidence relevant to this position. The findings of N. A. Milgram and H. G. Furth which concerned retarded-nonretarded differences on sameness, symmetry, and opposition tasks are examined. These findings, which have been interpreted as supporting Luria's formulation, are related to a number of methodological and conceptual issues relevant to verbal mediation theory, and are found to be open to alternative interpretations involving factors not included in Luria's formulation. (47 ref.)—*Journal abstract*.

Learning & Motor Ability

3629. Berry, Franklin M. & Baumeister, Alfred A. (Columbus Coll.) *Cue selection and meaningfulness in the paired-associates learning of retardates*. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 456-462.—36 13-38 yr. old retardates acquired paired associates (PAs) consisting of a 2-verbal-element stimulus and a digit response (e.g., CAT and BWD: 0) after initial pretraining on the response terms. Transfer

tasks were employed to ascertain whether retardates utilized the more meaningful part of each compound stimulus for response evocation. Transfer data indicate that some retardates can be expected to select the more meaningful of 2 verbal cues for PA learning. (24 ref.)—*Journal abstract.*

3630. Donoghue, Elaine C., et al. (Fountain & Carshalton Hosp. Group, Queen Mary's Hosp. for Children, England) **Some factors affecting age of walking in a mentally retarded population.** *Developmental Medicine & Child Neurology*, 1970(Dec), Vol. 12(6), 781-792.—In a study of 336 severely retarded children (175 walking, 161 unable to walk), classified into 70 with Down's syndrome, 137 residual, and 129 with cerebral palsy, it was found that the number of walkers were, respectively, 56, 108, and 11 in these groups, with mean ages for starting to walk 3.2, 4.2, and 5.3 yr. Excluding cases of specific motor disability there is a relationship between age of walking and intelligence: all patients with IQ over 50 walked before 4 yr.; all who learned to walk after 7 yr. were profoundly retarded. Children with Down's syndrome who remained at home tended to walk earlier than those in an institution.—P. W. Pruyser.

3631. Lányi, Miklós. (Training School for Special Education, Budapest, Hungary) **A nyomon követő vizsgálatok szerepe az értelmi fogyatékos gyermekek fejlődési perspektívájának megítélésében.** [The role of tracking behaviour tests in predicting improvement in mentally defective children.] *Pszichológiai Tanulmányok*, 1967, No. 10, 641-645.

3632. Larsen, Lawrence A. (George Peabody Coll. for Teachers) **Facilitation of conceptual clustering in the free recall of institutionalized mental retardates.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3730-3731.

3633. Libkuman, Terry M. (U. Oklahoma) **The effects of word frequency and pronunciation upon the verbal-discrimination learning of normal children and retardates.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4366.

3634. Martin, Andrew S. & Tyrrell, Donald J. (U. Connecticut) **Oddity learning following object-discrimination learning in mentally retarded children.** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 504-509. Presented 48 mentally retarded children with a 3-choice object-discrimination problem in which color or form was the relevant dimension. Ss were transferred to a 2nd object-discrimination problem or an oddity problem. The relevant dimension in the 2nd object discrimination was either the same as in training (intradimensional shift) or was that which was irrelevant during training (extradimensional shift). Similarly, the relevant vehicle dimension of the oddity problem was either relevant (intradimensional-oddity shift) or irrelevant (extradimensional-oddity shift) in training. The typical dimensional transfer effects were present in both the discrimination problem (intradimensional easier than extradimensional) and in the oddity problem (intradimensional-oddity easier than extradimensional-oddity). The latter findings are related to an extension of the D. Zeaman and B. J. House attention theory of discrimination learning.—*Journal abstract.*

3635. Prehm, Herbert J. & Stinnett, Raymond D. (U. Oregon) **Effects of learning method on learning stage in retarded and nonretarded adolescents.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3),

319-322.—Compared the learning performance of 60 educable mentally retarded and 60 intellectually-average adolescent Ss as a function of learning stage using a paired-associate learning task. 20 Ss within each group were randomly assigned to 1 of 3 methods of learning: the equal amount learned (EAL) method; the modified method of adjusted learning; and the method of adjusted learning. Analyses of variance indicate that (a) retarded Ss exhibited a deficit at each stage of learning (response learning and associative stages), and (b) the EAL method prolonged both the response learning stage and the stage of learning wherein the S consistently pairs correct stimulus and response items.—*Journal abstract.*

3636. Rydberg, Sven. (U. Stockholm, Sweden) **Beginning reading discrimination taught at IQ 35 by conditioning.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 163-166.—A simple conditioning method, using cards for control of attention, was tried out on 6 severely retarded children (CA, 6.4-15.11; MA, 2.11-4.3; IQ, 22-47). After 17 workdays the 3 "high-MA" Ss discriminated 8-10 words out of 10 and 9-10 words 24 and 48 days later (with 50-100% transfer to smaller, different print). "Low-MA" Ss retained 10-40% (40% for the 1 S without speech).—*Journal abstract.*

3637. Stephens, Beth; McLaughlin, John A., & Mahaney, Edward J. (Temple U.) **Ages at which Piagetian concepts are achieved.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 203-204.—Scores for 21 Piagetian assessments were available from a current longitudinal study on the development of reasoning in normals and retardates. Therefore it was possible to determine the MA at which Ss achieve successful performance on these measures. The random sample, 75 normal (IQ 90-110) and 75 retarded (IQ 50-75) Ss, was evenly divided into 3 age groups: 6-10, 10-14 and 14-18. Ss' responses were tabulated in terms of MA of attainment. Arbitrary criterion for concept attainment was 83% of Ss at a given MA. Discussion considers relation of stage to age.—*Author abstract.*

3638. Warren, Sue A. & Mondy, Lewis W. (Boston U.) **To what behaviors do attending adults respond?** *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 449-455. Recorded the responses of 18 attending adults to more than 800 samples of behavior of 49 ambulatory institutionalized young retarded children. The attending adults usually failed to respond at all to either appropriate or inappropriate child behaviors. When responses were made to appropriate behaviors, they were likely to be encouraging, and thus were probably positively reinforcing. Responses to inappropriate behaviors were discouraging about twice as often as encouraging, providing potential positive reinforcement for unacceptable behaviors. For all behaviors, adult behavior appeared to offer children infrequent, variable ratio reinforcement schedules.—*Journal abstract.*

3639. Wright, Logan. (U. Oklahoma Medical Center, Oklahoma City) **Prerest performance levels of non-retardates and retardates, and reminiscence on manual crank task.** *American Journal of Mental Deficiency*, 1970(Nov), Vol. 75(3), 304-308.—36 13-16 yr old male retardates with IQs from 61-78, and 36 14-15 yr old nonretarded students with IQs from 90-110 performed 20 10-sec manual crank trials which were interspersed by 10-sec ITIs. Following the 20th trial, Ss were provided a 3-min rest, followed by 10 postrest trials.

The rate of pretest performance for subgroups of 16 nonretarded and 16 retarded Ss was controlled. 2 other subgroups had no control exerted over their rate of cranking during the pretest period. On the 2nd group over which no control was exerted, nonretardates performed at a higher pretest level and showed more reminiscence. No differences were found between the reminiscence scores of nonretardates and retardates where level of pretest performance was controlled. Data support the notion that differences between nonretardates and retardates on reminiscence can best be explained by motivational factors which cause nonretardates to perform at a higher level of pretest performance, and thus build up greater amounts of reactive inhibition.—*Journal abstract.*

Training & Vocational Rehabilitation

3640. Cortazzo, Arnold D. & Runnels, Eugene J. (Sunland Training Center Miami, Fla.) One approach in rehabilitating the retarded. *Rehabilitation Literature*, 1970(Dec), Vol. 31(12), 354-360.—Presents the rehabilitation program at Sunland Training Center in Miami, a residential school for the retarded. Proceeding on the assumption that most current institutional programs are department—or profession—centered, a "new organizational model" is described which is program—or resident—centered. The novel feature of the plan involves elimination of the previous departmental structure in favor of 4 separate but interrelated program divisions: vocational rehabilitation, education and training, independent living, and development and training. These are further broken down into units of 4 cottages each. Each division is staffed by a program director, members of various professional disciplines, and subprofessional personnel, all of whom work completely in 1 of the division programs rather than in a specific department.—S. L. Warren.

3641. Niekeshburg, Robert I. (Northern Colorado) A study of time sampling and its application to mentally retarded trainees. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2463.

3642. Wade, Mary C. (American U.) The effectiveness of social and monetary rewards as incentives in the work performance of mentally retarded adolescents and young adults. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3694-3695.

PHYSICAL ILLNESS

3643. ———. Today's drugs. I. Narcotic analgesics. *British Medical Journal*, 1970(May), Vol. 2(5500), 125-126. Discusses the use of potentially addictive analgesics. Morphine still remains the principal drug of this kind. Narcotic analgesics are widely used for preoperative medication. Analgesics are used when labor has become established, pethidine being the most preferred choice. The pain of myocardial infarction usually requires a powerful analgesic. Its direction is the most desirable way of assessing the requirements of the patient. Intravenous pain of a noncardiac origin is never always best treated other than by narcotic analgesics.—S. R. Diamond.

3644. Belyaev, L. I. (Kirov Medical Inst., Gorki, USSR) O psikhogigienicheskom napravlenii v razvitií sovremennoi gigni. [On the psychological orientation in the development of contemporary hygiene.]

Vestnik Akademii Meditsinskikh Nauk SSSR, 1970(Dec), Vol. 25(12), 24-32. The etiology of most illness exhibits a neurohygienic factor of considerable importance making necessary the development of "primary" psychohygiene and the utilization of "primary" psychoprophylaxis. (English summary) (56 ref.)

3645. Bruegel, Mary A. (U. Northern California) Relationship of preoperative anxiety to perception of postoperative pain. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3687.

3646. Casey, R. L., Thoresen, A. R., & Smith, F. J. (U. Washington Medical School) The use of the Schedule of Recent Experience Questionnaire in an institutional health care setting. *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 149-153.—A questionnaire was administered to a group of trainees at a large military installation to determine the life change units (LCUs) accumulated during the 12 mo. prior to active duty. Medical records of all Ss were then reviewed after 7 wk. of training. No significant relationship was found between LCU scores and illness occurrence. However, the LCU score was found to be related to the level of health care attained.—W. G. Shipman.

3647. Clark, T. J., & Cochrane, G. M. (Guy's Hosp., London, England) Effect of personality on alveolar ventilation in patients with chronic airways obstruction. *British Medical Journal*, 1970(Jan), Vol. 1(5691), 273-275.—Studied the personality of 44 patients with chronic airways obstruction (using the Eysenck Personality Inventory), this being related to the difference between their observed PVCO₂ and that predicted from their forced expired volume. This was designed to test the hypothesis that those patients with a lower mixed venous CO₂ tension (PVCO₂) than predicted were the more extroverted. Results show a significant correlation between extroversion and the departure of PVCO₂ from prediction. Those patients having a lower PVCO₂ than predicted were more extroverted than those with a PVCO₂ higher than predicted. There was no correlation between neuroticism and the PVCO₂. Results support the hypothesis that the personality of a patient may play an important part in determining the alveolar ventilation found in patients with chronic airways obstruction. Patients known as "pink puffers" could more appropriately be named "pugnacious pink puffers".—*Journal abstract.*

3648. Enke, Helmut. (Ulm U., Div. of Medicine, Sociology, & Social Psychology, W. Germany) Regressive Tendenzen des Patienten im Krankenhaus [Regressive tendencies of the hospitalized patient]. *Fortschr. der Psychotherapie*, 1970(Oct), Vol. 18(5), 210-226. The purpose of medicine is both to heal and to rehabilitate the hospitalized patient to facilitate his reintegration into society. The regression of the patient is a social problem. Psychotherapists have been asked to take part even in the planning of hospitals. Before psychotherapy can accept this task, however, the process of regression and the settings of the hospital situation have to be examined. Regression does not occur independently but is related to the ability of the ego to experience an inner questionable reality. The inner structure of the hospital institution reflects the maturity and social competence of those working there. The hospital institution has lost the already authoritative position of the doctor. More sociological and sociomedical studies reveal a great dependency of the patient upon the doctor. The real problem, therefore, is not the regression of the patient.

which could have productive effects and help to control the environment. The role of the family of doctors and hospital staff which prevents progression (30 ref.) B. Scher

360 Hirschfeld, Roshin S. Anxiety and ambulatory control in allergic and non allergic mothers and anxiety and dependency in high and low allergic sons. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4313-4314.

361 Kavaev, Yu. A. (2nd Moscow Medical Inst. (MSU)) Nasledstvennyye zabolevaniya uglivodnyego obmena. [Hereditary diseases of carbohydrate metabolism]. *Pediatriya*, 1970(Dec), Vol. 49(12), 8-15. [Soviet Pediatric Journal, 1970, 49(12), 8-15. En] Abstracts of the 1st All-Union Conference on the Hereditary Diseases of Carbohydrate Metabolism, Novosibirsk, 1970.

362 Mendelson, Margit & Martin Lepin. Effect of alcohol on the psychodynamic structure of the personality. *Psychologia*, 1970, 5(1), 59-71.

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389 Rank, Donna J., Rank, James R. & Flaxman, C. Wade. The effect of self-esteem on the performance of a simple addition task by hospitalized physically ill patients. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3548.

390 Rank, Donna J., Rank, James R. & Flaxman, C. Wade. The effect of self-esteem on the performance of a simple addition task by hospitalized physically ill patients. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3549.

391 Rank, Donna J., Rank, James R. & Flaxman, C. Wade. The effect of self-esteem on the performance of a simple addition task by hospitalized physically ill patients. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3550.

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had suffered from a slight motor inhibition during childhood, acquired allergies more frequently. It is noted that the psychosomatic problems of allergy diseases have not been solved as yet and that somatopsychic and psychotic theory will have to be considered besides the classic psychosomatic approach. (1 p. ref.)—*P. von Toal*.

3660. **Varni, J. G., et al.** (U. Washington) **Psychophysiological correlates of anisocoria.** *Journal of Psychosomatic Research*, 1970(Jun), Vol. 14(2), 195-201.—2 studies were conducted to determine if anisocoria is related to other clinical states besides ocular tension and aberration. The results of both studies suggest that bilateral differences in the diameter of the 2 pupils, anisocoria, is associated with distinctive thermoregulatory responses. (27 ref.)—*W. G. Shipman*.

COMMUNITY SERVICES

3661. **Ananth, J. V.** (Montreal General Hosp., Quebec, Canada) **Night Center.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(2), 252-257.—Night Center is a useful treatment facility which can treat people who are minimally disturbed and still capable of working. With increased community mental health services and early detection of cases, more night center facilities will be needed by the community. There may be more need for these centers in big cities where there are large numbers of solitary individuals. Further research is needed regarding the utility of this form of treatment facility.—*D. Prager*.

3662. **Brown, George W.** (Lovelace Clinic, Albuquerque, N.M.) **The diagnosis and treatment of children with learning and developmental problems: A community service for medical group practice.** *Rehabilitation Literature*, 1970(Aug), Vol. 31(8), 234-238, 243.—Presents the staff composition and methods of the Lovelace Clinic, in Albuquerque, a large medical clinic (75 physicians and other doctoral level staff) which provides diagnostic and treatment services for families and children with significant learning disabilities or developmental problems. A team approach is used in which the psychologist is an essential contributor to the diagnostic process (testing) as well as the therapeutic program (family counseling, educational planning, play therapy, intensive psychotherapy, etc.). The need for careful diagnostic studies before undertaking remedial educational or medical programs is stressed.—*S. L. Warren*.

3663. **Crossley, B. & Denmark, J. C.** (Bolton & District Group of Hosp., Townleys Branch, Farnworth, England) **Community care: A study of the psychiatric morbidity of a Salvation Army hostel.** *British Journal of Sociology*, 1969(Dec), Vol. 20(4), 443-449.—To assess the degree to which declining occupancy of mental hospitals might reflect discharges not accompanied by adequate aftercare or facilities, the psychiatric morbidity of residents in a Salvation Army hostel was assessed. The facility chosen for the study was a full-board hostel with accommodations for 60 long-stay residents. Over a 4-mo period 55 residents were asked if they could be interviewed, 51 consented (of the remaining 4, 3 appeared to the psychiatrist to be psychotic). Of those who consented to being interviewed 35 were between the ages of 25-65; 30 were single (the remainder being separated, divorced, or widowers); the median length of stay in the hostel fell in a 1-5 yr. category; 26 would have

preferred alternative accommodations. All men were interviewed several times, and according to diagnostic criteria identical to those used in the local psychiatric outpatient clinic, 10 were diagnosed as schizophrenic (7 of these had previously been hospitalized) and 33 were considered to be suffering from personality disorders (10 had been previously hospitalized). These findings indicate that patients who still need therapeutic care are being discharged into the community. *K. G. Shaver*.

3664. **Elwell, Richard N.** (State Dept. of Mental Hygiene, Albany, N.Y.) **Hospitals and centers move toward a single system of comprehensive services.** *Hospital & Community Psychiatry*, 1969(Jun), Vol. 20(6), 175-179.—Uses 3 major concepts: continuity of care, community locus, and comprehensive services to examine how the development of new community mental health centers will affect the traditional services of state mental hospitals. 100 applications for staffing grants for new mental health centers are reviewed. 17 were located in service areas that also contained a state mental hospital. In 62 cases, the hospital was some distance from the center's catchment area. 21 were government mental health facilities. In only a few instances did the center applications ignore either the needs or the possible contributions of the state hospital. Findings "indicate that unless a state hospital wants to limit its role to providing specialized or long term treatment, it will have to develop a geographic unit." There must be considerable activity by the individual hospital and the individual center to establish an alliance.—*B. A. Burkard*.

3665. **Hartog, Joseph.** (U. California, Dept. of International Health, San Francisco) **Transcultural aspects of community psychiatry.** *Mental Hygiene*, 1971(Jan), Vol. 55(1), 35-44.—The 3-part model of consultant, intermediary consultant, and client consultee is applied to the transcultural aspects of community psychiatry. Varieties of cross-cultural problems are presented exemplified by the author's experience in Malaysia and in an area of San Francisco. Problems include barriers to verbal, nonverbal, stylistic, and value-bound communications, as well as failure to recognize contributions of the recipient community. Suggests 5 ways to minimize cross-cultural barriers in the context of community psychiatry. (15 ref.)—*Journal abstract*.

3666. **Huessy, Hans R.** (U. Vermont, Medical School) **Satellite halfway houses in Vermont.** *Hospital & Community Psychiatry*, 1969(May), Vol. 20(5), 147-149.—Several types of halfway facilities including foster homes, private halfway houses, boarding homes, and a community hotel constitute an informal satellite system radiating from the state's 1st halfway house, Spring Lake Ranch, which was established in 1932. Residents are called guests and no matter where they live, someone from the ranch is always available to them. "We have become convinced that for many of our guests a psychiatrist has little to offer beside supervision of medication, and that the social living situation is the most important therapeutic factor." All halfway facilities are operated by nonprofessional people. "It seems to us that private enterprise offers a greater incentive to establishing varied facilities than does direct government or agency control."—*B. A. Burkard*.

3667. **Kalmans, Ethel T.** (Mental Health Center, Day Treatment Center, Arlington, Va.) **Low-cost individualized treatment in a day center.** *Hospital & Com-*

munity Psychiatry, 1970(Dec), Vol. 21(12), 394-397.

—Day care programs for psychiatric patients can serve to shorten hospitalization, to reintegrate former hospital patients into community life, and even to avert hospitalization. In the day treatment center of the Arlington, Virginia, mental health center, length of time a patient may remain in the program is not limited. Some patients use the program as a temporary phase of treatment before resuming work or family responsibilities, others attend for prolonged support. The day program includes 14 staff members, 3 of whom are fulltime. Staff consists of psychologists, psychiatric nurses, workshop instructors, a special education teacher, a psychodramatist and dance therapist, an art therapist, and an aide. Activities include individual, group and family psychotherapy, work therapy, psychodrama, art and dance therapy, community meetings, and adult education. Workshops are also available for both men and women patients, and each patient is paid for the work he does, according to its quality and quantity. Family members are urged to keep in contact with the staff. Potentials for expansion, including evening and weekend programs, programs involving older children and other family members are discussed.—R. B. Sivley.

3668. Kvarnes, Robert G., Rittelmeyer, Louis F., Schneider, Irving, & Taylor, Barbara O. (Washington School of Psychiatry, D.C.) **The associated facilities program in community psychiatry.** *Hospital & Community Psychiatry*, 1970(Feb), Vol. 21(2), 62-64.—Describes a program developed by 12 psychiatric teaching institutions for continuing education in the field of community psychiatry. The 1st-yr program consists of a seminar in crowd and group phenomena, social determinants of individual behavior, and laboratories of behavior as exemplified by war and poverty. The 2nd concentrates on community dynamics and methods for psychiatric intervention. A practicum is required for final certification in the program. Activities, trends, and developments are outlined.—S. Knapp.

3669. Neufeldt, Aldred H. (Saskatchewan Dept. of Public Health, Saskatoon, Canada) **Electronic information programs: A multiple-facility system.** *Hospital & Community Psychiatry*, 1970(Jan), Vol. 21(1), 1-6.—Describes an electronic data-processing system designed to develop information about a community psychiatric program. Information about the identity, social characteristics, type of treatment, diagnosis, and case history are stored within the system. The system enables the community to keep track of highly mobile patients, and provides information for research into such areas as patterns of multiple admissions.—S. Knapp.

3670. Reid, Kenneth E. (Western Michigan U., School of Social Work) **Community mental health on the college campus.** *Hospital & Community Psychiatry*, 1970(Dec), Vol. 21(12), 387-389.—A promising approach to student mental health is said to lie in the community as a mental health concept. By viewing the campus as a community whose population consists of students, faculty, and administration, a continuum of mental health services may be structured, aimed at primary, secondary, and tertiary prevention. Primary prevention is directed toward identifying and counteracting harmful circumstances that produce mental disorders in students. Secondary prevention would consist of early diagnosis and treatment to reduce the prevalence of emotional disturbance on the campus. Tertiary prevention would include rehabilitation measures, returning the student to

productivity as soon as possible to reduce the residual effects of emotional illness.—R. B. Sivley.

3671. Reinhold, John E. (U. Pennsylvania) **Use of formal psychological and psychiatric services in relation of the position accorded them in the social system.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3049.

3672. Scheidlinger, Saul; Struening, Elmer L., & Rabin, Judith G. (125 Woodbine Ave., Larchmont, N.Y.) **Evaluation of a mental health consultation service in a ghetto area.** *American Journal of Psychotherapy*, 1970(Jul), Vol. 24(3), 485-493.—Assesses the findings of a mental health consultation program that operated for over 4 yr in a Puerto Rican and black section of New York City. 21 directors of various agencies affiliated with this service were questioned as to their estimation of the value of the program, whether they found it helpful, and what changes, if any, should be made. Results of the Ss rated indicate that the consultation staff was considered to be qualified to teach about matters relating to their background but not about subjects like "militancy." Data suggest that the majority felt the program had worth and asked that it be continued.—C. O'Donnell.

3673. Schwartz, Donald A. (U. California, Medical School, Irvine) **Community mental health: An under-view.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 333-358.—"The overall mission of community mental health may be summed up as follows: alteration of the social system within which society promotes mental health for all its citizens and responds to mental illness in some of them." Prominent problems of community mental health are those of general and special education, of political and social forces of administration, and of technical and clinical methodology.—D. Prager.

3674. Valeros, Jose A. & David, Anne C. (Avenida Libertador 1750, Buenos Aires, Argentina) **On the theory of community psychiatry.** *Psychiatric Quarterly*, 1970(Apr), Vol. 44(2), 281-295.—Discusses philosophical and psychological issues of community psychiatry to contribute to its definition and clarify aspects of its internal structure. The internal community is the internal environment in which object relations take place. It should be experienced as nonhuman and separate from the self. In a pathological internal community, qualities of the relationships are negatively transferred to the internal community which then becomes pathological. The applications of these concepts are in community psychiatry rather than in the formal aspects of practice. (4) ref.—D. Prager.

3675. Whittington, H. G. (Dept. of Health & Hosp., Denver, Colo.) **The police: Ally or enemy of the comprehensive community mental health center?** *Mental Hygiene*, 1971(Jan), Vol. 54(1), 55-59.—The community mental health center should be involved with the protective force in selection and training of police officers in preparation for facilities for study and treatment of disordered behavior in community psychiatry, and in consultation concerning social problems.

GERIATRICS

3676. Butler, Robert N. (Washington School of Psychiatry, Washington, D.C.) **Directions in psychiatric treatment of the elderly: Role of perspective of the life cycle.** *Geriatrics*, 1970(Nov), Vol. 65(11), 134-138.—Outlines the relevances of nursing homes and Medicare in meeting the needs of the aged and the

lack of professional interest in geriatrics. It is not known "to what extent normative, modal features of the life cycle account for the varying patterns of change and adaptation we see . . . We believe the life cycle itself, or the changes inherent in the rhythm of the life cycle itself, makes some contribution to the variability." Our present rites of passage are seen as obsolete and lead to problems, i.e., generation gap, transmission of power, and inability to cope with the numbers of retired individuals. Possible future solutions for many related problems based on an adequate knowledge of life cycles might include liberalized abortion, trial marriages, endocrine replacement, euthenasia, and biological control. In the present, psychotherapy must concern itself with grief and restitutional processes in the elderly. Life cycle features offer the therapist general guidelines for useful treatment. Ongoing research is described and 2 illustrative case histories are presented.—*S. Knapp.*

3677. **Cautela, Joseph R.** (Boston Coll.) **A classical conditioning approach to the development and modification of behavior in the aged.** *Gerontologist*, 1969(Sum), Vol. 9(2, Pt. 1), 109-113.—Describes procedures developed from Pavlovian classical conditioning studies and behavioral therapy for treating the aged. 3 major areas are distinguished in the behavior of the aged: (a) low behavioral output, (b) faulty learning and retention, and (c) feelings of rejection and eminent death. A Reinforcement Survey Schedule, developed to determine the values of various stimuli as reinforcers for individual patients, is described. Results from this scale may be used to develop behavior modification programs. In the learning situation, paced learning utilizing programed teaching with strong CS and UCS is considered especially effective in obtaining well conditioned responses. Stimulants may facilitate learning, but caution is recommended due to paradoxical drug effects sometimes noted in the aged. Learning task anxiety, feelings of rejection, and preoccupation with death are treated with the behavioral therapy techniques of relaxation, desensitization, and thought stopping. (25 ref.)—*S. Knapp.*

3678. **Ciampi, L. & Muller, C.** (U. Lausanne, Psychiatric Clinic, Switzerland) **Katamnestiche Untersuchungen zur Altersentwicklung psychischer Krankheiten.** [Catamnestic examinations in connection with old-age developments of mental illnesses.], 1969(Aug), Vol. 40(8), 349-355.—Reports on an extensive catamnestic research program covering the old-age developments of former mental patients of the Psychiatric University Clinic of Lausanne, who are now over 65 yr. old. The excellent Swiss records made it possible to check on 5661 cases, of whom more than 800 survivors could be clinically reexamined. The cases included depressive, hysteric, toxicomanic, and epileptic cases. Most cases showed an alleviation of dramatic mental decomposition features in old age. In many cases, a change of the symptoms into less striking residual features could be observed. The dynamics of these developments are believed to be connected with a decline of driving powers, due to advanced age. The life expectancy of epileptics and organic or endogenous depressive types is significantly shorter compared with the population average. (25 ref.)—*P. von Taal.*

3679. **Hacker, Sally L. & Gaitz, Charles M.** (Baylor U., Medical School) **The moral career of the elderly mental patient.** *Gerontologist*, 1969(Sum), Vol. 9(2, Pt. 1), 120-127.—Utilized the concepts of E. Goffman (see

PA, Vol. 34:3268) to study the elderly mental patient. 36 out of 110 patients admitted to a county psychiatric screening ward were studied after 1 yr., and next of relation for 59 were interviewed. 2 key elements in the careers of these Ss were examined: betrayal by next of relation and defensibility of self. Few Ss had any part in their own commitment and betrayal was a common experience. Once within the ward, diagnosis and disposition were carried out with little information supplied to either patient or relative. It is noted that whether an elderly patient remains in the hospital is frequently dependent on his outside resources rather than on psychiatric reasons. Inpatients and expatients were evaluated on the Affect Balance Score of a measure of psychological well-being. Expatients scored significantly better than inpatients due to the frequency of negative feelings in the latter group. Inpatients were bored, lonely, and depressed. Criticisms which upset them came from deflation of the self, and pleasure was derived from staff compliments on their dependent behavior. Ss were not actively discredited; they were not credited to begin with.—*S. Knapp.*

3680. **Shapiro, Alex.** (Montefiore Home, Cleveland Heights, O.) **A pilot program in music therapy with residents of a home for the aged.** *Gerontologist*, 1969(Sum), Vol. 9(2, Pt. 1), 128-133.—Describes the therapeutic use of music in the treatment of the aged. Individual case histories were evaluated and methods in which music therapy might be useful were established. Socialization between various nationality-culture groups was accomplished in the group participation. Assignment of a rhythm instrument to each patient on the basis of his physical needs and preferences helped to relieve some of the stiffness of arthritis, encouraged muscular movements, and led to personal satisfaction. Exercises in conducting provided exercise for the larger arm muscles, encouraged leadership and self-confidence, and provided a release of tensions. Ear training provided exercises to improve the patient's memory and concentration. Playing the electronic organ provided mental and physical stimulation. Group song therapy enabled the patients to analyze the lyrics of selected songs and indirectly to verbalize their anxieties and hostility. Positive evaluations of the program by the staff are presented.—*S. Knapp.*

EDUCATIONAL PSYCHOLOGY

3681. **Bakonyi, Pál.** (National Education Inst., Budapest, Hungary) **Az oktatási törvény végrehajtásának pszichológiai problémái.** [Psychological problems in the execution of educational laws.] *Pszichológiai Tanulmányok*, 1967, No. 10, 229-233.

3682. **Duró, Lajos.** (U. Szeged, Hungary) **Az életkori sajátosságok figyelembevételének néhány nevelés-élektani problémája.** [Some educational psychological problems in consideration of age characteristics.] *Pszichológiai Tanulmányok*, 1967, No. 10, 351-355.

3683. **Filloux, Jean C.** **Pédagogie et groupe: II. Le courant psycho-sociologique.** [Teaching and groups: II The psycho-sociological current.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 659-669.—Discusses the role of social psychology in the educational process. Views on current educational theory, particularly those emphasizing the group processes (Cantor, Bradford, and Thelen), are considered in detail.—*R. E. Smith.*

3684. Gábor-Donáth, Blanka. (Hungarian Academy of Sciences, Psychological Inst., Budapest) **A nevelés-életkenti problémák kutatásának néhány elvi és módszertani kérdése.** [Some theoretical and methodological questions of research in educational psychology.] *Pszichológiai Tanulmányok*, 1967, No. 10, 245-248.

3685. Kiss, Pál G. (Medical U. of Budapest, Child Clinic, Hungary) **A gondozás, a szoktatás, a tanítás, az oktatás, a nevelés összefüggéséről és egységük fontosságáról.** [The interdependence of care, habituation, teaching, education, and the importance of their unity.] *Pszichológiai Tanulmányok*, 1967, No. 10, 29-42.

3686. Kovács, Sándor J. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A differenciált oktatás kérdéseiről.** [Notes on the problems of differentiated education.] *Pszichológiai Tanulmányok*, 1967, No. 10, 275-279.

3687. Levinthal, Charles F., Lansky, Leonard M., & Andrews, O. Ernest. (U. Michigan) **Student evaluations of teacher behaviors as estimations of real-ideal discrepancies: A critique of teacher rating methods.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 104-109.—Ratings imply comparative judgments between the values of the O and his observations, e.g., a student's ratings of his teacher are estimates of the discrepancy between the student's ideals for the teacher's behavior and what he sees the teacher do. Most methods for collecting teacher ratings make assumptions about ideals and about the discrepancies between ideals and observed behavior. To assess the relevance of direct measurement of ideals, 263 undergraduates rated a teacher and reported their ideals for the teacher's behaviors. Judgments of ideal behavior varied across Ss and items. Interactions between ideals and observed responses were noted. New approaches to teacher ratings are recommended.—*Journal abstract.*

3688. Long, K. Kilby. **Transfer from teaching to learning.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 167-178.—Examined transfer from teaching to learning in a paired-associate learning procedure. 20 undergraduates in an initial experiment and 105 undergraduates in an extended replication served as Ss. Serving as an E was found to have a beneficial effect on subsequent learning. A number of control conditions failed to produce any postexperimental effect, which suggests that the specific "teaching" experience accounted for the effect. In particular, 1 control which required teaching silent Ss failed to produce a reliable effect on subsequent learning. This finding is discussed in terms of the importance of learning to utilize feedback in the teaching-learning process. (18 ref.)—*Journal abstract.*

3689. Marchal, Gaston L. **A propos d'une nécessaire psychopédagogie de l'esthétique.** [Toward a necessary psychological teaching of esthetics.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 560-574.—The advancement of mankind is inconceivable without the development of all of the potentials of man for expression. The goal of progressive education today is the development of these potentials through human principles, laws of social evolution, new modes of action, and adaptation to life. Psychology must begin to attack and systematized teaching of the disciplines and emphasize philosophical principles over scientific principles. —R. E. Smith.

3690. Markle, Susan M. & Tiemann, Philip W. (U.

Illinois, Office of Instructional Resources, Chicago) **"Behavioral" analysis of "cognitive" content.** *Educational Technology*, 1970(Jan), Vol. 10(1), 41-45.—Examines the cognitive approach of J. S. Bruner and the operant conditioning approach of B. F. Skinner to learning, and attempts to blend the 2 into a model for educational practitioners. The model combines the cognitive idea of conceptual learning as an information gathering game and the operant conditioning idea of effective techniques for eliciting responses to stimuli. To produce understanding (the ability to generalize and discriminate), the teacher must select a "special rational set of examples and non-examples, based on an analysis of the concept in the real world of subject experts." When the student can discriminate between these examples, he is then tested with another set to determine if generalization has occurred. If he is successful, real understanding may be considered to have occurred.—S. Knapp.

3691. Murányi-Kovács, Endre. (National Education Inst., Budapest, Hungary) **Adalékok a nevelőotthonban nevelkedő állami gondozott serdülők személyiségfejlődéséhez.** [Some data concerning the personality development of adolescents educated in state institutions.] *Pszichológiai Tanulmányok*, 1967, No. 10, 287-293.

3692. Radnai, Béla. (Eötvös Lóránd U., Budapest, Hungary) **Kísérlet az asszociáció törvény tudatosítására.** [Widening and making explicit the scope of educational psychology.] *Pszichológiai Tanulmányok*, 1967, No. 10, 205-214.

3693. Rothbart, Myron; Dalfen, Susan, & Barrett, Robert. (U. Oregon) **Effects of teacher's expectancy on student-teacher interaction.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 49-54.—Constructed a simulated classroom situation with 13 female university seniors and 52 high school students. Teacher trainees discussed academic material with 4 students, 2 of whom were arbitrarily designated as "lacking in intellectual potential." Measures were obtained of (a) the amount of attention given to the high- and low-expectation students, (b) the amount of verbal and gestural encouragement (reinforcement) allocated to high- and low-expectation students, (c) the amount of talking done by high- and low-expectation students, and (d) the teacher's evaluation of both groups of students. It was found that teachers were more attentive to high-expectation students, but directed the same amount of reinforcement to both groups. Students in the high-expectation group talked more, presumably as a consequence of the teacher's greater attention. Teachers evaluated the low-expectation students as less intelligent, as having less potential for future success, and as having a higher need for approval.—*Journal abstract.*

3694. Sahlin, Clarence J. (Indiana U.) **An analysis of the writings of Erich Fromm and their implications for adult education.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2674-2675.

3695. Sampson, Carlene E. (U. Arizona) **The school psychologist's contribution to the improvement of reading.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2747-2748.

3696. Schraml, Walter J. **Psychanalyse et éducation: Problèmes de la pédagogie psychanalytique.** [Psychoanalysis and education: Problems of psychoanalytic pedagogy.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 649-658.—Understanding of the origins

of neurosis and related mental aberrations and the ability to help students avoid situations leading to these disorders should be an important part of the educator's knowledge. The educator should be aware of the cultural influences on his students, their needs for successful experience, their search for identity, problems in the control of aggression, and alternatives to punishment as a means of behavioral control. Processes of sublimation, diversion, and direction of aggressive impulses are discussed, and methods of dealing with adolescent identification problems are offered.—*R. E. Smith.*

3697. Stewart, Lawrence H. (U. California, Berkeley) **A non-metric procedure for combining criterion groups.** *California Journal of Educational Research*, 1970(Nov), Vol. 21(5), 208-215.—Explored a method for combining variables in order to identify the nature of the psychological continua underlying such variables. The data from an interest assessment test was used in this approach. It is concluded that a researcher who does not have a well-defined rationale for forming a priori groups might then use a method like the one explored in this study for grouping similar data.—*H. J. McWhinnie.*

3698. Wash, James A. (West Georgia Coll., Carrollton) **Some psychological bases for educational technology.** *Educational Technology*, 1970(Jan), Vol. 10(1), 17-18.—Outlines the requirements of the learning experience. The structure necessitates that the student and the environment be considered as 1 entity. "The learning system must provide for stimulus definition and control, reinforcers, feedback systems, and deducible consequences." It is considered essential that feedback be provided at each level of learning, rather than at the end, so that appropriate behaviors are reinforced. The learning environment must provide impetus to generalization and real problems to be solved in order to sustain student effort and interest.—*S. Knapp.*

3699. Werts, Charles E. & Watley, Donivan J. (Educational Testing Service, Developmental Research Div., Princeton, N.J.) **A student's dilemma: Big fish—little pond or little fish—big pond.** *National Merit Scholarship Corporation, Research Reports*, 1969, Vol. 5(3), 14 p.—The relative deprivation theory of J. A. Davis (see PA, Vol. 41:1879) postulates that attending a highly selective college adversely affects motivation for graduate study because students usually obtain relatively poorer grades than they would have at a less selective college; the poorer grades leading to a relatively low self-evaluation of their intellectual capacity for graduate study. Alternatively, the environmental press theory of D. L. Thistlethwaite and N. Wheeler (see PA, Vol. 40:4598) posits that motivation for graduate study is increased by attending a highly selective college because the environmental press favors advanced study. A logical model for testing the contrasting predictions of the 2 theories and some preliminary evidence favoring the relative deprivation theory are presented. (16 ref.)—*Journal abstract.*

3700. Werts, Charles E. & Watley, Donivan J. (Educational Testing Service, Developmental Research Div., Princeton, N.J.) **Analyzing college effects: Correlation vs. regression.** *National Merit Scholarship Corporation, Research Reports*, 1969, Vol. 5(2), 15 p.—In studying college effects, an input-output model is commonly used in which student input is controlled by using regression analysis to compute an "expected" output. The part correlation of the college environment variable and the output with input variance removed

only from the output is interpreted as a measure of the college effect. However, this is not the most useful procedure that may be used since part (or partial) correlation may severely underestimate the magnitude of the true college effect. Interpreted within a causal model, partial regression coefficients appear to be a generally more satisfactory measure of college effects and to have greater stability across different units of measurement. 4 models are used to illustrate the advantages of using partial regression coefficients in a causal framework. (18 ref.)—*Journal abstract.*

3701. Wing, Cliff W. & Wallach, Michael A. (Duke U.) **College admissions and the psychology of talent.** New York, N.Y.: Holt, Rinehart, & Winston, 1971. ix, 165 p.—After listing 4 options—meritocratic, random, explicit favoring of disadvantaged applicants, and open—in the field of admissions, detailed merits of each are presented. Cases demonstrating use of the Scholastic Aptitude Test are presented. 4 chapters explore the meaning of "talent," and 4 chapters present original research. (42 ref.)—*A. M. Cawley.*

3702. Anderson, Richard C., Kulhavy, Raymond W., & Andre, Thomas. (U. Illinois) **Feedback procedures in programmed instruction.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 148-156.—Presented 356 undergraduates in 2 experiments a programmed lesson on the diagnosis of myocardial infarction. The experiments were conducted using a computer-based instructional system which insured that S responded before he received knowledge of the correct response (KCR). Ss who received KCR after they responded learned significantly more than Ss who received no KCR or who could peek at KCR before they responded. Neither 2 versions of a time-out procedure, a correction procedure, nor a forced-return procedure improved on KCR after responses. KCR after wrong answers only was slightly better than KCR after right answers only. Review of incorrect frames failed to improve performance on either an immediate or delayed criterion test. (28 ref.)—*Journal abstract.*

ATTITUDE & ADJUSTMENT

3703. Alker, Henry A. & Closson, Michael B. (Cornell U.) **Admission standards, institutional racism and black student political participation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 397-398.—This study falsifies for 1 historically salient case the hypothesis that lower admissions standards account for increased Negro student protest. Our data suggest, on the contrary, that low scores on admissions predictors are irrelevant. Rather it is students high on a traditional admissions standard, Scholastic Aptitude Test-Verbal, who, if they subsequently receive low grades in college, are politically active. Some evidence concerning the causal direction of this relation involves poor academic performance in talented Negro students prior to their political participation.—*Author abstract.*

3704. Blum, Allan M. **The differentiation of family styles and their relation to classroom behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3699-3700.

3705. Corrigan, Francis V. (George Washington U.) **A comparison of self-concepts of American-Indian students from public or federal school backgrounds.**

Dissertation Abstracts International, 1970(Dec), Vol. 31(6-A), 2679-2680.

3706. DeVries, David L. & Ajzen, Icek. (U. Illinois, Center for Social Organization of Schools) **The relationship of attitudes and normative beliefs to cheating.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 199-207.—Previous research on cheating in college has centered on the relation between biographical variables, e.g., religiosity, GPA, sex, etc., and the evidence of cheating. An attempt was made to predict cheating intentions and self-reports of actual cheating from attitudes toward such behavior (A-act) and normative beliefs (NBs) about it, based on a theoretical model proposed by M. Fishbein. 146 undergraduates served as Ss. The biographical indices showed little or no relation to amount of cheating. In contrast, cheating intentions and self-reports of cheating correlated highly and significantly with the predictors in Fishbein's model (A-act and NBs). Findings support the predictive power of the model under consideration.—*Author abstract.*

3707. Dyer, Peter T. (State U. New York, Albany) **Social influence, conformity, and estimation within a college population.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2734.

3708. Eisenberg, Myron G. (Northwestern U.) **An examination of procedure for determining personality correlates to independence of judgment in male university students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4309.

3709. Gall, Joyce P. (U. California, Berkeley) **Individual differences in stress and coping, and graduate examination performance.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4310-4311.

3710. Gordon, Leonard V. (State U. New York, School of Education, Albany) **Weber in the classroom.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 60-66.—Describes an instrument designed to measure the "bureaucratic personality," based on the Weberian model, from the 6th to the 12th grade level, using the school as the environmental frame of reference. The Student Environmental Preference Schedule (SEPS) was compared to the previously developed adult Work Environmental Preference Schedule (WEPS). The WI-PS and SEPS forms were found to be constructually comparable. The SEPS was significantly related to other personality variables in directions congruent with bureaucratic theory. Bureaucratic attitudes as measured by the SEPS decreased monotonically with increasing grade level, and were related negatively to intelligence and academic achievement and positively to favorableness toward a traditional school environment. Similar findings in India and Japan are noted. (25 ref.) *Journal abstract.*

3711. Green, Timothy M. (U. Oklahoma) **Self-conceptions, physical fitness factors, school achievement and their interrelations with sixth-grade students.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2613.

3712. Hanley, Edward M. (U. Kansas) **An analysis of rule-following behavior in an elementary classroom.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3729.

3713. Lőrinc, István. (Megyei Ideggondozó Intézet, Szombathely, Hungary) **Az iskolaérettség fogalma és gyakorlata.** [The concept of school maturity.] *Psichológiai Tanulmányok*, 1967, No. 10, 281-286.

3714. Pirot, Michael & Mallory, C. Eugene. (Whittier

Coll.) **Method versus attitude in student centered teaching.** *Psychology*, 1970(Nov), Vol. 7(4), 32-37.—Attempted "to determine the relative effects of teaching method and teachers' attitude on student attitudes toward their teachers, his teaching method, and the class-group itself." 7 sections with 55 college students in each, were each led by a teaching assistant. Attitudes were measured by Rogers' Relationship Inventory. Teaching method was measured by 2 forms of a Teaching Inventory, the Teacher and Student forms. Teachers were divided into those who were most directive and those most nondirective in method and attitudes "to match the 4 teacher models implied in the hypotheses." Results suggest "that the Teaching Inventory was stable and that students did not detect significant changes in teachers' methods over the period of the experiment." Rogers' "theoretical ideas about the intra method and teacher attitude in establishing 2 types of learning situations seems to be given some empirical support by the present study."—S. Knapp.

3715. Rapp, Harvey M. (U. Maryland) **Investigation of approach-avoidance conflict in high school students.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2744.

3716. Ricci, Iry. (Boston U., School of Education) **Factors related to school adjustment of first grade pupils.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2745.

3717. Ritz, Mary B. (Case Western Reserve U.) **The relationship between oedipal conflicts and pre-operational functioning in aggressive boys during the latency period.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2746.

3718. Rothfarb, Herbert I. (Boston Coll.) **A study of the psychological needs and self-esteem of college men who exercise regularly.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2727.

3719. Rousson, Michel. **Facilitation et inhibition dans le travail scolaire.** [Facilitation and inhibition in school work.] *Enfance*, 1970(May), No. 2, 171-201.—The pupils of 12 classes in a Swiss canton completed 4 sentences designed to measure the influence of the school environment on attitudes related to school work. The answers show that the elements which impair school work or facilitate it are the same for every subgroup of work or facilitate it are the same for every subgroup of pupils (boys and girls, upper and lower class, over- and underachievers). But the nature of work and some barriers (e.g., the expectancy of a test for the next few days) are important for the intensity of the effort of the pupils. Every negative reinforcement (blame, low grade) and bad physical environment discourages them. *English summary.*

3720. Sorhaindo, Alphonse L. (Ohio State U.) **The relationship between value-expectancy discrepancy and alienation in college students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4345-4346.

3721. Williams, Robert L. (U. Tennessee) **Relationship of class participation to personality, ability, and achievement variables.** *Journal of Social Psychology*, 1971(Apr), Vol. 83(2), 193-198.—Ss were administered the Lysenck Personality Inventory, Maslow's Security-Insecurity Inventory, California Short Form Test of Mental Maturity-Level, Tennessee Self-Concept Scale, and Torrance Tests of Creative Thinking (Verbal Form A). 3 levels of student locquacity were identified: active participation, intermediate participation, and

nonparticipation. There were approximately 50 undergraduates in each group. In general, the nonparticipating Ss reported the greatest degree of insecurity and neuroticism tendencies but obtained the lowest self-esteem and intellectual productivity indices. The active participants were generally analogous to the intermediate Ss on the personality dimensions but significantly higher than the intermediate group on language IQ, creative originality, and course achievement. (18 ref.)—*Author abstract.*

TESTING

3722. Ball, Donald W. (U. Kansas) **An application of a confidence weighting system to the items of a multiple-choice achievement test.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2729.

3723. Breiling, James P. (U. Iowa) **Measurement of test cheating and variables differentiating cheaters and noncheaters.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2732.

3724. Brown, Foster L. (Cornell U.) **Statistical criteria for determining regression slope sign change: Application for determining the ability of individual tests to differentiate between excellence and near excellence.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2732.

3725. Cillizza, Joseph E. (Boston U., School of Education) **The construction and evaluation of a test of critical thinking ability: Grades 7-8.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2733.

3726. Feldman, Solomon E. & Sullivan, David S. (Northern Illinois U.) **Factors mediating the effects of enhanced rapport on children's performance.** *Journal of Consulting & Clinical Psychology*, 1971(Apr), Vol. 36(2), 302.—Tested 72 elementary schoolchildren matched by grade, sex, and Otis IQ on the even numbered items of the Test Anxiety Scale for Children (TASC). 1 wk. later Ss completed a short form of the WISC, a motivation battery, and the remainder of the TASC under enhanced and standard rapport conditions. Enhanced rapport consisted of friendly conversation and verbal reinforcement for the 1st correct response on each WISC subtest. Ss in enhanced rapport showed significantly higher WISC IQs, better motivation scores, and more verbal productivity. Enhanced rapport was more effective with the older Ss. Enhancement did not produce lower TASC scores, but while Ss performed equally under enhancement, low-anxious Ss scored significantly better on the WISC than high-anxious Ss in the standard condition. It is concluded that the higher IQs observed in the enhanced rapport condition are the result of the E's friendliness and reinforcement of verbal productivity.—*S. Knapp.*

3727. Fleischman, Howard L., Orr, David B., & Strasel, H. C. (Scientific Educational Systems, Inc., Falls Church, Va.) **The relationship between the sub-tests of six achievement test batteries.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 109-110.—Determined in 2 studies the feasibility of equating the reading subtests and the arithmetic subtests of the most frequently used achievement test batteries at the 4th, 5th, and 6th grade levels. The purpose of these studies was to investigate the construct congruity of the tests. Correlations were computed among the reading and arithmetic tests. Although the tests were not perfectly correlated, results

indicate that the tests were sufficiently congruent to support the equating procedure. It is concluded that it would be feasible to conduct equating studies for the 2 sets of tests studied here.—*Author abstract.*

3728. Landis, Dan; Hayman, John L., & Hall, William S. (Educational Testing Service, Princeton, N.J.) **Multidimensional analysis procedures for measuring self-concept in poverty area classrooms.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 95-103.—Reports an attempt to apply the individual differences multidimensional analysis procedure of L. R. Tucker and S. J. Messick (see PA, Vol. 38:4865) to the description of self-image. 487 4th grade Ss in 16 poverty area classrooms were administered an instrument in which 12 critical concepts were presented by the method of complete triads. After interconcept distance estimates were obtained, the data were subjected to the Tucker and Messick procedures. 3 factors were obtained, representing subgroups of the 16 classrooms. Within each group, the number of concept dimensions varied from 3-4. Tentative interpretations of each concept dimension are presented. Implications and feasibility of the method in large scale evaluation programs are discussed. (20 ref.)—*Journal abstract*

3729. McLeish, John. (Inst. of Education, Cambridge, England) **The rating scale as a measure of college environments.** *Research in Education*, 1969(May), No. 1, 72-86.—Tested 2 null hypotheses: (a) "that the members of a complex social system are incapable of forming a general, consistent and valid concept of the total system"; and (b) "that rating scales are invalid as measuring instruments because of the inequality of units, this inequality becoming apparent when the scales are reversed in direction or in number-description association." In 2 studies, 4 different forms of a rating scale were completed by 62 and 72 male and female students, tutors, and college administrators over a 4-wk period. It was found that the order of presentation did not significantly effect the results, although movement across the body did produce a slight effect. The scatter of responses and ratings remained constant. Significant differences were found between course groups due to the student's tendency to identify course tutors with the institution. Students were more positive in their attitudes than the tutors. Considerable anxiety was found in both students and tutors during the exercise. It is concluded that "the rating scale is an appropriate instrument for many purposes but that it is unsuited as a method of establishing an objective view of a complex social system as this is experienced by participants."—*S. Knapp.*

3730. Meuwese, W. (Technical U., Eindhoven, Netherlands) **Toeassing van steekproefvrije itemanalyse op vorderingentoetsen.** [Application of sample-free item analysis on achievement tests] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970-(Oct), Vol. 25(9), 585-593. Investigated, in 2 experiments, the applicability of Rasch's sample-free item-analysis model on achievement tests. In Exp. I, score-to-ability transformation curves were obtained on groups which differed in average ability. The curves proved to be very similar. Distributions of ability estimates obtained on tests maximally different in difficulty were not significantly different in mean and standard deviation. In Exp. II, 2 randomly chosen groups of Ss were measured on tests differing in difficulty. Easiness estimates of the easy test were transformed to the easiness scale of the difficult test.

Differences between groups in cumulative distribution were not larger than can be expected by chance when both groups are measured on the same test.—*English summary.*

3731. Niccoli, Pietro. L'impiego del G.A.T.B. per l'orientamento nelle 3^e medie. [The use of the GATB for orientation in the 9th grade.] *Bollettino di Psicologia Applicata*, 1969, No. 91-93, 59-76.—Studied the results of using the 7 sections of the General Aptitude Test Battery (GATB) which test mental aptitude, as a replacement for the Differential Aptitude Test (DAT). The GATB evaluates the following: (a) intelligence, (b) verbal aptitude, (c) mathematical aptitude, (d) spatial aptitude, (e) form perception, and (f) office work perception. The GATB, it is concluded, can be used effectively, because it can be administered in a short time, by itself or with other tests, and has various applications.—*A. M. Farfaglia.*

3732. Olson, Roy A. (U. Iowa) The effects of teacher educational attitude, school location, and sex on the incidence of cheating behavior in the test situation. *Dissertation Abstracts International*, 1970-(Dec), Vol. 31(6-A), 2743.

3733. Snyder, C. R. & Ray, William J. (Vanderbilt U.) Observed body movement in the college test-taking situation and scores on the Scholastic Aptitude Test. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 265-266.—In undergraduates, the greater observed body movement in the test-taking situation was significantly related to lower verbal Scholastic Aptitude Test (SAT) scores. Observed movement did not, however, relate significantly to either math SAT scores or test anxiety as measured by the State-Trait Anxiety Inventory. Furthermore, the negative observed movement-verbal SAT relationship was not mediated by test anxiety.—*Journal abstract.*

3734. Srikanthiah, N. Y. (U. Mysore, India) Standardisation of an achievement test in algebra. *Psychology Annual*, 1970(Mar), Vol. 4, 36-39.—Constructed and standardized an algebra achievement test for 9th and 10th grade children. 120 Ss participated in preliminary tests of the form. A test of the final 110-item form was made with 460 students in 9 city high schools. Results were compared with midsession examination marks. Correlation was significant at the .01 level. Significant grade, sex, and socioeconomic differences were revealed in the test.—*S. Knapp.*

3735. van Naerssen, R. F. (U. Amsterdam, Psychological Lab., Netherlands) Itemgewichten afhankelijk van de ruwe score. [Items weights which depend on raw score.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 604-614.—Describes 3 methods by which test items can have a larger weight in the area in which they discriminate. In the 1st method, the item counts if the p value of a 4-choice test is larger than some linear function of the raw score of the person. In the 2nd method, a minimum and a maximum p value can be calculated graphically for each raw score by a model in which a linear function was postulated between the "proportion of item right" and the percentile score on the test. The position of the linear line is a function of the p value. The part in which the item counts is the nonhorizontal part of the line. In the 3rd method, the item-test regression, the probability of "item right," given the raw score, provides a maximum of 1 with a minimum of 0. The 3 methods were tested by 4-choice tests but the utility was small. It is

suggested that the values obtained by the use of any of the 3 methods was trivial in comparison with the ease of lengthening the test to secure equivalent reliability. (English summary)—*A. J. Ter Keurst.*

SPECIAL EDUCATION

3736. Bauman, Robert A. (Indiana U.) The effect of a success and failure experience on the performance of culturally deprived preschool children on an academic task. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2758.

3737. Garris, Raymond P. (U. Southern California) The use of behavior rating as an indicator of concomitant development in a prescriptive teaching program. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2760.

3738. Haring, Norris G. (U. Washington, Child Development & Mental Retardation Center) The new curriculum design in special education. *Educational Technology*, 1970(May), Vol. 10(5, Pt. 2), 24-31. Identifies influences, discusses developments, and presents examples of new curriculum design in the field of special education. Behavioral research is described as contributing to the definition of objectives, early identification, management, and modification of handicapping behaviors. Educational technology is described as providing the means to the objectives through individualized instruction using programmed materials, instrumentation, systems analysis, and automated and nonautomated media. 3 important features of the new design are discussed: (a) the teacher as a manager designing, implementing, and evaluating systematic arrangements of cues for the development of academic skills; (b) the selection and arrangement of materials and media to cue responses; and (c) the decisions on instructional conditions based on a continuous record of performance. Although great variations are noted in the application of behavioral research and educational technology, it is concluded that the "best curriculum design in special education will incorporate both dimensions of technology to the fullest." (88 ref.)—*S. Knapp.*

3739. Lieberman, Jack N. (U. Southern California) Effects of a clinical educational and behavior modification program of the classroom behavior of a disturbed adolescent. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2762.

Gifted

Remedial Education

3740. Blank, Marion; Higgins, Thomas J., & Bridger, Wagner H. (Albert Einstein Coll. of Medicine, Yeshiva U.) Stimulus complexity and intramodal reaction time in retarded readers. *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 117-122. Examined the possible role of stimulus differences in the reported difficulty of cross-modal RT in retarded readers. Using an intramodal paradigm involving a simple and a complex visual stimulus, 20 retarded 3rd grade readers were found to have significantly longer RTs than 20 normal 3rd grade readers. The pattern of response was similar for both reading groups in that the complex stimulus both initially caused more difficulty than the simple stimulus and led to difficulty in shifting to the

subsequent stimulus. Findings suggest that poor cross-modal performance cannot be attributed to deficiencies in cross-modal perception but may depend upon the extent of the physical differences that exist between the stimuli, whether within or across modalities.—*Journal abstract.*

3741. Ligeti, Róbert. (Arany János Experimental School, Budapest, Hungary) **A dyslexiás gyermekek reedukációjának kérdése Magyarországon.** [The problem of re-educating dyslexic children in Hungary.] *Pszichológiai Tanulmányok*, 1967, No. 10, 693-697.

3742. Szabó, Pál. (National Public Health Inst., Budapest, Hungary) **Kísérlet az iskoláeretlen gyermekek rehabilitációjára.** [An experiment for the rehabilitation of school-backward children.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 323-333.—In 3 experimental 1st grade classes, rehabilitation treatment was given to over-age pupils, 15 in each class. After 1 academic year, 68% passed their school examinations. (English & Russian summaries).—*M. Moore.*

Sensory & Physical Handicaps

3743. Brodrie, Jerome F. & Burke, John. (Southern Connecticut State Coll.) **Perceptual learning disabilities in blind children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 313-314.—119 totally blind and 81 legally blind children were observed for perceptual problems in learning to read and write. Error patterns analogous to those found in sighted "dyslexic" children were observed in about 15% of both groups. These legally blind children with perceptual deficits were first taught to read and write by sighted methods before learning Braille. A child had similar errors when learning to read or write Braille and when learning by the traditional sighted method.—*Journal abstract.*

3744. Canabal, Juan V. **Comparison of deaf and normally hearing children on analogy items under different methods of instructions at different age levels.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3700.

3745. Kaltsounis, Bill. (State University Coll. New York, Buffalo) **Differences in creative thinking of black and white deaf children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 243-248.—Fluency, flexibility, originality, and elaboration scores were obtained from Thinking Creatively With Pictures, Form A, given to 233 white and black deaf children in Grades 1-4. Fluency scores were not dependent upon race as such but upon grade level as such and in interaction with race. Flexibility scores showed an overall relation with race and grade level but not with sex. Originality scores were independent of grade level, race, and sex. Elaboration scores were dependent upon race and grade level and upon interaction of race with grade level.—*Journal abstract.*

3746. Murphy, Harry J. (U. Southern California) **The effects of types of reinforcement, color prompting, and image size upon programmed instruction with deaf learners.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2742.

3747. Nelson, David G. (U. Kansas) **A comparison of vicarious and direct learning of complex visual stimuli by deaf and normal hearing children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2763.

Mental Retardation & Learning Disorder

3748. Brown, Ralph L. (Texas State U.) **The utilization of techniques for more individualized instruction for the educable mentally retarded student in the junior high school.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4327-4328.

3749. Caffrey, Bernard; Jones, Judith D., & Hinkle, Barbara R. (Clemson U.) **Variability in reaction times of normal and educable mentally retarded children.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 255-258.—The RTs of 10 normal and 10 mentally retarded students (IQ, 45-70) were tested by the Lafayette visual choice RT test. A Wilcoxon matched-pairs signed-ranks test showed significant differences between the RTs of the normals and retardates on both the simple and choice tasks. It is suggested that future research should consider other abnormalities, aside from low IQ, that accompany mental retardation.—*Journal abstract.*

3750. Coons, Dale E. (Indiana U.) **A comparative study of verbal expressive language with trainable retarded children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2785.

3751. Danilkina, G. I. (Gertsen State Pedagogical Inst., Leningrad, USSR) **Vliyaniye slovesnogo obraztsa na vospriyatlie syuzhetnoi kartinki uchashchimsya I-II klassov vspomogatel'noi shkoly.** [Influence of the verbal model on perception of a little picture with a story by 1st-2nd grade pupils in the auxiliary school.] *Defektologiya*, 1970(May), Vol. 2(5), 25-29.—162 1st 2nd grade mentally retarded children and 80 normal 1st grade pupils were Ss in a study to determine (a) how the verbal model (description) of a picture with a story affects their perception of it, and (b) whether mentally retarded children form correct connections between the words, utilized in connected speech, and the objects indicated by them. The verbal model exerted a positive influence on the perception of a picture with a story since it promoted the establishment of correct correspondences between words and objects. The role of the verbal model in retarded children increased gradually from the 1st to 2nd grade. The positive effect transferred to narration in connection with similar pictures. *I. D. London.*

3752. Drotar, Dennis D. (U. Iowa) **Discrimination learning in normal and retarded children as a function of instructions, cue locus, and cue relevance: A test of the outer-directedness formulation of children's problem solving.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3702.

3753. Hatch, Ronald L. (Syracuse U.) **A comparison of slow learners of low and middle socioeconomic status on academic achievement, self concepts, and intelligence test scores.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2761.

3754. McGettigan, James F. (Columbia U.) **Conservation of number in young mentally retarded children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2739-2740.

3755. Richardson, Ralph E. (George Peabody Coll. for Teachers) **Effects of motor training on intellectual function, social competency, body image, and motor proficiency of trainable mentally retarded children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2764.

3756. Stuck, Gary B. & Wyne, Marvin D. (U. North Carolina, Chapel Hill) **Study of verbal behavior in**

special and regular elementary school classrooms. *American Journal of Mental Deficiency*, 1971(Jan), Vol. 75(4), 463-469.—Used the Flanders Interaction Analysis Category System to observe 27 public school classrooms (9 intermediate educable mentally retarded, 9 intermediate intellectually-average, and 9 primary intellectually-average) to study the relationship between classroom type and teacher-pupil verbal interaction. The basic question under investigation concerned whether teacher-pupil verbal behavior in special classes differed significantly from teacher-pupil verbal behavior in regular classes. A multivariate analysis of variance yielded no significant differences between the verbal interaction of special classes and that of regular classes. (19 ref.)—*Journal abstract*.

3757. Zbinden, William R. (U. Illinois, Urbana-Champaign) Psycholinguistic and perceptual correlates of spelling in educable mentally handicapped children. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2765.

Emotional Disorder

COUNSELING & GUIDANCE

3758. Athanasiou, Robert. (Johns Hopkins U.) Selection and socialization: A study of engineering student attrition. *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 157-166. Conducted an 18 mo cross-validated panel study of virtually an entire class of engineering students. Data from 713 undergraduates consisted of responses to a comprehensive questionnaire and the Omnibus Personality Inventory. Change scores on indexes of professional and educational interests, self-perception, and authoritarianism were found to be better predictors of attrition than either initial or final index scores. Attrition from engineering was defined by transfer to another field of study within the university. Changes on each index followed the predicted pattern of accentuation with high scores getting higher and low scores getting lower. The small differences, at entrance, between Ss who stayed in engineering and Ss who transferred, and the rather large differences at exit, suggest that early identification (or selection) programs might not be as effective as changes in the socializing environment in reducing engineering student attrition. (23 ref.)—*Journal abstract*.

3759. Bailey, Jon S. (U. Kansas) Home-based reinforcement and the modification of pre-delinquents' classroom behavior. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3720.

3760. Bailey, Roger C. & Bailey, Kent G. (Concord Coll.) Perceived ability in male and female college students. *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 293-294. 45 males and 75 females were administered a college ability rating scale and an objective test of intelligence. Men had higher actual ability but women exhibited higher academic achievement. Men and women did not differ on the Actual-Self measure but men tended toward a higher wished-for level of college ability. Both groups agreed closely in rating the typical female student considerably higher than the typical male. Groups did not differ on a Reality-Discrepancy measure.—*Journal abstract*.

3761. Barabasz, Arreed F. (State U. New York,

Albany) Effects of enhancing future temporal orientation. A text of approaches conceptualized within alternative theories. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3720.

3762. Barrows, Robert S. (State U. New York, Albany) The relationship of audio tape playback to client perception of counseling and client behavior change in a secondary school setting. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3720.

3763. Blaker, Kenneth E. & Bennett, Roger W. (U. Santa Clara) Behavioral counseling for elementary-school children. *Elementary School Journal*, 1970(May), Vol. 70(8), 411-417.—Reports 5 successful experiments in the use of behavior modification in an elementary school. 2 disruptive 4th graders selected a classmate with exemplary behavior. The model observed and repeated positive behavior which was rewarded with soda pop. 7 4th and 5th grade boys were given 20 cards and for each act of disruption, lost a card. Ss with the most cards left at the end of the week were rewarded. Checks on a card for good behavior and cards lost towards were used for modifying the behavior of all over the 2nd grade boys known for his rudeness. At entry into 3rd grade, the boy was improved by reinforcing good behavior in specified areas with poker chips and rewarding the whole class with a free period for receiving the maximum points in a week. Ss were taught to overcome their shyness by discussing a film of a shy child and practicing class participation. Prizes were given for Ss who were most successful in changing 2 variables are discussed as being critical to the success or failure of the modification process: creativity in the choice of reinforcements, and positive attitude toward the technique.—S. Koenig.

3764. Borman, Christopher A. (Indiana U.) The effect of reinforcement in individual counseling settings on the educational and vocational information-seeking behavior of adolescents. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2679.

3765. Campanelli, Thomas C. L. Does the influence of play therapy in developing adequate personality adjustments necessary for learning in the elementary school. *National Guidance Conference Journal*, 1971(Winter), Vol. 15(2), 130-142.

3766. Carlson, Nancy L. (U. Kansas) Occupational choice and achievement of women graduate students in psychology as a function of early parent-child interactions and achievement as related to birth order and family size. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2679.

3767. Caskey, Kathryn K., Blaylock, Edith V., & Wauson, Harri M. (California State Coll., Long Beach) The school nurse and drug abusers. *Nursing Outlook*, 1970(Dec), Vol. 18, 23-27.—Discusses the role of the school nurse in the area of drug abuse prevention and rehabilitation. 3 students and their mothers are presented as a microcosm of the drug world. The extent of the problem of drug abuse is discussed. In professional practice education, all of the most effective measures are discussed. The school nurse is an integral part of the counseling team on drug problems and since she is frequently the only person available to school who can make a professional judgment, she is directly involved in the treatment of emergency cases. The cooperation of the parents in treatment is critical. The varieties of drugs are briefly discussed.—S. Diamant.

3768. Davidshofer, Charles O. (U. Iowa) Risk-taking and drive effects on competing and noncompeting

vocational choice tasks. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3687-3688.

3769. DeBoer, Harland M. (U. Southern California) **A model for developing congruence, empathy, level of regard, and unconditional positive regard in counselor trainees.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2680-2681.

3770. Di Mattia, Dominic J. (U. Massachusetts) **A comparison of video-tape and programmed instruction as training devices to discriminate the emotion commonly referred to as depression.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2681.

3771. Elsenrath, Dennis E. (Indiana U.) **Teaching interviewers delayed, brief responses.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2681.

3772. Elton, Charles F. (U. Kentucky) **Interaction of environment and personality: A test of Holland's theory.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 114-118.—Tested J. L. Holland's assumption that personality variables interact with environment. The following hypotheses were investigated: (a) for males who leave engineering ($n = 27$) there is a personality change different from that found among those who remain in engineering ($n = 25$); and (b) for males who leave or remain in engineering, the personality development is different from that of males in a 2-yr college ($n = 22$). Analysis of Omnibus Personality Inventory scores indicates that 2 dimensions represented differences between groups: intellectual independence and practical inclination. Transfers to arts and sciences from engineering became more realistic, nonjudgmental, intellectual, liberal, and skeptical of orthodox religious beliefs. 2-yr students showed greater variability in their personality change scores and a loss in their liking for reflective and abstract thought. Results tend to support Holland's theory of vocational development.—*Journal abstract*.

3773. Ensign, Gordon B. (Washington State U.) **An experimental application of selected reinforcement procedures to the development of effective study schedules among academically deficient students.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2682.

3774. Ferinden, William E. & Seaber, Joyce A. (Union Coll.) **Adlerian psychology as a basis for group counseling of socially maladjusted students.** *National Catholic Guidance Conference Journal*, 1971(Win), Vol. 15(2), 106-112.—Describes a 15-session group counseling experience with 5 8th grade culturally deprived males who were long-time underachievers, and classified as socially maladjusted. Evaluative pre- and posttest instruments were Cowan Adolescent Adjustment Analyzer and the Wide Range Achievement Test. Bases for group counseling techniques were assumptions derived from Adlerian principles in (a) style of life, (b) creative self, (c) social interest and feeling, and (d) consciousness as the center of personality. The life styles of 2 counselees are noted and 2 group sessions are described. Posttest results showed improvement, but below a statistical level of significance. Recommendations include more small group counseling efforts at elementary and junior high school levels.—*A. M. Cawley*.

3775. Fletcher, Raymond. (Texas A & M U.) **Correlations of EPPS personality traits and intramural participation.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 242.—Although significant positive and negative correlations were found between 6 of the EPPS traits and

intramural participation ($N = 950$ male freshmen), the values were so small that it would be difficult to make any predictions.—*Author abstract*.

3776. Gurney, David V. (State U. New York, Buffalo) **Client listening as a factor in perceptual reorganization.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2682.

3777. House, Reese M. (Oregon State U.) **The effects of nondirective group play therapy upon the sociometric status and self-concept of selected second grade children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2684.

3778. Hutchcraft, Gilbert R. (Indiana U.) **The effects of perceptual modeling techniques in the manipulation of counselor trainee interview behavior.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2685.

3779. Judge, D. H. (Australian National U., University Counselling Service, Canberra) **Group counselling with underachieving technical college trade students.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 89-92.—Attempts to provide evidence that "... behavioural changes can be effected through the group psychotherapeutic process with apprenticed tradesmen." 22 2nd-yr building trade students who had consistently failed to learn trade calculations were evenly divided into an experimental group (E) receiving therapy 1 hr/wk for 12 wk., and a control group (C) receiving no therapy. Analysis of variance of results from pre- and post-therapy administrations of the Hall Diagnostic Math Test indicates that (a) Group E initially performed better than Group C, (b) both groups performed better on post than on pretests, (c) Group E improved significantly more than did Group C. Therapy was suggested to improve the performance of Group E by reducing hostility and "releasing memories of basic mathematical procedures from emotion-laden contexts." Naturalistic observations from various therapy sessions are provided.—*R. Wiltz*.

3780. Kauffman, John D. (U. Iowa) **The effects of group composition on an experimental group counseling program.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2685-2686.

3781. Kirts, Donald K. (Lehigh U.) **The comparative effects of orientation counseling and orientation lectures on attitudes of self regard among college freshmen.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2686.

3782. Linka, Zoltán & Szabó, Pál. "Iskolai neurozisék" egy gyermek-ideggyógyász munkájának tükrében. [School neuroses reflected in the work of a children's psychologist.] *Pszichológiai Tanulmányok*, 1967, No. 10, 601-608.

3783. McGowan, Raymond P. **Line managers and college business students: A differential analysis of personality variables and value concepts.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3745.

3784. McIlvaine, Joseph F. (Ohio U.) **An investigation of client ratings of effectiveness for beginning counselor trainees.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2688-2689.

3785. Meichenbaum, Donald H. & Goodman, Joseph. (U. Waterloo, Ontario, Canada) **Training impulsive children to talk to themselves: A means of developing self-control.** *Journal of Abnormal Psychology*, 1971(Apr), Vol. 77(2), 115-126.—Examined the efficacy

of a cognitive self-instructional (SI) training procedure in altering the behavior of impulsive school children. Study I, with 15 2nd graders, employed an individual training procedure which required the impulsive child to talk to himself, initially overtly and then covertly, in an attempt to increase self-control. Results indicate that the SI group improved significantly relative to attentional and assessment control groups on the Porteus Maze Test, performance IQ on the WISC, and on a measure of cognitive impulsivity. The improved performance was evident in a 1-mo follow-up assessment. Study II, with 8 kindergartners and 7 1st graders, examined the efficacy of the components of the cognitive treatment procedure in altering the impulsive child's performance. Results indicate that cognitive modeling alone was sufficient to slow down the impulsive child's response time for initial selection, but only with the addition of SI training was there a significant decrease in errors. Treatment and research implications of modifying S's cognitions are discussed. (45 ref.)—*Journal abstract.*

3786. Myrick, Robert D. (U. Florida) **The challenge of communication for the elementary school counselor-consultant.** *National Catholic Guidance Conference Journal*, 1971(Win), Vol. 15(2), 114-120.

3787. Nuzum, Robert E. (Washington State U.) **Inferred parental identification and perceived parental relationship as related to career- and home-making-orientation in above-average ability college women.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2689-2690.

3788. Paolicchi, Piero. **Risultati dell'applicazione di un questionario di interessi professionali su un gruppo di adolescenti.** [The results of the application of a questionnaire of professional interests to a group of adolescents.] *Bollettino di Psicologia Applicata*, 1969-(Aug), No. 94-96, 123-143.—Studied the professional interests in a group of adolescents. 435 13 yr. olds were given the following tests: (a) Raven's Progressive Matrices to determine the level of general intelligence. (b) Thurstone's Factorial Battery of Primary Mental Attitudes, (c) 16 PF, (d) Brainard's Occupational Preference Inventory, and (e) a personal outline for the essential facts of family and scholastic character. The averages of interests in various fields were the following: 9.3%, sciences; 8.4%, business; 4.3%, mechanics; 3.4%, liberal and professional arts; 17%, services; and 9%, agriculture. It is concluded that (a) the individual profiles resulting from Brainard's questionnaire appear to be in relationship with a whole series of factors, some of which correspond to social or individual variables; and (b) an important problem for the analysis of interests is the type of relationships which exist between the personality and the wider sociocultural system of which it is a part. A. M. Farfaglia.

3789. Pietrofesa, John. (Wayne State U.) **Group work in the elementary school guidance program.** *National Catholic Guidance Conference Journal*, 1971(Win), Vol. 15(2), 121-125.

3790. Ruznyák, Péter. **Középiskolába lépő tanulók értelmi fejlettségének vizsgálata.** [Examination of mental maturity in students entering secondary school.] *Psichológiai Tanulmányok*, 1967, No. 10, 301-304.

3791. Schrader, Charles H. (U. Iowa) **Vocational choice problems: Indecision vs. indecisiveness.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3694-3695.

3792. Schrink, Jeffrey L. (Indiana U.) **Source of**

referral and type of concern of children in selected elementary school counseling programs. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2692.

3793. Schumacher, W. (U. Giessen, Neuro-psychiatric Clinic, W. Germany) **Über Aufbau und Behandlung neurotischer Prüfungssängste bei Studenten.** [Structure and treatment of neurotic examination fears of university students.] *Nervenarzt*, 1970(Aug), Vol. 41(8), 365-371.—Reports experiences in advising and treating university students, suffering from examination fright. 2 types of such disturbances are noted: fears of an Oedipus character and fear symptoms based on existing latent narcissistic conflicts, actualized by "threatening" examinations. Within the 1st group of students, their fears were due to a revival of old Oedipal emotions, of a libidinal as well as of an aggressive type, under pressure. With the 2nd group of fear syndromes, an examination is subconsciously evaluated as a narcissistic menace: the loss of the respect of professors (idealized parent-teacher images) is feared. The chances for a successful treatment are good for both groups. In many cases, an analytically oriented psychotherapy, centered on the problems of the examination, seemed to be curatively sufficient. Some general psychohygienic problems arising from examination situations are discussed (16 ref.) P. von Tsall.

3794. Shields, Eldon E. (Indiana U.) **The effect of varied group and individual counseling methods upon culturally different freshmen.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2692-2693.

3795. Simms, Jeanne T. (Catholic U. of America) **An investigation of the differences between creative high socio-economic college freshmen and creative low socio-economic college freshmen on measures of vocational interests and certain motivational factors.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2693.

3796. Temesi, Alfréd. (Fotvos Loránd U., Budapest, Hungary) **Az iskolai pszichológus szerepe a nevelésben-oktatásban.** [The role of the school psychologist in education and teaching.] *Psichológiai Tanulmányok*, 1967, No. 10, 317-321.

3797. Várnagy, László. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Elemi munkaműveletek személyiségformáló hatásának pedagógiai-pszichológiai feltételei a gimnaziumi gyakorlati oktatással kapcsolatban.** [Pedagogical psychological conditions of the effect of elementary work operations on personality in practical secondary-school education.] *Psichológiai Tanulmányok*, 1967, No. 10, 329.

3798. Völgyesi, Pál. **Serdülőkorú lányok pályaválasztási elhatározásának alakulása az érettségig, személyiségfejlődésükkel összefüggésben.** [Trends in the decision on vocational choice in adolescent girls up to their graduation from secondary school as a function of personality development.] *Psichológiai Tanulmányok*, 1967, No. 10, 331-335.

3799. Wyse, Marylou. (Case Western Reserve U.) **Sensitivity training versus group lectures with elementary school problem students.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2695.

PERSONNEL

3800. Alleva, P. M., Pagliano, S., & Valceschini, S. **L'educatore specializzato: Analisi sequenziale nella valutazione degli atteggiamenti educativi valutati al**

P.A.R.I. [Education specialist: Follow-up analysis in the evaluation of the educative attitudes evaluated by the PARI.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 25-34.—Compared the profile of Ss qualified as educators on a professional level and Ss who act as educators without specific technical or professional qualification. 61 professional educators and teachers (17-30 yr. old) were given the Parental Attitude Research Instrument (PARI). Their educational backgrounds ranged from trade school to graduate school. A previous contribution on this matter by S. Valeschini whose study included only qualified educators is cited. The present study is a follow-up and also shows how the examined Ss differed. 10 out of 23 attitudes are similar to those of the group of education specialists studied previously. It is concluded that the education specialists present a profile of attitudes which differs from others of the same sociocultural status but who have not had specialized training, and thus, are not qualified although they may be actually employed as such. The PARI is valuable in discriminating among those who wish to be educators without experience or preparation and those who have such experience and training. The profile of the education specialist represents a generic psychological attitude of an educational nature.—*A. M. Farfaglia*.

3801. Clark, William H. (Case Western Reserve U.) **The relationships of personality and performance to motivator and hygiene orientations.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3743-3744.

3802. Shea, William M. (U. Southern California) **Selected relationships among personality constructs of the principal, personality constructs of the staff, and the organizational climate of the elementary school.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2661-2662.

3803. Valeschini, Silvio. **L'educatore specializzato: Contributo alla conoscenza del profilo professionale attraverso lo studio e la rilevazione di alcuni atteggiamenti caratteristici al P.A.R.I.** [The education specialist: Contribution to the knowledge of the professional profile by studying some attitudes characteristic to the PARI.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 13-23.—Studied the personal attitudes of the educator toward some general problems of education. It is the attitude of the educator which qualifies and distinguishes him rather than his personality or his role. The Parental Attitude Research Instrument (PARI) of Schafer and Bell was given to 44 education specialists. 5 groups of attitudes are included: (a) suppression and interpersonal distance, (b) hostile rejection of the housemaking role, (c) excessive demand for striving, (d) overpossessiveness, and (e) harsh punitive control. Except for the 2nd group, these groups can be successful in studying the attitudes of common educational interests. There is another character profile to aid in the selection of education specialists, but the real educational attitudes are not established. It is concluded that the PARI is a better guide in the selection of education specialists.—*A. M. Farfaglia*.

Teachers & Teacher Training

3804. Anderson, Gladys M. (Ohio State U.) **Personality characteristics of aspiring teachers and experienced teachers: A discriminant analysis.** *Dis-*

sertation Abstracts International, 1971(Jan), Vol. 31(7-B), 4323-4324.

3805. Bagdassaroff, Boris J. & Chambers, Norman E. (United States International U., San Diego, Calif.) **An evaluation of the encounter group process through assessment of value shifts and patterns of black and white educators.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3685.

3806. Berencz, János. (Teacher Training Coll., Eger, Hungary) **A példák funkciója a tanárképző főiskolai pszichológia oktatásban.** [Model- and case-analysis in the psychology courses of the teacher-training colleges.] *Pszichológiai Tanulmányok*, 1967, No. 10, 235-244.

3807. Bullmer, Kenneth. (Indiana U.) **Improving interpersonal perception through programmed instruction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3722.

3808. Camplese, Donald A. (West Virginia U.) **The effects of the mastery method on the verbal behavior of student teachers.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2732-2733.

3809. De Zeeuw, G. (U. Amsterdam, Psychological Lab., Netherlands) **Gewenst gedrag van docenten bij hoorcolleges.** [Objectives for teacher behavior in the lecture room.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 627-634.—Discusses the organization of the desirable and undesirable behavior traits of lecturing college professors. 20 1st-yr psychology students listed 158 "good" and "bad" traits found in the lecture performances. Presumably these traits could be incorporated into training programs for the improvement of the lecturers. After several attempts, it seemed impossible to construct a comprehensive, meaningful, and reliable hierarchy of traits on which to base the training program. (English summary)—*A. J. Ter Keurst*.

3810. Greenberg, Fredric L. (Case Western Reserve U.) **Teachers' motivational orientation and perception of student behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4379.

3811. Martin, William C. (Syracuse U.) **A study of the relationship between specified personality dimensions and the quality of interpersonal relations of teachers and semiprofessionals in dyadic work-groups.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3040.

3812. Richek, Herbert G. (U. Texas) **A comparison of characteristics of prospective secondary school teachers enrolled in two different degree programs.** *California Journal of Educational Research*, 1970(Nov), Vol. 21(5), 204-207.—If "warmth" may be defined as measured attitudes toward children, then this study concluded that prospective teachers of English enrolled in a College of Education do in fact have warmer and more positive attitudes towards children than do similar teachers of English trained in a College of Arts and Sciences. While this finding was true for English teachers, it was not true for teachers of social sciences. It was suggested that the study ought to be replicated with more diverse subject matter areas. The data did not say that holders of a bachelor of science degree in secondary education made more effective teachers than liberal arts graduates, but the data do indicate that such graduates are not to be necessarily preferred over College of Education students.—*H. J. McWhinnie*.

3813. Romig, Charles W. (U. Northern Colorado) **Attitudes of classroom teachers toward the roles of**

the school psychologist and other personnel of a psychological services center for children. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2747.

3814. Smith, Earl P. (Syracuse U.) **An Investigation into the relationship between selected personal and professional characteristics of teachers and their preferences for behavioral objectives.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2798.

3815. Soucar, Emil. (Temple U.) **Vigilance and the perceptions of teachers and students.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 83-86.—Data were obtained on a measure of cognitive differentiation from 70 teachers and 66 nonteachers. Teachers were more differentiating in their perceptions of their disliked students and nonteachers were more differentiating in their perceptions of their disliked instructors. As predicted, in neither sample were disliked persons significantly more differentiated by females than males. Male nonteachers were more differentiating of both liked and disliked instructors while no such sex difference was found for the teacher group. It is suggested that sex differences occurred when superior persons were being rated. Males are probably more threatened by authority figures (instructors) than are females. Consequently males would be more attentive to the personal characteristics of their instructors. These findings are discussed in relation to the "vigilance" hypothesis suggested by H. Miller and J. Bieri (see PA, Vol. 39:14065) and M. Irwin, T. Tripodi, and J. Bieri (see PA, Vol. 41:7245).—*Journal abstract*.

3816. Steward, Judith R. & Love, W. A. (Nova U., Ft. Lauderdale, Fla.) **The teacher's response to technology and the individualization of instruction.** *Educational Technology*, 1970(Feb), Vol. 10(2), 56-61.—Studied the attitudes of 123 teachers in an innovative school dedicated to individualized instruction. Each S completed a 12-item Teacher Opinion Questionnaire and ranked 5 definitions of individualized instruction according to importance. Results reveal (a) a high level of job satisfaction, (b) that loss of teacher status was not considered significant, and (c) that the extra effort required of the teacher was considered worthwhile and creative. Ss also reported a considerable amount of role confusion and indicated the need for additional training in innovative techniques and guidance. Many Ss felt that the teacher should not be responsible for preparing his own curriculum material. Ranking of components of individualized instruction revealed strong agreement that many paths be available to the student to reach an objective at his own rate. A new emphasis is noted on the role of the teacher in assisting the student in his personal and academic development.—S. Knapp.

3817. Willis, James W. (U. Arkansas) **Attitude change during a teacher education block as measured by Furst's Questionnaire on Teacher Practices and Kerlinger's Education Scale VII.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2626-2627.

SCHOOL LEARNING & ACHIEVEMENT

3818. Anderson, Richard C. & Myrow, David L. (U. Illinois, Training Research Lab.) **Retrospective inhibition of meaningful discourse.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 81-94.—Investigated retrospective inhibition with prose passages in 2 ex-

periments involving 297 high school students. In each case, retrospective inhibition was observed where consecutive passages entailed similar stimuli and competing responses while retroactive facilitation appeared where the passages involved both similar stimuli and similar responses. Previous failures to find retroactive inhibition with prose are attributed to the mixing of test items, some of which were facilitated, some of which were inhibited, and some of which were unaffected. Results match expectations from interference theory fairly closely, except that multiple-choice items were more subject to retroactive inhibition than short-answer items, suggesting that response competition is a more important factor than response unavailability in retroactive inhibition with prose. (24 ref.)—*Journal abstract*

3819. Becker, Albert J. (Case Western Reserve U.) **Reading achievement of boys as influenced by the child rearing attitudes of their fathers.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2730-2731.

3820. Bewa, James E. (Columbia U.) **Future time perspective and academic achievement in black adolescents.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3698-3699.

3821. Burgdorf, Kenneth. (National Inst. of Mental Health, Section on Personality, Bethesda, Md.) **Outstanding Negro high school students: A one year followup.** *National Merit Scholarship Corporation Research Reports*, 1969, Vol. 5(4), 12 p. 1 yr. after their expected date of graduation from high school, the 4288 participants in the 1st National Achievement Scholarship Program for outstanding Negro students filled out a questionnaire dealing with their college experiences. Data were analyzed to assess the extent to which the program accomplished its dual objectives of encouraging talented Negro students to attend college and of encouraging colleges to seek talented Negro students. Results indicate that Ss in the higher competition status groups were (a) more sought after by the colleges, (b) more successful in college entrance, and (c) had more nonacademic achievements. Most differences were small, not because Ss in the higher groups did poorly, but because Ss in the lower status groups did well. A followup of a random group of nonrespondents to the original followup indicates that sampling bias in the original followup acted to depress competition status group differences, but not substantially.—*Journal abstract*

3822. Church, Marilyn. (Indiana U.) **Effects of two kinds of visual perception training in kindergarten on reading readiness and first grade reading ability.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2733.

3823. Cutler, Sheldon & Palmer, Richard J. (Indiana U.) **Social reinforcement, individual difference factors, and the reading performance of elementary school children.** *Journal of Personality & Social Psychology*, 1971(Apr), Vol. 18(1), 97-104.—Studied the relationships among contingent social reinforcement, sex, test anxiety, achievement, and the reading performance of 120 4th-6th grade children on a series of matched paragraphs. It was hypothesized that Ss' social reinforcement histories and expectancies for success and failure would mediate the Ss' responsiveness to reinforcement and their acquisition of correct reading responses. Results indicate that reinforcement and the individual difference factors significantly interacted to

affect reading performance. The performances of boys were more variable and, compared to girls, more highly related to test anxiety and achievement level and significantly more influenced by social reinforcement factors. Girls made significantly fewer errors than boys over trials, with sex differences accentuated by high test anxiety and attenuated by negative reinforcement. It is concluded that elementary school girls were more task oriented than boys, more innerdirected, and less dependent upon extrinsic motivational factors. (19 ref.)—*Journal abstract.*

3824. Curry, Robert S. (United States International U., San Diego, Calif.) **Analysis of selected personality and social characteristics of students revealing changes in creativity.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2734.

3825. Elzler, Charles F. (Case Western Reserve U.) **The relationship between classroom achievement and self-evaluation, affect-mediation and standard-setting during a series of cognitive tasks.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2735.

3826. Eklund, Susan J. (George Peabody Coll. for Teachers) **Competitiveness in boys as related to academic achievement and mother's achievement orientation.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3689.

3827. Forrai-Bánlaki, Erzsébet. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Az osztályozás hatása a teljesítményre különböző mértékben szorongó és különböző értelmi teljesítésgű 7-9 éves tanulók esetében.** [The effect of marks on the performance of 7-9 year old schoolchildren grouped according to anxiety level and intellectual abilities] *Pszichológiai Tanulmányok*, 1967, No. 10, 199-204.

3828. Gallagher, Dennis P. (Case Western Reserve U.) **Environmental contributors to personal and conceptual learning.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2789-2790.

3829. Gershman, Susan J. (Columbia U.) **Foreign language vocabulary learning under seven conditions.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3690.

3830. Hampton, Charles E. (U. Texas) **The relationship of religious attitudes to certain aspects of mathematics learning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4197-4198.

3831. Hermans, H. J. & Coopmans, J. J. (Roman Catholic U., Nijmegen, Netherlands) **Onderzoek naar de relatie tussen de attitude van de leerkracht en enige persoonlijkheidskenmerken van de leerling.** [The relationship between the teacher's attitude and some personality characteristics of the student.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 562-584.—Studied the following variables in the investigation of teaching power and personality characteristics of pupils: (a) school achievement, (b) intelligence, (c) discrepancy between Variables a and b, (d) achievement motive, (e) debilitating and (f) facilitating anxiety, (g) social desirability, and (h) the democratic and (i) the nondemocratic approach of the teacher. Variables a and b were measured by the Interesse Schoolvorderingen Intelligentie test Serie; Variables d-g were measured by the Prestatie Motivatie Test; and Variables h and i were measured by a questionnaire. Ss were 261 boys and 177 girls in the 5th and 6th grades. The criteria were "pleasure in study" and grades. Pleasure in study had a

high +r with Variable d and very low r's with Variables a and b. Grades had a high +r with Variables a and b, and a moderately high r with Variables d, e, and f. Variable h had a positive influence on the achievement of girls, but a negative one on that of the boys. Among girls, Variable e was higher and Variables f and g were lower in classes when the teacher had a strong democratic approach. (English summary) (18 ref.)—A. J. Ter Keurst.

3832. Jenkins, Joseph R. & Deno, Stanley L. (U. Delaware) **Influence of knowledge and type of objectives on subject-matter learning.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 67-70.—Combined 2 experimental variables (type and knowledge of objectives) in a 2 x 3 factorial arrangement of treatments. 112 undergraduates were randomly assigned to 1 of 6 experimental conditions or a learning control condition. The objectives used were either general or specific (type) and were provided either to teachers only, to teachers and Ss, or to Ss only (knowledge). Although significant learning occurred for all instructed conditions compared to a test-only control, neither knowledge of the objectives nor type of objectives differentially influenced performance on a criterion test.—*Journal abstract.*

3833. Johnson, Bethel W. (U. Southern California) **The decision process in college attendance and cognitive dissonance.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2705-2706.

3834. Katz, Leonard & Wicklund, David A. (U. Connecticut) **Simple reaction time for good and poor readers in grades two and six.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 270.—A recent experiment in high-speed visual scanning demonstrated that differences between good and poor readers existed in intercept but not slope of response latency as a function of the size of the scanned set. The present experiment in simple RT was designed to test the hypotheses that the intercept difference was due to a difference between good and poor readers in (a) the RT to the target's onset (i.e., the detection of and response to a stimulus change), and/or (b) in the efficiency of the motor portion of response execution. 2nd and 6th graders were run. Although differences in RT between grades appeared, no differences between good and poor readers were observed; alternative hypotheses based on memory retrieval are postulated.—*Author abstract.*

3835. Katz, Leonard & Wicklund, David A. (U. Connecticut) **Word scanning rate for good and poor readers.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 138-140.—Presented 20 5th grade poor readers and 19 good readers with a series of trials in which 2 successive slides were shown. The 1st slide contained a single word. The 2nd slide contained either 2 or 3 words which comprised either (a) a grammatical, meaningful sentence, or (b) a scrambled version of a grammatical sentence. Ss were instructed to respond "yes" or "no" depending on whether the 1st slide word did or did not appear on the 2nd slide. Although poor readers were about 250 msec slower than good readers, both groups had equivalent scanning rates. RT to the 3-word sentences was about 100 msec slower than RT to the 2-word sentences, for both groups. The absence of effects due to grammaticality and the absence of an interaction between sentence length and "yes" vs. "no" suggests that Ss in both groups used a rapid exhaustive perceptual scan. It is concluded that the differences

observed between good and poor readers cannot be caused by differences in the transformation and matching process.—*Journal abstract.*

3836. McDonald, Charles W. (George Peabody Coll. for Teachers) **Effect of selective reinforcement by parents on reading and spelling achievement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3710.

3837. Mickish, Verle L. (Arizona State U.) **The relationship of viewing skills and visual perception.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2793-2794.

3838. Móússong-Kovács, Erzsébet. (Medical U. of Budapest, Neurological Clinic, Hungary) **Orvostanhallgatók pszichológiai tájékozottsága és ismeretlénéye.** [University students' psychological information and their aspiration for knowledge in this field.] *Pszichológiai Tanulmányok*, 1967, No. 10, 195-198.

3839. Oakan, Robert; Wiener, Morton, & Cromer, Ward. (Clark U.) **Identification, organization, and reading comprehension for good and poor readers.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 71-78.—Compared the comprehension of 96 good and poor 5th grade readers for visual and auditory material and under conditions where the S had material paralleling the "input" of good and poor readers. Results fail to support the assumption that good identification is a sufficient condition for good comprehension and suggest that a significant amount of the comprehension difficulties of the poor readers may be attributable to the manner in which the input is organized. Implications for understanding the complex behaviors labeled reading are discussed.—*Journal abstract.*

3840. Onwuegbu, Obed I. (U. Utah) **Verbal and perceptual learning in a familiar and unfamiliar situation.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2743.

3841. Passini, Frank T. (U. Michigan) **Peer nomination assessment of resultant motivation.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4369.

3842. Pesce, G. Casazza; Giuganino, B. M., & Pellegrino, M. L. (U. Genoa, Inst. of Psychology, Italy) **Prime indagini sulla efficienza nella lettura e scrittura in soggetti "normali" di la elementare.** [First studies on the efficiency in the reading and writing of normal 1st grade subjects.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 35-53.—Studied the capabilities of normal Ss as a preliminary study to the reasons of the difficulty in learning to read and write. 62 1st grade classes with an average IQ of 105 were given tests which gave importance to the various aspects of the ability in reading and writing, e.g., a short story of 85 words, and a dictation of 24 words. Ss that (a) had scholastic difficulty and were repeaters, (b) were mentally deficient or highly gifted, (c) sensorial impairment or speech defects, (d) were left handed or ambidextrous, or (e) were discipline problems were excluded. The remaining Ss were divided into 3 groups: children of blue collar workers, office workers, and professionals. The comparison of the 3 sociocultural groups did not produce any significant difference regarding speed or frequency of errors on the tests. Few errors were made on the various parts of the reading and writing tests, e.g., 55% did not make more than 2 errors on a part involving the reading and comprehension of isolated words.—A. M. Farfaglia

3843. Robinson, Peter S. (U. Utah) **Some effects of listening to speeded speech on the listening and reading behavior of sixth grade boys.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3714.

3844. Rohwer, William D., Ammon, Mary S., Suzuki, Nancy, & Levin, Joel R. (U. California, Inst. of Human Learning, Berkeley) **Population differences and learning proficiency.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 1-14.—Examined the hypothesis that school-achievement deficiencies of low-socioeconomic-status black children are attributable to corresponding deficiencies in learning ability. 288 low-socioeconomic-status black and high-socioeconomic-status white children from 3 grade levels (kindergarten, 1st, and 3rd) were sampled. The Peabody Picture Vocabulary Test (PPVT), Children's Progressive Matrices, and 4 paired-associate measures were administered. Results reveal large population differences on the PPVT and the Children's Progressive Matrices at all grade levels, the largest difference being between the 3rd grade samples. In contrast, the paired-associate measures reveal a population difference only at the kindergarten level. (34 ref.)—*Journal abstract.*

3845. Sloan, Jack L. (State U. New York, Albany) **A multivariate study of individual differences among teachers and pupils for a specific instructional unit.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2748.

3846. Weinstein, Rhona & Rabinovitch, M. Sam. (Yale U.) **Sentence structure and retention in good and poor readers.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 25-30.—Investigated whether syntactic structure facilitates recall in good readers, and whether this effect exists in children who are poor readers. 26 good and 15 poor readers were selected from the 4th grade of 3 Canadian public schools. A paired-associate task equated the 2 groups on their ability to associate simple, familiar words. Each S learned (with a tape recorder) 4 lists composed of nonsense elements and grammatical markers: 2 were syntactically structured, and 2 unstructured. The good readers learned the structured lists more rapidly than the unstructured lists. The poor readers learned both kinds of lists with equal difficulty. There was no difference between the good and poor reader's ability to retain the unstructured material. It is concluded that the locus of the facilitation effect lies in the syntactic cues, implicit in the structured list. (16 ref.)—*Journal abstract.*

Prediction

3847. Bellucci, Joseph T. (Lehigh U.) **The contribution of values in predicting success in practical nursing training programs.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2731.

3848. Ference, Lynn W. (U. Southern California) **Dental student selection through handwriting analysis.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4378-4379.

Overachievement & Underachievement

3849. Drakeford, Grant C. (U. Massachusetts) **Intensity of cross-modal meaning discrimination in academic achievers and under-achievers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4308.

3850. Hepner, Ethel M. (U. Southern California)

Self-concepts, values, and needs of Mexican-American underachievers. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2736.

3851. Riggs, Robert O. (Memphis State U.) **A study of non-intellective characteristics associated with differential levels of academic over- and under-achievement.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2745-2746.

3852. Rychlak, Joseph F. & Tobin, Thomas J. (Purdue U.) **Order effects in the affective learning styles of overachievers and underachievers.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 141-147. —Tested the predilection to learn positively rated trigram materials more efficiently than negatively rated materials. 64 high school males were identified via GPA and IQ as overachievers, underachievers, above average, and below average students. Ss learned 2 lists of paired-associate trigrams, 1 of which had been rated as liked by the S and 1 which he had rated as disliked (unmixed lists). The overachiever showed the least disparity between positive and negative reinforcement value, and the underachiever showed the greatest reinforcement value effect. Learning disliked lists before liked led to uniformly positive nonspecific transfer for all Ss, whereas learning liked before disliked materials did not clearly facilitate transfer. (20 ref.)—*Journal abstract*.

CURRICULUM & PROGRAMS

3853. Barber, Lucie W. (State U. New York, Albany) **The relation of dogmatism to decision-making behavior in twelfth-grade high school students.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2729.

3854. Bronzo, Anthony F. (U. California, Los Angeles) **Changes in prejudice and cognitive behavior in high school students as a function of instruction.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2607.

3855. Busch, John C. (U. Tennessee) **Conformity in preschool disadvantaged children as related to field dependence, sex, and verbal reinforcement.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4305-4306.

3856. Ebel, Robert L. (Michigan State U.) **The curriculum and achievement testing.** *Educational Technology*, 1970(May), Vol. 10(5, Pt. 2), 22-23.—Examines concerns commonly expressed over the use of external tests of achievement. These involve beliefs that (a) teachers do not know enough about the contents of the tests to enable them to "teach to" the test, (b) the test makers are expert teachers and the amount of curriculum control which the test exercises may be of value, (c) the tests do foster some degree of uniformity across schools but this does not need to limit creative curricular innovations, (d) only poor teachers will resort to undesirable teaching techniques, and (e) the school's major task is the fostering of cognitive competence which is what the tests seek to measure. The role of achievement tests in curriculum evaluation is discussed. It is concluded that achievement tests may be very useful to the curriculum specialist if wisely used, but that their limitations, especially in the area of curriculum evaluation, must be acknowledged.—S. Knapp.

3857. Filloux, Jean C. **Pédagogie et groupe.** [Teaching and groups.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(9-10), 502-511.—Presents Parts II and III

of a workbook for a seminar in the sciences of education, University of Nanterre, France.—R. E. Smith.

3858. Frieder, Brian. (Kirschner Assoc., Inc., Albuquerque, N.M.) **Motivator: Least developed of teacher roles.** *Educational Technology*, 1970(Feb), Vol. 10(2), 28-36.—Outlines and describes O D PRIME, a total system of learning situation events, consisting of (a) formulation of objectives, (b) diagnosis of instructional needs, (c) prescription of instructional activities, (d) instruction, (e) motivation, and (f) evaluation of achievement. The least developed and most neglected of these components is considered motivation. Contingency management as a technique for motivation is described. 10 rules of contingency contracting are presented and illustrated: (a) reward immediately, (b) reward small approximations, (c) reward frequently with small reinforcers, (d) reward accomplishment rather than obedience, (e) reward performance after it occurs, (f) be fair, (g) be clear, (h) be honest, (i) be positive, and (j) be systematic. The interaction of motivation with the other components of the teaching situation is described. It is concluded that a teacher trained as a motivation manager can significantly improve learning.—S. Knapp.

3859. Green, Freddy D. (U. Arkansas) **Self-concept: A first-grade study.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2612-2613.

3860. Griffin, Alice. (U. Manchester, England) **Selective and non-selective secondary schools: Their relative effects on ability, attainment and attitudes.** *Research in Education*, 1969(May), No. 1, 9-20.—Investigated the effects on students of different types of school organization in grammar and secondary modern schools (selective) and comprehensive schools (nonselective). 568 14-15 yr. old children from 3 comprehensive, 3 grammar, and 6 secondary modern schools were selected in the county of Staffordshire, England. Verbal reasoning, English attainment, and IQ tests given in the 11+ yr. served as a base. Ss were tested again in the 4th year of secondary education and completed 5 attitude tests: a 25-item attitude toward school test, 3 multiple-choice opinion statements on the status of the school and in the community, their own and parents opinions of the school, and age they wished to leave school. Results indicate that (a) comprehensive schools provided a stimulating environment for children of all abilities; (b) little difference was present in English attainment between the 3 types of school; (c) brighter pupils expressed better attitudes toward school in comprehensive than in grammar schools, particularly for girls; (d) girls of average and below average abilities in secondary modern schools also had positive school attitudes; and (e) comprehensive school organization had a unifying effect on morale and appeared to strengthen the holding power of the school. (17 ref.)—S. Knapp.

3861. Jones, Eloise L. (U. Arkansas) **The effects of a language development program on the psycholinguistic abilities and IQ of a group of preschool disadvantaged children.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2761-2762.

3862. Kosiba, Raymond J. (Indiana U.) **Characteristics of successful and non-successful students enrolled in block scheduled or individually selected classes.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2738-2739.

3863. Landry, Richard G. (Boston Coll.) **The relationship of second language learning to divergent thinking abilities of students in urban schools.**

Dissertation Abstracts International, 1970(Dec), Vol. 31(6-A), 2615.

3864. Levenstein, Phyllis & Levenstein, Sidney. (Family Service Assn. of Nassau County, Freeport, N.Y.) **Fostering learning potential in preschoolers.** *Social Casework*, 1971(Feb), Vol. 52(2), 74-78.—Since 1965, the Verbal Interaction Project, has explored a new means of preparing 2- and 3-year-old children of low-income families for the good school achievement vital to breaking the cycle of poverty. The method encourages dialogue between mother and child. The project is based on research evidence that a child's intellectual development is closely linked to his verbal growth and that his mother can influence his cognitive development by the amount and quality of her verbal interaction with him. Results confirmed the ability of the project to raise significantly the initially relatively low mean verbal and general IQs of these children over controls.—*M. W. Linn.*

3865. McCormick, Clarence C. & Schnobrich, Janice N. (Developmental Achievement Center for Children & Adults, Niles, Ill.) **Perceptual-motor training and improvement in concentration in a Montessori preschool.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 71-77.—25 children in a morning class of a Montessori preschool were administered a program of perceptual-motor training which stressed control of impulsiveness and development of attentional skills. 24 children in the afternoon class were controls. All Ss were administered a battery of psychological tests prior to training and again 7 mo. later at the termination of the training. All Ss (both groups) exhibited a mean 12-13 point gain in Peabody Picture Vocabulary Test IQ and a mean 13-14 point gain in Draw-a-Person Test IQ. In addition, experimental Ss exhibited mean gains on the Auditory-Vocal and Visual-Motor Sequential subtests of the Illinois Test of Psycholinguistic Abilities and in Ego-Control scores of the Arrow-Dot Test. Controls showed no such gains. It is concluded that the perceptual-motor training program might supply a useful adjunct to the regular Montessori curriculum. (27 ref.)—*Journal abstract.*

3866. Nielson, Joseph L. (U. Utah) **A comparative survey of student attitudes in conventional and modular senior high schools in Utah.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2653-2654.

3867. Nixon, George. (George Washington U.) **University instruction in behavioral science: Development and testing of an evaluation model.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2619.

3868. Parker, Harry J., Sternlof, Richard E., & McCoy, John F. (U. Texas, Southwestern Medical School, Dallas) **Objective versus individual mental ability tests with former Head Start children in the first grade.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 287-292.—To determine if individual or objective mental ability tests provide more accurate information with culturally deprived children when they reach primary grades, the Science Research Associates' Primary Mental Abilities (PMA) Test K-1 was administered in the 1st grade to 62 former Head Start white and Negro boys and girls. The Columbia Mental Maturity Scale, Goodenough Draw-a-Man Test, and Vineland Maturity Scale were administered 6 mo. earlier. On the PMA, significant differences were found for Verbal Meaning,

Number Facility, and Total Score for the 4 groups, with scores for whites higher than for Negroes. White boys exceeded girls on all subtests, while Negro boys exceeded Negro girls except on Total Score. Perceptual Speed scores were elevated beyond other scores for all but white girls. Whites exceeded Negroes by an average of 9 mo. on the PMA, while on the Columbia Mental Maturity Scale the difference was 13 mo. Subject to the users' understanding of the PMA, it appears to be reasonably applicable for use with ethnic and culturally deprived groups in primary grades and could serve as an alternative to individual mental ability testing.—*Journal abstract.*

3869. Reale, Paola. **Verifica di un servizio di preorientamento effettuato con materiale stampato e tecniche audiovisive.** [Verification of a preorientation service brought about with printed material and audiovisual techniques.] *Bollettino di Psicologia Applicata*, 1969(Aug), No. 94-96, 91-109.—Defines "preorientation" as informative action to high school students concerning scholastic subjects and possible work resources. A center of scholastic and professional orientation organized a preorientation program in the following way: (a) direct contact with the boards of education in both cities and provinces to specify the type and goals of the program; (b) a calendar sent to principals including dates when specialists from the center would be at different schools; (c) talks by social assistants to students and parents and distribution of the "Guide to Scholastic and Professional Careers"; and (d) documentary film presentation. It is concluded that this work by the center has resulted in an increase of information regarding scholastic organization. Regarding the techniques which were used, there was a greater increase of information if the group also received audiovisual material.—*A. M. Farfaglia.*

3870. Soares, Louise M. & Soares, Anthony I. (U. Bridgeport) **A study of the interpersonal perceptions of disadvantaged children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 261-262.—Measured the self-perception and interpersonal ratings of disadvantaged children enrolled in a special summer program developed for improving their reading and arithmetic skills both before and after the program. It was found that they increased self-images in 3 dimensions—self concept, reflected self-parents, and ideal concept. The teachers' and parents' ratings of them also increased significantly. A most interesting result was the almost identical mean score of self-concept and parents' ratings both for the pretest and the posttest. Yet the students thought their parents (and teachers) would rate them higher than they actually did. The teachers' ratings were very much lower.—*Author abstract.*

3871. Stanford, H. J. (Trent U., Peterborough, Ontario, Canada) **Design of a course in educational psychology.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 104-109.—Describes the design of a course in educational psychology by 20 teachers registered for the course. The seminar format adopted by the teachers is discussed, and a brief outline of the 12 subject areas covered is presented. It is concluded that when such applied courses are being considered, the opinions of professionals in the area may be at least as valuable as surveys of teaching techniques.—*R. Wilt.*

3872. Taylor, Vera C. (U. Southern California) **An evaluation of three compensatory education kin-**

dergarten programs. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2749.

3873. Washington, Anita C. (Case Western Reserve U.) Self acceptance and group identification among a group of black Upward Bound students. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3695.

3874. Williams, Frank E. (Macalester Coll., Creativity & National Schools Projects) Models for encouraging creativity in the classroom by integrating cognitive-affective behaviors. *Educational Technology*, 1969-(Dec), Vol. 9(12), 7-13.—Discusses the theoretical basis and educational uses of 4 models of cognitive-affective behavior: (a) J. Piaget's stage theory of intellectual development, (b) B. S. Bloom's taxonomy of the cognitive domain, (c) D. R. Krathwohl's taxonomy of the affective domain, and (d) J. P. Guilford's structure of intellect model. A new model, an outgrowth of the Guilford model, is presented which is designed for use by the teacher in encouraging creativity in young children. Dimension 1 of the cube model lists subject matter, Dimension 2 lists 18 teaching strategies, and Dimension 3 lists 4 cognitive and 4 affective pupil behaviors. Use of the model in curriculum planning, teacher instruction, classification and analysis of instructional media, and in educational programs for the gifted are described. It is concluded that this model may narrow the distance between what is known about the cognitive-affective processes and how this is utilized in educational practices. (16 ref.).—S. Knapp.

3875. Williams, Joanna P. & Ackerman, Margaret D. (U. Pennsylvania) Simultaneous and successive discrimination of similar letters. *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 132-137.—Explored the relative effectiveness of different presentations of letters in 2 experiments. Exp. I, with 40 1st grade children, compared simultaneous and successive discrimination tasks under varying degrees of stimulus similarity, i.e., b vs. d, or s vs. b. In Exp. II, using 48 1st graders, simultaneous and successive presentation of highly similar letters (b and d) were compared in a paired-associate paradigm that simulated the early reading task. Results indicate that 1st graders learn to discriminate and to respond to very similar letters that are reversals of one another more easily when the letters are presented successively. Suggestions for the development of training programs in early reading are made.—*Journal abstract*.

Teaching Methods & Teaching Aids

3876. Andriette, William R. (Syracuse U.) Differences in retention between populations of seventh grade science students taught by two methods of instruction: Small group laboratory and teacher demonstration. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2753-2754.

3877. Boags, William. (Syracuse U.) A comparison of affective reaction and cognitive learning of participants in a simulation-game experience. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2783.

3878. Boyko, George W. (U. Pacific) The effects of methodology on the self-concept of students. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2607.

3879. Dimas, Chris. (Syracuse U.) The effect of

motion pictures portraying black models on the self-concept of black elementary school children. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2609-2610.

3880. Dwyer, Francis M. (Pennsylvania State U.) The effect of image size on visual learning. *Journal of Experimental Education*, 1970(Fal), Vol. 39(1), 36-41.—Investigated the effectiveness of 4 types of visual illustrations used to complement oral instruction, and compared their relative effectiveness when projected on viewing areas of different sizes. Each of 588 undergraduates received a pretest, participated in his respective presentation, and received 4 individual critical measures. Results indicate that (a) the use of illustrations to complement oral instruction does not automatically improve achievement, and (b) merely increasing the size of visual images used to complement oral instruction will not necessarily improve achievement.—*Journal abstract*.

3881. Fekete, József. (Ministry of Culture, Budapest, Hungary) A programozott oktatás és nevelés viszonya, valamint a gondolkodás fejlesztésének néhány kérdése a programozott oktatásban. [Relationship between programmed education and instruction, and some questions of the development of thinking in programmed education.] *Pszichológiai Tanulmányok*, 1967, No. 10, 189-194.

3882. Feldman, David H. & Sears, Pauline S. (U. Minnesota) Effects of computer assisted instruction on children's behavior. *Educational Technology*, 1970-(March), Vol. 10(3), 11-14.—Investigated the effects of computer assisted instruction (CAI) in 45 1st grade children receiving CAI reading or mathematics. 27 1st grade children in regular classes served as the comparison group. A Behavior Survey Instrument was used to rate classroom behavior. Findings indicate that social behavior decreased in the CAI Ss and that correlations between academic behavior and achievement were reduced in CAI subject areas. It is concluded that CAI may be a "mixed blessing," but that the present study does indicate its value in rendering achievement less dependent on classroom behavior.—S. Knapp.

3883. Francis, Azalia S. (George Peabody Coll. for Teachers) The development and preliminary field testing of a multisensory language development program for kindergarten, first grade and fourth grade. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2789.

3884. Freyberg, Joan T. Experimental enhancement of imaginative play of kindergarten children in a poverty area school. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3704.

3885. Kelemen, László. (Lajos Kossuth U., Debrecen, Hungary) A programozott oktatás néhány pszichológiai problémája. [Some psychological problems of programmed education.] *Pszichológiai Tanulmányok*, 1967, No. 10, 185-188.

3886. Koerber, Leonard G. (Indiana U.) Attitude-achievement interaction: A scale of attitude toward programmed instruction applied in a differentiated verbal learning task. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2738.

3887. Lunneborg, Clifford E. (U. Washington) Generalized linear hypothesis: A unified approach to teaching. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 105-106.—The universal availability of high speed computational services in universities and colleges

permits a basic readjustment in the teaching of experimental design and other quantitative techniques. Rather than teaching a series of relatively disjoint designs, techniques or quantitative topics, it is now possible to develop the widest variety of specialized techniques from the common base of an hypothesized linear relationship between variables. By emphasizing the resultant interrelatedness of widely utilized statistical techniques this approach to teaching should provide students with a wider range of useful statistical tools and promote more effective use of those tools.—*Author abstract.*

3888. MacLaine, A. G. (U. Sydney, New South Wales, Australia) **A critical evaluation of programmed instruction.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 93-103.—Describes the linear, branching, and computer-assisted forms of programed learning techniques, and discusses the advantages and disadvantages of the various methods. General advantages are said to include the activity involved in learning a logical sequence of frames in which consistent success and immediate feedback reinforce learning. Additional advantages are provided by the emphasis on teaching rather than testing, the experimental control facilitating research, and the opportunity for each student to proceed at his own pace. Disadvantages include the difficulty of writing and validating programs, and the expense, the necessary reliance on reading ability, and the necessary isolation of students. A review of the research literature, as well as a discussion of some of the practical educational implications of programed instruction is also provided.—*R. Wiltz.*

3889. McCord, Bob C. (U. Mississippi) **A comparison of four methods of speech instruction with third and fourth grade culturally deprived boys and girls as measured by improvement in articulation, auditory memory span, and vocabulary.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 3075.

3890. Orr, William C. **Retention as a variable in comparing programed and conventional instructional methods.** *Journal of Educational Research*, 1968(Sep), Vol. 62(1), 11-13. Sailors were divided into 2 matched groups; 1 received programed instruction and the other received the conventional lecture method of instruction. Ss were retested at intervals of 1 day, and 1 and 2 wk. There were no significant differences between the 2 groups at any time. In view of some practical advantages of programed instruction, and the results of this study, it is felt that it deserves careful attention as an effective teaching method.—*Journal abstract.*

3891. Rhodes, Fen. (California State Coll. Long Beach) **Team teaching compared with traditional instruction in grades kindergarten through six.** *Journal of Educational Psychology*, 1971(Apr), Vol. 62(2), 110-116.—Compared the effectiveness of an elementary school with team teaching at all grade levels to a control school with traditional, self-contained classes. Achievement in reading, spelling, and arithmetic, and pupil attitude toward school and learning were measured in 316 students from both schools at the beginning and end of the year. Attitudes of teachers and parents at the year end were also assessed. In no instance was team teaching found to be superior to traditional classroom instruction, and it was significantly worse with respect to average reading gain ($p < .01$) and change in pupil attitude ($p < .05$). Teachers of team-taught classes were more positive ($p < .05$) in their job attitude than teachers at

the control school. Parents of children attending the team vs. control school were found to be equally favorable in their opinion of school effectiveness ($p > .05$).—*Journal abstract.*

3892. Sheehan, Donald J. (State U. New York, Albany) **The effectiveness of concrete and formal instructional procedures with concrete and formal-operational students.** *Developmental Abstracts International*, 1970(Dec), Vol. 31(6-A), 2348.

3893. Soudijn, K. A., Meilenbergh, G. J., & Hartemink, B. G. (U. Amsterdam, Psychological Lab., Netherlands) **Evaluatie van een handleiding voor de interviewer.** [Evaluation of an interview instruction manual.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Oct), Vol. 25(9), 418-426.—49 students were used to test the instructional procedures in the learning of 3 forms of an instruction manual about interviewing. Group 1 studied 1 sem. programed text that included examples and multiple-choice questions. The questions were omitted for Group 2. In Group 3, easy expositions of the theory of interviewing were presented. All 3 groups read their respective manuals independently. An achievement test (S11) was administered to all the Ss a few hours after the reading. A parallel test (S12) was administered 3 wk. later. A practice test (P1) was administered after S12 has been completed. P1 consisted of a series of questions to be judged right or wrong about interviewing. By means of a 1-way multivariate analysis of variance, the null hypothesis of equal treatment effects was rejected at the .01 level. The results for the highest group were found for Group 1 followed by 2 and 3, respectively. (English summary)—*A. J. Ter Keurt.*

3894. Worthen, Elaine R., & Collins, James R. (U. Colorado, Lab. of Educational Research) **Reanalysis of data from Worthen's study of sequencing in task presentation.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 15-16. *Contexts and procedures re-analyses of data from 2 analyses used by B. R. Worthen (see PA, Vol. 42, 3805).* When a classroom affected by the treatment was dropped and the final of measures changed from pupil scores to class mean, there were no treatment differences on any dependent variable. Thus raising serious questions about Worthen's conclusion that "Six in Treatment D proved superior to Six in Treatment A on a majority of intertreatment comparisons."—*Journal abstract.*

PERSONNEL & INDUSTRIAL PSYCHOLOGY

3895. Herms, Emma I. **Abstracts of BESRI Research publications—FY 1969.** *US Army Human Resources Research Report*, Nov 69, Sept 70, 21, 26 p.—Presents abstracts of Technical Research Reports, Technical Research Notes, Research Studies and Research Memorandums from the Behavior and Systems Research Laboratory. Included are descriptions of 79 work units covering activities reported in the 33 abstracted publications. A list of the libraries, universities and metropolitan centers in which these publications are feature, deposited, and a listing of the Army personnel programs utilizing psychological test programs from this laboratory. *A. J. Dwyer.*

3896. Dulia, Jeno & Papp, Agoston. **A MAV (M 61)**

reprezentáns vontatójárművének ergonómiai vizsgálata. [Ergonomical examination of the representative tractor of MAV (M 61).] *Pszichológiai Tanulmányok*, 1967, No. 10, 417-424.

3897. Leplat, J. La définition de l'objet d'étude en psychologie du travail. [Definition of the study object in the psychology of work.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 677-681.—The applied psychologist, particularly the industrial psychologist, is limited in his approach to a problem situation by the objectives and criteria imposed upon him by his employer, the area and means authorized, and his own degree of competence. He must always keep uppermost in his thinking the effects his actions may have upon the status and freedom of his Ss and the integrity of the organization. A technically acceptable investigation is never divorced from its ethical results without risk of disservice to either employer or employees.—*R. E. Smith*.

3898. Osipov, G. V. (Ed.) *Sotsial'nye issledovaniya: Problemy truda i lichnosti*. [Social investigations: Problems of work and personality.] Moscow, USSR: Nauka, 1970. 237 p. 89 K.

3899. Vitér, Zoltán. A szociológiai tájékozódás jelentősége az üzempszichológiai vizsgálatok előkészítésekor. [The significance of sociological information in the preparation of tests for industrial psychology.] *Magyar Pszichológiai Szemle*, 1969, Vol. 26(3-4), 526-535.—*M. Moore*.

3900. Zétényi, Elek. (Lenin Metallurgical Works, Diósgyőr, Hungary) *Munkapszichológiai vizsgálata a Lenin Kohászati Művekben*. [Industrial psychology examinations in the Lenin Metallurgical Works.] *Pszichológiai Tanulmányok*, 1967, No. 10, 473-479.

VOCATIONAL CHOICE & GUIDANCE

3901. Ivancevich, John M. & Donnelly, James H. (U. Kentucky) *Job offer acceptance behavior and reinforcement*. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 119-122.—Investigated the effects of a positive reinforcement program on a hypothesized indicator of dissonance (college seniors rescinding a job offer acceptance after previously accepting) in 2 companies. 196 Ss were provided reinforcement from the firm they decided to join, while another 196 Ss received no reinforcement. Ss receiving reinforcement rescinded job offers at a significantly lower rate than Ss not receiving reinforcement. (20 ref.)—*Journal abstract*.

3902. Lau, Alan W. & Abrahams, Norman M. (Naval Personnel & Training Research Lab., San Diego, Calif.) *Stability of vocational interests within nonprofessional occupations*. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 143-150.—Tested the assumption that individuals' scores and criterion group characteristics for nonprofessional vocations remain stable over long periods of time. Navy Vocational Interest Inventory scores received by 208 Navy enlisted men in a variety of occupational specialties were compared with their retest scores obtained 5 yr. later. Results show substantial reliability of individual scores, paralleling reliabilities obtained with the SVIB. Comparisons of interest profiles of criterion groups tested in 1951 with those of men entering the same specialties 13 yr. later also showed considerable stability. Findings should be generalizable to the Minnesota Vocational Interest Inventory, a revision of the original inventory.—*Journal abstract*.

3903. Levitt, Eleanor S. (New York U.) *A study of*

four career patterns and associated life history characteristics among female professional librarians. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4381.

3904. Rossmann, Jack E., Lips, Orville J., & Campbell, David P. (Macalester Coll.) *Vocational interests of political scientists*. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 135-137.—Collected SVIBs from 177 male members of the Midwest Conference of Political Scientists. Their interests were most like those of psychiatrists and psychologists, public administrators and social workers, librarians and musicians, and lawyers and author-journalists. When compared with sociologists, political scientists had interests less like those of applied biological scientists, physical scientists, outdoors and skilled worker occupations, administrators, and businessmen. Similar differences were found between psychologists and political scientists.—*Journal abstract*.

3905. Shore, Thomas C. (U. Maryland) *A study of relationships between the General Aptitude Test Battery scores and achievement in selected industrial cooperative training programs in North Carolina*. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2720-2721.

3906. Watley, Donivan J. & Nichols, Robert C. (National Merit Scholarship Corp., Evanston, Ill.) *Career decisions of talented youth: Trends over the past decade*. *National Merit Scholarship Corporation, Research Reports*, 1969, Vol. 5(1), 14 p.—Various trends were found in the educational major and career choice decisions of National Merit Finalists from 1957-1967. Interest among boys in the physical sciences increased immediately after Sputnik and then declined until about 1963 when it stabilized close to the prespace probe level. Interest in the social sciences has been almost the mirror image of the physical sciences: declining in 1958 and 1959 but increasing until 1965 and declining slightly since then. The choice of engineering decreased sharply after 1957 but began to stabilize about 1962. Interest in teaching among both sexes increased until about 1962. Since then, girls have shown a declining interest in teaching. Business and other practical fields have shown steady declines, the reverse of the increasing trend of interest in the humanities. If these decisions are considered representative of students in the top 1% of measured scholastic ability, many of the temporal shifts observed are large enough to have a marked effect on the availability of talented people to work on the problems associated with different career fields.—*Journal abstract*.

SELECTION & PLACEMENT

3907. Ash, Philip. (U. Illinois, Chicago) *Screening employment applicants for attitudes toward theft*. *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 161-164.—Describes the Reid Report, a 3-part instrument (scoreable attitudes-toward-theft inventory, biographical data blank, admissions list of past delinquencies) designed to predict the likelihood that an employment applicant will steal from his employer. For a sample of 254 employment applicants, Reid Report evaluations were correlated with evaluations based on polygraph interviews. For each device the evaluation alternatives were: recommended for hire, qualified recommendation, not recommended. Chi-square for the 3×3 table was 45.15 ($p < .001$). A Pearson product-moment

correlation coefficient between polygraph evaluations and Reid Report evaluations was .43 ($p < .001$). (22 ref.)—*Journal abstract*.

3908. Blakeney, Roger N. & MacNaughton, John F. (U. Houston) **Effects of temporal placement of unfavorable information on decision making during the selection interview.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 138-142.—126 male evening school management students rated an applicant for employment after listening to standardized audio tapes of a simulated interview in which the location and content of 1 piece of unfavorable information was systematically varied. An 18-cell analysis of variance design was used which counterbalanced the temporal placement of the unfavorable information, the content area in which it occurred, and the order of the content areas. Scores on the Dogmatism Scale (Rokeach) were analyzed with multiple-regression techniques. The temporal placement effect was significant at the .01 level. None of the other effects were significant. It was concluded that the temporal placement of the unfavorable information accounted for a statistically significant percentage of the variance in the ratings.—*Journal abstract*.

3909. Gluskos, Ury & Brennan, Thomas F. (Temple U.) **Selection and evaluation procedure for operating room personnel.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 165-169.—16 surgeons and supervisors of operating room (OR) personnel rated 100 behavioral statements pertaining to OR performance on a 1-7 importance scale. 42 statements were retained and incorporated into a final criterion list on the basis of mean rated importance and agreement among raters as measured by their standard deviations. 163 OR personnel were then rated by their supervisors and 40 were administered the Wonderlic, O'Connor Finger Dexterity Test, Press Test, and 3 scales of the CPI. Factor analysis of the criterion variables revealed that 54% of the variance could be accounted for by 4 factors: general technical knowledge, attention to detail, patient awareness, and social interaction. The 1st 3 factors were significantly related to 1 or more of the predictor variables.—*Journal abstract*.

3910. Leiren, Bjorn D., Kiker, Vernon L., & Phelan, Joseph G. (California State Coll., Los Angeles) **Validating the selection of deputy marshals.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 131-132.—Examined field and training criteria of success for the position of deputy marshal and determined several predictors of that success. Criteria and predictor scores on 121 deputies were factor analyzed and principal factors obtained. Multiple regression analyses were performed to obtain maximum predictive efficiency. The r 's obtained for prediction of training success are typical. For 2 subgroups ($N = 60$) multiple r 's of .606 ($p < .01$) and .572 ($p < .01$) were obtained. The beta weights and the samples were then recombined and the final regression weights obtained and a "shrunk" r computed.—*Author abstract*.

3911. Maier, Milton H. & Fuchs, Edmund F. **Development of improved aptitude area composites for enlisted classification.** *U.S. Army BESRL Technical Research Report*, 1969(Sep), No. 1159, 46 p.—Nearing completion is a large-scale validation study of operational and experimental measures conducted across a

full range of the Army's Military Occupational Specialties. The measures were evaluated for effectiveness in predicting final grades in Army school training courses and subsequent performance in Army job assignments. Test and criterion data are the source of 2 major developments in the initial classification of enlisted men: (a) 8 new and improved aptitude area composites based in the Army Classification Battery, and (b) a long-term study of the differential validity of both operational and experimental measures with a view to possible major reconstitution of the aptitude area system. The new composites and benefits to be derived from their use—specifically, enhancement of productivity of enlisted men in training assignments—are described. *A. J. Drucker*.

3912. Roach, Darrell E. (Nationwide Insurance, Columbus, O.) **Double cross-validation of a weighted application blank over time.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 157-160.—Reports a 2nd cross-validation of a weighted application blank for predicting tenure of clerical employees. The sample consisted of 199 female employees hired during a later time period than the initial and cross-validation samples. Application blanks were scored using the weights previously developed. A substantial loss in predictive power was found in the additional cross-validation. Changes in labor market conditions, manpower needs, and specific changes in personnel policies appear to be responsible for the loss in efficiency. Results suggest cross-validation of such blanks with samples of employees hired during a later time period and periodic checks on their continuing validity.—*Journal abstract*.

3913. Samuel, J. A. (Post Office Appointments Center, Psychological Services Branch, London, England) **The effectiveness of aptitude tests in the selection of postmen.** *Studies in Personnel Psychology*, 1970(Oct), Vol. 2(2), 65-73.—Correlated aptitude test scores used in the selection of 3205 postmen (over 18 yr. of age) and 550 15-18 yr. old young postmen, recruited from 1959-1960, to supervisors' evaluations of their present performance and potential future performance. Scores were rated on 5-point scales. The aptitude test for postmen, unique to the United Kingdom Post Office, consisted of 3 subtests: "Names and Opposites," "Checking," and "Observations." The Subtests for young postmen were: "Arithmetic I," "Arithmetic II," "Names and Opposites," and "Instructions." Results indicate a significant tendency for those in both groups with higher scores to remain in the Post Office. The positive relationship between promotion and test score was significant for postmen, but not for young postmen. Significant differences between postal regions was observed, as well as between age groups on subtests. A significant positive correlation was observed between test score and present performance for postmen, but not for young postmen. Reasons for various findings are discussed.—*J. Tiedemann*.

3914. Webb, Philip A. **Rorschach assessment of business executives.** *Australian Psychologist*, 1969-(Nov), Vol. 4(2 3), 171-174. Discusses the possibilities of using the Rorschach Ink Blot Test to identify potentially successful business executives. On the basis of previously reported investigations, it is suggested that when the test is administered with more definite instructions, followed by testing the limits, and when overt behavior rather than subconscious tendencies are used as criteria for interpretation, the potentially eminent

executive and many others with potential for solid achievement can be located. The Percept-analytic Executive Scale is also discussed as a device for the selection and placement of such individuals.—*R. Wiltz.*

TRAINING

3915. Bisseret, A. & Enard, C. **Le problème de la structuration de l'apprentissage d'un travail complexe.** [The problem of structuring the learning of a complex task.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(11-12), 632-648.—Presents a detailed plan for the training of air traffic controllers. (22 ref.)—*R. E. Smith.*

3916. McFann, Howard H. (HumRRO, Monterey, Calif.) **HumRRO research on Project 100,000.** *HumRRO Professional Paper*, 1969(Dec), No. 37-69, 11 p.—Presents findings of HumRRO research associated with Project 100,000. Objectives are to obtain information on what impact men taken into the Army under this program will have on training and operations, and to understand the relationship between measured aptitude and performance in training and on the job. Data show the general relationship between Armed Forces Qualification Test scores and performance to include laboratory tasks and operational training. 1 conclusion is that effective training must take into account individual differences. Plans are presented to provide necessary information on factors involved and techniques to account for them.—*HumRRO.*

3917. Sellman, Wayne S. (Lowry Air Force Base, Technical Training Div., Colo.) **Effectiveness of experimental training materials for low ability airmen.** *USAF AFHRL Technical Report*, 1970(Jun), No. 70-16, 19 p.—Studied whether modifying career development course (CDC) format through the simplification of the written materials, the inclusion of more illustrations, and the addition of audio supplementation could improve the CDC as a training device designed to teach basic job information, especially to airmen possessing minimum verbal skills. 180 high, middle, and low aptitude personnel studied 3 versions of the CDC for a fire protection course. The versions included a conventional CDC, a less verbal CDC with more pictorial materials, and a less verbal CDC with more pictorial materials accompanied by a tape recording of complementary information. Data were collected on learning performance, reading speeds, and attitudes toward the CDCs. Analyses revealed that the modified CDC with the audio supplementation produced significantly increased learning scores. High and middle aptitude groups consistently outperformed the low aptitude groups across all CDCs. (20 ref.)—*Journal abstract.*

3918. Tallmadge, G. Kasten & Shearer, James W. (American Inst. for Research in the Behavioral Sciences, Palo Alto, Calif.) **Interactive relationships among learner characteristics, types of learning, instructional methods, and subject matter variables.** *Journal of Educational Psychology*, 1971(Feb), Vol. 62(1), 31-38.—Examined whether learning can be enhanced by employing instructional treatments differing in design and use as a function of learner characteristics. 6 experimental courses were developed reflecting different combinations of inductive and deductive teaching methods, rote and understanding types of learning, and 2 different subject matters. Achievement test scores following instruction were correlated with the 39 aptitude, interest, and achievement measures obtained on 353

Navy enlisted men. A statistically significant interactive relationship was found between learner anxiety and method of instruction which was consistent across the 2 subject matters and the 2 types of learning. (15 ref.)—*Journal abstract.*

3919. Winn, Alexander. (Laval U., Quebec, Canada) **Forbidden games.** *International Journal of Group Psychotherapy*, 1970(Jul), Vol. 20(3), 356-365.—Questions whether useful, practical, and transferable elements of laboratory education, from the T-group, will lead to effective organizational application. "The perplexing question facing the practitioner is what can be transferred from a stranger, 'diversified' lab to the individual's work situation? The temptation is strong to accept the sad probability that the abreactive experience in a stranger lab does not lead to a great measure of real or internalized change. The image of the laboratory as an isolated cultural island is strong. The individual does not behave on his return to the mainland the way those 'natives' on the island behaved, and perhaps he should not. Trust as a commodity cannot be carried in a suitcase across the sea." Implications for effecting a social change in an industrial organization are examined.—*I. Linnick.*

3920. Birnbaum, A. H., Sadacca, Robert; Andrews, R. S., & Narva, M. A. **Summary of BESRL surveillance research.** *U.S. Army BESRL Technical Research Report*, 1969(Sep), No. 1160, 56 p.—Summarizes in integrated fashion the major problem areas, the rationale of the Behavior and Systems Research Laboratory's approach to their solution, and the general course of completed or ongoing research studies in the surveillance areas of manned systems experimentation. Studies of the Surveillance Systems research programs are conducted within 4 work units—interpreter techniques, image interpretation displays, intelligence systems, and image systems. Research effort in these areas has resulted in findings which are applicable in optimizing human component performance in existing systems and in providing systems developers with information useful in design specifications for future systems.—*A. J. Drucker.*

TASK & WORK ANALYSIS

3921. Cockrell, John T. (System Development Corp., Falls Church, Va.) **Maintaining target detection proficiency through team consensus feedback.** *U.S. Army BESRL Technical Research Note*, 1969(Dec), No. 219, 24 p.—Attempted to determine if the target detection skill of individual interpreters can be improved by feedback which team members generate for themselves as they compare and discuss their work. This study differed from a previous experiment (see J. T. Cockrell, PA, Vol. 43:1579) in that target detection only was required rather than detection plus identification. Each S (N=60 enlisted men) was tested before and after a 3-day practice session to assess detection proficiency under predetermined experimental conditions. From both experiments conducted evidence points to the effectiveness of team consensus feedback in maintaining and enhancing performance of interpreters in field units, particularly in target identification and reduction of inventive errors. The technique appears to be especially useful where ground truth is not available.—*A. J. Drucker.*

3922. Csirszka, János. **A munkaalkalmasság érzelmi feltételei (Diagnózis-séma).** [The emotional

preconditions of the fitness for work (Diagnosis scheme).] *Pszichológiai Tanulmányok*, 1967, No. 10, 435-439.

3923. Epstein, Sidney. (System Development Corp., Falls Church, Va.) **Effects of image incongruence on location of common terrain in comparative cover.** *U.S. Army BESRL Technical Research Note*, 1970(Feb), No. 222, 31 p.—Attempted to determine the effects of variation in amount of image overlap and of discrepancies in scale and orientation on an interpreter's ability to select comparative cover frames for change detection. 96 trained image interpreters were required to locate, on rolls of new photographic cover, frames depicting terrain in common with earlier photo frames. Variation in frame presentation was controlled on percent of overlap and discrepancy in scale and orientation between the 2 covers. Ss and rolls of film were assigned to 12 experimental conditions in a Greco-Latin square design. It was generally concluded that interpreter performance is seriously degraded when comparative cover varies in scale and orientation and is not completely overlapping. Findings suggest that in operational practice, degrading effects of image incongruence upon interpreter performance in identifying comparative cover can be minimized by availability magnification and image rotation capabilities in the display system.—A. J. Drucker.

3924. Farrell, John P., Banks, James H., & Sternberg, Jack J. **Search effectiveness with the starlight scope and 7 × 50 binoculars.** *U.S. Army BESRL Technical Research Report*, 1970(Jun), No. 1164, 33 p.—Attempted to: (a) identify critical factors affecting performance, (b) develop instrumentation and technologies for subsequent research in the night operations area, and (c) assess for operational purposes performance effectiveness with the starlight scope (AN/PVS-2) and the standard Army 7 × 50 binoculars (M17). A total of 65 operators were tested, 4 men each night, 3 using the starlight scope and 1 using the binoculars. Ss were required to detect targets presented in 2 modes. Responses were recorded electronically for data analysis. Results showed the starlight scope to be superior under all conditions studied and to enhance target detection ability. The study provided base-line performance data on the starlight scope and 7 × 50 binoculars and resulted in development of practical and effective methodology and instrumentation applicable to a wide range of field experimentation and testing with night vision devices and sensors.—A. J. Drucker.

3925. Hódos, Tibor. (National Inst. of Labor Hygiene, Budapest, Hungary) **Fonóók munkatevékenységének és munkakörülményeinek-pszichológiai vizsgálata.** [Psychological study of the work process and working conditions of spinner women.] *Pszichológiai Tanulmányok*, 1967, No. 10, 461-465.

3926. Jeffrey, Thomas E. **Unaided reading of coded reconnaissance data.** *U.S. Army BESRL Technical Research Note*, 1969(Dec), No. 220, 37 p.—Attempted to determine the feasibility of having interpreters decode sensor and terrain information encoded on imagery by direct viewing instead of resorting to use of elaborate code reading machines. Achievement was measured in terms of time required for interpreters to locate the required block, decode and record the data, and number of correct decodings. Major findings indicate: (a) the average interpreter was 98% accurate in translation from code to clear language, (b) direct inspection was not

significantly aided by magnification, (c) 7-power magnification reduced decoding time over 2-power magnification, and (d) practice significantly reduced coding time. Accuracy was not affected. Procedures, suggested by the study, for interpreter practice and improvement in recognizing spatial patterns are presented.—A. J. Drucker.

3927. Klingberg, C. L., Elworth, C. L., & Epstein, S. (Boeing Co., Seattle, Wash.) **Change detection in aerial photo coverage as influenced by methods of comparison.** *U.S. Army BESRL Technical Research Note*, 1969(Jan), No. 205, 37 p.—Reports on a study of methods of comparing current with prior imagery cover of a given area as means of detecting change in the status of targets in the area. 4 methods of comparing early and late imagery, 2 levels of interpreter experience, and 2 time limits were combined into the 16 experimental conditions under which the testing was conducted. 16 groups of student interpreters performed a tactical target change detection task, each group viewing comparative scenes either 5 or 15 min. Results point to an advantage in using a computerized comparison procedure in an advanced surveillance system. For maximum operational efficiency, interpreters of the prior imagery should be assigned to make subsequent comparative cover analysis of the area.—A. J. Drucker.

3928. Levine, Jerrold M., Fealock, J. Bennett; Sadacca, Robert, & Andrews, Robert. (North American Rockwell Corp., Columbus, O.) **Method for quantifying subjective costs of large numbers of image interpretation errors.** *U.S. Army BESRL Technical Research Note*, 1969(Nov), No. 218, 68 p.—Attempted to develop a method of quantifying the subjective costs that a field commander associates with the consequences of action taken on the basis of erroneous image interpretation reports. Nearly 3500 interpretation errors were defined by means of a hierarchical target classification and reporting scheme. Magnitude estimation was chosen as the only feasible technique for establishing an interval scale of costs for so large a number of errors. Cost estimates obtained by applying 2 scaling procedures and the magnitude estimation technique were compared statistically to evaluate scale validity, reliability and sensitivity. Utility of error costs matrices in military situations is discussed.—A. J. Drucker.

3929. McCormick, Ernest J. & Mecham, Robert C. (Shri Ram Centre for Industrial Relations, New Delhi, India) **Job analysis data as the basis for synthetic test validity.** *Psychology Annual*, 1970(Mar), Vol. 4, 30-35—Reports a preliminary investigation into whether "valid personnel test standards for jobs could be derived synthetically, using worker-oriented job elements as the 'units' of possible common denominators of jobs." The Position Analysis Questionnaire, consisting of worker-oriented job element questions, was compared to job dimension scores derived from principal components analysis of job and attribute profile data on 179 jobs. Findings were then compared with data available from the United States Employment Service on the mean test scores and coefficient of validity on the General Test Battery for the jobs. Results support the hypothesis. Limitations of the study are discussed.—S. Knapp.

3930. Molnár, Imre & Stadler, Egon. (National Medical Inst. for Physical Education & Sport, Budapest, Hungary) **A szervezet alkalmazkodása különböző nehézségű szövegépek azonos munkamozzanataihoz.** [Adjustment of the organism to identical work-

phases in looms of different difficulty.] *Pszichológiai Tanulmányok*, 1967, No. 10, 441-451.

3931. Sági, Antal & Vaszkó, Mihály. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Munkatevékenységek struktúráinak vizsgálata különös tekintettel a fáradtsági és termelékenységi tényezőkre.** [Examination of the patterns of the work processes with reference to the fatigue and productivity factors.] *Pszichológiai Tanulmányok*, 1967, No. 10, 425-434.

3932. Sternberg, Jack J. & Banks, James H. **Search effectiveness with passive night vision devices.** *U.S. Army BESRL Technical Research Report*, 1970(Jun), No. 1163, 99 p.—Describes the research methodology and findings from the 1st of a series of research phases of the Behavior and Systems Research Laboratory Night Operations Program. Performance effectiveness of 4 passive night vision devices was evaluated simultaneously in the experimental procedure: miniscope, starlight scope, crew served weapon night vision sight, and night observation device, medium range. 123 enlisted men were tested at a rate of 9/night under 3 varied ambient illumination levels in the search and detection of 72 targets. Detection responses and search behavior were recorded on magnetic tape for data analysis. Findings presented in this initial report do not represent a complete analysis of results because of continuing availability of performance information. Follow-up reports, more detailed in analysis, as well as reports of additional experimentation, are in preparation.—A. J. Drucker.

PERFORMANCE & JOB SATISFACTION

3933. Boyles, Wiley R., Prunkl, Peter R., & Wahlberg, James L. (HumRRO, Ft. Rucker, Ala.) **Combat aviator criterion development.** *HumRRO Professional Paper*, 1969(Nov), No. 34-69, 10 p.—Discusses factors in the development of criteria for proficient performance of a complex job in the context of the Army aviation combat situation. Ratings of 201 aviators by peers, subordinates, and superiors on pertinent job behaviors were collected following identification of the pertinent behaviors by the critical incident method. Moderator variable effects on the ratings are described and some alternative strategies noted.—*HumRRO*.

3934. Comisarow, Ruth W. (Case Western Reserve U.) **Work motivation of female health field workers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4378.

3935. Fine, B. D. (Tel Aviv U., Israel) **Comparison of work groups with stable and unstable membership.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 170-174.—Compared 151 employees in work groups with unstable membership to 582 employees in similar groups with stable membership. Contrary predictions concerning the effects of unstable membership were derived from the R. Likert and the W. G. Bennis conceptions of organization structure. Employees in unstable work groups reported less within-group peer leadership, but more favorable organizational context. Contrary to the prediction derived from Likert's theory, there were no differences on measures of group-referent intervening variables and end-result variables, suggesting the viability of organic-adaptive structure described by Bennis. Increased lateral linkage among work groups of unstable membership is suggested as the mechanism that

appears to compensate for the decreased peer leadership evident in unstable work groups.—*Journal abstract*.

3936. Giles, Brian A. & Barrett, Gerald V. (U. Rochester, Management Research Center) **Utility of merit increases.** *Journal of Applied Psychology*, 1971(Apr), Vol. 55(2), 103-109.—Utilized a magnitude estimation technique to determine the relationship between merit increases and satisfaction for 157 professional employees of an electronics organization. The linear, logarithmic, and power functions were fitted to the data in combination with 4 frames of reference. The power function and the percentage of perceived equitable merit increase frame of reference gave the best fit to the data. The Bernoullian concept of diminishing utility for each added dollar was not supported. Analyses found that each dollar of merit increase had increased utility. For approximately 10% of the sample, satisfaction was not a monotonic increasing function of dollars. This is contrary to accepted economic theory but is consistent with equity theory. (18 ref.)—*Journal abstract*.

3937. Huber, Norman A. (Wayne State U.) **Superior-subordinate similarity, performance evaluation, and job satisfaction.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4380.

3938. Joseph, Jacob S. (Central Labour Inst., Bombay, India) **Differential perception of factors in job attitudes.** *Psychology Annual*, 1970(Mar), Vol. 4, 22-29.—Examined job attitudes in 19 semiskilled production workers. Each S ranked 16 job and situational factor statements in order of importance and chose 1 of 5 indicators of job satisfaction/dissatisfaction. 15 Ss were asked to rank the 16 statements again after 2 wk. The S's job suitability was then rated by his supervisor. High internal agreement was found among the satisfied Ss, while little was found among the dissatisfied Ss; these findings were increased when the groups were split into satisfied-suitable and dissatisfied-unsuitable. Results indicate "that there is differential perception of job factors by satisfied and dissatisfied workers which have certain practical implications."—S. Knapp.

3939. Karp, Harvey B. (Case Western Reserve U.) **An investigation of the motivational patterns in industrial salesmen.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4380-4381.

3940. Khot'syanov, L. K. **Voprosy analiza i sinteza v gligienicheskikh issledovaniyakh sovremennosti.** [Problems of analysis and synthesis in contemporary hygienic research.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970(Dec), Vol. 25(12), 3-12.—Contains research materials on the effect of "hermetic [closed] structures" on factory production. The continuous use of artificial light, in particular, introduces negative consequences.

3941. Latham, G. P. & Ronan, W. W. (American Pulpwood Assn., Harvesting Research Project, Atlanta, Ga.) **The effects of goal setting and supervision on the motivation of pulpwood workers.** Atlanta, Ga.: American Pulpwood Assn., Harvesting Research Project, 1970. 5 p.—Investigated the effects of goal setting and supervision on 4 performance criteria. A factor analysis of a questionnaire administered to 292 pulpwood producers indicated that supervision is correlated with high productivity and low injury rate only when it is accompanied by goal setting. Goal setting alone, however, resulted in employee turnover. Supervision alone did not correlate with any performance criterion. No relationship was found between goal setting or supervision and absenteeism.—*Author abstract*.

3942. Lawrie, J. W. (Wabash Coll.) **Making it—the hardest way.** *Psychology Today*, 1969(Nov), Vol. 3(6), 29-31, 60.—There are 2 basic reasons why hard-core unemployed Negroes often fail when given work: cultural deprivation and an unconscious fear of lost manhood. Conversations with business managers as well as with the Negro applicants indicated that many Negroes may be psychologically defeated before they begin and that direct supervisors of such Negroes may not try hard to make the programs work. The suggestion is made that acculturation training must accompany job training and a 1:1 program of personal support is necessary if the hard-core unemployed are going to be successful.—E. J. Posavac.

3943. Muthaaya, B. C. (National Inst. of Community Development, Hyderabad, India) **A study of job tensions among block development officers.** *Psychological Annual*, 1970(Mar), Vol. 4, 13-17.—Examined job tensions in 12 block development officers (administrators of community development programs in areas comprising approximately 10,000 people). An 18-item Job Related Tension Index Scale was administered to Ss. Tension levels were slight overall. Those job aspects in which it was high were (a) lack of authority, autonomy, and information necessary to do the job; (b) overwork; (c) incompatible demands by referent groups; (d) having to act against one's convictions; and (e) lack of a feeling of achievement. It is concluded that certain job aspects may become the harbingers of dissatisfaction, lead to tension and ultimately unrest within the entire organization.—S. Knapp.

3944. Oster, Ariel. (Wayne State U.) **Attitudes as mediators of the effects of participation in an industrial setting.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4382.

3945. Symonds, Martin. (New York U., Medical School) **Emotional hazards of police work.** *American Journal of Psychoanalysis*, 1970, Vol. 30(2), 155-160.—Discusses personal experiences with a large city police department. Sources of stress for policemen are described. Problems in the screening process of policemen are noted, and suggestions are made concerning personality types who pass screening procedures, but who, under the stress of police work, become ineffective.—H. Roemmich.

MANAGEMENT & ORGANIZATION

3946. Barrett, Jon H. (U. Michigan) **Integrating individual goals and organizational objectives.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4377.

3947. Davies, Evan & Binks, Noel. (U. New South Wales, Kensington, Australia) **Some motivational characteristics of senior managers.** *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 167-170.—A criterion of managerial success of 25 general managers or managing directors of substantial companies within New South Wales was determined by rank ordering Ss on each of 5 sources of company information and summing each of 5 sources for each individual. Ss were then administered the Motivational Analysis Test, providing 10 factor analytically derived motives, 10 concomitant conflict scores, and 5 ancillary measures. Rank order correlations indicate positive relationships between the criterion and super-ego strength, mating motivation, autism-optimism, and parental-home conflicts; negative relationships were found between the criterion and

narcissism, pugnacity, and affectionate-spouse attachment. Results suggest the dismissal as "shibboleths several popular notions concerning the motivations of managers."—R. Wiltz.

3948. Dunnette, Marvin D. (U. Minnesota) **Managerial effectiveness: its definition and measurement.** *Studies in Personnel Psychology*, 1970(Oct), Vol. 2(2), 6-20.—Surveyed the management identification and development practices of 33 companies as a basis for deciding how and where to direct future research grants. Among the elements of effective managing described, is the individual's ability to allocate all resources—human, financial, and material. The problem of measuring what the manager himself does toward effective or ineffective resource allocation is identified and discussed in terms of the current approaches in measuring managerial effectiveness. The advantages for behavior-based rating scales are discussed.—J. Tiedemann.

3949. Gantz, Benjamin S., Erickson, Clara, & Stephenson, Robert W. (California State Polytechnic Foundation, Center for Creative Leadership, Claremont) **Measuring the motivation to manage in a research and development population.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 129-130.—Reports the use of and cites evidence for the construct validity of a relatively new projective instrument purporting to measure the motivation to manage. The instrument is titled the Miner Incomplete Sentences Scale and was constructed as an operational measure to test Miner's role-motivation theory of managerial effectiveness. Ss were 117 successful, employed scientists. Evidence of the construct validity of the device is adduced from an extensive battery of psychometric instruments administered to the same population. Additional evidence is cited from factor analysis of 50 selected test variables from the psychometric battery, and from comparison of the Miner with a criterion measure of managerial potential.—Author abstract.

3950. Merrell, Victor D. (U. Southern California) **Transchange theory and strategies for management education: A study of change dynamics in selected management education programs.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4381-4382.

3951. Shapiro, Marvin I. (Wayne State U.) **Initiating structure and consideration: A situationalist's view of the efficacy of two styles of leadership.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4382-4383.

3952. Srinivasan, V., Shocker, Allan D., & Weinstein, Alan G. (Carnegie-Mellon U.) **Development of a composite criterion of managerial success.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 127-128.—One of the problems in developing a composite criterion is the weighting of its multiple components. Pairwise dominance judgments of 20 profiles of managers on 6 criterion elements served as input data in determining a composite measure of managerial success. United States and foreign executives in 2 management development programs served as judges. The weights were derived using mathematical programming. A good fit to the pairwise judgments was obtained. Compensation and expenditure authorization were the most important criterion elements. Other important elements receiving lesser weights were level of supervision and career satisfaction.—Author abstract.

SPECIAL ENVIRONMENTS

3953. Gzenko, O. G. & Alyakrinskiĭ, B. S. *Vliyaniye dlitel'nogo kosmicheskogo polëta na chelovecheskii organizm*. [Influence of prolonged space flight on the human organism.] *Vestnik Akademii Nauk SSSR*, 1970 (Nov), Vol. 40(11), 40-46.—Presents data on the physical and psychological aspects of the 18-day-long flight in the spaceship "Soyuz-9" by 2 astronauts. Materials procured during the flight and in the postflight period showed that man can operate for that length of time with preservation of sufficient psychological and physical efficiency. The most serious attention should be directed to maintenance of the diurnal rhythms of the functions of the organism. The difficulties encountered in adapting to unusual diurnal rhythms should be considered in developing a system for choosing astronauts. Strict observance of rational regimes of work and rest, developed on the basis of the data of "biorhythmology," serves as reliable prophylaxis of desynchronization on board the spaceship.—*I. D. London*.

3954. Sachs, Murray B., O'Brien, Gary J., Sergeant, Russell L., & Russotti, Joseph S. *Speech intelligibility in a stationary multipath channel*. *U.S. Naval Underwater Sound Laboratory/U.S. Naval Submarine Medical Center Joint Report*, 1969(Mar), No. 574, 6 p.—The reception of speech transmitted through an acoustic channel such as the ocean is limited by multipath "time-smearing." The purpose of this study was to obtain a quantitative measure of the effects of such time-smearing on speech intelligibility. A linear, time-invariant channel was used as a model of the ocean. The impulse response of this channel was a sample of band-limited Gaussian noise. Using fast Fourier transform techniques, words of the Modified Rhyme Test were convolved with, or smeared in the time domain, by this channel impulse response. The intelligibility of these "smeared" words was measured as a function of the impulse response duration. T. Intelligibility decreased monotonically to about 75% as T increased to 200 msec. Further increase in T did not significantly lower intelligibility. Distortions in time evaluated herein did not impose serious limitations to the reception of short words. However, a detailed analysis of consonantal errors revealed that sounds occurring in the middle of a word are much harder to hear correctly than are sounds at the beginning or ending of an utterance. It is concluded that time-smearing will more seriously interfere with the intelligibility of connected or conversational speech.—*Journal abstract*.

ADVERTISING & CONSUMER PSYCHOLOGY

3955. Reizenstein, Richard C. (Cornell U.) *An application of the theory of cognitive dissonance to the determination of the effectiveness of two major*

personal selling techniques. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-A), 2556-2557.

ENGINEERING PSYCHOLOGY

3956. Harsányi, István. (Technical U. of Budapest, Hungary) *A pszichológia alkalmazása a mérnöki munkában*. [The application of psychology in engineering.] *Pszichológiai Tanulmányok*, 1967, No. 10, 409-416.

3957. Lomov, B. F. (Leningrad A. A. Zhdanov State U., Psychological Faculty, USSR) *A műszaki pszichológia perspektivikus problémái*. [Future problems of human engineering.] *Pszichológiai Tanulmányok*, 1967, No. 10, 43-50.

3958. Sommer, Jörg. (Salzgitter AG Foundry, Psychological Service, W. Germany) *Einfluss der Beleuchtung auf visuell determinierte Kontroll- und Steuerungstätigkeiten in Walzwerken*. [Effect of illumination on visually determined activities of inspection and control in steel mills.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(4), 635-669. Investigated visual acuity, luminance difference thresholds, depth perception, and continuous inspection under different lighting conditions. 64 apprentices in a steel mill served as Ss. It is concluded for working places for inspecting sheet metals and polishing rolls, the low pressure sodium lamp with minimum luminances of the task of 200-300 asbestos yields the best results. The reflected image of the light source should just cover glossy tasks. (English & French summaries) (26 ref.) —*W. J. Koppitz*.

Displays & Controls

DRIVING & SAFETY

3959. Menon, A. Sreekumar. (Shri Ram Center for Industrial Relations, New Delhi, India) *Role of visual skill in safe operational behaviour*. *Psychology Annual*, 1970(Mar), Vol. 4, 18-21. Studied 220 employees of a fertilizer plant for a 10-yr period. 2 groups, an accident-repeating group and an accident-free group, were noted and matched on age, experience, pay, and educational levels. Results of a visual acuity test indicate that both monocular and binocular vision were significantly superior in the accident free group. Implications for factory safety programs are discussed. (15 ref.) —*S. Knapp*.

3960. Rumar, Kåre. (U. Uppsala, Sweden) *Experimental studies of driver characteristics in some traffic situations with special regard to visual capacity in night driving*. *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3736-3737.

Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents and is designed to lead the reader to subjects that are more specific than the general categories of this classification. When many abstract numbers are listed under a heading, the reader may compare his task by matching the numbers found under the two or more headings that specify his particular interest.

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- Reinforcement/Partial** (SEE Reinforcement Schedule)
- Reinforcement/Secondary** (SEE Reinforcement)
- Reinforcement/Social**
2190, 2235, 2248, 2249, 2620, 2669, 2696, 2887, 2900, 3470, 3726, 3759, 3808, 3823, 3836, 3855
- Relaxation** (SEE Behavior Therapy, Muscle)
- Reliability**
2059, 2233, 2832
- Religion**
1993, 1996, 1998, 2000, 2008, 2769, 2772, 2817, 2822, 2823, 2824, 2825, 2826, 2827, 2841, 2848, 2849, 2852, 2855, 2866, 2883, 2928, 2967, 3012, 3018, 3037, 3059, 3158, 3185, 3192, 3510, 3512, 3513, 3514, 3518, 3522, 3611, 3780, 3830
- REM** (SEE Rapid Eye Movement)
- Reminiscence** (SEE Memory, Recall)
- Remission** (SEE Mental Hospital & Hospitalization, Hospital & Hospitalization)
- Repetition** (SEE Stimulation, Familiarity)
- Replication** (SEE Contribution & Criticism)
- Repression**
3024, 3047, 3050, 3055, 3094, 3102
- Reptile** (SEE Animals)
- Research** (see also Experimentation)
2020, 2536, 2635, 2794, 2881, 2897, 3002, 3073, 3231, 3249, 3351, 3355, 3490, 3684, 3895, 3920
- Research Methods**
2023, 2024, 2091, 2092, 2100, 2172, 2279, 2483, 2559, 3008, 3493
- Reserpine** (SEE Tranquilizer)
- Residential Treatment** (SEE Mental Hospital & Hospitalization, Hospital & Hospitalization, Institution & Institutionalization)
- Respiration**
2389, 2420, 2495, 2515, 3219, 3647, 3656
- Response** (see also Conditioned Response, Conditioned Emotional Response)
2029, 2084, 2225, 2245, 2247, 2310, 2396, 2530, 2554, 2583, 2614, 2615, 3020, 3082, 3089, 3095
- Response Latency** (SEE Reaction Time)
- Response Set** (SEE Set)
- Response/Delayed** (SEE Response)
- Retardate** (SEE Mental Retardation)
- Retention** (see also Memory, Recall, Recognition)
2182, 2262, 2299, 2310, 2367, 2382, 2533, 2659, 2671, 2786, 3574, 3677, 3876, 3890
- Retina** (see also Eye)
2118, 2119, 2159
- Retirement** (SEE Adulthood, Occupation, Gerontology)
- Retrieval** (SEE Information)
- Reviews**
2695, 2986, 3180, 3377
- Reward** (see also Reinforcement)
2190, 2247, 3053, 3421, 3553, 3642
- Rigidity** (SEE Personality Trait, Authoritarianism)
- Riot** (SEE Social Behavior/Human, Aggression, Social Movements)
- Risk Taking**
2335, 2338, 2341, 2644, 2889, 2895, 2906, 2919, 2931, 2942, 2945, 2950, 3045, 3343, 3369, 3768
- Risky Shift Phenomenon** (SEE Group Dynamics, Risk Taking)
- RNA** (SEE Biochemistry)
- Role**
2647, 2711, 2819, 2820, 2839, 2872, 2888, 2901, 2904, 2908, 3017, 3030, 3075, 3288, 3359, 3609, 3813, 3816
- Role Playing** (SEE Role)
- Rorschach Test** (see also Projective Technique)
2673, 3100, 3101, 3102, 3103, 3104, 3105, 3208, 3275, 3314, 3572, 3573, 3652, 3717, 3914
- Rosenzweig Picture Frustration Study** (SEE Projective Technique)
- Rotary Pursuit** (SEE Visual Perception, Motor Performance)
- Rotation** (SEE Somesthesia, Factor Analysis)
- Running** (SEE Activity, Motor Performance)
- Rural Environment** (see also Community, Urban & Suburban Environment)
2666, 2734, 2808, 3081, 3723
- Russia** (SEE USSR)
- Sadism** (SEE Sexual Deviation)
- Safety** (see also Driving)
2720, 3941, 3959
- Salary** (SEE Money, Socioeconomic Status)
- Salivation** (SEE Conditioning/Classical, Gland, Taste)
- Salt** (SEE Biochemistry, Food)
- Satiation** (SEE Motivation)
- Scale** (see also Attitude Measurement, Inventory, Rating Scale, Testing Methods)
2089, 2868, 2914, 3080, 3081, 3318
- Scaling** (see also Measurement)
2017, 2060, 2085, 2108, 2859, 2991, 3928
- Scanning** (SEE Detection)
- Schizophrenia** (see also next headings)
3252, 3308, 3381, 3387, 3388, 3429, 3431, 3435, 3436, 3438, 3441, 3444, 3450, 3451, 3454, 3455, 3456, 3457, 3460, 3461, 3463, 3465, 3470, 3477, 3482
- Schizophrenia/Childhood**
3430, 3434, 3449, 3465
- Schizophrenia/Chronic**
3117, 3280, 3418, 3440, 3443, 3446, 3464, 3469
- Schizophrenia/Diagnosis of**
3428, 3429, 3433, 3438, 3442, 3447, 3448, 3451, 3452, 3453, 3464
- Schizophrenia/Family Role in**
3430, 3433, 3435, 3459, 3463, 3465, 3466
- Schizophrenia/Learning & Cognition in**
3117, 3308, 3427, 3439, 3440, 3443, 3445, 3447, 3449, 3450, 3457, 3458
- Schizophrenia/Physiology of**
3127, 3381, 3433, 3462
- Schizophrenia/Symptomatology of**
3432, 3437, 3448, 3452, 3456, 3458, 3464, 3471, 3482
- Schizophrenia/Treatment of** (see also Drug Therapy-Schizophrenia)
3139, 3168, 3433, 3446, 3467, 3468, 3469, 3470, 3471
- Scholastic Achievement** (SEE Achievement/Academic)
- School** (see also next headings, Achievement, Classroom, College, Education)
2807, 3705, 3713, 3732, 3767, 3796, 3802, 3860
- School Achievement** (SEE Achievement/Academic)
- School Adjustment**
3362, 3704, 3712, 3713, 3715, 3716, 3717, 3758, 3765, 3782
- School Administration**
3729, 3801, 3802
- School Anxiety** (SEE Anxiety, Test Anxiety)
- School Dropout**
- School Learning** (see also Achievement/Academic)
3719, 3736, 3742, 3765, 3828, 3829, 3830, 3832, 3837, 3840, 3842, 3843, 3856, 3860, 3863, 3864, 3876, 3877, 3880, 3891, 3892, 3894
- School Psychology** (SEE Educational Psychology, Guidance/Educational)
- School Subjects** (SEE Curriculum, Mathematics, Reading)
- Science & Scientists**
1991, 1992, 1994, 2011, 2012, 2025, 2089, 2349, 2796, 2825, 2848, 3023, 3949
- Scientific Method** (SEE Method & Methodology)
- Score & Scoring**
2053, 2083, 2085, 2086, 3020, 3088, 3325
- Seasonal Changes** (SEE Time, Temperature, Environment)
- Security** (SEE Dependency)
- Sedative** (SEE Drugs)
- Segregation** (SEE Integration)
- Seizure** (SEE Electroconvulsive Shock, Nervous System/Disorder of, Epilepsy)
- Selection**
1997, 2082, 2124, 2208, 2265, 3143, 3187, 3211, 3701, 3848, 3901, 3907, 3908, 3909, 3910, 3912, 3913, 3914, 3916, 3945
- Self** (see also next headings)
2247, 2913, 2939, 3003, 3024, 3030, 3040, 3074, 3088, 3200, 3873
- Self-Actualization** (SEE Self)
- Self Concept**
2600, 2733, 2735, 2741, 2832, 2858, 2935, 2946, 2983, 2960, 3028, 3141, 3364, 3366, 3399, 3539, 3594, 3654, 3687, 3705, 3711, 3716, 3718, 3721, 3728, 3753, 3755, 3776, 3777, 3781, 3850, 3859, 3878, 3879
- Self-Disclosure** (SEE Interpersonal Processes)
- Self-Esteem** (SEE Self-Concept)
- Self-Evaluation**
2229, 2933, 3081, 3679, 3760, 3825, 3841
- Self-Perception**
1990, 2216, 2636, 2743, 2770, 2776, 2871, 2891, 2981, 3031, 3085, 3341, 3361, 3562, 3652, 3758, 3760, 3870
- Self-Stimulation** (see also Motivation, Stimulation, Brain Stimulation, Rat/Brain Stimulation in)
2394, 2408
- Self/Ideal** (SEE Self Concept)
- Selling** (SEE Advertising, Business, Consumer Behavior)
- Semantic Differential**
2860, 2869, 2872, 3111, 3430
- Semantics** (see also Meaning, Meaningfulness)
2089, 2205, 2245, 2276, 2295, 2322, 2676, 2951, 2992, 2998, 3188
- Senility** (SEE Geriatrics)
- Sensitivity**
2015, 2100, 2176, 2209, 2377, 2586, 2808, 2907, 2910, 2912, 2935, 3024, 3047, 3050, 3055, 3110, 3209, 3211, 3369, 3511, 3549, 3799, 3828, 3919
- Sensory Adaptation** (SEE Adaptation/Sensory)
- Sensory Deprivation** (SEE Deprivation/Sensory)
- Sensory Physiology** (SEE Physiology/Sensory)
- Sensory Processes** (see also Intersensory Processes, Physiology/Sensory)
2093, 2096, 2133, 2164, 2359, 2428, 2447, 2597, 2677, 3461
- Sentence**
2254, 2295, 2307, 2314, 2676, 2705, 2998, 3835
- Sentence Completion Test** (SEE Projective Technique)
- Serial Learning** (SEE Learning/Serial)
- Set** (see also Expectation)
2082, 2200, 2262, 2319, 2445, 2552, 2965, 3337
- Sex**
2847, 2848, 2973, 3050, 3298, 3304, 3352, 3501
- Sex Differences**
1995, 2008, 2157, 2158, 2316, 2323, 2503, 2513, 2606, 2613, 2697, 2720, 2732, 2739, 2747, 2754, 2756, 2761, 2762, 2782, 2783, 2787, 2819, 2821, 2824, 2830, 2836, 2855, 2861, 2871, 2886, 2888, 2906, 2915, 2923, 2934, 2936, 2941, 2960, 2973, 3012, 3024, 3029, 3033, 3039, 3081, 3084, 3090, 3097, 3099, 3217, 3218, 3286, 3383, 3428, 3732, 3734, 3760, 3804, 3815, 3855
- Sex Differences—Animal**
2457, 2474, 2538
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- Sex Role**
2599, 2757, 2784, 2815, 2819, 2871, 3029, 3073, 3387
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2619, 2760, 2767, 2806, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2885, 3303
- Sexual Behavior-Animal**
2370, 2387, 2424, 2442, 2457, 2481, 2592
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3356, 3375, 3376
- Sexual Disorder**
3123, 3161, 3228, 3356, 3375
- Shape Perception** (SEE Perception/Form & Shape)
- Shaping** (SEE Conditioning)
- Sheltered Employment** (SEE Rehabilitation/Vocational)
- Shock & Shock Intensity** (see also Electroconvulsive Shock, Brain Stimulation, Rat/Brain Stimulation in, Rat/Shock & Shock Effects in)
2203, 2204, 2512, 2580, 2908, 2980, 3564
- Shock Therapy** (SEE Electroconvulsive Shock Therapy)
- Shock/Electroconvulsive** (SEE Electroconvulsive Shock)
- Sibling** (SEE Family Relations)
- Signal**
2053, 2078, 2116, 2121, 2162, 2167, 2168, 2171, 2174, 2176, 2209, 2565, 3054, 3547
- Similarity**
2059, 2060, 2089, 2189, 2274, 2317, 2657, 2659, 2790, 2903, 2916, 2932, 2934, 2938, 2967, 2971, 3196, 3198, 3937
- Simulation** (see also Model)
2052, 2068, 2069, 2170, 2268, 3045, 3095, 3877
- Size Constancy** (SEE Gestalt Psychology, Visual Perception, Perception)
- Size Perception** (SEE Perception/Size)
- Skin** (see also Cutaneous Sense)
2177, 2502, 3299
- Skin Resistance** (SEE Skin, Galvanic Skin Response)
- Sleep** (see also Dream & Dreaming, Rapid Eye Movement)
2179, 2180, 2181, 2182, 2228, 2345, 2384, 2389, 2400, 2401, 2414, 2424, 2444, 2465, 2494, 2621, 3180, 3385, 3388, 3619
- Slow Learners** (SEE Learning Disorders, Mental Retardation)
- Smell**
2175
- Smoking**
2503, 3215, 3230, 3232, 3234
- Social Processes** (see also next headings, Interpersonal Processes)
2798, 2799, 2823, 2846, 2891, 2927, 2984, 3052, 3113, 3182, 3264, 3899
- Social Acceptance** (SEE Acceptance, Social Approval)
- Social Adjustment** (SEE Adjustment/Personal & Social)
- Social Approval** (see also Acceptance)
2600, 2704, 2816, 2867, 2956, 3021, 3026, 3058, 3082, 3089, 3777
- Social Attraction** (SEE Interpersonal Attraction)
- Social Behavior/Animal**
2481, 2510, 2511, 2514, 2525, 2530, 2589, 2591, 2593, 2594
- Social Behavior/Human** (see also Childhood/Social Behavior in)
2042, 2510, 2511, 2633, 2698, 2768, 2813, 2820, 2827, 2884, 2909, 2913, 2926, 2933, 2963, 3060, 3359, 3755
- Social Casework**
3529, 3530, 3531, 3532, 3533, 3534, 3535, 3877
- Social Change**
2843, 2844, 2845, 2846, 2853, 2854, 2877, 2878, 3112, 3124, 3181, 3189, 3190
- Social Class** (SEE Social Structure, Socioeconomic Status)
- Social Deprivation** (SEE Childhood/Disadvantaged, Socioeconomic Status)
- Social Desirability** (SEE Acceptance, Social Approval)
- Social Distance** (SEE Isolation, Social Approval)
- Social Influence** (see also Interpersonal Influence)
2608, 2742, 2748, 2770, 2805, 2875, 2895, 2896, 2904, 2910, 2943, 2944, 2961, 3041, 3189, 3707, 3946
- Social Interaction**
2749, 2812, 2838, 2894, 2948, 2968, 3074, 3398, 3617, 3655, 3693
- Social Isolation** (SEE Alienation, Isolation)
- Social Mobility** (see also Social Structure)
2841, 3384
- Social Model** (SEE Social Processes, Social Structure)
- Social Movements**
2815, 3040, 3501
- Social Perception**
2192, 2355, 2342, 2632, 2689, 2744, 2751, 2756, 2776, 2821, 2822, 2829, 2864, 2871, 2872, 2874, 2878, 2883, 2885, 2908, 2926, 2935, 2939, 2940, 2951, 2957, 2958, 2960, 2961, 2962, 2964, 2965, 2967, 2968, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2988, 3017, 3027, 3046, 3082, 3198, 3526, 3642, 3679, 3707, 3778, 3807, 3810, 3815, 3870, 3938
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- Social Psychiatry** (SEE Psychiatry, Social Processes)
- Social Psychology**
2794, 3683
- Social Reinforcement** (SEE Reinforcement/Social)
- Social Role** (SEE Role)
- Social Science**
2011, 2025
- Social Structure** (see also Socioeconomic Status)
2666, 2750, 2756, 2768, 2812, 2813, 2815, 2817, 2818
- Social Welfare** (SEE Social Casework)
- Socialization**
2807, 2821, 3409, 3680
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- Socioeconomic Status** (see also Social Structure)
2610, 2635, 2664, 2671, 2694, 2695, 2704, 2706, 2712, 2720, 2734, 2766, 2773, 2836, 2854, 2855, 2856, 2886, 3081, 3084, 3176, 3243, 3265, 3372, 3428, 3451, 3532, 3609, 3611, 3672, 3734, 3753, 3774, 3795, 3842, 3844, 3864, 3903
- Sociology**
2841, 2925
- Sociometric Status** (SEE Social Approval)
- Sociometry** (SEE Social Approval)
- Sociopathy** (SEE Behavior Problems, Crime & Criminals, Antisocial Behavior)
- Sodium Chloride** (SEE Food, Biochemistry)
- Soldier** (SEE Personnel/Military)
- Somesthesia** (see also Kinesthesia, Cutaneous Sense)
2177, 2178, 2411, 3435
- Sorting** (SEE Categorical Behavior)
- Sound** (see also Audition, Noise)
2168, 2170, 2171, 2173, 2365, 2367, 2554, 2595, 2679, 2691, 2995
- Space Flight** (SEE Aviation, Environment, Simulation)
- Space Orientation** (SEE Orientation)
- Space Perception** (SEE Perception/Space)
- Special Education** (SEE Education/Special)
- Speech** (see also next headings, Verbal Behavior)
2104, 2112, 2158, 2213, 2242, 2248, 2624, 2681, 2691, 2698, 2705, 2764, 2892, 2957, 3001, 3188, 3240, 3515
- Speech Perception**
2165, 2172, 2613, 2691, 2719, 3455, 3580, 3843, 3954
- Speech Therapy**
3136, 3552, 3557, 3558, 3560, 3563, 3564, 3889
- Speech/Defective** (see also Speech Therapy, Stuttering)
2691, 2698, 3368, 3551, 3552, 3554, 3556, 3557, 3558, 3559, 3560, 3563
- Speed** (SEE Movement)
- Spiral Aftereffect** (SEE Aftereffect)
- Sports** (SEE Recreation, Education/Physical)
- Stammering** (SEE Stuttering)
- Stanford-Binet Intelligence Scale** (SEE Test/Intelligence)
- Stimulus** (SEE Response)
- Statistics** (see also Mathematics, Factor Analysis)
2005, 2024, 2028, 2030, 2033, 2034, 2035, 2036, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2047, 2048, 2049, 2050, 2051, 2052, 2054, 2055, 2056, 2057, 2058, 2059, 2061, 2062, 2063, 2064, 2072, 2078, 2086, 2089, 2758, 3464, 3697, 3700, 3724, 3887, 3893
- Status** (SEE Social Structure, Socioeconomic Status)
- Stereotype** (see also Attitude)
2831, 2860, 2869, 2983
- Stimulant** (SEE Drugs)
- Stimulation**
2153, 2356, 2370, 2409, 2551, 2618, 2625, 3057, 3079, 3353, 3461, 3591
- Stimulation/Central** (SEE Brain Stimulation, Rat/Brain Stimulation in)
- Stimulus**
2023, 2103, 2105, 2149, 2195, 2251, 2265, 2313, 2317, 2423, 2518, 2542, 2543
- Stimulus Generalization** (SEE Generalization)
- Stimulus Intensity** (see also Shock & Shock Intensity)
2149, 2168, 2188, 3439
- Strategy**
2211, 2230, 2290, 2715, 2953
- Stress** (see also Conflict, Stress/Physiological, Rat/Stress Effects in)
2098, 2129, 2200, 2221, 2263, 2502, 2809, 2891, 3095, 3293, 3375, 3436, 3709, 3943, 3945, 3953
- Stress/Physiological**
2201, 2492, 2495, 2505
- Stroke** (SEE Brain Disorder, Cardiovascular Disorders)
- Strong Vocational Interest Blank** (SEE Occupational Interest)
- Student** (see also next headings, School Dropout)
2835, 3061, 3354, 3413, 3840, 3845, 3860
- Student Attitude** (SEE Attitude/Student)
- Student Dropout** (SEE School Dropout)
- Student Protest** (SEE Social Movements, Attitude/Student)
- Student Teacher** (SEE Teacher Training)
- Student/College** (see also Achievement/Academic-College)
2167, 2611, 2759, 2806, 2956, 3212, 3213, 3240, 3702, 3721, 3758, 3779, 3791, 3794, 3838, 3849, 3880
- Student/College-Attitude**
2819, 2821, 2834, 2855, 2870, 2871, 2883, 2907, 2966, 3010, 3029, 3181, 3328, 3703, 3706, 3707, 3714, 3720, 3729, 3772, 3833, 3886
- Student/College-Personality**
2090, 2610, 2922, 3015, 3018, 3031, 3033, 3037, 3040, 3060, 3076, 3090, 3096, 3097, 3098, 3099, 3688, 3703, 3708, 3733, 3772, 3774, 3781, 3787, 3841, 3851, 3862, 3873
- Student/Elementary School** (see also Childhood & Children, Achievement/Academic-Elementary School)
1995, 2643, 2680, 2736, 2836, 3562, 3704, 3711, 3712, 3718, 3723, 3726, 3728, 3740, 3742, 3756, 3763, 3777, 3785, 3789, 3792, 3793, 3799, 3810, 3831, 3834, 3835, 3837, 3842, 3843, 3859, 3863, 3875, 3878, 3879, 3882, 3889, 3891, 3894
- Student/Gifted** (SEE Gifted)
- Student/Graduate**
2846, 3069, 3208, 3699, 3709, 3766, 3828, 3829, 3848, 3877

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2321, 2643, 2774, 2824, 2972, 3010, 3087,
3693, 3705, 3715, 3734, 3761, 3762, 3776,
3780, 3790, 3797, 3798, 3818, 3820, 3830,
3852, 3853, 3854, 3866, 3869

Student/Junior High School (see also Adolescence)
2611, 2770, 3725, 3731, 3748, 3761, 3764,
3774, 3876

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3368, 3553, 3555, 3558, 3560, 3561, 3562,
3563, 3564

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Subliminal Perception (SEE Perception, Visual Perception, Threshold)

Submission (SEE Dominance, Interpersonal Influence)

Suburbs (SEE Urban & Suburban Environment)

Success (SEE Achievement)

Suckling (SEE Instinctive Behavior)

Suggestibility (SEE Hypnosis, Personality Trait)

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2857, 3103, 3342, 3343, 3344, 3345, 3347,
3348, 3349, 3350, 3351, 3419

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3123, 3539, 3645, 3909

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SVIB (SEE Occupational Interest)

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2018, 3248

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3144, 3152, 3162, 3236, 3412, 3416, 3426,
3586, 3589

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2112, 2258, 2289, 2307, 2695, 2764, 3592,
3846

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Tactile (SEE Cutaneous Sense)

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2060, 2129, 3039, 3074

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2529, 2557

Teacher
2632, 2731, 2790, 3235, 3687, 3714, 3756,
3786, 3800, 3805, 3809, 3810, 3815, 3858,
3871

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2846, 3693, 3714, 3729, 3732, 3800, 3802,
3803, 3804, 3805, 3807, 3811, 3812, 3813,
3814, 3815, 3816, 3817, 3831, 3845

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3693, 3806, 3807, 3808, 3809, 3812, 3817

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2232, 3294, 3685, 3688, 3712, 3796, 3800,
3814, 3823, 3845, 3853, 3854, 3858

Teaching Aids (see also Programed Instruction)
2631, 3557, 3762, 3770, 3776, 3816, 3857,
3869, 3874, 3877, 3879, 3880, 3881, 3885

Teaching Method (see also Programed Instruction)
3698, 3714, 3737, 3744, 3748, 3806, 3808,
3816, 3866, 3871, 3874, 3876, 3877, 3878,
3883, 3884, 3887, 3888, 3889, 3890, 3891,
3892, 3893, 3894, 3918

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Television
2631, 2640, 2730, 3880

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2176, 2177, 2347, 2389, 2411, 2471, 2476,
2502, 2504, 2506

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1995, 2004, 2005, 2028, 2081, 2083, 2084,
2086, 2126, 2138, 2605, 2643, 2661, 2720,
3503, 3540, 3559, 3727, 3899, 3929, 3949

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3042, 3083, 3096, 3213, 3222, 3223, 3236,
3709, 3733, 3793, 3823

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2085, 3571, 3722, 3723, 3724, 3727, 3730,
3733, 3734, 3856, 3865, 3868, 3918

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2692, 2693, 3067, 3725, 3731, 3848, 3905,
3911, 3913, 3918

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2634, 2639, 2703, 2706, 2708, 2712, 2729,
3068, 3083, 3091, 3313, 3320, 3325, 3447,
3584, 3717, 3865, 3868

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2610, 2634, 2729, 2732, 2735, 2736, 2784,
2830, 2862, 2914, 2937, 2982, 3031, 3036,
3079, 3086, 3087, 3089, 3090, 3093, 3094,
3318, 3321, 3365, 3403, 3467, 3733, 3758,
3772, 3775, 3781, 3801, 3804, 3811, 3814,
3824, 3918, 3947, 3955

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2385, 2419, 2467, 2470, 2479, 2480, 3338

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2008, 2010, 2011, 2013, 2107, 2108, 2109,
2176, 2325, 2343, 2357, 2584, 2873, 2876,
2901, 3165, 3699, 3939, 3950

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Abbreviations appearing in this issue include along with units of measurement (e.g., in. = inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
¢ = cents
CA = chronological age
cc = cubic centimeter
CE-R = conditioned emotional response
CHF = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

db. = decibel
DC = direct current
DL = differential limen
DNA = deoxyribonucleic acid
DRL = differential reinforcement of low rates

E = experimenter
ECS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

F = Fahrenheit
ft-c = foot-candle
ft-L = foot-lambert

g = gravity
gm. = gram(s)
GPA = grade-point average
GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
im = intramuscularly
ip = intraperitoneally
IQ(s) = intelligence quotient(s)
ITI = intertrial interval
iv = intravenously

kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz

LD = lethal dose
LSI = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma. = milliamperes
MA = mental age
MAO = monoaminooxidase
mL. = millilambert
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NREM = nonrapid eye movement

O = observer

p = probability
% = percent

PM = post meridiem
pps = pulses per second
PRE = partial reinforcement effect
PSE = point of subjective equality
psi = pounds per sq. in.

r = product-moment correlation
r = roentgen
REM = rapid eye movement
rms = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time

S = subject
SEU = subjectively expected utility
SPL = sound pressure level

TV = television

UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency

V = volt
VHF = very high frequency
vs. = versus

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California F. Scale (Ethnocentrism)
California F Scale (Fascism)
CMA scale = Children's Manifest Anxiety scale
CPI = California Psychological Inventory
CTMM = California Test of Mental Maturity
EPPS = Edwards Personal Preference Schedule
MA scale = (Taylor) Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MPI = Maudsley Personality Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university

Ave. = avenue
Bldg. = building
Bld. = boulevard
Ct. = court
Dr. = drive
Ft. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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ERRATA

The following corrections refer to journal information which was omitted or listed incorrectly. The correct information follows the abstract number(s) in each case.

PA, Vol. 45:6314: *Yale University Technical Report*, 1968(Jun), No. 13, 71 p.

PA, Vol. 45:6684, 6749, 6861, and 8435: 1970(Nov).

PA, Vol. 45:7370: Vol. 23(4).

PA, Vol. 45:7677: Vol. 18(12).

PA, Vol. 45:8198: Vol. 70(24).

PA, Vol. 45:8652: *American Journal of Orthopsychiatry*.

PA, Vol. 45:8807: 1968.

PA, Vol. 45:8826: *American Journal of Mental Deficiency*.

PA, Vol. 45:8958: *Journal of Counseling Psychology*.

PA, Vol. 45:9417 and 9509: *British Journal of Pharmacology*.

PA, Vol. 45:9972: 1970, Vol. 29(3), 404-416.

PA, Vol. 46:1729: Vol. 19(12).

PA, Vol. 46:1794 and 1795: Vol. 2(3).

PA, Vol. 46:2187: *Hygiène Mentale*, 1970(May), Vol. 59(2), 62-68.

PA, Vol. 46:2668: *Journal of Experimental Child Psychology*.

PA, Vol. 46:3678: *Nervenarzt*.

GENERAL

OBITUARIES

HISTORY

3961. **Larson, Cedric A.** (Rutgers State U.) **Watson and Yerkes: A friendship that spanned thirty years.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 723-724. This paper is based on several hundred personal letters that passed between Robert M. Yerkes (1876-1956) and John B. Watson (1878-1958) from 1904-1933. These letters give an insight into their private and academic lives which cannot be gained from a formal biographical sketch. As the years went by, the tone and intimacy of the Yerkes-Watson letters remained constant, and there never seems to have arisen any shadow of disagreement or misunderstanding. If a judgment may be made from the correspondence that has come down in 1 form or another, Watson's 2 firmest friends in the field of psychology were Edward B. Titchener and Robert M. Yerkes. They remained close friends of Watson long after he left the academic world of psychology in 1920. The correspondence gives an insight into the more deeply human aspects of these early pioneers of American psychology.—*Author abstract*.

3962. **Sipos, István.** (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Egy pszichológiai pályatétel Magyarországon a XIX Század első**

felében. [A psychological competition theme in Hungary in the first half of the XIXth century.] *Pszichológiai Tanulmányok*, 1968, No. 11, 767-782. Analyzing the 3 papers that achieved top rank in the competition by the Hungarian Academy of Science in 1834, the main trends in the educational psychological literature of Reform-Age Hungary are recounted. Reference is made to foreign influences, the empirical psychology prevailing at that time, and its impact on the developing literature. Outstanding traits in the psychology of the Reform Age are summed up as follows: (a) recognition of the social importance of psychology, (b) wide interest for the possibilities of application, (c) emphasis on the need for its employment in the field of public education, and (d) the birth of an extensive educational and psychological literature. The most important ideas bearing on educational psychology are underlined. A short treatment of methodological problems is followed by reference to other fields of interest (physiological, characterological, etc.) treated in the psychological literature of the Reform Age in Hungary.—*English summary*.

3963. **Smith, Noel W.** (State University Coll. New York, Plattsburg) **Belief systems and psychological concepts of ancient Egypt to the end of the Old Kingdom (2200 BC).** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 721-722.—The period is one of a strong sense of security and of happiness with life. The belief system is naturalistic with special powers and mythological features being of superhuman rather than supernatural character. The psychological concepts of ba, ka, khaibut, and akh are modes of being and represent concrete forms of existence and of animistic powers of the individual in life and afterlife. A extant document of a direct psychological nature appears in this oldest dynastic period. The period ends with chaos and destruction of some of the traditional institutions and concepts that provided stability and security. Resulting psychological changes occur.—*Author abstract*.

PHILOSOPHY

3964. **Bradley, Gerald P.** (Northwestern U.) **The Freudian theories of anxiety: A phenomenological critique.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3592.

3965. **Brown, Geoffrey W.** (Washington U.) **The concept of psychological abnormality: A philosophical analysis of its normative commitments.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3592-3593.

3966. **Brown, Harold I.** (Northwestern U.) **A causal theory of perception.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3593.

3967. **Lambley, Peter.** (U Cape Town, South Africa) **Scientific status of technical eclecticism: A critical note.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 91-97. Attempts to clarify claims that technical eclec-

ticism is nonscientific. It is argued that modern philosophy of science has more in common with the work of A. Lazarus (see PA, Vol. 42:4724) than with his "scientific" critics. However, the underlying assumption of empiricism that characterizes technical eclecticism is noted, and suggestions are made in the hope of drawing clinician's attention to an orientation more broadly based. (55 ref.)—*Journal abstract.*

3968. Lapointe, Francois H. (Auburn U.) **The phenomenal body in the later writings of Merleau-Ponty.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 251-265.—Merleau-Ponty rejects the subject-object dichotomy. The original experience includes the union of the two. Merleau-Ponty interprets the modern evolution of thought as leading to a rejection of dualism, and he sees the victory over the opposition between body and mind as the most striking characteristic of philosophical thought in our century. He has shown that bodily being is already existence, openness to and dialogue with the world. The body "understands" its world, it is permeated with intentions and thereby gives meaning to his surroundings. In attempting to overcome the historical tradition of philosophical dualism, Merleau-Ponty posits the term "being-in-the-world," a preobjective view which effects in man the union of the psychic and the physiological. That which makes the body human, which makes it be a phenomenal body, and not just a thing or an objective body, is the crisscrossing in it of seeing and seen, touching and touched—even of seeing and touching. (16 ref.)—*Author abstract.*

3969. Ross, Barbara C. (U. New Hampshire) **Psychological thought within the context of the scientific revolution, 1665-1700.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3603.

3970. Van Kaam, Adrian. (Duquesne U.) **Existential crisis and human development.** *South African Journal of Pedagogy*, 1969(Jul), Vol. 3(1), 63-74. Discusses existential death and rebirth as a fundamental process of human development or self-emergence. The latter are marked by crises which all men experience to a greater or lesser degree. The emergence to these moments of crises in counseling and therapy are discussed and personal crisis is regarded as a polar conflict within the personality caused by what the S is and by what he ought to be. Existential crisis is established as a sequence of psychological death, decision, and rebirth. However, a negative phase (failure to experience rebirth) and a positive phase (rebirth) are distinguished. The latter is characterized by the struggle toward self-identity and the realization of hidden potentialities.—*P. Hertzberg.*

3971. Varney, Mary R. (Johns Hopkins U.) **Perception and error in Aristotle's psychology.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3605.

PARAPSYCHOLOGY

3972. Beloff, John. (U. Edinburgh, Scotland) **Parapsychology and its neighbors.** *Journal of Parapsychology*, 1970(Jun), Vol. 34(2), 129-142.—With regard to basic procedural practices, there are no distinctions between parapsychology and the more "established" sciences—physical, biological, or behavioral. But in the matter of conceptual aspects there are great differences, which perhaps cannot be bridged. Those who try to minimize the gap between mind and matter by the argument that modern physics is becoming less materialistic overlook the fact that, in spite of all the changes

in the concept of matter, the essential core of theoretical physics, as represented by the laws of invariance, still stands. On the other hand, those who contend that the findings of parapsychology will eventually be in keeping with the laws of physics and chemistry are side-stepping the fact that the energetics of the psi process are not the fundamental problem. The informational aspects of psi, i.e., the question of how the S can isolate his psi target from all other possible psi targets after he has surmounted the various physical barriers, are considered baffling. Since so much is known about the physical world and so little about psi, parapsychologists should resist the urge for a close alliance with the other sciences and remain open-minded.—*Journal abstract.*

3973. Cashen, Valjean M. & Ramseyer, Gary C. (Illinois State U.) **ESP and the prediction of test items in psychology examinations.** *Journal of Parapsychology*, 1970(Jun), Vol. 34(2), 117-123.—32 undergraduates in a general psychology course were the Ss in an experiment testing the hypothesis that Ss who scored high on an ESP test would be able to predict the items in forthcoming psychology examinations and therefore get better course grades than Ss who made low scores in the ESP test. Ss were separated into high- and low-scorers on the basis of a GESP card test in which the E looked at a deck of ESP cards, 1 by 1, and the group of Ss wrote down their guesses. There were 3 multiple choice or true-false examinations during the semester, and on the day of each exam, the S was asked to hand in a list of the "stems" of the items which he thought would be included in the test. The high-scoring ESP Ss guessed significantly more items than the low-ESP scorers ($p < .001$). In spite of this, there was no appreciable difference in the total number of course points earned by the 2 groups.—*Journal abstract.*

3974. Krippner, Stanley. (Maimonides Medical Center, Brooklyn, N.Y.) **"Clairvoyant" perception of art prints in altered consciousness states.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 423-424.—During 32 sessions, 4 "psychic sensitives" attempted to determine the contents of sealed envelopes in the waking state, in a meditative state, and seated in a "sensory bombardment" chamber. 3 judges, working blind and independently, ranked written transcripts of Ss' statements against 4 targets in a "pool" randomly selected for each session. As there were 3 conditions for each session, the 4 Ss produced 96 trials. Using median ranks, the judges awarded a total of 58 "hits" and 38 "misses" ($CR = 2.04$, $p < .04$, 2-tailed). The trials conducted in the "sensory bombardment" chamber were independently significant ($CR = 2.48$, $p < .013$, 2-tailed).—*Author abstract.*

3975. Nielsen, Winnifred. (Inst. for Parapsychology, Durham, N.C.) **Relationships between precognition scoring level and mood.** *Journal of Parapsychology*, 1970(Jun), Vol. 34(2), 93-116.—Confirms earlier findings on the relation of mood (moderate/extreme, pleasant/unpleasant) to scoring level in precognition tests. Undergraduates were assigned to personality groups (introvert/extrovert) and attitude groups (belief and interest in ESP) on the basis of responses to a personality questionnaire and to 4 questions on attitude. There were 9 "interested sheep" (3 introverts and 6 extroverts), 4 "interested open-minded" (1 introvert and 3 extroverts), and 1 "noninterested sheep" (extrovert). Ss completed 12 3-run precognition sessions at home, rating their moods at each session. Analyses were based on comparisons

between interested Ss only. The "sheep" scored higher in extreme than moderate moods ($p < .005$), and much of this difference was contributed by the introverts. The highest average run score for "sheep" was in extremely unpleasant mood conditions. Exactly opposite scoring trends were found for the "open-minded" Ss, who obtained their lowest scores in extreme moods and their most negative run-score averages in extremely unpleasant moods. The difference in scoring levels between "sheep" and "open-minded" in relation to mood was significant at the level of $p < .005$.—*Journal abstract.*

3976. Sarafin, G. Z. Ponyatie "bespokoistvo" v èkzistentsial'noi teologii P. Tillich. [The concept of "anxiety" in the existential theology of P. Tillich.] In V. P. Rozhin (Ed.), "Filosofskie i sotsiologicheskie issledovaniya." (See PA, Vol. 45:7193) 212-216.—Examines Tillich's concepts of "anxiety" and the "courage to be." Tillich, after establishing the difference between neurotic and existential anxiety, is said to distinguish 3 forms of the latter: (a) anxiety over fate and death, (b) anxiety over guilt and condemnation, and (c) anxiety over emptiness and meaninglessness. Tillich is criticized for "exaggerating the role of the subjective (social-psychological) factor" in history.—*I. D. London.*

3977. Talamonti, Leo. Appunti per una teoria dei rituali, in rapporto a particolari fenomeni di interesse parapsicologico: I rituali e i loro effetti. [Notes for a theory on rituals, in relationship to certain phenomena of parapsychological interest: Rituals and their effects.] *Rassegna Italiana di Ricerca Psicica*, 1970, No. 1, 7-55.—Includes general observations of rites and their reason for existence. The psychic forces involved and the unexplainable effects which are derived are emphasized. There is the possibility that rites can aid "magical creativity," which is an act of the human psyche in relation to nature. Various rites are cited: those conferring blessings and others involving hate, as well as the diabolical, political, liturgical, and spiritual rites. In all of these, the power of the "collective mind" is evident. Rituals indicate the eternal need in man for auto-transcendence "to break the barriers of the ego in order to become a part of something greater." (5 p. ref.)—*A. M. Faraglia.*

3978. Thouless, Robert H. & Brier, Robert M. (2 Leys Rd., Cambridge, England) *The stacking effect and methods of correcting for it.* *Journal of Parapsychology*, 1970(Jun), Vol. 34(2), 124-128.—Occasionally it is practicable to use an ESP test in which all the Ss make their calls for the same set of targets instead of for individual sets. When a single set is used for the group, it is necessary to make a statistical correction to compensate for the possibility that the Ss may share the same calling bias and that this may coincide with (or deviate from) the target order and give spuriously high (or low) results (the "stacking effect"). 1 of the methods of correction was worked out by T. N. Greville. Other Es have allowed for the stacking effect by merely reducing their critical ratios by 10%, a simplification which lacks theoretical justification. 2 other methods evaluating these multiple-calling experiments are the majority-vote technique and the use of the "index of preference."—*Journal abstract.*

3979. Ullman, Montague & Krippner, Stanley. (Maimonides Medical Center, Brooklyn, N.Y.) *ESP in the night.* *Psychology Today*, 1970(Jun), Vol. 4(1), 46-50, 72. REMs of sleeping Ss were monitored while another individual concentrated on an art print in an effort to

influence the Ss' dreams. 10 of 12 Ss ranked the target print with the 1/2 of the prints most like his dreams. A series of illustrations of how dreams conform to the pictures are given.—*E. J. Posavac.*

THEORY & SYSTEMS

3980. Garan, D. G. *Relativity for psychology: A causal law for the modern alchemy.* New York, N.Y.: Philosophical Library, 1968. 338 p.

3981. Luria, A. R. (Moscow State U., USSR) *Ideya sistemnosti v sovremennoi psikhologii.* [The idea of systemicity in contemporary psychology.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 353-358.—Anokhin's concept of functional systems in physiology is held to be of fundamental significance to psychology. It is indispensable for an understanding of the development of psychological processes in ontogenesis. The systems approach to psychological processes, proposed in the concepts of L. S. Vygotskii are described, and the place of these concepts in modern psychology is discussed. The effect of the systems approach on past solutions to the problem of cerebral mapping of mental functions is also discussed. (English summary)—*I. D. London.*

3982. Sicilian, Orazio. (U. Padua, Inst. of the Psychiatric Clinic of Verona, Italy) *Energia psichica o informazione? Evoluzione storica e attuale revisione del concetto di "energia psichica."* [Psychic energy or information? Historical evolution and recent revision of the concept of "psychic energy."] *Rivista di Psichiatria*, 1970(May), Vol. 5(3), 175-223.—The concept of "information" in the sense of an interdisciplinary scientific approach involving neurophysiology, neuropsychology, and neurocybernetics is to replace that of "psychic energy." In this way psychic phenomena are conceived in terms of a natural and biological substratum. Originally this was Freud's intention but this was set aside by the anthropoanalytical development of psychoanalysis. The concept of "information" involves a different approach to psychodynamics: it conceives of energy in terms of drives, ego development, mechanisms of defense, and traits of personality. (English summary) (173 ref.)—*N. De Palma.*

EDUCATION & TRAINING

3983. Riegel, K. F. (U. Michigan) *A structural, developmental analysis of the Department of Psychology at the University of Michigan.* *Human Development*, 1970, Vol. 13(4), 269-279. The history of the Department of Psychology at the University of Michigan was analyzed by relying on the number of PhDs granted and on the changing compositions of the PhD committees. Beginning with the 1st PhD of 1906, there was a slow, linear increase in the number of PhDs until 1924. Thereafter the increase was much steeper, though still linear, with large proportions of women receiving their degrees. A still steeper linear increase occurred after 1949. With the increase in the number of degrees granted the departmental staff expanded. An analysis of the composition of the PhD committees allowed for the delineation of 7 partially overlapping clusters. Although in recent yr. the subareas in psychology are less clearly distinguishable, definite shifts in focusing were notable and were introduced through selective hiring of staff members. During the earlier yr.

changes in orientation of the department paralleled those during the life-span of individual staff members. *Journal abstract.*

PROFESSIONAL DEVELOPMENTS

3984. ———. **Racism and prejudice.** *Journal of Religion & Health*, 1970(Oct), Vol. 9(4), 331-370.—Presents a summary of the remarks made by moderators and panelists, with some of the questions and comments offered by participants, in the discussion sessions of the 1970 joint conference held by the Academy of Religion and Mental Health and the Metropolitan Applied Research Center, in New York. The theme of the conference was "The collaborative responsibility of religion, psychiatry, psychology, and education in dealing with racism and prejudice. Beyond the dilemma—What can we do next?"—*Journal summary.*

INTERNATIONAL PSYCHOLOGY

3985. **Ardila, Rubén.** (National U. Colombia, Bogotá) **Développement de la psychologie latino-américaine.** [The development of Latin-American psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6-8), 410-415.—Psychology in Latin-America is distinguished by its emphasis upon utility and its relationship with the fields of teaching and medicine. The majority of Latin-American psychologists are employed as clinicians, psychometrists, and educators. Transcultural studies, psychometric problems, e.g., the establishment of norms, and operant conditioning as a therapeutic technique are currently in vogue. 13 Latin-American countries have professional psychological associations and all but Chile publish at least 1 of the 42 journals currently in print. Lists of pioneer Latin-American psychologists and of the names and addresses of 23 of the journals are included. (19 ref.)—*R. E. Smith.*

3986. **Dawson, John L.** (U. Hong Kong) **Psychological research in Hong Kong.** *Australian Psychologist*, 1970(Mar), Vol. 5(1), 59-68.—Describes the facilities for psychological research and teaching at the University of Hong Kong, a multicultural, multilingual university setting. Funding for cross-cultural research, with an emphasis on biological and sociological effects on cognitive and perceptual variables, is anticipated.—*H. Roemmich.*

3987. **Keats, J. A.** (U. Newcastle, New South Wales, Australia) **The gap between theory and data.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 221-236. In this address at the Annual Conference of the Australian Psychological Society, an attempt was made to link theory to data. Rasch's model for test scores is cited as such an attempt. Other instances of attempts to integrate theory with data collection and analysis are cited also. Among important ones is Piaget's work. (32 ref.)—*H. Roemmich.*

3988. **Nixon, Mary.** (Monash U., Clayton, Victoria, Australia) **Principles and issues in present-day psychological practice.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 280-285. In this discussion, various sources from British, American, and Australian publications were used.—*H. Roemmich.*

3989. **Rump, E. E., McNicol, D., & Ryder, L.** (U. Adelaide, South Australia) **The need for postgraduate courses in applied psychology in South Australia.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 270-

277.—Surveys to estimate the need for professional psychology were conducted in July 1969 in cooperation with 2 Australian universities. Answers were sought to the current and prospective employment situation, the desire for professional qualification, and the desire for postgraduate training among psychology students. It is concluded that the surveys indicated a need for applied psychology courses in South Australia and a demand for graduates in psychology, especially clinical and educational.—*H. Roemmich.*

3990. **Tucker, J. D.** (153 E. Ekibin Rd., Brisbane, Queensland, Australia) **The Public Service Arbitrator's Determination of salaries for psychologists.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 237-242.—Discussed significant features of the Determination to raise salaries of psychologists in the Commonwealth Public Service in Australia, handed down by the Commonwealth Public Arbitrator, July 1967. The Determination 155 of 1967 was considered a landmark in the history of applied psychology in Australia. Of special interest to psychology was the conclusion that, although services of psychologists were subjected to searching examination, the image of psychologists did not suffer by comparison with other professional groups.—*H. Roemmich.*

GENERAL BOOKS & REFERENCE WORKS

METHODOLOGY & RESEARCH TECHNOLOGY

3991. **Arató, Ottó.** (Budapest Educational & Sports Inst., Hungary) **A sportpszichológiai kutatások módszertanának fejlődése a Szovjetunióban.** [Methodological developments in Soviet sports psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 305-318.—During the 1st decades research in Soviet sports psychology contented itself with studying physiological problems, with latency phase, RT, physical exercise within the factory, and analysis and training of vestibular functions. After World War II, sports psychology became a specialized branch of general psychology employing specifically adapted methods taken over from other branches. In its choice of subjects and goals it endeavors to satisfy the practical requirements of qualitative competition in sports. (Russian summary) (2½ p. ref.)—*English abstract.*

3992. **Büchler, Robert.** **A sportpszichológia néhány módszertani elvéről.** [On some methodological principles in sports psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 301-304.—Discusses the evaluation of the theoretical basis of research and diagnostic methods applicable in sports psychology. By analyzing the methods of theoretical and applied sciences and by confronting them with each other, those which appear relevant to this branch of psychology are emphasized. (Russian summary)—*English summary.*

3993. **de Groot, A. D.** **Minimale methodologie: Zonder epistemologie.** [Minimal methodology: Without epistemology.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Dec), Vol. 25(11), 692. It is concluded that a minimal and normative methodology can be constructed and maintained without epistemology. Caution is expressed that the minimal and normative methodology can be corrupted by irrational and political pressures. Likewise, democracy can dis-

appear in a society that emphasizes the differences instead of the consensus among the constituency in the study of issues.—A. J. Ter Keurst.

3994. de Wit, H. F. (677 van Nijenrodeweg, Amsterdam, Netherlands) **Methodologie zonder epistemologie? Antwoord aan A. D. de Groot.** [Methodology without epistemology? Answer to A. D. de Groot.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Dec), Vol. 25(11), 690-691.—Discusses whether or not methodology requires the use of epistemology. As the criterion of the validity of empirical knowledge is explicit, it is difficult to determine the complete value of a methodology of an ongoing activity. Although the criteria of explicit knowledge are expressible, the "absolute validity" of implicit knowledge cannot always be objectively expressed. Consequently, it is impossible for one to identify all the contingencies, including psychological reactions, in an ongoing activity. With respect to the relevance of epistemology to methodology, it is concluded that when a system of action does not rest on a definitive methodology, it is unimportant to be concerned about epistemology. According to H. Feigl, "there are no philosophical postulates of science, i.e., that the scientific method can be explicated and justified without metaphysical presuppositions about the order or structure of nature."—A. J. Ter Keurst.

3995. Emley, G. S., Hutchinson, R. R., Hallin, E. R., & Kiraley, S. (Fl. Custer State Home, Augusta, Mich.) **A convenient method for physical storage of cumulative records.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 248.

3996. Garai, László. (Hungarian Academy of Sciences, Philosophy Inst., Budapest) **A személyiség-pszichológia önállóságáról.** [On the independence of personality psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 103-108.—Discusses the crises in general and personality psychology which were precipitated by limitations of the intuitive method. Behaviorism is considered to be a way out of the crisis for general psychology, as psychoanalysis is for personality psychology in regard to objective methods. To avoid a theoretical crisis, however, it is suggested that general psychology switch from investigating stimulus-response behavior to objective actions, while personality psychology will have to stress interpersonal relations. It is noted that general and personality psychology are in parallel development and must eventually reach a synthesis. (Russian summary)—English summary.

3997. Kardos, Lajos. (Eötvös Loránd U., Budapest, Hungary) **A pszichológiában alkalmazott kutatási módszerek elvi kérdésel.** [Basic principles of some research methods in psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 7-28.—Discusses the methodological crisis in psychology, analyzing the causes and epistemological history which reveal the inaccuracy of conceptions which have attempted to solve the crises by redefining psychology. The difference between the characteristics of psychological experimentation and those of other sciences/psychological is distinguished, noting the contributions of the cybernetic approach in regard to methods and theory. The influence of this approach on the neurophysiological foundations of psychology is discussed. (Russian summary)—English summary.

3998. Nordbeck, Bertil & Maini, S. M. (Lund U., Psychological Lab., Sweden) **Psychology of the re-**

searcher and research: Project Progress Report: I. Critical moments and processes in research work. *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(11), 29 p.—Presents a progress report which considers some principal aspects of the individual research process. A summary of the theoretical background, objectives, and results regarding studies of critical moments in research work, primarily among young researchers in the natural and social sciences is included. Specially described are critical moments and processes related to (a) initiation of and changes in the course of research, and (b) the emergence of new research ideas. (58 ref.)—Journal abstract.

3999. Nordbeck, Bertil & Maini, S. M. (Lund U., Psychological Lab., Sweden) **Psychology of the researcher and research: Project progress report: II. Studies in the selection of potential researchers.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(12), 15 p.—Presents the 2nd of 2 progress reports by B. Nordbeck and S. M. Maini in the field of "psychology of the researcher and research." The process of selection of potential researchers from among students at a university and an institute of technology in Sweden is considered. 6 exploratory studies are described. Results indicate that among the most important factors (based on differences between potential researchers and other students) in the process of selection are: (a) motivation for research training and postgraduate studies, (b) job at the department, (c) sex, (d) parental education, (e) the degree of personal involvement in different problems, (f) encouragement from the staff at the department, and (g) certain ability variables related to creativity.—Journal abstract.

4000. Salamon, Jenő. (Eötvös Loránd U., Budapest, Hungary) **A pszichológia módszertanának fejlődése a Szovjetunióban.** [Developments in psychological methodology in the Soviet Union.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 29-44. Presents methods of psychological investigation in the Soviet Union following the socialist revolution. Experiences gathered by Soviet psychologists over 50 yr. show that the detachment of psychology from philosophy has not yet been fully accomplished. Questions of attitude and theory have continued to exercise a significant influence over the development of methodology and educational methods. Success in Soviet psychology is considered to be due to the fact that it is based on dialectical and historical materialism and is being applied to building socialism. Developments over the last 50 yr. have been due to changes in attitude, methodology, and achievements. (Russian summary) (19 ref.)—English abstract.

4001. Surányi, Gábor. (Lajos Kossuth U., Debrecen, Hungary) **A kutatási és vizsgálati eljárások értékeléséről.** [Evaluation of research procedures.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 199-204.

Asserts that any methodology can be understood only from a relevant theory. Also considered are questions of how Soviet psychologists clarified their attitude toward the heritage of psychology. Research procedures for the exploration of individuality are considered, noting that standardized tests are very useful in psychological research. (Russian summary)—English summary.

4002. Thomas, Hoben. (Pennsylvania State U.) **Discrepancy hypotheses: Methodological and theoretical considerations.** *Psychological Review*, 1971(May), Vol. 78(3), 249-259. Utilizes the conceptual framework of C. Coomb's data theory to highlight similarities and

differences between 2 representative but different discrepancy hypotheses: D. McClelland and R. Clark's hypothesis and W. Dember and R. Earl's (see PA, Vol. 32:5022) complexity discrepancy theory. It is concluded that mapping of data into the models cannot be done unambiguously unless assumptions are made concerning as yet unspecified parameter values and properties of data. 2 different research strategies are discussed. A 2-stage strategy with simplifying assumptions is suggested as a possible approach toward quantitative specification of model parameter values. (32 ref.)—*Journal abstract.*

MODELS & MATHEMATICAL MODELS

4003. Amosov, N. M. & Kasatkin, A. M. (Inst. of Cybernetics, Kiev, USSR) *Samoobuchayushchayasya model' dvigatel'nogo povedeniya*. [Self-teaching model of motor behavior.] *Problemy Bioniki*, 1968(Nov), No. 1, 10-18.—Describes a system which provides a model for some programs of information processing in the cerebral cortex of higher animals and man—programs connected with the organization of motor behavior. The research is seen as representing 1 of the stages in the process of working out a heuristic model for the mental functions. The system is developed in the form of a computer program and can handle the following hypothetical programs of the mind: (a) stepwise information processing; (b) stepwise construction of programs of movement; (c) interaction between sensory and logical programs of information processing; (c) the subjectivity of motor programs, i.e., connection of wishes (seen as "generalized undifferentiated action") with the signal-blocks of emotion and action; and (e) program for attending.—*I. D. London.*

4004. Antomonov, Yu. G. (Inst. of Cybernetics, Kiev, USSR) *K voprosu o veroyatnostnykh protsessakh modelirovaniya zakonomernostei sredy korkovymi analizatorami*. [On the probability processes of modeling environmental patterns by the cortical analyzers.] *Problemy Bioniki*, 1968(Nov), No. 1, 75-78.—Examines: (a) the learning processes of animals, using, by way of example, the elaboration of CRs; and (b) the learning processes involved in the recognition of environmental patterns by man. A simple mathematical interpretation of these processes is presented. 2 stages are distinguished in the learning process: (a) a stage in which old determinisms are destroyed, and (b) a stage in which new neuronal structures come into being. The "characteristic point of transition through maximal indeterminism" may be used as a measure of the lability of neuronal structures.—*I. D. London.*

4005. Asmayan, N. V. & Golitsyn, G. A. (1st Medical Inst., Moscow, USSR) *Dinamicheskie sily v regulyatsii povedeniya*. [Dynamic forces in the regulation of behavior.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 179-186.—Derives mathematical formulae for the "dynamic forces of inertia and inhibition," on the assumption that there are 2 types of psychological forces directing behavior: (a) static forces which exist "without movement" (e.g., motivation), and (b) dynamic forces which appear "during the process of movement." An analysis of inhibition is undertaken, based on the established existence of inertial force in behavior, and

factors are disclosed which affect it: "diminution or cessation of reinforcement, antimotivation, [and] the presence of extraneous distracting activity." The results of confirmatory experiments are presented. (English summary)—*I. D. London.*

4006. Bugai, Yu. P. & Chernov, V. G. (Kharkov Inst. of Radioelectronics, USSR) *Model' podporogovykh yavlenii v vozbudimyykh élementakh*. [A model of subthreshold effects in excitable elements.] *Problemy Bioniki*, 1968(Nov), No. 1, 49-59.—Following an examination of the physiological premises for the construction of nerve elements, the functional design of a model is described along with the results of a study of transitory processes for different perturbations of input for the model. A system is produced of the parameters of the excitable elements necessary for a complete description of subthreshold processes, including those of accommodation and adaptation. Within the domain of subthreshold effects a wide class of important problems connected with the search for the optimal parameters of stimuli can be solved. The characteristics of excitable elements, determining their capacity to accommodate and adapt, are worked out. Another analytic form is procured for the "force-duration" law in physiology. The conditions of optimal excitation are described for linearly increasing input signals.—*I. D. London.*

4007. Bugai, Yu. P., Chernov, V. G., & Nefedov, Yu. I. (Kharkov Inst. of Radioelectronics, USSR) *Issledovanie podporogovykh yavlenii v vozbudimyykh élementakh na analogovoi modeli*. [Study of subthreshold effects in excitable elements in the analogue model.] *Problemy Bioniki*, 1968(Nov), No. 1, 39-48.—A model was constructed on the basis of a direct analysis of the transitory processes in subthreshold reactions in nerve and muscle tissues. A feature of the model is its suitability for only the description of effects arising on electrical stimulation through an internal microelectrode, since utilization of external electrodes, mono- and polysynaptic stimulation, requires the additional registration of new effects which in the present model are not contemplated and which should be the object of separate inquiry. However, in the case of natural mono-, polysynaptic, and antidromic stimulation and also with artificial stimulation using an external microelectrode, conditions are often met which are close to those of intraelectrode stimulation, thereby making the model suitable for the description of a wide class of effects under different conditions of excitation. The reactions of the system, utilized in the capacity of a model, to impulses of different forms are described. It is shown that, even when it comes to subthreshold effects, excitable elements which differ with regard to functional purpose may differ sharply in their ability to accommodate and adapt properties which essentially determine (a) the character of the consequent polarized and threshold reactions of these elements, and (b) their tendency primarily to the summing of de- or hyperpolarization for different frequencies when stimulation is rhythmically applied.—*I. D. London.*

4008. Dyubko, G. F. (Kharkov Inst. of Radioelectronics, USSR) *Matematicheskaya model' staticheskogo preobrazovaniya intensivnosti zvuka v gromkost'*. [Mathematical model of static transformation of intensity of sound into loudness.] *Problemy Bioniki*, 1968(Nov), No. 1, 72-74.—Examines loudness as a function of intensity. The mathematical model of transformation of intensity into loudness is developed,

and experimental data confirming this model are adduced. The formula which relates loudness to intensity is stepwise.—*I. D. London.*

4009. Hoepfl, Robert T. & Huber, George P. A study of self-explicated utility models. *Behavioral Science*, 1970(Sep), Vol. 15(5), 408-414.—Compared 2 types of utility models on the basis of their ability to predict Ss' evaluations of hypothetical university faculty members. Ss were 11 graduate students and 6 professors. The models obtained using multiple regression were better predictors than those obtained using a parameter-eliciting questionnaire, as expected, but the differences were small. An analysis of variance suggests that increasing the number of factors included in the descriptions caused Ss to be less able to make consistent evaluations even in the small range included in the study, and also suggests that Ss who were required to respond to fewer factors in early trials and more factors in later trials made less consistent evaluations overall than Ss who were required to respond to more factors in early trials and fewer factors in later trials. Data also suggest that Ss thought that the factors had a more uniform impact on the evaluations than was actually the case.—*Journal abstract.*

4010. Khachatur'yants, L. S., Antomonov, Yu. G., Kabikin, V. E., & Kotova, A. B. (Inst. of Cybernetics, Kiev, USSR) O kharakteristikakh dinamiki obucheniya. [On the characteristics of the dynamics of learning.] *Problemy Bioniki*, 1968(Nov), No. 1, 79-86.—Presents the results of a formal mathematical simulation of the dynamics of the learning process for the human operator. Preliminary data were supplied by experiments with secondary school students. An ongoing extrapolatory model of the learning process was constructed. The parameters of the learning curves were found for words of various lengths (2, 3, 5 letters) associated in a learning sequence with spatially separated light bulbs of various colors. Individual differences were noted.—*I. D. London.*

4011. Kushnarenko, Yu. P., Dyubko, G. F., Putyatin, E. P., & Bondarenko, M. F. (Kharkov Inst. of Radioelectronics, USSR) Modelirovanie statiki adaptatsii slukha i zreniya. [The modeling of the adaptational statics of hearing and seeing.] *Problemy Bioniki*, 1968(Nov), No. 1, 29-38.—Proposes a mathematical model for the adaptive transformation of signals in the auditory organ. The static reactions of this model are studied and compared with the data of psychophysical experiment. A formula is derived which can be verified also in visual experiments. This formula permits the construction of a similar model for the visual organ which agrees quite well with the experimental data.—*I. D. London.*

4012. McReynolds, Paul. (U. Nevada) Statues, clocks, and computers: On the history of models in psychology. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 715-716.—Traces the employment of models in psychological inquiry. The 1st models with psychological implications were dolls, effigies, and statues. Such "models" amount, in effect, to simpler replicas of the reality they reflect. The most notable example in psychology of the use of the statue as analogy is that of Condillac. The 1st sophisticated model in psychology was based on the mechanical clock. The complexity of "clockwork" developed in the 17 century, suggested that

man might usefully be conceptualized as a machine. Among the theorists who used clock models were Hobbes, Descartes, and LaMettrie.—*Author abstract.*

4013. Norman, M. Frank. (U. Pennsylvania) Slow learning with small drift in two-absorbing-barrier models. *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 1-21.—Certain 2-choice learning models have the property that both the 1st and 2nd moments of increments Δp_i in A_i response probability p_i are of the order of magnitude of a parameter τ . It is shown that the distribution of p_i can be approximated by that of X_i , where X_i is a Markov process that is continuous in space and time.—*Journal abstract.*

4014. Putyatin, E. P., Pchel'nikov, V. P., & Bondarenko, M. F. (Kharkov Inst. of Radioelectronics, USSR) K postroeniyu matematicheskoi modeli zreniya cheloveka s uchëtom tsvetovoi adaptatsii. [On the construction of a mathematical model of human vision involving color adaptation.] *Problemy Bioniki*, 1968(Nov), No. 1, 107-113.—Presents experimental data on bright color adaptation, using Maxwell's color disk with 2 comparative fields. 2 possible mathematical models involving color adaptation are constructed.—*I. D. London.*

4015. Shabanov-Kushnarenko, Yu. P. (Kharkov Inst. of Radioelectronics, USSR) O zadache matematicheskogo modelirovaniya zreniya cheloveka. [On the task of developing a mathematical model of human vision.] *Problemy Bioniki*, 1968(Nov), No. 1, 19-28.—Examines the "method of the black box" in relation to research on human vision. The task of constructing a full-fledged synthetic eye, capable of picking up and processing information, is developed in the form of a computer program. It is in connection with this that the incoming and outgoing signals of the visual organ are described in terms useful for the contemplated program.—*I. D. London.*

4016. Shabanov-Kushnarenko, Yu. P., Dyubko, G. F., & Putyatin, E. P. (Kharkov Inst. of Radioelectronics, USSR) Modelirovanie dinamiki adaptatsii zreniya i slukha. [Modeling the dynamics of visual and auditory adaptation.] *Problemy Bioniki*, 1968(Nov), No. 1, 97-106.—Develops the consequences of a mathematical model for the dynamics of visual adaptation. Experimental data on visual and auditory adaptation are cited which confirm the validity of deduced formulae.—*I. D. London.*

4017. Smolicz, J. J. (U. Adelaide, South Australia) Paradigms and models: A comparison of intellectual frameworks in natural sciences and sociology. *Australian & New Zealand Journal of Sociology*, 1970(Oct), Vol. 6(2), 100-119. Compared conceptual models in natural sciences and sociology with special reference to their relative power to direct and coordinate research and their capacity to gain acceptance and command allegiance among the active practitioners of the subject. The comparison reveals that models or "paradigms" found in mature natural sciences are a different order of theoretical species from those present in sociology. An analogy is drawn between the conceptual schemes of early, preparadigm science and current sociological models, with some speculation about the eventual development of sociological paradigms.—*Journal summary.*

4018. Umryukhin, E. A. (All-Union Research Inst. of Medical Instrumentation, Moscow, USSR) Ierarkhiya

rezul'tatov kak osnova mnogourovnevnoi funktsional'noi sistemy. [Hierarchy of results as basis for a multilevel functional system.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 211-219.—Proposes a mathematical scheme for control in the living organism, simulating the relation between the results of consecutive behavioral acts and the final desired goal, as indicated in Anokhin's functional systems theory. The union of individual functional systems into a complex hierarchical functional system is seen as taking place by means of a coordinated isolation of parameters of intermediate outcomes in each of the subsystems in order to procure a final useful outcome in the larger system. Each subsystem, on the basis of the final outcome assigned to it, forms the "acceptor of action," into which arrive the parameters of intermediate outcomes assuring goal achievement. Simultaneously these intermediate outcomes create the stage on which the final useful effect of the subsystem at the following level is evaluated. (English summary)—*I. D. London.*

4019. Uteush, E. V. (Kharkov Inst. of Radioelectronics, USSR) **Modelirovanie biologicheskoi pamyati.** [Modeling biological memory.] *Problemy Bioniki*, 1968(Nov), No. 1, 60-66.—Analyzes and substantiates the approach to the mathematical modeling of biological memory as a cybernetic system. Demonstrates that the distribution of information within the scope of memory can be managed by 2 methods: (a) random search, and (b) determined dispatch of information from 1 level of memory to memory of older formation. A mathematical model is proposed and analyzed for the processes of committing a list of information to memory. Time for committing a standard communication to memory serves as a "generalized criterion" of these processes.—*I. D. London.*

MATHEMATICS & STATISTICS

4020. Bogartz, Richard S. (U. Illinois) **Last squares methods for locating function shifts and disturbance regions.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 294-296.—Presents some generalizations of a least squares method previously introduced by R. S. Bogartz (see PA, Vol. 43:6103) to fit 2 intercepting lines to a set of data points. Polynomials of arbitrary order are considered instead of straight lines. The concept of a disturbance region is introduced. Methods are given for locating the disturbance region described by 1 polynomial in a portion of the range of the independent variable while another polynomial relates the dependent variable to the independent variable in the rest of the range of the independent variable. A decision rule for deciding the order of the polynomials under consideration, based on a sequence of F tests, is given.—*Journal abstract.*

4021. Ekman, Goesta & Kuennapas, Teodor. (U. Stockholm. Psychological Labs., Sweden) **Distribution function for similarity estimates.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 967-983.—Reports an investigation of the interindividual variation of similarity estimates. Data from a previous large-scale study by T. Kuennapas were used. Similarity estimates were available for 378 stimulus pairs judged by 57 Ss. The standard deviation was shown to vary regularly with the mean similarity estimate. A function derived from the binomial distribution function was found to describe the trend

highly satisfactorily. As a further illustration of the same principle, it was shown that the binomial function describes the frequency distributions of similarity estimates in close approximation. It is suggested that similar simple principles may describe the data obtained in experiments involving conventional unidimensional scaling techniques, e.g., magnitude and ratio estimation. (22 ref.)—*Journal abstract.*

4022. Falmagne, J. C. (National Foundation for Scientific Research, Brussels, Belgium) **The generalized Fechner problem and discrimination.** *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 22-43.—Fechner's proposal of measuring sensation using discrimination thresholds has been criticized by a number of authors. It can be argued, however, that the historical connections between the experimental study of sensory thresholds and the problem of measuring sensations is fortuitous. In fact, Fechner's scheme of psychophysics can be generalized in a straightforward manner to arbitrary discrimination indices. This immediately raises interesting questions, e.g., what conditions must satisfy 2 discrimination indices to yield identical scales? These and related questions are investigated from a theoretical and experimental standpoint. The usual questions of existence, uniqueness, and construction of solutions to Fechner's problem are also discussed. (19 ref.)—*Journal abstract.*

4023. Gitter, A. George. (Boston U.) **Factor analytical approach to indexing multivariate data.** *CRC Report, Boston U.*, 1970(Aug), No. 43, 13 p.—Presents an approach for aggregating individual measures by factor analyzing a States \times Variables matrix to construct social indicators. Factor scores of selected factors are used as the state's indicators of major components of the indicator, while the weighted sum of these scores becomes the state's indicator. Procedures for deriving national indicators, and computing postbase year indicator values are discussed.—*Journal abstract.*

4024. Kleiter, Gernot. **Krise der Signifikanztests in der Psychologie.** [Crisis of the significance test in psychology.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1969, Vol. 17(1-2), 144-163.—Evaluates criticism concerning statistical bias in significance tests. Decisions concerning the choice of a test can distort or even falsify reliability. Every tested theory must be turned into a statistical hypothesis. Every assumption of normal distribution and of a null hypothesis could be rejected on the basis of the number of observations, as reliability of significance tests varies with the number of observations. On the contrary, meaningful differences in the population frequently escape identification within the sample in significance tests. Random significance may result from increased testing with the identical data. The application of subjective probability theory is recommended. Further differentiation of the scope of the hypothesis is also suggested as a corrective measure. (55 ref.)—*B. Stanton.*

4025. Livingston, Samuel A. **Some observations on the estimation of true scores.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Jun), No. 69, 10 p. Compared the procedure of estimating true scores by means of a transformation of the obtained score based on the reliability coefficient with the use of the obtained score without transformation. It was found that, using the mean squared error as a criterion, the transformed score is a better estimate for most examinees but poorer for those whose true

scores lie furthest from the mean. An example is provided.—*Journal abstract.*

4026. Macrae, A. W. (U. Birmingham, England) **On calculating unbiased information measures.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 270-277.—Tested 6 ways of estimating information free from sampling bias, using Monte Carlo methods with a digital computer. 2 techniques had little to commend them, but (a) 2 published techniques were effective with appropriate distributions; (b) calculating bias by the A. G. Carlton (see PA, Vol. 43:7521) formula, with the sample taken as a model of the population probabilities, gave a good correction if the sample was large enough; and (c) estimating the population mean and standard deviation from the sample and using these to calculate population probabilities was effective even with small samples and with a wide variety of distributions, although it was slightly more restrictive in its assumptions than was technique b. A table is provided for hand calculation of technique b. A source for computer procedures for techniques b and c is reported.—*Journal abstract.*

4027. Natalicio, Luiz F. & Kidd, Ronald V. (U. Texas) **Experimental methodology and theory-building in mathematical psychology.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 43-54.—An inquiry is made into the directions that theory-building in psychology might be taking with respect to the new trend in experimental methodology generated by mathematical models, concept-learning studies, and studies in individual differences. The implications of nomological theories, informal theories, and modeling activities with respect to this trend are analyzed in general, and an integrative description is developed. Problems presented by the use of isomorphism as the implicit justification for this methodology are emphasized. Some basic issues in theory-building which seem in need of clarification are outlined. (26 ref.)—*Journal abstract.*

4028. Steingruber, H. J. (127 Himmelgeisterstr., Dusseldorf, W. Germany) **Indikation und psychologische Anwendung von verteilungsfreien Äquivalenten des Regressionskoeffizienten.** [Indications and psychological application of distribution-free equivalents of the regression coefficient.] *Psychologie und Praxis*, 1970(Oct), Vol. 14(4), 179-185.—Since textbooks of statistics usually do not give measures for interspecific association, 2 methods for this measurement are presented: Hellmich's 2×2 table K and Deuchler's measure D which is a binary distribution defined by a Pearson Bravais regression coefficient. Deuchler's work dates back to 1915. A practical example from the field of test construction is discussed. Both formulae are included.

R. F. Wagner.

4029. Zimmerman, Donald W. (Carleton U., Ottawa, Ontario, Canada) **Probability spaces and the theory of error of measurement.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 291-301.—Reports that a model of variability in measurement, which is sufficiently general for a variety of applications and which includes the main content of traditional theories of error of measurement and psychological tests, can be derived from the axioms of probability, without introducing "true values" and "errors." Beginning with probability spaces (Ω, P) and (Φ, P_2) , the set Ω representing the outcomes of a measurement procedure and the set Φ representing individuals or experimental objects, it is possible to construct suitable product probability spaces and collections of random variables which can yield all results

needed to describe random variability and reliability. An attempt is made to fill gaps in the mathematical derivations in many classical theories and at the same time to overcome limitations in the language of "true values" and "errors" by presenting explicit the essential constructions required for a general probability model.—*Journal abstract.*

Factor Analysis

4030. Stone, LeRoy A. & Coles, Gary J. (U. North Dakota) **Correlational similarity: The basis for a new revised method of similarity analysis.** *Statistica Psychologica*, 1970, Vol. 12(4), 258-265.—Proposes a revised method of similarity analysis based on the concept of correlational similarity and representing an improvement on the model proposed by G. Ekman. It is concluded that if judgmental factors are oppositional in bipolarity (as against situations where they are not), far more interpretational information relative to processes or strategies of judgment are obtained. (Czech & Russian summaries) (25 ref.)—*Journal abstract.*

COMPUTERS & PROGRAMING

4031. Allison, Roy J. & Hurst, Charles M. (U. Texas, Arlington) **Behavioral sciences data punch system.** *USAF ARL Technical Report*, 1969(Dec), No. 69-19, 13 p.—Presents an expeditious technique for establishing a computer-coordinated comprehensive performance data recording and analysis system, employing solid state circuitry. Circuit descriptions and schematics basic to operations of the data punch system are described.—*USAF ARL.*

4032. Amosov, N. M. & Talov, S. A. (Inst. of Cybernetics, Kiev, USSR) **Planirovanie povedeniya na osnove vosprinyatiya informatsii.** [Planning behavior on the basis of detected information.] *Psichologiya*, 1968(Nov), No. 1, 3-9.—Examined the problems involved in the creation of an artificial intellect. The cardinal principles of information processing by the human brain, hypothesized from the data of physiology and psychology, were utilized in finding solutions. The model, constructed on the basis of these principles, is shown to be capable of (a) detecting what is acting on it; (b) extracting information therefrom; and (c) displaying its behavior in correspondence with the task of maintaining certain parameters of its state within a given range of values. The proposed system is developed in the form of a computer program.—*I. D. London.*

4033. Brown, Bill R. & Evans, Selby H. (Texas Christian U., Fort Worth) **Further applications of the Random Adaptive Module (RAM) system to schema theory.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Mar), No. 4-70, 34 p.—Describes the further development and application of N. H. Evans' (see PA Vol. 43:2223) model for schema concept formation. A computer simulation of the model extended it to include higher order pattern representation and ways used to make quantitative predictions of human performance in 2 mixed selection discrimination tasks. The simulations with 81 and 12 noise values indicated that schema is predicted both the gross and detailed characteristics of human schema concept formation. Results support the hypothesis that the Random Adaptive Module's basic components may be useful in constructing models for

performance in a variety of tasks related to schema theory. (21 ref.)—*Journal abstract.*

4034. Johnson, Edgar M. **An analysis of variance FORTRAN IV program for small disk-supported computers.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Dec), No. 31-70, 41 p.—Developed an analysis of variance program for small disk-supported computers on an IBM 1130, 8K core and 1-disk drive. This program will accept balanced analyses containing as many as 8 factors in any combination of within- and between-S effects. The number of levels of any factor is restricted only by the number of data points. On an 8K, IBM 1130, the program will accept 2050 floating-point or 4100 integer data points. Instructions for users, a FORTRAN IV listing, and sample problems are included. The program is easily adapted to any FORTRAN IV system with disk storage and at least 8K core.—*Journal abstract.*

4035. Kerr, Joyce, et al. (U. Pittsburgh, Medical School) **A PDP-12 system for on-line acquisition of heart rate data.** *Behavior Research Methods & Instrumentation*, 1971(Mar), Vol. 3(2), 87-88.—Describes a research program for investigating the responsiveness of infants at high risk for developing schizophrenia. 2 measures of reactivity to brief auditory stimuli, the evoked heart-rate response and the evoked potential of the brain, are recorded for analysis by the PDP-12 computer. An interface to the PDP-12, called the R peak detector and R-R interval counter, is used for reducing the EKG to R-R intervals, with an accuracy of ± 1 msec. The current usage of the PDP-12 and its IBM-compatible tape transports is discussed, and proposed developments for on-line statistical analyses of the physiological data and real-time control of the experiment are presented.—*Journal abstract.*

4036. Krause, Merton S. (Inst. for Juvenile Research, Chicago, Ill.) **Corroborative results and subsequent research commitments.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 219-227.—Programmatic research based upon well-formulated theories can be optimally planned (and sequenced) when the present expected value of corroborative results from the several experiments possible are compared. This value depends on, at least, the probativeness and informativeness of the specific theorems tested by each experiment and the reliability and residual range of the theories containing these theorems. How these 4 variables are defined and may be used to calculate values for assigning tests priorities are described.—*Author abstract.*

4037. Uteush, E. V. (Kharkov Inst. of Radio-electronics, USSR) **O pamyati kiberneticheskikh sistem.** [On the memory of cybernetic systems.] *Problemy Bioniki*, 1968(Nov), No. 1, 67-71.—Proposes a model of memory which is (a) characterized by hierarchy of structure and multiplicity of levels of memory, and (b) structured as a "branching tree of switches."—*I. D. London.*

TESTING

4038. Besure, J. (Royal Military Academy of Belgium, Brussels) **Quelques considerations à propos du test de structuration graphique (T.S.G.).** [Some considerations apropos of the Graphic Structures Test (TSG).] *Information Psychologique*, 1970(Jan), Vol. 10(37-38), 85-104.—Describes an adaptation of the Kohs' Block-Design Test with data on the relationship

between the items obtained through a factor analysis, and on the internal consistency of the test.—S. G. Vandenberg.

4039. Crehan, Kevin D. & Slakter, Malcom J. (State U. New York, Buffalo) **Note on comparison of paired-multiple-response items and multiple-choice items.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 310.—Notes 3 deficiencies of a paired-multiple-response test format suggested by E. A. Namy (see PA, Vol. 44:5707): (a) diagnostic information is lost on both examinees and test items, (b) there is an uncertain effect on the concept of true score, and (c) the claim of increased variability and reliability is questionable.—*Author abstract.*

4040. Seibert, Warren F. (U. Michigan) **The motion picture as a psychological testing medium: A look at cine-psychometrics.** *Viewpoints*, 1970(Sep), Vol. 46(5), 91-102.—Refers to the work of J. J. Gibson who directed the Air Corps' Psychological Test Film Unit during World War II. The motion picture tests were designed for use in the selection of military air crewmen. Research on cine-psychometry has been dormant. At this time, its potential for use with special populations—the educationally deprived, the hard of hearing, and the young —is being stressed. Short-term memory tests, successive perception tests, and sequential word tests have been developed. Test administration reliability, situation simulation, and the substitution of image, or action for language offer very practical motivations for use of this technique. (16 ref.)—*I. Linnick.*

4041. Whitely, Susan E. (U. Minnesota) **Domain referenced testing: An alternative model for test construction.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 515-516.—Domain-referenced testing, interpreting scores with direct reference to the domain of item content, has been given increasing attention in recent years. Neither the programmed learning approach nor the achievement test approach has been able to provide models that can handle complex and heterogeneous domains to allow a domain-referenced score interpretation. A modified version of Stephenson's structured Q-sample model is presented to provide an alternative method of test construction. It is different from current approaches because it provides information concerning domain structure and does not depend upon random sampling to estimate true score.—*Author abstract.*

Construction & Validation

4042. Bradley, M. (Public Service Commission of Canada, Ottawa, Ontario) **Statistical comparison of the Otis Self-Administering Tests of Mental Ability and PSC Examinations 302A and 5A (GIT series).** *Studies in Personnel Psychology*, 1970(Apr), Vol. 2(1), 74-80.—The total raw and weighted scores of the General Intelligence Test (used by the Public Service Commission of Canada) and Otis Tests were correlated for 486 males and 316 females, aged 17-63, in 4 categories: secondary school level English-speaking, secondary school level French-speaking, university level English-speaking, and university level French-speaking. Results were statistically significant well beyond the .001 level for all comparisons. Correlation coefficients ranged from +.620 to +.742. Construct validity among intelligence tests is discussed. (French abstract)—*J. G. Tiedemann.*

EXPERIMENTATION & OBSERVATION

4043. Berkowitz, Leonard. (U. Wisconsin) **Reporting an experiment: A case study in leveling, sharpening, and assimilation.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 237-243.—A survey of a number of social psychology books reveals glaring errors in the reporting of the findings in the now classic experiment by S. Schachter (see PA, Vol. 25:8043) on deviation and rejection. Authors all too frequently have (a) assimilated and sharpened their summaries of this study to a general theme, (b) omitted important details inconsistent with their theme, and (c) misrepresented the results in important ways. It is concluded that the tendency to reject opinion deviates may not be as strong as is commonly supposed in social psychology texts and clearly is a far more complicated phenomenon than social psychologists typically indicate to their readers and students. (21 ref.)—*Journal abstract.*

4044. Johnston, James M. (U. Florida) **A universal behavior graph paper.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 271-272.

4045. Landers, Daniel M. (U. Illinois, Children's Research Center, Champaign-Urbana) **Effect of the number of categories systematically observed on individual and group performance ratings.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 731-735.—Determines the effect of the number of behavior categories systematically observed on the reliability and accuracy of judges' ratings. 24 Ss representing 2 gymnastic judging systems rated 24 filmed routines under standardized conditions. Results show that the judges rating only 1 category had significantly less variance from absolute ratings, less intravariance about their own mean, and higher reliability than those rating 3 categories. When the individual judge's ratings were combined into group ratings, no significant differences were found between observation systems on variance from absolute ratings; however, the groups rating only 1 category had significantly less intravariance than groups rating more than 1.—*Journal abstract.*

4046. Mac Rae, Kenneth D. (Queen's U., Belfast, Ireland) **Serial position and sequential dependencies in repeated measures designs.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 736-738.—Presents a scheme for the evaluation of the effects of serial position and sequential dependencies in experiments where repeated measures are made on the same Ss, and where it is possible for S to receive any of these treatments more than once. The desirability of examining such effects is discussed, and it is concluded that, where the experimental situation permits, repeated measure plans of the type presented here should be used both because serial-position effects and sequential dependencies are of interest in their own right and because the additional cost in E time is often small.—*Journal abstract.*

APPARATUS

4047. Davidson, Arnold B., Davis, Dixon J., & Cook, Leonard. (Smith Kline & French Lab., Philadelphia, Pa.) **A rapid automatic technique for generating operant key-press behavior in rats.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 123-127.

Trained experimentally naive Sprague-Dawley rats to key press on a fixed-ratio 10 schedule of food reinforcement by a completely automatic procedure within a

single, 1-hr session. Control procedures demonstrated that the resulting behavior was an operant, under control of the schedule of reinforcement and the specified reinforcing stimulus (food). A simple, combination food-tray operandum, also described, was used as the basis for the training technique.—*Journal abstract.*

4048. Findley, J. D., Robinson, W. W., & Gilliam, W. (Johns Hopkins U., Medical School) **A restraint system for chronic study of the baboon.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 69-71.

4049. Grosser, George S., & Percy, Hector E. (American International Coll.) **An apparatus for delivery of electroconvulsive shock without situational change.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 39-40.

4050. Lyons, Joseph & Kliepe, William D. (U. Arizona) **Color mixing with Kodak Wratten filters.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 232.

4051. Sandler, B. F., Van Gelder, G. A., Karis, G. G., & Buck, W. B. (Iowa State U.) **An operant feeding device for sheep.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 95-96.

4052. Thompson, R. D., & Grant, C. V. (U. S. Bureau of Sport Fisheries & Wildlife, Denver, Colo.) **Automated preference testing apparatus for rating palatability of foods.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 215-220.—Describes an electronic preference testing apparatus for measuring taste preference of rodents and other small animals with solid or liquid foods. The apparatus is designed on the principle of the 2-choice preference technique. It operates photoelectrically with a sequence of presentations so that whenever an S eats from a compartmentalized food tray, a standard and a test food are each briefly sampled alone before both foods are presented together (in alternate positions) for preference determination. Preferences are automatically recorded on digital counters. The apparatus is built in 2 modules (a preference tester and the master control) connected by multiconductor cable. The modular design provides portability and isolation of the Ss from the major noise producing components. Diagrams of the apparatus are given, and test results from a trial that evaluated positional bias and a sucrose concentration preference experiment are presented to demonstrate its application in research.—*Journal abstract.*

EXPERIMENTAL PSYCHOLOGY

4053. Farrell, B. A. **On the design of a conscious device.** *Mind: A Quarterly Review of Psychology & Philosophy*, 1970(Feb), Vol. 79(315), 321-346.—Describes the design of a conscious device, i.e., a device whose reactivity is such that upon examination the difference between the device and a human being in regard to seeing, hearing, and feeling cannot be determined. The main steps required for construction are outlined by means of the model construction technique used by psychologists. The aspects of conscious functioning which result in seeing and hearing are emphasized. Objections which may be raised as to the validity of using the model technique and whether a complete device would be "conscious" are discussed.—S. Knapp

4054. **Vaught, Glen M.** (State University Coll. New York, Oswego) **Autokinetic word writing as a function of variations in instructions.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 743-746.—Attempted to determine whether or not variation in autokinetic word writing (AWT) instructions would increase word production. Normative characteristics of word productions of 45 male and 54 female undergraduates are presented. It is generally concluded that, while increased word production does result from different instructions, the reliability of this response measure remains questionable.—*Journal abstract.*

PERCEPTION

4055. **Bartley, S. Howard.** (Michigan State U., Lab. for the Study of Vision & Related Sensory Processes) **Some misconceptions concerning perception.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Apr), Vol. 47(4), 259-266.—Discusses perception as an overall immediate response to stimulation of sense organs, the reaction that expresses the organism's relation to the environment regardless of whether this expression is conscious or simply a gesture or other motor act that is discriminative. This conception of perception differs from that sometimes held. The historical basis for misconceptions of perception is discussed, the basis for the present concept is described, and some optometric applications are noted.—*Journal abstract.*

4056. **Colston, Malcolm A.** (U. Queensland, Brisbane, Australia) **A note on adaptation level theory.** *Australian Psychologist*, 1970(Mar), Vol. 5(1), 49-51.—Describes a formula for predicting adaptation level. 175 males served as Ss whose task was judging a series of weights. Ss assumed the weights to be of individuals of their same age and sex. In the formula, the weights were given twice the weighting of the Ss' own weights. A satisfactory prediction of adaptation level is reported.—*H. Roemmich.*

4057. **Cratty, Bryant J. & Duffy, Kirt E.** (U. California, Los Angeles) **Studies of movement aftereffects.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 843-860.—213 Ss participated in 4 experiments designed to identify relationships between figural aftereffects elicited by hand, limb, and total body movements. The measures obtained were reliable and highly task specific. (36 ref.)—*Journal abstract.*

4058. **Forrest, Elliott B.** (Optometric Center of New York City, N.Y.) **Perception and human communication.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Aug), Vol. 47(8), 640-643.—The term, perception, means different things to different investigators. Some differences are fundamental to the definition while others are a matter of semantics. Confusion tends to be minimized if the act of perception is related to the act of human communication. Perception is presented in terms of the organism as both a "source" and a "receiver" of information not only to and from others in the external environment but to and from itself as well.—*Journal abstract.*

4059. **Over, Ray.** (U. Queensland, Brisbane, Australia) **Comparison of normalization theory and neural enhancement explanation of negative aftereffects.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 225-243.—Proposes that neural inhibitory interaction underlies negative aftereffects as well as figural after-

effects, with the former occurring when nontopographic principles are used by the nervous system to signal stimulus values and the latter when topographic coding is involved. Relationships between aftereffect data and information available about feature analysis from electrophysiological measurement and contour masking studies are examined with emphasis on tilt and movement aftereffects. It is concluded that even though the neural enhancement position cannot be tested in detail until more is known about tuning characteristics in sensory systems and the way cells respond to abrupt changes in stimulus value, in its present form it offers a more satisfactory explanation of negative aftereffects than normalization theory. There is little to support the latter claim that negative aftereffects occur as by-products of a perceptual adaptation process. (3 p. ref.)—*Journal abstract.*

4060. **Praetorius, Nini.** (Copenhagen U., Denmark) **Nogle vaesentlige problemer omkring det perceptionspsykologiske stimulusbegreb.** [Some essential problems concerning the concept of stimulus in the psychology of perception.] *Nordisk Psykologi*, 1969, Vol. 21(5), 301-319.—For a long time psychologists, philosophers, and physiologists alike have been aware of the problems and inadequacies that follow from adopting a dualistic causal view as a basis in the theories and models of perception psychology. Despite this realization, any better alternatives have apparently not readily suggested themselves. An attempt is made to indicate the kind of difficulties and inconsistencies encountered in dualistic perception theories and concepts because of the unfortunate confusion of 2 causal theories, 1 philosophical (epistemological), the other physiological, by presenting, among other things, an analysis of Gibson's perception model. A possible alternative is suggested in replacement of the traditional dualistic causal description of the experiments and laws of perception psychology.—*English summary.*

4061. **Taylor, M. M.** (Defence Research Establishment, Toronto, Ontario, Canada) **On the efficiency of psychophysical measurement.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 505-508.—A previously proposed upper bound on the performance of psychophysical techniques that attempt to determine points on psychometric functions is shown to be a least upper bound. The existence of a realizable technique (the Robbins-Monro process) which asymptotically attains the performance of the proposed ideal shows that this ideal provides an appropriate basis from which to calculate the absolute as opposed to relative efficiency of real psychophysical measurement techniques. The concept of incremental efficiency is introduced. It is shown to be useful in analyzing the performance of measurement techniques when the initial uncertainty of the estimate, often ignored in simulation studies, is neither infinite nor 0. and to permit independent assessment of the efficiency of separate portions of a measurement process.—*Journal abstract.*

Illusion

4062. **Beh, Helen C., Wenderoth, Peter M., & Purcell, A. T.** (U. Sydney, New South Wales, Australia) **The angular function of a rod-and-frame illusion.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 353-355.—Predicted that vertical settings of a rod surrounded by a square frame would be in error in the direction of the

frame axis closest to true vertical as the frame varied in tilt. Results of an experiment with 4 male and 16 female undergraduates were in accord with this hypothesis.—*Journal abstract.*

4063. duMas, Frank M. & duMas, Michael E. (Augusta Coll.) **The projected brain illusion.** *Journal of Psychology*, 1971(May), Vol. 78(1), 115-118.—Stimulus conditions for projected brain illusion (PBI) are to stare above and beyond the top of a candle flame in a dark void. The illusory response is to see "out there" an image closely resembling outline drawings of the brain, i.e., as though one is seeing one's own brain projected into space. Physical rather than geometric optical magnification of the internal structure of the eye seems to offer the best explanation of PBI.—*Author abstract.*

4064. Horrell, R. I. (U. Hull, England) **Retinal image or perceived features as determinants of error in geometric illusions?** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 97-106.—An examination of the implications of the theory of geometric illusions proposed by R. L. Gregory leads to the prediction that the illusion error should be determined by the retinal image projected by the figure rather than by its perceived characteristics where these differ. This prediction was tested in 2 experiments, using a version of the Zöllner illusion. In Exp. I, with 12 students, distance was used to manipulate the retinal image characteristics; in Exp. II, with 12 students, slant was used. In both cases, error followed changes in the retinal image rather than being held relatively constant by the perceived size and shape. It is suggested that the effect of slant and distance on illusions, as reported by others, can be attributed to the change in retinal image characteristics involved in such operations.—*Journal abstract.*

4065. Simondon, G. **La perception de longue durée: III. Analyse de la rotation de volumes vus en projection.** [Perception of long duration: III. Analysis of volumes of rotation seen in projection.] *Journal de Psychologie Normale et Pathologique*, 1970(Oct), No. 4, 403-422.—The experiment involved different categories of projections of shadows produced by an animated object the revolving motion of which occurred around a vertical axis. Results were that for a solid opaque geometric, the determining influence of external limits and irregularities, or unusual points of the surface, indicated different phases of prolonged perception. Concerning transparent objects or those finely delineated, texture governed the variety of effects.—*L. A. Ostlund.*

Time

4066. Haber, Ralph N. & Standing, Lionel G. (U. Rochester) **Direct estimates of the apparent duration of a flash.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 216-229. Substantial evidence now shows that visual persistence can extend the apparent duration of a brief stimulus flash by several hundred msec. A technique of G. Sperling's was applied in which S adjusts a click to coincide, 1st with the apparent onset of a flash, and then with its apparent offset. The interclick interval thus determined is used as a measure of the apparent duration of the flash. Visual persistence is shown when the interclick interval exceeds the actual stimulus duration. When the flash and adapting field luminances were the same, persistence reached 175 msec for brief flashes (10 msec.), decreased to 60 for longer ones (200

msec.), and was negligible for flashes exceeding 500 msec. When a visual noise field followed the post-adaptation field, persistence was determined entirely by the time from the flash offset to noise onset, up to about 200 msec. Beyond that, the noise onset had no effect, presumably because the persistence had already ceased before the noise arrived. Conditions without visual noise, but with different combinations of pre- or postadaptation field, also produced substantial changes in visual persistence. Results show that (a) visual persistence can be estimated rather directly by this technique; (b) persistence is sensitive to adaptation conditions; and (c) visual noise will terminate persistence. Results support a process-stopping interpretation of information processing by visuolysis, as distinct from a sensory integration view. (French summary) (16 ref.) *Journal abstract.*

4067. Lindauer, Martin S. (State University Coll. New York, Brockport) **Duration of time in time-related words.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 775-781.—Assigned 275 time-related words, considered a source for the cognitive investigation of time perspective, to 10 time intervals ranging from sec. to millennia by 32 undergraduates equally divided by sex. Differences were found in the duration of time connoted by the verbal materials, with reference to the frequency with which the 10 time intervals were used, as well as the time spans associated with the past, present, and future. No sex difference was noted. (45 ref.)—*Journal abstract.*

4068. Toman, Walter. (Psychological Inst., Erlangen, W. Germany) **Zellerleben und Motivationsabläufe.** [Time experience and processes of motivation.] *Psychologische Rundschau*, 1971(Jan), Vol. 22(1), 38-42. People perceive the same time span differently depending upon their motivational state. A motivation model developed by the author is examined with respect to its usefulness as an indicator of time experience.—*W. J. Koppitz.*

VISION

4069. Ball, Richard J. & Bartley, S. Howard. (Michigan State U.) **Effects of intermittent monochromatic illumination on visual acuity.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Jul), Vol. 47(7), S19-S28. Reports research concerning the effects of selected bands of monochromatic intermittent illumination on the task of visual acuity. Wavelength bands centered at 500 nanometers (nm.) (496-505 nm. at 10% transmission level) 580 nm. (576-584 nm.), and 640 nm. (637-644 nm.) were presented intermittently at 1, 5, 10, and 15 cps as well as with steady illumination. All intermittency conditions were with a 1/2 pulse-to-cycle fraction. A marked decrement in visual acuity performance was found for those wavelength-temporal combinations that previously were found to produce brightness enhancement, desaturation, and hue shifts. Greatest decrement was found for the 500-nm. waveband at an intermittency rate of 5 cps. Discussion includes relating the study to previous research and its relation to basic neurophysiological vision processing. (16 ref.) *Journal abstract.*

4070. Crossmann, Edward R., Goodale, Peter J., & Marg, Elwin. (U. California, Berkeley) **A computer-based automatic method for determining visual acuity.** *American Journal of Optometry & Archives of Optometry*, 1970(May), Vol. 47(5), 344-355. Describes a computer-based automatic meth-

od for clinical visual acuity determinations. The procedure employs the staircase method of threshold determination using Landolt C's, and was tested on 14 Ss representative of normal optometry clinic patients. Though more precise due to small step size, results show fair agreement with manual determinations performed at the same time using an American Optical Company Snellen chart. The automatic method required more time because (a) Ss used 4 instead of 26 response alternatives, and (b) a mean step size of 1.15:1 instead of 1.5 or 2:1 was used. While most series of repeated automatic determinations were stable, a few Ss showed improvement or deterioration apparently due to practice or fatigue. Economic aspects of computer assistance for optometric examinations are briefly discussed and the potential value of time-sharing and remote operation is noted.—*Journal abstract.*

4071. Dick, A. O. (U. Rochester) **Visual processing and the use of redundant information in tachistoscopic recognition.** *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 133-141.—Examined the relation between information available in the stimulus and information required in report. 54 undergraduates in 3 groups reported on the basis of different attributes of 4 sets of visual stimuli varying in form of redundancy. Loss of information from conic memory was measured by means of a partial report procedure. The redundancy manipulation affected the level of accuracy and there was differential loss of stimulus information from iconic memory, depending on the stimulus attribute to be reported. There was, however, no relation between redundancy and loss of information. Results show that (a) the use of stimulus information plays an important role in accuracy, and (b) there are some basic differences in the way in which the visual system treats different categories of information. (French summary)—*Journal abstract.*

4072. Farrimond, Thomas. (U. Waikato, Hamilton, New Zealand) **Flicker fusion measurements using a modified perimeter stand.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 881-882. Describes a portable device for the study of the flicker fusion frequency characteristics of those areas of the retina which differ in color sensitivity. Its use is briefly mentioned. The equipment is simple to operate and robust and suitable for use by students as part of their general laboratory training.—*Journal abstract.*

4073. Hall, A. C. (U. Newcastle, New South Wales, Australia) **Measures of the complexity of random black and white and coloured stimuli.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 773-774.—Describes the construction of black and white random-line stimuli having internal intersections, and a set of bicolored stimuli derived from these. The number of internal intersections as an index of subjective complexity is shown to be highly valid for both sets, and the number-of-perimetric-turns variable is also shown to have a high correlation with judged complexity. *Journal abstract.*

4074. Hofstetter, Henry. (Indiana U., Div. of Optometry) **Some observations of phantom visual imagery.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 361-366.—Describes techniques for eliciting phantom visual images of parts of an O's body in absolute darkness and under other conditions for which there are no visual stimulus correlates. Spatial, form, and

luminance attributes are discussed, together with incidental observations that might have theoretical implications.—*Journal abstract.*

4075. Lovell, D. J. (Massachusetts Coll. of Optometry) **Spectrometer performance based upon signal-to-noise toleration.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Aug), Vol. 47(8), 650-656.—In the operation of optical equipment, the optimum operation is determined by limitations imposed by noise. This is often a psychophysical concept. Trade-offs are often possible whereby superior performance can be achieved by a competent E using carefully selected functional parameters. This is indicated by examples using an infrared spectrometer.—*Journal abstract.*

4076. Moulden, Bernard. (Reading, England) **Adaptation to displaced vision: Reafference is a special case of the cue-discrepancy hypothesis.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 113-117.—12 undergraduates were exposed to a prismatically displaced view of their actively-moved right hand which was optically "stopped"; they achieved as much adaptation in this condition as in one in which they were allowed full "reafferent" stimulation. This provides further evidence against Held's "reafference" hypothesis.—*Journal abstract.*

4077. Schroeder, Stephen. (U. North Carolina) **Effects of cue factors on selective eye movements and choices during successive discrimination.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 991-998.—On a discrete-trial successive discrimination task which contained both reinforcing and redundant stimuli, 12 female and 13 male undergraduates displayed orderly distributions of fixations and choices of the stimuli. Practice decreased fixation frequencies of all stimuli without altering their distributions. Number of reinforcing stimuli had no effect on selectivity when stimuli differed distinctively but was related to selectivity when stimuli were ambiguous. Stimulus configuration affected selectivity, as did relative position cues. Results suggest a complex interaction between fixation and visual choice. (16 ref.)—*Journal abstract.*

4078. Shipley, T. & Rawlings, S. C. (U. Miami, Medical School) **Sensory direction in homogeneous binocular visual space.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 335-337.—Shifts in subjective sensory direction (local signature) occur in all sense modalities, and the dynamics of these shifts are quite similar. An experiment with 2 experienced Os is reported which indicates that this is also true for visual direction in homogeneous binocular space. It is concluded that binocular vision may be interpreted in accordance with principles of intersensory processing.—*Journal abstract.*

4079. Smith, Karl U. & Putz, Vernon. (U. Wisconsin, Behavioral Cybernetics Lab) **Dynamic motor factors in determining effects of retinal image feedback reversal and delay.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 372-383. Compared the velocity and tracking accuracy of head and eye motions of 12 Ss under conditions in which the action feedback of the 2 motions was operationally isolated and varied by means of a real-time computer system and experimental systems methods of yoking visual targets to the 2 movement mechanisms both separately and coordinately. Results show that with reversed retinal feedback: (a) velocity and accuracy of eye movements were degraded more

than head movement; (b) smooth pursuit head and eye motions were reduced to saccadic movements; (c) ocular tracking tended to dominate coordinate head-eye tracking; and (d) little dynamic adaptation occurred to the modified retinal feedback. Delay of the retinal feedback had the same relative effects on the 2 motions. More variation occurred in the velocity of eye movements than in the speed of head movements with increase in the magnitude of the delay of retinal feedback. Results support the movement-compensation hypothesis of adaptation to reversed vision by indicating that compensatory movement correction of altered feedback of eye or head motion is not possible when control of the altered feedback is restricted experimentally to the movement system affected. The response of the visual system to reversal and delay of the retinal image is a direct function of the intrinsic directional specificity of eye and head movements in governing retinal input.—*Journal abstract.*

Perception

4080. Abravanel, Eugene. (George Washington U.) **The synthesis of length within and between perceptual systems.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 327-328.—Reports 2 experiments, with 90 undergraduates each, comparing the accuracy of Ss in making length combinations visually, haptically, and intersensorially. The hypothesis that there would not be significant differences among the 3 conditions for perceptual combinations of length, because length is a highly familiar dimension that is capable of being cognitively organized, was supported. Findings are related to other research comparing intra- and intersensory processes.—*Journal abstract.*

4081. Cornwell, Henry G. (Lincoln U., Pa.) **Figure preference and personality.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 812-814.—To identify personality syndromes indicated by preferences for figures, correlations among 10 scales of the Welsh Figure Preference Test, 18 scales of the 16 PF, and 6 scales of the Allport-Vernon-Lindzey Study of Values for 50 college students were calculated. 8 figure preference variables correlated significantly with 10 16 PF and 3 Study of Values scales. The 27 significant rs suggest that: (a) rejection of the figures is symptomatic of personal inadequacy and anxiety, while acceptance of the figures indicates personal stability, self-confidence, and freedom from anxiety; (b) the more stable personality syndromes are associated with preference for complex, black, shaded, and dotted figures; (c) inconsistency of preference is positively related to general intelligence.—*Journal abstract.*

4082. Culver, Charles M. (Dartmouth Coll., Medical School) **Test of right-left discrimination.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 863-867.—Describes a test of right-left discrimination which may be useful for measuring this aspect of spatial perception in adults. Score distributions obtained from 157 student nurses are reported. Some of the test's statistical properties and empirical correlates are presented.—*Journal abstract.*

4083. Egeth, Howard & Blecker, David. (Johns Hopkins U.) **Differential effects of familiarity on judgments of sameness and difference.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 321-326.—Reports 6 experiments in which a total of 86 university summer session students indicated whether pairs of simulta-

neously presented objects were "same" or "different." In Exp. I-III, pairs of letters were shown either upright or upside down. In Exp. IV and V, pairs of trigrams were either rotated or selected according to rated meaningfulness. Analysis of RTs indicates that familiar pairs were responded to more quickly than unfamiliar pairs; however, this was true only for "same" judgments. Exp. III indicated that familiarity influenced discrimination accuracy under conditions of tachistoscopic exposure. In Exp. VI, an effort was made to disentangle the effects of meaningfulness from the effects of pronounceability. Results are compared to previous research using perceptual comparison tasks which failed to indicate any effect of familiarity. (25 ref.)—*Journal abstract.*

4084. Epstein, William. (U. Wisconsin) **Adaptation to unilocular image magnification after varying pre-adaptation activities.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 66-74.—Adaptation was measured after a 30-min exposure to a 5% meridional size lens, axis 90°. In the preadaptation period immediately preceding exposure, 66 undergraduates with uncorrected vision spent 10 min. sitting in the dark with both eyes covered (C), monocularly exploring the building (M), or binocularly exploring it (B). The major finding was that the magnitude of adaptation was affected significantly by the preadaptation activity: $C = M > B$. This finding is discussed in the context of a general formulation of the process of adaptation to the lens.—*Journal abstract.*

4085. Holding, Dennis H. (U. Louisville) **The amount seen in brief exposures.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 72-81.—Attempted to test the consequences of assuming that an S exposed to briefly presented tachistoscopic information does not have access to a visual image. The partial report procedure is examined under several conditions with the letter row cues immediately following stimulus exposure, and at different levels of cue delay. Ss were 12 students. The results of eye movement monitoring, and of instructing Ss where to look, agree with the guessing data of a previous experiment in showing a sharp decline in the number of letters correctly reported when the S is looking at the wrong row, in conformity with the anticipative selection hypothesis. The result of varying the S's uncertainty about what is to be reported is to vary the slope of the delay curve; with the implication that inefficient strategies of rehearsal, rather than visual image decay, are responsible for the reported delay effects.—*Journal abstract.*

4086. Horne, E. P. & Allee, M. (U. Florida) **Estimation as a function of density and contrast.** *Journal of Psychology*, 1971(May), Vol. 78(1), 87-94. Estimates of perceived number of simple dot forms, yellow-red or yellow-green, on each of 3 homogeneous backgrounds of either white, neutral gray, or black were made. Random dispersals for each of 7 frequency levels from 16-37 were displayed over large or small areas. Estimations of frequency were made by 30 female undergraduates selected as color normals. Each card was exposed 1 sec. in the Harvard tachistoscope. Underestimations of dot frequency increased with actual number. Yellow-red dot estimations were higher than yellow-green. Large area yielded higher and more accurate estimates than the smaller area. Density was significant but contrast was not significant in this experiment.—*Author abstract.*

4087. Irion, Philip E., Oyer, Herbert J., & Hardick, Edward J. **Lipreading performance as related to**

measurements of vision. *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Mar), Vol. 48(3), 231-239.—Administered the Utley test, How Well Can You Read Lips?, to 53 undergraduates. The 8 Ss who obtained the highest scores and the 8 who obtained the lowest were given complete optometric examinations. Optometric testing indicates that Ss differed primarily along the visual acuity parameter. A significant difference was found in lipreading performance as a function of acuity differences. A significant relationship was found between acuity and lipreading performance.—*Journal abstract*.

4088. Kietzman, Mitchell L., Boyle, Robert C., & Lindsay, Donald B. (Biometrics Research, New York, N.Y.) **Perceptual masking: Peripheral vs central factors.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 350-352.—Selected 2 normal vision Ss who exhibited dichoptic retroactive masking and were experienced in making visual perceptual judgments. Perceptual masking was studied under binocular and dichoptic conditions in order to separate peripheral and central interference effects. Under binocular conditions, when the test flash (TF) and the blanking flash (BF) fell on both retinas, both retroactive and proactive masking were demonstrated. Under dichoptic conditions, when the TF fell on 1 eye and the BF on the other, thus eliminating opportunity for intraretinal interference, there was partial retroactive perceptual masking and no proactive masking. Results suggest (a) that binocular proactive masking is due to peripheral light adaptation, (b) that binocular retroactive masking is due to both peripheral and central effects, and (c) that dichoptic masking is due solely to central retinocortical interference. It is proposed that dichoptic retroactive perceptual masking affords a method of investigating central perception time, i.e., the time to consolidate a perceptual experience. (25 ref.)—*Journal abstract*.

4089. Lake, R. A. & Newbigger, P. L. (U. Toronto, Ontario, Canada) **Fixed and random length foreperiods in tachistoscopic recognition.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 452-459.—Describes 2 experiments (with 160 undergraduates in each) in which the effect of length and variability of foreperiod on tachistoscopic recognition are examined. It was found that foreperiods between .5 and 2 sec. had no differential effect and that for foreperiods between 2 and 8 sec. recognition thresholds were a monotonically increasing function of foreperiod length. Randomly varying foreperiod length had no significant effect. A 3rd experiment with 40 undergraduates showed that the interval between successive exposures of the recognition stimuli, which in the 1st 2 experiments was confounded with length of foreperiod, could not account for the foreperiod effects obtained. (French summary)—*Journal abstract*.

4090. Lovie, A. D. & Lovie, P. (U. Liverpool, England) **The effect of mixed visual contrast schedules on detection times for both free and horizontally structured visual search.** *Ergonomics*, 1970(Nov), Vol. 13(6), 735-741.—Performed an experiment in which Ss' detection times were compared for free and systematic visual search for a small target. The systematic search pattern consisted of a horizontal zig-zag between pairs of lines drawn on the visual field. 2 different levels of target contrast were employed. 3 groups of 4 17-28 yr. old Ss with normal vision were presented with 1 of 3 mixed stimulus schedules containing different percentages of high and low contrast

targets; each S being tested on both free and systematic visual search for that schedule. The composition of the schedules was as follows: Schedule I, 75% low and 25% high contrast; Schedule II, 50% low and 50% high; Schedule III, 25% low and 75% high. Ss were not informed about either the level of target contrast before individual trials, or the schedule to which they had been allocated. Main results were as follows: systematic search using the structured field reduced detection time for low contrast targets in Schedules I and III, and increased it for targets of the same contrast in Schedule II. High contrast targets showed an increased detection time for all schedules with the systematic search. Results are interpreted in terms of the interaction of the relative amount of contrast-uncertainty, contained by each schedule, with the condition of the visual field. (French & German summaries)—*Journal abstract*.

4091. Marcinkech, A. J. (Comenius U., Faculty of Pedagogy, Trnava, Czechoslovakia) **Zraková percepcia podľa učenia univ. prof. PhDr. Jána Horvátha na Trnavskej univerzite.** [Sight perception according to the teaching of Prof. Jan Horvath at the Trnava university.] *Jednotná Škola*, 1969(Jun), Vol. 21(6), 532-544.—Presents a selection and summary of the teaching of Jan Horvath (1732-1799) on sight perception. (Russian summary)

4092. Munoz, S. R. & Newbigger, P. L. (Sir George Williams U., Montreal, Quebec, Canada) **Some effects of an auditory ready signal on tachistoscopic word recognition.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 460-475.—Describes 4 experiments which are variously concerned with the effect on tachistoscopic recognition of the intensity of the ready signal, the length of the foreperiod, the effect of combining an auditory ready signal with a visual fixation point and the effect of different intensities of the ready signal when words differing in difficulty (frequency) are presented for recognition. Ss were 72, 30, 86, and 40 men and women in each experiment, respectively. The main findings were: (a) that intense ready signals have a disruptive effect whereas less intense signals have a facilitative effect; (b) that a visual fixation point attenuates the effect of a ready signal; (c) that recognition thresholds increase as foreperiods are lengthened; and (d) that the effects of ready signal intensity are demonstrable only with the most difficult recognition task. (French summary) (17 ref.)—*Journal abstract*.

4093. Newbigger, P. L. (McMaster U., Hamilton, Ontario, Canada) **Transfer of training from reaction time to tachistoscopic recognition.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 476-485.—Describes 2 experiments in which RT practice preceded a tachistoscopic recognition task. Ss were 108 and 180 undergraduates, respectively. The amount of positive transfer obtained was shown to be a function of both the type of RT task and the amount of RT practice. This transfer was attributed to the learning of an attentional response to the foreperiod which was the same length in both tasks. (French summary)—*Journal abstract*.

4094. Orbach, J. & Olson, R. (Queens Coll., City U., New York) **Perceptual reversals, eye blinks and "preferred orientation."** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 902.—Presents a resume of a paper by J. Orbach and E. Zucker where the problem of eye-blinks is considered in relation to the theory of saturation of orientation.—P. Hertzberg

4095. Pálffy, Zoltán. (Formative Teaching Inst., Budapest, Hungary) **Adatok a képi elsajátítás lélektanához.** [Data concerning the psychology of

pictorial space perception.] *Pszichológiai Tanulmányok*, 1968, No. 11, 167-183.—On the basis of its cybernetic interpretation and the social determination, internal and external factors and conditions bearing on pictorial space perception have been examined. Perspective space perception is a specifically human quality of visual perception that is formed by objectivizations (picture plane, projective rays, coordinates, perspective pictures) and operational structures (operations serving the external realization of objectivizations and their subjective acquisition). These processes enable man to internalize perceptually and intellectually the appearance of perspectives as a function of an objective necessity (i.e., objective law). Perception corresponds not only with the constancies (the real and constant spatial and form-characteristics of objects), but also with the perspective appearance. The 1st step leading to the acquisition of the perception of spatial changes was found to be differentiation (adequation) of points situated in different depths but appearing to be in the same place, i.e., programing of the procedures of analysis and synthesis that are necessary for the graphic representation of the coincidence. The explicit forms of these operations, as well as the succeeding external and internal complex operations are acquired by the child and interiorized with the help of operational models and structures acquired from the community. (Russian summary)—*English summary*.

4096. Smith, Olin W. & Barut, Clara. (Bowling Green State U.) **Relation of spatial abilities to reversal rates of Necker cubes varying in degree of completeness.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 760-762.—1 hypothesis was that reported reversal rates of Necker cubes with 6-in horizontals and verticals that varied in 5° of completeness would correlate significantly with 3 measures of spatial visualization. The second hypothesis was that 6-in cubes would result in lower reversal rates than did the 3-in cubes used by O. W. Smith, N. Imparato, and J. E. Exner. The 1st proved to be untenable while the 2nd remained tenable in a test with 40 male and female undergraduates. Individual differences in reversal rates were large but fairly consistent since the correlations among reversal scores ranged from .71-.97, with a median of .88.—*Journal abstract*.

4097. Tánczos, Zsolt. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **Az érzéketlen szerveződés vizsgálatának néhány elvi kérdése.** [Some theoretical problems of investigating perceptual organization.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 45-50.—Considers the significance of spatial-temporal organizational (coding) units being interpreted as dynamic features, and of neural coding, when determining perceptual qualities. The fact that different functional forms may serve as a basis for producing identical perceptual qualities is related to von Neumann's findings on the characteristics of natural automata. On the basis of investigations into stroboscopic movements and the connection between spatial localization and eye movements, the relative equivalence in the functions of configurative organizational forms to central motor determination, and their complementary function in determining perceptual qualities is demonstrated. From this point such things as configurative organization, plastic impressionability, as well as social determination and experimental aspects in the study of perception are approached. (Russian summary) (19 ref.)—*English abstract*.

Size & Distance & Depth Perception

4098. Dawson, William E. (U. Notre Dame) **Magnitude estimation of apparent sums and differences.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 368-374.—Undergraduate, graduate, and staff member Os 1st scaled 2 continua by magnitude estimation: apparent area of circles and loudness of 1000-Hz tones. Os then gave magnitude estimations of apparent sums and apparent differences for 15 pairs of stimuli on each of the 2 continua. The scales for sums and differences were in some cases nearly linearly related to the power function obtained when the same Os scaled the underlying continuum. However, systematic departure from linearity was the usual result. The power law exponents obtained were generally smaller than those usually reported for the 2 sensory continua. (18 ref.)—*Journal abstract*.

4099. McCain, Claude N. & Karr, A. Charles. **Color and subjective distance.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Aug), No. 20-70, 9 p.—Selected 16 Os from a group of 29 soldiers on the basis of color and far-vision scores. Os adjusted the position of a white or colored rod until it seemed to be alongside a reference white or colored rod. The colors used were blue and red of matched luminances. Os tended to see the red rods as nearer and the blue rods as further away. It is concluded that red and blue are used as cues for depth perception.—*Journal abstract*.

4100. Williams, T. David. (Indiana U., Div. of Optometry) **Vertical disparity in depth perception.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 339-344.—Determined the apparent frontoparallel plane (AFPP) under 3 different conditions of vertical disparity using a 2-alternative forced-choice experimental format. Representative data for 1 O are given in which response to vertical disparity was found to lie in the range 6.25-8° of arc AFPP rotation/percent vertical angular size difference. Differences between data from the 3 stimulus conditions were significant at the .05 level by probit analysis. The stereoscopic behavior of the Ss agreed with a systems-approach model for stereopsis proposed by K. N. Ogle and B. Julesz.—*Journal abstract*.

Color Vision

4101. Chapanis, Alphonse & Overbey, Charles M. (Johns Hopkins U.) **Absolute judgments of colors using natural color names.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 356-360.—Required 10 male and 10 female undergraduates to select from a list of 36 common color names the correct name for each of 36 Munsell colored chips. On their 1st trial, with no prior training and without having seen the set of stimuli in advance, Ss gave results that were as good as, or better than, previous Es have reported at the conclusion of much longer experiments. On the last trial (Trial 10), Ss transmitted about 5.07 bits of information, corresponding to the perfect discrimination of more than 33 colors. These figures approach the upper limit possible with 36 colors (5.17 bits). Reasons are given to suggest that the so-called human "channel capacity" to tasks of this kind could be even greater than found here.—*Journal abstract*.

4102. Chason, L. Ralph & Berry, Gene A. (U.S. Air Force Academy, Colorado Springs, Colo.) **The effect of white noise on color vision.** *Proceedings of the Annual*

Convention of the American Psychological Association, 1971, Vol. 6(Pt. 2), 585-586.—60 18-22 yr. old Air Force cadets were assigned randomly to the 12 cells of a completely randomized factorial design, $2 \times 2 \times 3$. The perceived intensity of red, green, and blue lights was measured under conditions of dark-adaptation or non-dark-adaptation, and silence or white noise at 100 db. No significant differences were found between dark-adaptation and non-dark-adaptation. Significant differences were found between silence and white noise conditions ($p < .01$), as well as between the 3 colors ($p < .001$). Light sensitivity was increased under white noise conditions. The data are seen as relevant to design specifications in human engineering.—*Author abstract.*

4103. Kamlet, Arthur S. & Egeth, Howard E. (U.S. Army Human Engineering Lab., Behavioral Research Lab., Aberdeen Proving Ground, Md.) *Note on construction of Stroop-type stimuli. Perceptual & Motor Skills, 1969(Dec), Vol. 29(3), 914.*—Describes the success of using plastic label tapes and an appropriate embossing tool to generate Stroop-type stimuli. 2 experiments, with 10 laboratory workers and 12 undergraduates, respectively, are cited. These show that the label-tape stimuli are at least as effective in producing Stroop-type interference as are incongruously colored names.—*P. Hertzberg.*

4104. Lindauer, Martin S. (State University Coll. New York, Brockport) *Color preferences among the flags of the world. Perceptual & Motor Skills, 1969(Dec), Vol. 29(3), 892-894.*—Color use interpreted as preferences among the flags of 139 independent nations of the world included red, blue, green, and yellow. With 1 exception (green among African states), each color was equally preferred among 6 geographic groups of nations. In addition, white was preferred to black, colors were horizontally placed, and symbols were more likely to be present than not. Data were related to judgments made by individuals of isolated colors, to differences in inferred need achievement between countries, and to the role of language and culture in color discrimination and preference.—*Journal abstract.*

Form & Pattern Discrimination

4105. Egeth, Howard. (Johns Hopkins U.) *Laterality effects in perceptual matching. Perception & Psychophysics, 1971(Apr), Vol. 9(4), 375-376.*—Conducted 2 experiments with 36 and 12 right-handed male undergraduates in which Ss had to indicate whether pairs of simple geometric forms were "same" or "different." In Exp. I the 2 forms were either both in the left or both in the right visual hemifield. RTs were unaffected by the locus of the stimuli. In Exp. II, in addition to left and right pairs, there were pairs in which 1 stimulus was on the left and the other on the right. Under these conditions, RTs were faster for pairs totally on the left than for pairs totally on the right. Data support the theory that implicit scanning patterns are important in determining laterality differences. When such scanning is not involved and when simple nonverbal stimuli and responses are employed, laterality differences are eliminated.—*Journal abstract.*

4106. Hastings, D. W. & Evans, S. H. (Texas Christian U., Inst. for the Study of Cognitive Systems) *The selection of local features for pattern identification: An exploratory study. U.S. Army Human Engineering Laboratories Technical Memorandum,*

1970(Mar), No. 5-70, 17 p.—Proposes a feature analytic process as a basic mechanism in the encoding and storage of visual shapes by humans. It is hypothesized that local features, encoded as feature prototypes plus deviations, are stored in memory according to their positional relationships in the pattern. 2 studies with 12 and 16 undergraduates explored methodologies for the study of feature selection and attempted to determine if Ss would agree in their selection of features. Results indicate that Ss do agree in their selection of features and tend to repeat the selection of similar visual configurations as features across patterns. It is proposed that the consistency of feature selection, both within and between patterns, is a function of both the informational properties of the feature and the population of features present in the patterns.—*Journal abstract.*

4107. Knoll, Ronald L. & Clark, Herbert J. (Antioch Coll.) *The physical characteristics and factor structure of a selected set of random shapes. USAF AMRL Technical Report, 1969(Jun), No. 69-8, 20 p.*—Describes 120 uncurved random shapes frequently used in studies of form perception in terms of 12 nearly orthogonal physical measures of shape. Calculation of the measures is described and their unique characteristics are pointed out. It is suggested that curved shapes may also be described in terms of these measures, but that additional measures descriptive of the curved segments in the perimeter of the shape are required. Although random shapes were examined in this investigation, techniques developed and conclusions arrived at are equally relevant to the specification of some of the characteristics of targets in the real world.—*USAF AMRL.*

4108. Lerner, Richard M. (Eastern Michigan U.) *Note on Knehr's Span of Apprehension Test. Perceptual & Motor Skills, 1969(Dec), Vol. 29(3), 887-891.*—60 undergraduates were administered Series I and II of the Span of Apprehension Test (SAT). In both series of this test random patterns of from 3-10 dots are presented, but Series II includes grid lines in the field. Response errors on Series I were almost all in overestimating the number of dots presented; with Series II significant decreases in overestimation and increases in underestimation were obtained. This response reversal was found despite individual and/or group differences in modes of response to the SAT. In explanation of these findings it was hypothesized that with the inclusion of grid lines in Series II a cognitive strategy different from that used for Series I was evoked.—*Journal abstract.*

4109. Vitz, Paul C. & Todd, Thomas C. (New York U.) *A model of the perception of simple geometric figures. Psychological Review, 1971(May), Vol. 78(3), 207-228.*—Presents a model of how humans perceive straight-line 2- and 3-dimensional geometric figures, e.g., triangles, trapezoids, and cubes. Major characteristics of the model are: (a) a figure is represented as a hierarchy of perceptual elements—lines, angles, areas; and (b) the process of perceptually organizing a figure is portrayed as a stochastic sampling of the elements. The total number of trials to sample the elements corrected by a measure of redundancy is proposed as a measure of the figure's complexity. In experiments with 20 male and 20 female adults, the model successfully predicted the judged complexity of a wide variety of 2-dimensional figures; with some additional rationale it also predicted the perceived 3-dimensionality of figures which can be seen in either 2 or 3 dimensions, e.g., necker cubes. In

general, the predictions of perceived 3-dimensionality are supported but there are discrepancies and other important unresolved problems. (26 ref.)—*Journal abstract.*

Eye Movement

4110. Gordon, I. E. (U. Exeter, England) **Eye movements during search through printed lists.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 683-686.—Records eye movements during search through a series of cancellation tasks. Ss were 4 male and 2 female postgraduate students and staff at a university. The main response to a change in the degree of complexity of the search lists was an increase in the number of fixation pauses and visual regressions, i.e., the average duration of visual fixations did not change significantly.—*Journal abstract.*

4111. Hale, S. M. & Simpson, H. M. (Carleton U., Ottawa, Ontario, Canada) **Effects of eye movements on the rate of discovery and the vividness of visual images.** *Perception & Psychophysics*, 1971(Feb), Vol. 9(2-B), 242-246.—2 studies (Ns=45 female undergraduates in Exp. I, and 18 in Exp. II) investigated the effects of eye movements on the rate of discovery and the vividness of visual images. Eye movements were manipulated by having 3 conditions: (a) Ss were instructed to make eye movements while generating images to noun pairs; (b) Ss were instructed not to make eye movements, but to think about making eye movements while generating images to noun pairs; and (c) Ss were instructed not to make eye movements and not to think about making eye movements while generating images to noun pairs. In addition, the ease of generating images was manipulated by using noun pairs that differed in their image-evoking capacity; 5 of the noun pairs consisted of high imagery-evoking nouns and 5 consisted of low imagery-evoking nouns. The 2 experiments were similar, with the exception that a between-groups design was used in Exp. I, and Exp. II employed a within-Ss design. The results of both experiments showed highly significant effects of noun-pair type on both the rate of discovery and the vividness of images, with the fastest and most vivid images occurring to the high-imagery noun pairs. The effects of the eye-movement conditions on the rate of discovery and the vividness of the images were not significant in either experiment, and these findings are discussed in terms of the relationship of ocular activity to imagery. (17 ref.)—*Journal abstract.*

4112. McCormack, P. D. & Clemence, G. D. (Carleton U., Ottawa, Ontario, Canada) **Monitoring eye movements during paired-associate learning in a retroactive inhibition setting.** *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 184-193.—Monitored eye movements during the learning and relearning of a 7-pair A-B list for 64 undergraduates in 4 groups, 2 of these being required to learn an AC list in the interim and 2 being given interpolated activity designed to produce minimal interference with the relearning of A-B. Retroactive inhibition was demonstrated and the fixation and eye-movement data for original learning were consistent with earlier studies and with a 2-stage interpretation of paired-associate learning. The visual monitoring data for relearning were more compatible with a selector mechanism account of retroactive inhibition than with one of competition, unlearning, or trace decay. (French summary) (24 ref.)—*Journal abstract.*

4113. Schmidt, Jack G. & Smith, Karl U. (U. Wisconsin, Behavioral Cybernetics Lab.) **Feedback analysis of eye tracking of auditory and tactual stimuli.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Mar), Vol. 48(3), 204-209.—Compared eye movement errors in 16 Ss in tracking visual, auditory, and tactual targets that moved in comparable continuous paths to determine if inter-receptor feedback tracking methods may be of significance in developing directional ocular attention in blind children. Findings were that although the eyes cannot track auditory and tactual stimuli nearly as accurately as they can visual targets, they can orient to changes in position and direction of auditory and tactual targets. To perform smooth pursuit movements, the eyes require dynamic retinal feedback of their own movements. When attempting to track auditory and tactual target stimuli, the eyes perform saccades that shift more or less accurately with changes in target direction and position. The possibility exists for developing feedback aids to the blind in detecting eye position during developmental training of directional ocular attention to auditory or tactual stimuli.—*Journal abstract.*

Brightness & Contrast Discrimination

4114. Beck, Jacob. (U. Oregon) **Surface lightness and cues for the illumination.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 1-11.—Os who judged the lightness of 2 equally illuminated targets, 1 of which cast a shadow on a background and 1 of which did not, perceived the target that cast a shadow (and thus seemed illuminated by a spotlight) as darker than the other target. Results confirm earlier findings that the perception of surface lightness may be affected by cues for the conditions of illumination as well as by the inhibitory interactions underlying contrast. The hypothesis is that such cues affect the perception of lightness by creating the impression of a "special" illumination. (15 ref.)—*Journal abstract.*

4115. Engel, G. R. (U. Waterloo, Ontario, Canada) **Tests of a model of binocular brightness.** *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 335-352.—Tested a model of binocular brightness mixing which describes binocular brightness as the vector sum of the 2 monocular brightnesses where each monocular brightness is weighted according to an autocorrelation function that measures the relative amounts of contour and contrast in the 2 monocular views. 3 experiments were carried out with 2 Os, and show that binocular brightness interactions depend on the size and shape of the monocular stimuli in ways predicted by the model. (French summary)—*Journal abstract.*

4116. Remole, Arnulf. (U. Waterloo, School of Optometry, Ontario, Canada) **Spatial characteristics of the border enhancement region in a flickering field.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Oct), Vol. 47(10), 779-786.—When the eye is stimulated with an intermittently illuminated area bordered by a dark surround, the portions of the area adjoining the border will take on a greater apparent brightness than the remaining area. This region of enhanced brightness resembles nothing as much as a halo extending from the border into the field. The main findings were obtained with 1 S, while 3 others were tested to confirm the universality of the results. This study was a preliminary investigation of how this

perceived halo varies with the intermittence rate, pulse duration, and pulse luminance. Spatial characteristics of the border enhancement halo were found to be closely related to these stimulus parameters.—*Journal abstract.*

AUDITION

4117. Breger, Ilana. (New York Student Consultation Center, N.Y.) **The affective response in the perception of sound stimuli.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 317-322.—A "judged group norms" approach was used to obtain normative data on the affective response to meaningful sound. Auditory projective stimuli were rated for pleasantness on a 5-point scale by 140 Ss. The findings suggest a measure of consensus along with individual differences regarding relative pleasantness of sounds. Results indicate that: (a) most of 35 sounds were perceived as unpleasant; (b) 12 sounds differed in pleasantness; (c) test-retest reliability was acceptable; (d) males and females tended to rate similarly; and (e) there were consistent individual differences in rating patterns. It seems possible to establish general measures of consensus about the relative pleasantness of meaningful sounds, implying that the psychological examiner can evaluate standard and unique responses to meaningful sound.—*Author abstract.*

4118. Bryden, M. P. (U. Waterloo, Ontario, Canada) **Attentional strategies and short-term memory in dichotic listening.** *Cognitive Psychology*, 1971(Jan), Vol. 2(1), 99-116.—While listening to lists of dichotically presented numbers, Ss were instructed to attend carefully to the material arriving at 1 ear. They were then instructed either to report the attended items first (AI order) or to give the unattended items prior to the attended ones (UA order). Regardless of report instructions, the attended ear showed a slightly bowed serial position curve while the unattended ear showed a sharply increasing function. Reporting the attended ear 2nd produced a greater loss in accuracy for attended items than was observed with the unattended items when they were reported 2nd. These results indicate that preperceptual auditory storage (echoic memory) is relatively long-lasting but can be disrupted by subsequent auditory input. Attended items, unlike unattended items, are lost through verbal or processing interference. (23 ref.)—*Journal abstract.*

Perception

4119. Ali, Latif; Gallagher, Tanya; Goldstein, Jeffrey, & Daniloff, Raymond. (U. Illinois) **Perception of coarticulated nasality.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 538-540.—Prepared CVC and CVVC syllables in which the final consonants were either nasal consonants (/m/, /n/) or nonnasal consonants. The entire final consonant along with its vowel-consonant transition was spliced away. The resulting CV and CVV syllables along with carrier phrases were spliced at random onto a tape for presentation to listeners who predicted whether the missing consonant was nasal or nonnasal. Ss were 22 female undergraduates. Results indicate that the presence of nasal consonants can be predicted very well. It is hypothesized that listeners utilize this information to lighten the phoneme-processing load. Such perceptually significant coarticulation of velar opening across the

vowels in CVV nasal-type sequences probably has counterparts in the coarticulation of other articulatory gestures. In this way, perception uses or follows production. (15 ref.)—*Journal abstract.*

4120. Bell, Donald W. & Nixon, James C. (Stanford Research Inst., Sensory Sciences Research Center, Menlo Park, Calif.) **Reliability of ratings in an auditory signal detection experiment.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 435-439.—50 samples of noise waveforms (N) and 50 samples of signal-plus-noise waveforms (SN) were rated on 10 occasions by 4 listeners. The listeners decided whether the waveform was N or SN, and rated the degree to which the waveform had the N or SN quality. The signal was a 1-kHz tone 500 msec. in duration. Both signal and noise were gated. Results indicate greater reliability for ratings of SN waveforms than for ratings of N waveforms. Results also suggest that listeners can be quite consistent in rating some waveforms, but still not agree with each other.—*Journal abstract.*

4121. Botsford, James H. (Bethlehem Steel Corp., Pa.) **Theory of temporary threshold shift.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 440-446.—Temporary threshold shift (TTS) is generally believed to grow during noise exposure and recover afterwards in proportion to the logarithm of time. However, these logarithmic laws of TTS disagree with experimental observations made very early or very late in these processes. Better agreement with experiment is obtained if TTS is regarded as the sum of 2 components that vary exponentially with time. Published information on TTS was analyzed to determine the properties of these 2 components. Only 1 of the components is believed to be associated with permanent hearing loss resulting from noise exposure, and its simple electrical analog makes possible the construction of a TTS meter for appraising noise hazard. The analysis also revealed 2 other components of TTS that account for the "bounce" sometimes observed very early in the recovery process.—*Journal abstract.*

4122. Cuddy, Lola L. (Queen's U., Kingston, Ontario, Canada) **Absolute judgment of musically-related pure tones.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 42-55.—Studied accuracy of pitch judgment for 3 sets of 12 sine-wave tones in 3 experiments with 34 14-38 yr. old musical listeners (undergraduates and high school students). Tone sets differed only in the spacing of stimulus frequencies within the range 175-2093 Hz. The frequencies for triad spacing were derived from the (well-tempered) tonic chord with root F₃; for keyboard interval spacing, each frequency corresponded to a different musical note; for arithmetic interval spacing, frequencies were spaced at predetermined arithmetic intervals without specific concern for musical correspondence. Listeners showed most accurate judgment and most rapid learning of pitch for triad spacing, and showed no difference between keyboard interval and arithmetic interval spacing. Comparison of 2 inter-stimulus durations, 3 sec. and 8 sec., indicated at the slower rate of presentation a small but significant improvement in judgment of the lower 6 tones for both triad and keyboard interval spacing, and an increased number of octave errors for the higher 6 tones for triad spacing. Nonmusical listeners showed no differences between sets or rates of presentation. Some characteristics of decision rules for musical pitch recognition are discussed. (French summary)—*Journal abstract.*

4123. Elfner, Lloyd F. (Florida State U.) **Continuity in alternately sounded tonal signals in a free field.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 447-449.—Reports an experiment that employed 20 normally hearing listeners (undergraduates) who demonstrated an ability to concentrate on an interrupted signal that alternated with a shorter, more intense signal. An attempt was made to investigate the effects of the frequency relationship between the 2 components, to determine the effect of angular separation of the 2 components, and to demonstrate continuity effects in a free field. Results indicate a definite frequency effect and a significant though small effect due to angular separation on the continuity threshold.—*Journal abstract.*

4124. Elliott, Lois L. (U.S. Office of Education, Bureau of Education for the Handicapped, Washington, D.C.) **Auditory memory for one and two tones.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 450-456.—Examined pitch memory for 1 and for 2 successive tones in 2 experiments which employed a method of adjustment procedure (Exp. I) and a recognition (4-alternative-forced choice) task (Exp. II). 17 laboratory research assistants served as Ss. Frequency ratio of the 2-tone targets was either simple (a musical third or fifth) or complex. Time between target and comparison tone(s) was either silent or filled with 2 intervening tones. The memory DL for each of 2 tones was about 1.5-2 times larger than the DL for 1 tone. The DL for pairs of tones with complex frequency ratios was under some circumstances, larger than for pairs of tones with simple ratios. For "good pitch discriminators," the task must become more difficult before ratio complexity affects performance than is true for "poor pitch discriminators." At least 2 skill components, frequency analyzing power and memory, were present in these tasks, and consistent individual differences occurred for both. (16 ref.)—*Journal abstract.*

4125. Flottorp, Gordon; Djupesland, Gisle, & Winther, Finn. (Rikshospitalet, Inst. of Audiology, Oslo, Norway) **The acoustic stapedius reflex in relation to critical bandwidth.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 457-461.—Investigated the threshold of the acoustic stapedius reflex in man by means of changes in acoustic impedance of the ear. Ss were 16 20-36 yr. old males and females. The contralateral ear was stimulated by using bands of noise and complex tones with various bandwidths. Experiments show that the reflex threshold, expressed in db. re $2.10 \cdot 10^{-4} \text{ N/m}^2$, was almost constant for bandwidths less than a specific value and designated as "critical bandwidth." When the bandwidth was further increased, a decrease in the reflex threshold at approximately 3-6 db/octave was observed. Assuming that the stapedius reflex mechanism is loudness governed in persons with normal hearing, findings confirm the existence of a critical bandwidth in loudness summation. In addition, findings indicate that the basis for the critical-band mechanisms is located in the peripheral part of the auditory system, probably in the cochlea. (32 ref.)—*Journal abstract.*

4126. Leshowitz, Barry. (Arizona State U.) **Measurement of the two-click threshold.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 462-466.—Os discriminated between a pair of 10- μsec pulse and a single 20- μsec pulse having the same total energy. The independent variable was the time, δT ,

between the 2 10- μsec pulses. The stimuli were also presented as elements in a periodic pulse train. The δT required for resolution of 2 clicks (2-click threshold) was 10 μsec . Whereas the addition of a steady background noise produced a remarkably small change in the magnitude of the 2-click threshold, performance deteriorated markedly when the pulses were low-pass filtered. It appears that discrimination of slight changes in the energy spectrum of the 2 transient signals, especially in the high-frequency region (8000 Hz. and above), underlies the ear's sensitivity to a temporal discontinuity.—*Journal abstract.*

4127. Patterson, James H. & Green, David M. (U. California, San Diego) **Discrimination of transient signals having identical energy spectra.** *Journal of the Acoustical Society of America*, 1970(Oct), Vol. 48(4, pt. 2), 894-905.—Generated pairs of waveforms having identical energy spectra, using a technique developed by D. A. Huffman. A pair of such waveforms differ only in their phase spectra. The discriminability of such waveforms was measured under various conditions. The total duration of the waveforms was varied as well as the nature of the differences in their phase spectra. Results of these experiments with undergraduates suggest that the ear can discriminate differences in temporal order as small as 2.5 msec. In later experiments this discriminability among pairs was studied when both waveforms were partially masked by noise. Some pairs can be discriminated when only 6 db. above their masked threshold.—*Journal abstract.*

4128. Ptacek, Paul H. & Pinheiro, Marilyn L. (Case Western Reserve U.) **Pattern reversal in auditory perception.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 493-498.—Perception of auditory patterns based on an intensity difference was tested in 30 16-40 yr. old normal-hearing Ss under binaural, monaural, and dichotic listening conditions. Each auditory pattern included 3 temporally spaced white-noise bursts involving 2 elements, i.e., soft (S) and loud (L). Patterns included SLS, LSL, LLS, SSL, LSS, and SLL. The loud element in the patterns remained at a constant intensity throughout, with the soft elements attenuated from 5-20 db. in different sets of patterns. Patterns were presented at 50-db SL. Ss needed a 10-db intensity difference within a pattern in order to recognize it correctly $\frac{1}{2}$ the time, although the just noticeable difference for white noise is about .5 db. This seems to indicate that the pattern recognition task is a higher auditory function than simple discrimination of intensity differences. An unexpected finding was a large number of complete pattern reversals or mirror images which accounted for 30-40% of errors across listening conditions and intensity-difference levels. Symmetrical patterns were more commonly reversed than asymmetrical patterns. It is suggested that reversals of auditory patterns may occur in a manner similar to figure and ground reversal in vision. (19 ref.)—*Journal abstract.*

4129. Rosinger, George; Nixon, Charles W., & Von Gierke, Henning E. (Battelle Memorial Inst., Columbus Lab., Ohio) **Quantification of the noisiness of "approaching" and "receding" sounds.** *Journal of the Acoustical Society of America*, 1970(Oct), Vol. 48(4, Pt. 1), 843-853.—Describes the 1st phase of a research program designed to quantify subjective responses to time-varying sounds grossly approximating those produced by aircraft flying over an O at rest. The basic sounds employed represented "approaching" and "receding" sources that

continuously increased or decreased in intensity and/or frequency over a period of 15.25 sec. The comparative annoyance or noisiness of such sounds was evaluated by means of paired comparison and individual adjustment judgments. For the 3 experiments conducted with 72 16-27 yr. old undergraduates and high school students, the findings indicate that (a) Signals representing an approaching sound were generally judged more annoying than those representing a receding sound—in spite of the fact that the approaching and receding signals contained the same average intensity and frequency content over signal duration. (b) Signals with time-varying components—whether intensity or frequency—were judged to be noisier than signals with non-time-varying components. (c) Time-varying intensity components appeared to have a greater influence on judgments of noisiness than did time-varying frequency components. And (d) on the average, only small nonsystematic differences in noisiness were found as a function of the 3 frequency conditions investigated (125-, 1000-, and 4000-Hz-band center frequency).—*Journal abstract.*

Speech Discrimination

4130. Aaronson, Doris; Markowitz, Nancy, & Shapiro, Hollis. (New York U.) **Perception and immediate recall of normal and "compressed" auditory sequences.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 338-344.—Varied the ratio of speech-to-pause time, for a fixed presentation rate, in 3 experiments with 16, 24, and 26 undergraduates. Ss recalled 7-digit sequences or monitored for item or order information in addition to recall. Removing 33% of the speech and substituting pause time improved recall accuracy and monitoring RTs. Results suggest that loss of order information in recall may result from cumulative perceptual delays when adequate pause time is unavailable. (40 ref.)—*Journal abstract.*

4131. Gupta, J. P., Agrawal, S. S., & Ahmed, Rais. (Aligarh Muslim U., India) **Perception of (Hindi) vowels in clipped speech.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 567-568.—Studied the structure of perceptual confusions among 10 Hindi vowels in clipped speech. Front vowels were recognized better than back vowels. It was found in most cases that the 1st and 2nd probable incorrect vowels have either openness of the vocal tract or place of articulation in common with the corresponding correct vowel. This finding supports the view that vowels can be perceived by these 2 distinctive features only. The same features (dimensions) have been used by W. A. Wickelgren to explain the coding of vowels in short-term memory.—*Journal abstract.*

4132. Haggard, Mark P. (Psychological Lab., Cambridge, England) **Encoding and the REA for speech signals.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 34-45.—A number of different possible explanations are distinguished for the findings on the right ear advantage (REA) for speech signals varied in their acoustic and phonetic properties. 2 experiments are reported, (Ss were normal-hearing right-handed undergraduates), using synthesized semi-vowels and vowels in monosyllable word frames. Both show REA. The detailed results of both experiments support the idea that a complicated "encoded" relationship between the acoustical stimulus and the re-

sponse phoneme is a necessary condition for the REA, but that the encoding need only be signaled by an acoustical "trigger feature" in the stimulus; a task requiring a perceptual decoding is not necessary for REA to occur. (15 ref.)—*Journal abstract.*

4133. Warren, Richard M. (U. Wisconsin, Milwaukee) **Identification times for phonemic components of graded complexity and for spelling of speech.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 345-349. Measured identification time for targets in speech in terms of the number of phonemes occurring between the target and response. 36 and 9 staff members, visiting scientists, and graduate students served as Ss in 2 experiments. Auditory targets in the main experiment were at 3 levels of phonetic complexity: (a) monosyllabic words or nonsense syllables, each containing 4 phonemes; (b) clusters (vowel + consonant) consisting of the 2nd and 3rd phonemes within these syllables; and (c) individual phonemes within these clusters. Identification time was always shorter for a than for b or c. The effect of semantic and grammatical context upon identification was small. Plosive consonants which did not begin a syllable generally could not be identified as isolated phonemic targets, although they could be identified readily as part of a cluster. Letter targets corresponding to the spelling of the auditory stimulus permitted identification of plosive consonants, and in general followed different rules than the phonemic targets. Additional observations concerning individual targets are made.—*Journal abstract.*

4134. Warren, Richard M. & Warren, Roslyn P. (U. Wisconsin, Milwaukee) **Auditory illusions and confusions.** *Scientific American*, 1970(Dec), Vol. 223(6), 30-36.—2 auditory illusions, "phonemic restoration" and the "verbal transformation effect," provide techniques for studying the perceptual organization of heard speech. Studies of these illusions provide information concerning perceptual processes involved in the grouping of speech sounds, the resolution of acoustic ambiguities, and age-related changes in the processing of verbal input.—P. Tolin.

Audiometry

4135. Levitt, H. (City Coll., City U. New York) **Transformed up-down methods in psychoacoustics.** *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 467-477.—During the past decade a number of variations in the simple up-down procedure have been used in psychoacoustic testing. A broad class of these methods is described with due emphasis on the related problems of parameter estimation and the efficient placing of observations. The advantages of up-down methods include simplicity, high efficiency, robustness, small-sample reliability, and relative freedom from restrictive assumptions. Several applications of these procedures in psychoacoustics are described, including examples where conventional techniques are inapplicable. (38 ref.)—*Journal abstract.*

4136. Lipák, János & Váczi, Péter. (Debrecen U. of Medicine, Hungary) **A hangreakcióidő vizsgálata.** [Examination of auditory reaction time.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 211-215.—Examined the response time for 32 Hungarian speech sounds by 30 university students using a simple method for the measurement of auditory rather than sensorimotor RTs. Because of the method's simplicity and its intimate

association "with psychic functioning, it provides a wide range of variation for both stimuli and responses. Consequently, it may be usefully applied in logopedic, linguistic, developmental psychologic, neuropsychiatric, and information theoretical investigations." (English & Russian summaries)—*M. Moore.*

4137. McPherson, Marion W. & Pursell, Elliott. (U. Akron) **One cost of precision.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 717-718.—Auditory research undertaken by numerous disciplines has employed the durable and versatile tuning fork and has been plagued by the confounding properties inherent in this instrument. The results of the research yielded unreliable RLs and difference limens. In accounting for these discrepancies, procedures were more often indicated than was a tangible source, the equipment. Loudness of tuning forks could not be adequately controlled but they were used to compare responses, an honoring of the subject matter of psychology that is not encountered in experimentation which deals with response-no response categories.—*Author abstract.*

CHEMICAL SENSES

SOMESTHESIA

4138. Johnson, Robert E. & Kirkendall, Don R. (Ohio U.) **Psychophysiologic responses to rotary motions.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 489-495. To investigate the phenomenon of psychophysiologic responses to a coriolis force experienced in the fluid-filled semicircular canals, 10 18-30 yr. old male Ss were tested on a low friction platform. The platform was rotated at a constant angular velocity and the S was instructed to roll his head in a given direction. All Ss experienced a force of pitching when a given direction of rotation was established for the platform and head roll. When studying the psychophysiologic responses, a significant apparent displacement of a target point was experienced by the Ss. The displacement seemed to have a relationship with the direction of rotation and head roll.—*Journal abstract.*

4139. Verrillo, Ronald T. (Syracuse U., Lab. of Sensory Communication) **Vibrotactile thresholds measured at the finger.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 329-330. Determined absolute vibrotactile thresholds over the distal pad of the middle finger and thenar eminence of the right hands of 5 Ss. Measurements were made using 8 frequencies from 25-700 Hz. and 7 contactor sizes from .0008-1.3 cm². When plotted as a function of frequency, the threshold curve measured at the fingerpad with a .005-cm² contactor was U-shaped, with a maximum sensitivity in the region of 250 Hz. When plotted as a function of contactor size, the threshold decreased at a rate of 3 db/doubling of the area.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

4140. Gheron, E. & Dimitrova, A. **Effects of middle-height mountain conditions upon balance indices in weightlifters.** *International Journal of Sport Psychology*, 1970, Vol. 1(1), 14-21. Reports investigations on the balance stability (which is accounted through the number of balance fluctuations when keeping balance on

a mobile-equilibrium platform) and on balance reactivity (which is manifested through balance reactions's threshold of arising) in weightlifters before and after an altitudinal stay. Results indicate that altitudinal conditions improve balance reactivity and it was observed that after coming down from a mountain balance reactivity deteriorated, but stability improved. The effects of altitudinal conditions upon balance-reactivity components, i.e., reaction speed and balance fluctuation's amplitude which provokes the reaction of restoring the balance, are different as well. (French summary)—*Journal summary.*

4141. Poulton, E. C. (Medical Research Council, Applied Psychology Research Unit, Cambridge, England) **Environment and human efficiency.** Springfield, Ill.: Charles C Thomas, 1970. xxi, 328 p. \$15.50.

SLEEP & FATIGUE & DREAMS

4142. Berger, Ralph J. (U. California, Santa Cruz) **Morpheus descending.** *Psychology Today*, 1970(Jun), Vol. 4(1), 33-36, 70.—The 1st objective method of studying dreams involved the distinction between REM sleep from non-REM sleep. There is evidence the REM sleep is related to improved memory. REM sleep may serve to maintain efficient binocular coordination so that vision is not out of focus upon awakening. There is a positive linear relationship between amount of eye mobility and proportion of REM sleep in animals. In addition, people experience an improvement in binocular vision after a night's sleep. *E. J. Posavac.*

4143. Dimitrova, Svetla. **Dependence of voluntary effort upon the magnitude of the goal and the way it is set in sportsmen.** *International Journal of Sport Psychology*, 1970, Vol. 1(1), 29-33.—Studied the features of voluntary effort connected with surmounting the feeling of fatigue. Experiments with 55 Ss when doing mental and motor (speed and force) work were conducted in natural and laboratory conditions. Goals, different in their magnitude and in their way of being formulated, were set before S, the process of goal fulfillment and the quantity of the work done being traced out. Results suggest that a specific role in surmounting the difficulties connected with going through fatigue is played by goal reflex and by the relation between goal-reflex activity and the operant image which is leading the performance. Operant image effectiveness in overcoming the difficulties connected with the feeling of fatigue depends on the situation of the image with rich informational contents, the self-evaluation of S's own capacities being an important part of it. (French summary)—*Journal summary.*

4144. Donnell, Julie M. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego Calif.) **Performance decrement as a function of total sleep loss and task duration.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 711-714.—To determine the effect of task duration and its sensitivity to total sleep loss, measures of speed and accuracy on the Wilkinson addition test were obtained from 11 Navy enlisted men for 4 base-line days and 2 days without sleep. The number of additions attempted decreased significantly from the base-line level after 10 min. of testing on the 1st deprivation day, and after 6 min. on the 2nd day. 50 min. of testing were required to detect a significant decrease in accuracy from base line on the 1st deprivation day, while 10 min. were required on the 2nd day.—*Journal abstract.*

4145. Dreistadt, Roy. (New School for Social Research) **An analysis of how dreams are used in creative behavior.** *Psychology*, 1971(Feb), Vol. 8(1), 24-50.—It is shown that the 4 stages of creativity—preparation, incubation, illumination, and verification—described by Wallas help to explain also how creative work can occur in dreams. Famous creative dreams of artists, scientists, philosophers, and inventors are analyzed and classified as to whether they were used literally or analogically in creative work. It was found that artists such as writers of novels and plays, poets, musical composers, and painters use their dreams literally in their creative work. Scientists, philosophers, and inventors use their dreams either literally or analogically to solve their problems. Further analysis and classification is included. A general theory of dreams is postulated that relates creative dreams to ordinary dreams and which is a unification of the dream theories of Freud, Jung, and Adler. (24 ref.)—J. A. Blazer.

4146. Krippner, Stanley & Ullman, Montague. (Maimonides Medical Center, Brooklyn, N.Y.) **Telepathic perception in the dream state: Confirmatory study using EEG-EOG monitoring techniques.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 915-918.—S, a male psychologist selected on the basis of his successful performance in a previous telepathy-dream study, spent 8 nights in a laboratory; his sleep was monitored by EEG-electro-oculogram techniques. As E observed the onset of a REM period, he signalled (by buzzer) an acoustically isolated psychologist to awaken and concentrate on a randomly selected target (art print), the content of which was unknown to S or E. At the termination of each REM period, E awakened S, eliciting a dream report. These reports, and S's associations to them, were tape recorded and subsequently transcribed. The hypothesis stated that there would be a discernible correspondence between the target used on any given night and S's dreams on that night. Upon completion of the 8 nights, 3 judges (working independently and blind) rated each of the 8 targets against each of the 8 dream transcripts, using a 100-point scale to indicate degree of correspondence between each target-transcript pair. A Latin-square analysis of variance procedure compared the mean ratings of the 8 critical pairs with the mean ratings of the 56 noncritical pairs. A frequency of 6.43 (7/28 df) was obtained ($p < .001$), confirming the telepathy hypothesis and replicating a previous telepathy-dream study. *Journal abstract.*

4147. Snyder, Frederick. (National Inst. of Mental Health, Bethesda, Md.) **The physiology of dreaming.** *Behavioral Science*, 1971(Jan), Vol. 16(1), 31-44.—Presents a critical examination of evidence concerning the physiological basis of dreaming. Reviewing accumulated knowledge about the REM state, the hazards of inference across species from the highly revealing neurophysiological observations possible in lower animals to the only available source of information about the subjective experience of dreaming, i.e., human introspection, are emphasized. It is suggested that that gulf might be narrowed if more of the same findings obtained in laboratory cats could be extended to higher primates, where the surface manifestations of REM are almost indistinguishable from those of humans. The complex chain of inference involved in any psychophysiological hypothesis about dreaming even within the

realm of human studies is discussed. Considering the inherent limitations of applicable methods, physiological understanding of dreaming can only be presumptive. It is concluded that the unique bodily condition of the REM state probably is a necessary physical basis for dreaming while by no means is it sufficient explanation. (4 p. ref.)—*Journal abstract.*

4148. Van de Castle, R. L. (U. Virginia, Medical School, Sleep & Dream Lab.) **His, hers and the children's.** *Psychology Today*, 1970(Jun), Vol. 4(1), 37-39.—Analyses of the dreams of 500 male and 500 female college students revealed definite differences between the dreams of the sexes. In addition, the content of women's dreams changed during pregnancy and during menstruation. The dreams of children changed in character with age: the younger the child, the more he reported dreams of animals. "These and other findings suggest that our dream experiences do in fact reflect our personalities."—E. J. Posavac.

HYPNOSIS & SUGGESTIBILITY

4149. Barber, Theodore X. (Medfield State Hosp. & Foundation, Harding, Mass.) **Who believes in hypnosis?** *Psychology Today*, 1970(Jul), Vol. 4(2), 20-27, 84.—There is almost no scientific evidence for the existence of the hypnotic state. Besides there being no physiological measures defining hypnosis, many of the feats performed by individuals under hypnosis can be reproduced by nonhypnotized people. If appropriate suggestions are made, nonhypnotized Ss can experience hallucinations, regression, and reduction in pain and have been successfully treated for warts. "Since the concept 'hypnosis' can be used to explain every conceivable experimental finding, it is questionable whether it explains anything at all."—E. J. Posavac.

4150. Feinhandler, S.-J. **A cross-cultural study of trance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 781-782.

4151. Goebel, Ronald A. & Stewart, Charles G. (Williams Air Force Base, Human Resources Lab., Ariz.) **Effects of experimenter bias and induced subject expectancy on hypnotic susceptibility.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 263-272.—Screened 108 male undergraduates in groups of 4 or fewer using the Harvard Group Scale of Hypnotic Susceptibility. Attempts to influence susceptibility scores (2 objective O scorings and 2 self-scores) via E bias (role playing combined with E expectancy), E status, and S belief (information to Ss about their likelihood of being hypnotized) failed to yield statistical significance, except in 1 case. E bias was significant at the .05 level in only 1 of the 4 3-way analyses of variance needed to analyze the 4 duplicate susceptibility scorings. This result accords with an insufficiency of evidence for important E bias effects in hypnotic research. The research significance of any very small E bias effect that may have occurred in this study is discussed in light of the minute strength of relationship, or percentage of variance accounted for by each source of variation. (25 ref.)—*Journal abstract.*

4152. Graham, Charles. (Inst. of the Pennsylvania Hosp., Philadelphia) **On the mechanism of suggested suppression of myopia: Relationship to relative accommodation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 779-780.—As part of a continuing investigation of the

positive effects of suggestion on myopic visual acuity, changes in relative accommodation were concurrently assessed using the recently developed laser scintillation technique. Ss were 5 college-age volunteers. Results indicate that while in some cases acuity improved through suggestions given during hypnosis, the changes observed in the refractive power of the eye were neither large nor consistent enough to provide an adequate explanation of the phenomenon. It is possible, therefore, that the mechanism involved is at the retinal or more central neural levels, i.e., in the physiological or perceptual representations.—*Author abstract.*

4153. Kihlstrom, John F. & Evans, Frederick J. (Inst. of the Pennsylvania Hosp., Philadelphia) **Posthypnotic amnesia as disorganized retrieval.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 775-776.—Cognitive disorganization rather than functional ablation appears to characterize posthypnotic amnesia phenomenologically. Standardized hypnosis scales, including suggested posthypnotic amnesia, were administered to 168 Ss. The rank-order correlation between order of item administration and order of recall was calculated for each S. Insusceptible Ss recalled items in sequence. Hypnotizable Ss with partial posthypnotic amnesia recalled the events of hypnosis in random, incorrect order. Disorganized retrieval covaried significantly with 2 other defining characteristics of amnesia: limited recall and reversibility. Disorganized retrieval provides a method for evaluating the effects of suggested amnesia as well as other cognitive aspects of human memory.—*Author abstract.*

4154. Maslach, Christina; Marshall, Gary, & Zimbardo, Philip. (Stanford U.) **Hypnotic control of complex skin temperature.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 777-778.—Hypnotized Ss trained in internal control demonstrated modification of their autonomic nervous system by simultaneously changing the skin temperature of their 2 hands in opposite directions. Because this control was achieved under constant environmental conditions and without external reinforcers or performance feedback, cognitive processes are assumed to be the mediating factor. Waking control Ss instructed to perform the same alteration in skin temperature were unable to do so. A mean difference of 4° C between the temperature of the 2 hands was achieved by the hypnotized Ss, while the largest mean difference in the suggested direction for the controls was only .4° C.—*Author abstract.*

4155. Wickramasekera, I. (Peoria Suicide Prevention Center, Ill.) **Effects of E.M.G. feedback training on susceptibility to hypnosis: Preliminary observation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 783-784.

MOTIVATION & EMOTION

4156. Antonelli, Ferruccio. (Central School of Sport, Rome, Italy) **Psychological problems of top-level athletes.** *International Journal of Sport Psychology*, 1970, Vol. 1(1), 34-39.—Distinguished 3 categories of sportsmen: people who practice sport for more rapid social and economic promotion, and people who practice sport professionally, or at least as their main activity. According to the concept of motivational plasticity, each

category has different and characteristic motivations. The characteristic motivations of athletes are: (a) the need to be at the top, exaggerated self-esteem; (b) strong desire for self-assertion; and (c) advanced aggressive tendencies.—*Journal summary.*

4157. Coren, Stanley & Schulman, Martin A. (New School for Social Research) **Effect of an external stress on commonality of verbal associates.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 328-330.—Tested the effect of an external stress upon the commonality of verbal association responses. 135 undergraduates were tested under high test anxiety and 134 under low test anxiety. The stimuli were 15 words selected from the D. Palermo and J. Jenkins word association norms. More common associative responses were emitted by the highly stressed group.—*Journal abstract.*

4158. Czigler, István; Strasser, Judit; Nagy, Csilla L. & Barkóczi, Ilona. (Eötvös Loránd U., Budapest, Hungary) **A komplexitás-preferencia és az aktivációs alapszint összefüggéseinek vizsgálata.** [Examination of correlations between complexity preference and arousal level.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 216-223.—An inverted U type relationship was found between arousal level, as measured by the GSR, and complexity preference. (24 ref.)—*M. Moore.*

4159. Gibson, Richard S. (U.S. Naval Aerospace Medical Research Lab., Pensacola, Fla.) **Influence of physical threat stress on perceptual psychomotor performance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 587-588.—90 male naval officer candidates were run in a 3 × 3 factorial experiment using a complex perceptual psychomotor task. The experiment investigated the hypothesis that an S's performance would be adversely influenced by both the temporal proximity and the frequency of occurrence of a physical threat. An avoidable electric shock was used as the physical threat. The proximity of the physical threat was a function of the time allowed for a shock avoidance response: 4, 3, or 2 sec. The threat of shock could occur 6, 12, or 18 times during the experiment. The results were in the direction predicted.—*Author abstract.*

4160. Glass, David C., Reim, Bruce, & Singer, Jerome E. (Russell Sage Foundation, New York, N.Y.) **Behavioral consequences of adaptation to controllable and uncontrollable noise.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 244-257.—Investigated the behavioral consequences of adaptation to high-intensity aperiodic noise, under conditions where Ss believed or did not believe they had indirect control over termination of the noise. Findings with 47 undergraduate males show that the work of adapting to uncontrollable, in contrast to controllable, noise resulted in heightened overall tension (tonic skin conductance) and impaired performance efficiency after termination of all the noise. Several theoretical explanations of these results are discussed, including interruption-based helplessness. The relationship of the present experiment to previous noise research is considered.—*Journal abstract.*

4161. Hatász, László. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Irodalmi művek hatásmechanizmusának kísérleti kutatása.** [Experimental research into the effect mechanism of literary works.] *Pszichológiai Tanulmányok*, 1968, No. 11, 411-427. Compared the effect of 3 poems that differed regarding familiarity and style on 50 secondary school

pupils and intellectuals. While no significant difference was found in GSR by exposing the poem and by the direct development of set for getting down to the task, GSRs accompanying the reading of poetic works differed markedly. No significant difference was found between pupils for whom the poems represented different levels of familiarity or who differed in their ability to grasp the ideas expressed by the poem. Neither was there any significant difference between the GSR of pupils and adult intellectuals. Verbal responses as to the liking of different poems showed that pupils like the classical poems significantly better than the other 2 kinds, but no significant differences in this respect could be established in the adult group. No direct correlation between GSR and verbal reactions computed. Nevertheless, an analogous trend was noted in favor of the classical poem. It appears that depending on the gradual discovery of the structure in a literary work, the reader is enabled to grasp its complexity, and this will considerably increase the influence it has on arousal level. On the basis of the comparison of poems originated in 3 succeeding periods of history, it may be assumed that evolution in the culture of poetry is associated with the sensibilization of psychophysiological structures. (Russian summary)—*English summary*.

4162. Morris, Richard J. (Arizona State U.) **Factors associated with the demonstration of experimentally induced repression.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 447-448.—Attempted to determine the affect of such nonpersonality factors as the intensity of the aversive stimulus and the type of stimulus contingency on the occurrence of experimentally induced repression. Results show that both the stimulus intensity level and the contingent as opposed to the noncontingent use of the aversive stimulus are important factors in effecting experimental repression. Findings are discussed in terms of their consistency with the punishment literature and are explained in terms of a learning theory position.—*Author abstract*.

4163. Murray, David C. (Veterans Administration, Syracuse, N.Y.) **Talk, silence and anxiety.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 244-260. Reviews articles relating anxiety and verbal productivity. Studies are grouped into those in which anxiety is manipulated by varying environmental stress (situational anxiety), measured by choosing Ss differing in vulnerability to stress (dispositional anxiety), or by ongoing variations in speech disturbances or physiological indexes (concurrent anxiety). There is a strong tendency for verbal quantity to be positively related to dispositional and concurrent anxiety, but negatively related to situational anxiety. Silence tends to be related negatively to dispositional, but positively to situational and concurrent anxiety. These results, plus studies showing verbal quantity 1st rising and then falling as stress increases, appear to indicate a U-curve relationship between anxiety and verbal productivity. (61 ref.)—*Journal abstract*.

4164. Roedelstein, Jon E. (Arizona State U.) **Auditory stimulation and cartoon ratings.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 772.—Reports 2 experiments (6 Ss in each) on humor, using tone as a negative reinforcer. Results support an escape, but not avoidance, conditioning procedure, and a concern for reinforcement taxonomy, i.e., what types of stimuli are negatively and positively reinforcing.—*P. Hertzberg*.

4165. Ryan, E. Dean. (U. California, Davis) **The cathartic effect of vigorous motor activity on aggressive behavior.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 542-551.—Each of 120 male undergraduates was randomly assigned to a 3 × 4 factorial design, with 10 Ss in each cell. There were 3 arousal conditions, and 4 "cathartic" conditions. 1/3 of the Ss were not angered, while the other 2/3 were angered by an accomplice of the E. All Ss then had an opportunity to participate in 1 of 4 cathartic conditions: sitting, pounding, competing and winning, and competing and losing. Ss were given a socially sanctioned opportunity to deliver electric shock. 1/2 of the angered Ss 1st shocked the accomplice who had angered them, then shocked an "innocent" bystander. The other 1/2 1st shocked the bystander, then shocked the person who had angered them. There were significant cathartic effects, with no difference between sit and pound, but significant differences between the 2 competitive situations with the compete-win resulting in less aggression. There were also significant differences between the arousal conditions. The accomplice who did the angering always received the greatest amount of shock, regardless of when he was shocked or the cathartic condition. (20 ref.)—*Journal abstract*.

4166. Walbel, Henry & Thompson, Richard W. (Western Washington State Coll.) **The effects of instructions, fixed rate of presentation, and complexity on free looking time.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 377-378.—Examined the effect of stimulus complexity prior experience with a short or long fixed rate of presentation (FRP), and S's knowledge concerning the purpose of the experiment on free looking time (FLT). Results with 28 undergraduates indicate that under all conditions, Ss viewed complex stimuli longer than simple. A long FRP produced longer FLT than did a short FRP for Ss uninformed of the purpose of the experiment, but FRP had no effect on FLT for Ss who were informed.—*Journal abstract*.

ATTENTION & EXPECTANCY & SET

4167. Adelman, David & Smith, Edward E. (Duke U.) **Expectancy as a determinant of functional units in perceptual recognition.** *Cognitive Psychology*, 1971(Jan), Vol. 2(1), 117-129. This experiment provides support for (a) the hypothesis of Gibson, et al., that either an individual letter or a spelling pattern (i.e., a cluster of graphemes in a given linguistic environment which has an invariant pronunciation according to the rules of English) can serve as a functional unit in the tachistoscopic recognition of letter strings, and (b) Neisser's hypothesis that S's expectancy determines which 1 of these functional units is used. On each of 16 trials a letter string was presented tachistoscopically followed immediately by a 2-choice recognition test of 1 of the letters. On the 1st 14 trials 1/2 the Ss expected and received letter strings containing spelling patterns (SPs) while the remaining Ss expected and received letter strings containing only unrelated letters. The former group of Ss performed significantly better than the latter group on these 14 trials. On Trial 15 S's expectancy was again confirmed but on Trial 16 S was presented with a letter string from the unexpected class (SPs or unrelated letters). The results from the last 2 trials showed that letter strings containing SPs were recognized more accurately than unrelated letters when S expected SPs

but not when he expected unrelated letters.—*Journal abstract.*

4168. Ellingstad, V. S. & Heimstra, N. W. (U. South Dakota) **Performance changes during the sustained operation of a complex psychomotor task.** *Ergonomics*, 1970(Nov), Vol. 13(6), 693-705.—Exposed 15 male 21-26 yr. old graduate and medical students to a primary tracking task and a variety of subsidiary tasks for a total of 15 hr. Tracking performance was assessed through the use of 2 error measures, amount of time off the target track, and number of times off target. Subsidiary performance tasks included: a vigilance task, 2 RT tasks, mental multiplication, and digit span. In addition, 3 physiological measures were obtained. A significant decrement in tracking performance was obtained for both measures utilized. This decrement was not particularly abrupt, but occurred cumulatively over the entire course of the experiment. There was no clearly established performance decrement on the subsidiary tasks utilized. A marked variability in performance over the course of the experimental session was characteristic of performance on these tasks. Performance on the vigilance task, and 1 of the RT tasks improved during the 15-hr test session. 17-ketosteroid and 17-hydroxycorticoid values increased during the session but only in the case of the latter was the increase significant. The eosinophil count of Ss exposed to the test conditions decreased steadily throughout the experimental session. However, eosinophil measures obtained from control Ss increased during a similar time period. (French & German summaries)—*Journal abstract.*

4169. Halcomb, Charles G. & Blackwell, Peggy J. **Vigilance: An annotated bibliography.** Aberdeen Proving Ground, Md.: U.S. Army Human Engineering Lab., 1969. iii, 198 p.

4170. Jacobs, Paul D. & Kirk, Roger E. (U. Oklahoma) **Effects of "task-related stress" on human performance on a two-component monitoring task.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 815-823.—18 male and 18 female undergraduates performed a 2-component monitoring task under 3 conditions of stress: no-stress, task-related stress, and task-unrelated stress. Dependent variables were RT, cumulative responses, and cumulative response errors. Results indicate faster RT under conditions of task-related stress than during the other 2 conditions. Differences in cumulative responses and cumulative response errors also occurred over monitoring periods, suggesting improved vigilance with practice. Results are interpreted as indicative of a "protective-adaptive" response to stress, during which S protects himself by adapting within his response repertoire to stressors. (16 ref.)—*Journal abstract.*

4171. Pask, Gordon. (Systems Research Inc., Richmond, Va.) **Metod izucheniya flyuktuatsii vnimaniya i ego raspredeleniya pri podderzhanii na postoyannom urovne éffektivnosti dostizheniya tseli.** [Method for studying the fluctuation of attention and its distribution when the effectiveness of goal-achievement is held at a constant level.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA. Vol. 44:4609) 200-205.—Describes the method which allows the experimental reproduction of conditions of constancy, and examines some of the results of experiments employing the method. Interest is focused on the influence upon performance of different, randomly given instructions of distracting character, where Ss were required to attend to the task of making certain

goal-directed types of responses to relevant stimuli embedded in a background of irrelevant stimuli. (English summary)—*I. D. London.*

4172. Saito, K., Haidenthaler, A., & Auerswald, W. (U. Vienna, Psychological Inst., Austria) **Zur frage der Beeinflussbarkeit der "Target Aiming Function" (TAF) durch eine mittels experimenteller Kinetose ausgelöste vegetative Imbalance.** [The influence of target aiming function (TAF) through an experimentally kinetosis-induced vegetative imbalance.] *Ergonomics*, 1970(Nov), Vol. 13(6), 743-748.—Subsequent to an experimentally induced kinetosis, the performance of 10 healthy male Ss in Takakuwa's Target Aiming Function (TAF) test was investigated. This test is considered to give a measure of the S's ability to concentrate. While the kinetosis caused a significant alteration of vegetative equilibrium, as indicated by a cold pressure test, the TAF test's results remained unchanged. The significance of this observation is discussed. It would appear that the TAF Test—otherwise responsive to various forms of stress—remains unaffected by the exposure of the organism to stresses which cause a chiefly vagotonic vegetative imbalance. (French summary)—*English summary.*

4173. Shaffer, L. H. (U. Exeter, England) **Attention in transcription skill.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 107-112. Compared 2 viewpoints of attention: 1 assumes restrictions in a central processor, and the other restrictions on simultaneous activity in networks of processes. The distinction between central and distributed processing may not be strongly testable but the distinction between simultaneous and consecutive processing, for different processing functions, is. An analysis of data from a study on learning to type (N = 30 Ss) shows very clearly that simultaneous processing of stimulus input and response output is possible. (23 ref.)—*Journal abstract.*

MOTOR PERFORMANCE

4174. Cain, William S. & Stevens, Joseph C. (John B. Pierce Foundation Lab., New Haven, Conn.) **Effort in sustained and phasic handgrip contractions.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 52-65. Ss (N = 12 males in Exp. I, and 19 males in Exp. II) maintained handgrip contractions over time at constant levels of perceived effort. The resulting functions relating force to time were similar in overall shape from person to person and highly reliable for any given person. The reduction in exerted force over time was well described by an equation that comprises 2 exponential terms; the rate parameters of both terms are independent of the initial force of contraction. Prior fatigue, as generated by sustained constant-effort contractions, increased the perceived intensity of phasic contractions. The psychophysical power law described the perceived intensity of phasic contractions both before and after the exertion of fatiguing contractions. Fatigue had little effect on the size of the exponent.—*Journal abstract.*

4175. Epuran, Mihai. **La monographie psychologique des sports conditions méthodologique pour l'introduction des épreuves psychométriques dans le sport.** [Psychological monograph on methodological sports conditions for the introduction of psychometric evaluations in sports.] *International Journal of Sport Psychology*, 1970, Vol. 1(1), 40-47. To know the main characteristics and peculiarities of each sport is indis-

pensable for conducting coaching scientifically. Psychological selection or assistance of sportsmen can only be achieved on the basis of objective data concerning the sportsmen's qualities (aptitudes) and the demands made on them by a specific activity. Suggested is a monograph, designed to record the essential features of the motor acts, the main psychophysiological demands on the sportsmen, the required aptitudes, the peculiarities of the manifestation of the various psychic functions, and the characteristics of the social relations and attitudes, etc.—*English summary.*

4176. Jones, R. Wayne & Tallarico, Robert B. (Georgia State U.) **Effects of rigidity and anxiety on pursuit rotor performance.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 227-232.—Rigidity has been linked to reactive inhibition and manifest anxiety to drive. The possible influence of these personality factors and their interaction on pursuit-rotor performance was investigated using undergraduates. High- and low-rigid Ss were divided further into high- and low-anxious Ss (n 's = 15). All Ss received 20 distributed (20-sec work, 30-sec rest) acquisition trials immediately followed by 30 relatively massed trials (20-sec work, 5-sec rest). The trend analyses showed ($p = .01$) that performance was a function of the difference between anxiety levels, with neither rigidity nor the interaction components approaching statistical significance. Low-anxious Ss were immediately superior in acquiring the skill and in maintaining it under massed conditions. (15 ref.)—*Journal abstract.*

4177. Kostolanský, Rudolph. **Vliyanie vozrastnosti na skorost' prostogo sensomotornogo deystviya (vremya reaktsii dvizheniya) v otnoshenii ke promyshlennoy praktike.** [Effect of aging on the speed of a simple sensorimotor performance (reaction time, motion time) in relation to industrial practice.] *Studia Psychologica*, 1970, Vol. 12(4), 290-295.—Effects of aging in simple sensorimotor performance seem to be due mainly to processes of information perception and integration, for which D. Kováč advances the word promptness. Experience, as a compensatory mechanism, is a very important gerontopsychological problem affecting the discrepancies between performance in laboratory conditions and industrial practice. (Czech summary) (24 ref.)—*English summary.*

4178. Lurcat, L. (U. Paris, France) **L'activité graphique des deux mains: Control visuel et control kinesthésique.** [Graphic activity with both hands: Visual and kinesthetic control.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(3), 165-179.—Reports results of continuing research on visual control of manually reproducing connected cycloids. Performance is related to handedness, types of curves, direction of motion, age of Ss, and their grade in school. Restraints are reported between perception and kinesthetics, between left and right hand, and between directions of the hand movement. The study sought to determine the difficulties which prevent some children from acquiring writing skills.—K. J. Hartman.

4179. MacKay, Donald G. (U. California, Los Angeles) **Stress pre-entry in motor systems.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 35-51.—Stress preentry is the occurrence, before it is due, of the stressed component in a series of rapidly produced movements. For 22 right-handed Scottish undergraduates, the phenomenon appeared in speech (experimentally produced spoonerisms) and in patterns of

finger movement: serial-order errors were usually a stressed element entering before its time. The probability of serial-order errors was also found to increase as a function of rate of action. Several explanations are possible, but the model that best fits the data is one of a scanning device for determining serial order of rapidly produced behavior. (29 ref.)—*Journal abstract.*

4180. Semjén, András. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Az Ingerminta módosulásának hatása ritmikus mozgások újrászerveződésére.** [Effect of modification in the stimulus pattern on the reorganization of rhythmic movements.] *Pszichológiai Tanulmányok*, 1968, No. 11, 45-62.—Examined factors bearing on the reorganization of rhythmic movements, and on establishing the "cohesion" of such movements in situations of synchronization. To assess the cohesion of the rhythmic action series, the inhibitability of the individual factors in the series was measured. New data indicating the basic association of certain sensorimotor unit-formations with particular time constants have been found. Movements succeeding one another in short intervals are more closely related than those separated by longer intervals. The relevance of the time factor appeared also in other respects, i.e., it was impossible to keep cohesion constant when the action series was prolonged ad lib. Such an experimental setting led to the formation of substructures within the main structure. This aspect of the time factor may be classed as a positional effect. However, positional effects may play a more general role. The internal constituents of the structure represent points of reference for the succeeding factors, but not for the last factor. The synchronizational achievement in inhibiting 1 of the constituents in the action series while the stimulus pattern is unchanged may be determined by the circumstance that only stimuli surrounded by time intervals of considerable length preserve their full reference value. It is a decisive factor in adapting to a new structure whether or not the temporal pattern of the new structure may be classed as "good form." Some hypotheses are suggested concerning the attitudes which the Ss faced with the task might take. (Russian summary)—*English summary.*

4181. Smith, Karl U. & Schappe, Robert. (U. Wisconsin, Behavioral Cybernetics Lab.) **Feedback analysis of the movement mechanisms of handwriting.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 61-68.—To extend the feedback analysis of legibility in handwriting, a coordinate force transducer has been devised that makes possible the separate sensing of the right-left and near-far directions of writing motions and the converting of these movements to their electrical analogs. This method of transducing handwriting motions made possible systematic measurement of the effects of feedback displacement and delay of the visual feedback of writing movements and of analyzing the types of variation in legibility related to variable feedback factors. 2 experiments are described with 13 right-handed female and 5 left-handed male graduate and undergraduate Ss. Results show that differential directional defects and general disturbances in legibility and timing of writing movements occurred in relation to both visual feedback displacement and delay of writing motions. The findings gave added support to the view that writing is not a form of discrete stimulus-response behavior or stimulus tracking, but consists of self-generated forms of response comparable to steering, in

which accuracy, legibility, and learning are directly determined by feedback time factors and directional specificity of particular right-left and near-far coordinates of movement that dynamically control and project visual input in the writing act. *Journal abstract*

4182. Varjasi, Edit. (Eötvös Loránd U., Budapest, Hungary) **Teljesítmény-ekvivalencia és a kinezetikus érzéklet tükröző funkciója.** [Achievement equivalence and the mirroring function of kinaesthesia.] *Psichológiai Tanulmányok*, 1968, No. 11, 83-96.—Achievement equivalence stands for identical environmental changes produced by widely different effectors of the motor apparatus. The achievement equivalence of the arm and leg was examined experimentally. The achievement consisted of pushing an object from 1 place to another, with distance and direction being well defined. The special role of feedback which appeared to be a function of the character of kinesthetic perception was shown. 1 of the basic conditions of achievement equivalence is the kinesthetic perception signaling the movement of the object. This assumption is supported in another phase of the experiment. (Russian summary)—*English summary*.

4183. Whitley, Jim D. (U. California, Riverside) **Effects of practice distribution on learning a fine motor task.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 576-583. 60 college men were given 35 trials of either distributed practice (DP) or massed practice (MP) ($N = 30$ group) on a fine motor learning task foot tracking. The study was designed to make a direct comparison between the 2 groups of the amount learned. While learning was significant for both groups, there was no difference in the amount learned between groups. As expected, performance was significantly better under DP; this was attributed to the temporary depressant effects of reactive inhibition resulting from MP. Results support the findings of recent learning studies on gross motor tasks; almost without exception they reported that practice distribution affected performance but not learning. Thus, the traditionally accepted belief that DP is superior to MP in motor learning is not supported by experimental evidence. These findings present practical implications for motor learning in terms of efficiency in the use of practice time. (24 ref.)—*Journal abstract*

4184. Whitley, Jim D. & Allan, Lawrence G. (U. California, Riverside) **A test of activation as a general factor in strength performance.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 584-588. Tests the general activation concept as it relates to strength performance. No difference in grip strength was found between Ss who performed maximal leg strength exercises between grip trials (in an attempt to raise their level of activation through induced muscular tension), and controls who read between grip trials. Ss were 70 male undergraduates who alternated between experimental and control conditions in groups of 35. Also, there was no difference in grip strength performance over trials for both groups. Intercorrelations of strength scores between limbs for the experimental group showed more specificity than generalizability. While these results fail to support a generalized activation effect in the static strength performance context, they do provide additional evidence of neuromuscular specificity in motor ability. *Journal abstract*

Canadian Journal of Psychology, 1970(Oct), Vol. 24(5), 305-310—Describes an apparatus that permits the measurement of simple RT to temperatures applied to the skin. 3 above-normal temperatures and 3 below-normal skin temperatures were used. The RT to touch was also obtained. Ss were 6 male and 6 female undergraduates. RT to cold was significantly faster at each temperature than RT to warm. The relevance of these results to contemporary theory of thermal sensitivity is discussed. (French summary)—*Journal abstract*

4186. Girardin, Y., Montpetit, R., & Manceau, J. N. (U. Montreal, Quebec, Canada) **Mesure du temps de réaction simple à l'aide de compteurs manuels.** [Measure of simple reaction time with the aid of digital computers.] *International Journal of Sport Psychology*, 1970, Vol. 1(1), 22-28—Compared a simple stopwatch device with a conventional electric timer. Simple RT to an auditory stimulus was the parameter studied. Inter-individual differences, order of presentation of the instruments, effect of an intervening day between the testing sessions, and the difference between the apparatus were the possible sources of variance. The variance attributed to the instruments explained 13.6% of the total variance. It is concluded that the new mechanical device could be used to test simple RT. *English summary*

4187. Kamlet, Arthur S. & Bolsvert, Lawrence J. (Bell Telephone Lab., Whippany, N.J.) **Reaction time: A bibliography with abstracts.** Aberdeen Proving Ground, Md.: Aberdeen Research & Development Center, U.S. Army Human Engineering Laboratories, 1969 iii, 168 p.

4188. LaBerge, David. (U. Minnesota) **On the processing of simple visual and auditory stimuli at distinct levels.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 331-334—Explored the possibility that identification of a single stimulus can take place through more than 1 perceptual route. In Exp. I with 5 undergraduates, mean RT to color was systematically changed by varying type of catch stimulus. In Exp. II with 3 Ss, the form of the RT distribution to a tone was changed by varying type of catch stimulus. Considerations of distribution means and shapes led to the conclusion that detection and discrimination are 2 of the alternative levels of perceptual processing which can be evoked in rapid identification of these stimuli. (15 ref.)—*Journal abstract*

4189. Semjen, András. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **A pszichológiai refrakter periódus: módszerek és elméletek.** [Psychological refractory period: Methods and theories.] *Psichológiai Tanulmányok*, 1970, Vol. 12, 61-84. Discusses the performance of the human operator in a serial reaction situation. Analyzing stimulus parameters and experimental situations determining a "psychological refractory period" have been the main forms of laboratory investigation. Typical experimental methods and major theories, i.e. the "expectancy" and "preparedness" hypothesis of a single-channel decision system, are discussed and it is inferred that these principles are mutually complementing rather than mutually excluding. The single-channel decision hypothesis is criticized since, although endeavoring to attain precise quantitative predictions, it disregards not only the mechanisms underlying performance but sometimes even the actual characteristics of the experimental setting. It is assumed that, if the intermittent activity of the human operator is

REACTION TIME

4185. Corson, James H. & Crannell, C. W. **Simple reaction time to cutaneous temperature stimuli.**

concerned with specific forms of attention, the activities may come into play either in the organization or stabilization of the stimulus pattern, in response-selection, or in response execution and control (Russian summary) (50 ref.).—*English summary.*

4190. van Assen, A. & Eijkman, E. G. (U. Nijmegen, Netherlands) **Reaction time and performance in learning a two dimensional compensatory tracking task.** *Ergonomics*, 1970(Nov), Vol. 13(6), 707-717.—Describes a series of experiments consisting of discontinuous step function tracking in 2 dimensions. Ss had to compensate for a stepwise deflection of a spot on a CRT by means of 2 knobs, 1 controlling the horizontal, and the other the vertical movement of the spot. 3 different learning phenomena in step function compensation tracking were distinguished. 2 stages were recognized in the processing of incoming signals: 1st the classification of the signals by an analyzing mechanism, and 2nd the formation and direction of a trigger signal by a mechanism. The processing time required by these 2 mechanisms constituted the latency of the compensatory response or RT. As a result of the processing, a trigger signal set off a programed response. The program improved with practice, and this is demonstrated by means of a measure called "quality of the response" (French & German summaries)—*Journal abstract.*

LEARNING

4191. Berch, Daniel B. (California State Coll., Los Angeles) **Comments on Biederman's "Continuity Theory Revisited: A Failure in a Basic Assumption."** *Psychological Review*, 1971(May), Vol. 78(3), 260-261.

Discusses the argument of G. Biederman (see PA, Vol. 44, 11751) that a basic assumption of K. Spence's discrimination learning theory is incorrect. It is suggested that one can account for Biederman's data on the basis of the stimulus generalization of habit while maintaining that the inhibition associated with the negative stimulus increases monotonically over the course of learning. It is concluded that Biederman's evidence is insufficient for rejecting Spence's theory.—*Journal abstract.*

4192. Burke, Ronald J. (York U., Toronto, Ontario, Canada) **Effects of overlearning on recall and usage of stored information.** *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 153-160.—Studied the influence of the strength of associative bonds on word usage. In Exp. I with 91 undergraduates in 2 groups, Ss were given 8 and 16 repetitions of the paired words, respectively. Results show no significant differences in the usage of the experimental words for the stories, although memory tests reveal differences in the degree of learning. A 2nd within-group analysis of data from 5 independent groups of undergraduates (Exp. II) used scores on memory tests to assign Ss to subgroups based on the amount of learning and overlearning of the paired words they exhibited. Again, results show no differences in word usage. The concepts of associative bonds, reinforcement, and overlearning derive from studies of learning, but seem inadequate when generalized to problem situations. Problem situations introduce a selective function that alters the dynamics of the associative process and these dynamics show considerable individual variation and stability. (French summary)—*Journal abstract.*

4193. Geisert, Paul. **A comparison of the effects of information mapped learning materials and tradi-**

tional materials on the learning of concepts via the printed page and computer cathode ray tube. *CAI Center Technical Memorandum, Florida State U.*, 1970(Oct), No. 24, 85 p.—44 members of the National Guard compared information mapped materials with traditional materials. No significant differences were found in the comparison of 15 dependent variables. Significant differences were demonstrated for all attitudes toward the materials with Ss showing more positive attitudes toward information mapped materials than traditional materials. A trend in performance and time variables suggests that information mapped feedback treatment resulted in better performance. (21 ref.).—*Journal abstract.*

4194. Hebert, John A. (Colorado State U.) **Context effects in the generalization of a successive discrimination in human subjects.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 271-275.—In a successive conditional discrimination, 16 right-handed undergraduates learned to give a "right" response to a relatively dark grey (#3) and a "left" response to a relatively light grey (#6). After reaching criterion, Ss were placed in 1 of 2 groups. 1 group was given a test series of greys which contained #3 and some yet darker greys, and the other group was given a test series including #6 and yet lighter greys. The effect of placing #3 in a relatively darker context than in training was to bring about a transposition of response from "right" to "left," and, conversely, the effect of placing #6 in a relatively lighter context than in training was to effect a transposition from "left" to "right." It was found that this transposition of response occurred gradually during testing, since it occurred very frequently in the latter part of testing but not in the initial part. (French summary)—*Journal abstract.*

4195. Hilgard, Ernest R. (Stanford U.) **A basic reference shell on learning theory.** *ERIC-Stanford, Calif., Series I*, 1967(Sep), 17 p.—Lists principles from stimulus-response, cognitive, motivation, and personality theories which may be potentially useful in practice. Approaches to practical problems via unified theory are discussed with reference to application of Guthrie's contiguous conditioning theory, Skinner's operant conditioning theory, the Miller-Dollard version of drive-reinforcement theory, and Gagne's hierarchical model. A short bibliography on learning theory and its application is included.—S. Knapp.

4196. Holding, D. H. (U. Louisville) **Repeated errors in motor learning.** *Ergonomics*, 1970(Nov), Vol. 13(6), 727-734.—Analyzed the error records of 3 groups of undergraduates (N = 54) carrying out 2 blocks of practice with the discrimination reaction timer. During the 1st block, an attempt was made to vary Ss' commitment to wrong responses by modeling the practice of the 2nd group, and the observation of the 3rd group, upon the responses of the control group. It was shown that, during the course of learning, Ss tended increasingly to repeat specific errors. Some support was found for the hypothesis that Ss learn the errors which they commit, although the contribution of early errors to the distribution of later errors was small and must be considered largely nonspecific. The method used to vary the degree of commitment had little effect. (French & German summaries)—*Journal abstract.*

4197. Kardos, Lajos. (Eotvos Lorand U., Budapest, Hungary) **A tanulás összehasonlító-élektani vizsgálatának néhány problémája.** [Some problems of

comparative-psychological examination of learning.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 173-181.—2 omissions in traditional learning theory are: (a) memory functions are inadequately represented, and (b) results of animal experiments are indiscriminately applied to human learning. "An attempt is made to demonstrate the distorting effect these omissions have had on theory formation by presenting relevant experimental data derived mainly from our own research." (English & Russian summaries)—M. Moore.

4198. Marton, Magda L. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Tanulás, vizuális-poszturális testmodell és a tudat kialakulása.** [Learning visual-postural body-model and the evolution of consciousness.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 182-198.—Presents a review of the literature on the role of motor experience in the genesis of visual perception. "An interpretation of experimental data is given, and the possible role of this central motor action event in the formation of experience-consciousness is pointed out." (English & Russian summaries) (86 ref.)—M. Moore.

4199. O'Brien, F. & Azrin, N. H. (Anna State Hosp., Ill.) **Behavioral engineering: Control of posture by informational feedback.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 235-240. Studied the effects of informational feedback on a socially undesirable behavior using 8 hospital employees in Exp. I and 6 in Exp. II. The feedback was a mild vibrotactile stimulus and the response was slouching. When Ss slouched, a behavioral engineering apparatus provided vibrotactile stimulation to the shoulder. All Ss slouched less when stimulation was provided. A procedural control revealed that slouching will decrease because of the informational aspect of the stimulus consequence and not because of its aversive properties. When Ss were instructed to slouch, the effects of feedback were reversed: feedback increased, rather than decreased, slouching. These results indicate that the effect of feedback for a response depends on the S's motivation to perform that response. It is suggested that informational feedback could be used more widely as a therapeutic procedure to modify human behaviors, but only those behaviors that a patient is strongly motivated to change. (25 ref.)—*Journal abstract*.

4200. Reber, Arthur S. & Millward, Richard B. (U. British Columbia, Vancouver, Canada) **Event tracking in probability learning.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 85-99.—After 1000 observation trials in which the event schedule followed a sawtooth wave with a period of 50 trials, Ss ($N = 20$ high school students) tracked the events very closely on periodic test trials but showed no periodic tracking on no-event or constant-probability test trials. During the early periodic-event cycles Ss' response proportions tracked the event proportions approximately as predicted by statistical learning theory, but during later cycles, their response proportions peaked and bottomed at the same points as the event proportions, a relationship nicely described by the averaging model of M. P. Friedman, E. C. Carterette, and N. H. Anderson (see PA, Vol. 43:1895). (15 ref.)—*Journal abstract*.

4201. Sampson, Jeffrey R. & Chen, I-Ngo. (U. Alberta, Edmonton, Canada) **Context effect in two-choice probability learning.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 65-66.—20 male undergraduates made 2 sets of 200 binary predictions in a standard

noncontingent probability learning paradigm. $\frac{1}{2}$ the Ss saw a series with $\pi = .6$ 1st and then a series with $\pi = .8$; the order was reversed for the other Ss. Results indicate more overshooting on the .6 series when it was preceded by the .8 series and a suggestion of less overshooting on the .8 when it was preceded by the .6. An extinction explanation is rejected in favor of a multiple-strategy hypothesis, in which S is presumed to use a strategy of guessing the more common event to approximate proportion to its degree of success.—*Journal abstract*.

4202. Seaborn, A. E. (London School of Economics, England) **Criterion of pretraining in stimulus pre-differentiation.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 1009-1010.—Pretraining in stimulus pre-differentiation studies can be controlled by equating degree of mastery achieved by different experimental groups or the learning trials given all groups. In some studies, where control has been in terms of trials, degree of mastery achieved in pretraining by different experimental groups relates positively to success achieved by them on the transfer task, obscuring the precise effect of the main experimental variables.—*Journal abstract*.

4203. Teghtsoonian, Robert & Teghtsoonian, Martha. (Smith Coll.) **Discontinuities in recognition learning revealed by critical-trial analysis.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 75-84. For 48 undergraduates, the number of choices required to locate a previously seen item among a group of alternatives (3-digit numbers or consonant trigrams) was found to be a discontinuous function of successive viewings. Until the critical trial—the 1st occasion on which the correct item was the S's first choice—performance was only slightly better than chance. Immediately after the critical trial, the mean number of choices moved to and remained at a sharply lower level. The discrete transition at the critical trial was concealed by conventional averaging over trials numbered from the beginning of the task but emerged clearly when averaging was performed over trials realigned with the critical trial as reference point for each item.—*Journal abstract*.

4204. Wiesen, Joel P. (King's Coll., Wilkes-Barre, Pa.) **Comment on "General shape function model of learning with applications in psychobiology."** *Psychological Review*, 1971(May), Vol. 78(3), 272-273.—Suggests that a reader of a study by D. Warburton and J. Greeno (see PA, Vol. 44:15900) is likely to form a gross misconception of the probability of forming very dissimilar groups when the randomization process is applied with small groups. This is due to a misapplication of elementary probability theory. The model they presented was, in part, justified by this erroneous approach. The other theoretical considerations motivating their analysis are not affected by this error.—*Journal abstract*.

Conditioning

4205. Furedy, John J. (U. Toronto, Ontario, Canada) **Cross-modal differentiation under identical reinforcement schedules, and UCS-intensity effects in human classical eyelid conditioning.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 7-23. Assesses cross-modal differentiation between light and tone CS with specially developed tests applied to selected trials of a 41-trial conditioning series which employed a delayed, 500-msec interstimulus interval, and an overall rein-

forcement schedule of 67%, 1-msec UCS pairings for both CS. An unpaired CS-and-UCS control group of 64 Ss indicated reliable conditioning for the 128 experimental Ss (Ss were undergraduates). There was some differentiation even for those 64 experimental Ss for whom the identity of reinforcement schedules for the CS was maintained throughout the trial series. Magnitude and frequency of CR were reliably direct functions of both between- and within-Ss variations of UCS intensity (120 or 260 V DC infraorbital shock). Emphasized was the importance of providing within-experimental differentiation tests especially for experiments where the within-Ss treatment effect fails to emerge. (French summary) (23 ref.)—*Journal abstract*.

4206. Furedy, John J. (U. Toronto, Ontario, Canada) CS and UCS intervals and orders in human automatic classical differential trace conditioning. (*Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 417-426. Measured the GSR and digital volume-pulse change in 4 groups of 80 Ss each with light and tone as CS and shock as UCS. For Groups I and II, the CS-UCS interval was .75 and 7.5 sec., respectively; for Groups III and IV, the UCS-CS interval was .75 and 7.5 sec., respectively. Group III showed "backward" differential conditioning in the GSR; Group II yielded reliable conditioning of "multiple responses" occurring before UCS onset; the magnitude and extent of conditioning was greater in Group I than in Groups II and III, which did not differ; some evidence for "reverse" conditioning was suggested in Group IV, with slightly greater responding to the CS not paired with the UCS; instructions which distracted the Ss from the CS did not affect responding to those stimuli. (French summary) (16 ref.)—*Journal abstract*.

4207. Nicki, Richard M. (U. New Brunswick, Fredericton, Canada) The reinforcing effect of uncertainty reduction on a human operant. (*Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 389-400.—Results of Exp. I and II indicate that 56 female undergraduates preferred (as indicated by key-press responses) to view a clear version of a preceding blurred object over viewing an unrelated but comparable clear object—but only when the identity of the blurred object was unknown. In Exp. III with 12 Ss, subjective uncertainty, equated to the average information formula, where N was the number of guesses as to the identity of the blurred object and p was the relative confidence placed in each guess, was found to be an inverted U-shaped function of blurredness. This finding was used in Experiment IV, with 60 Ss, to accurately predict that the number of key-presses obtaining clear versions of blurred objects would be an inverted U-shaped function of blurredness. (French summary)—*Journal abstract*.

4208. Sattler, Jerome M. (San Diego State Coll.) Verbal conditioning of common associations and need for approval. (*Journal of General Psychology*, 1971(Apr), Vol. 84(2), 281-290.—2 experiments assessed the effects of verbal reinforcement, need-for-approval, and word frequency of the stimulus words on the production of common associations. In both experiments, (total N = 140 undergraduates), the reinforcement conditions (positive, negative, and positive-negative) did not significantly differ from the control condition in affecting the response class. Need-for-approval interacted with the reinforcement conditions and with blocks of words. High frequency words elicited more common associations than low frequency words.

Sex of Ss, studied in 1 experiment, was not a significant main effect. Only 2 of the 140 Ss were aware of the reinforcement contingency. The results suggest that verbal reinforcement is not an effective means of increasing common associations. (17 ref.)—*Journal summary*.

4209. Singh, Devendra. (U. Texas) Effect of level of manifest anxiety and type of pretraining on timing behavior. (*American Journal of Psychology*, 1971(Mar), Vol. 84(1), 134-139.—High- and low-anxiety undergraduates were trained on a DRI timing schedule, either without pretraining or after facilitatory or interfering pretraining. The low-anxiety Ss performed better than the high-anxiety Ss in all 3 conditions.—*Journal abstract*.

Verbal Learning

4210. Abell, Andrew T. (Southeastern Louisiana Coll.) A test of reinforcer forms with flaps. (*Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 984-986.—Replicates an experiment in which a new group, verbal-conditioning device (reinforcer form) was used, but with a modification of the reinforcer forms. Ss were 26 male and 22 female undergraduates. The modification, involving paper flaps that conceal all symbols except those where S is working, was designed to make the experimental contingencies more analogous to the usual operant and respondent ones. Earlier results, showing the simultaneous operation of evaluative words as operant and respondent reinforcers, were confirmed.—*Journal abstract*.

4211. Guthrie, John T. Feedback and sentence learning. Center for the Study of Social Organization of Schools Report, Johns Hopkins U., 1970(Jun), No. 71, 15 p.—Presents the theoretical functions of external feedback in stimulus-response and closed-loop models of verbal learning. Contradictory predictions from the models were tested with a 3 x 3 factorial experiment including 3 types of feedback and 3 amounts of rehearsal. 90 male undergraduates were run individually and required to learn 39 sentences verbatim. Results indicate that feedback (a) facilitated learning when it followed wrong responses; (b) had no effect on learning following right responses; (c) when it consisted of both stimulus and response, was superior to no feedback, and (d) when it consisted of only the response, did not differ from no feedback. Findings are discussed in relation to the 2 learning models and programed instruction.—*Journal abstract*.

4212. Johnsen, E. Peter. (U. Rochester) The effect of organization set and interpolation on prose learning. (*Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3340.

4213. Lippman, Louis G. (Western Washington State Coll.) Compound stimuli in serial learning. (*Journal of General Psychology*, 1971(Apr), Vol. 84(2), 191-199.—Reports results of 2 experiments, in which 16 CVCs were presented (total N = 62 undergraduates), either as a series of single syllables or as 4 clusters of 4 items each. Total list acquisition was not affected when Ss learned by the anticipation method, but serial position curves revealed marked isolation effects for the initial item of each cluster. When interference effects from stimulus clustering were reduced in Exp. II through the use of a reconstruction procedure, clustered presentation was found to result in facilitated total list acquisition. These results were attributed to enhanced discriminability, in

keeping with evidence on stimulus selection.—*Journal summary.*

4214. Newsom, R. S. & Gaité, A. J. (U. Wisconsin) **Prose learning: Effects of pretesting and reduction of passage length.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 123-129.—Investigated the learning and retention of prose materials. Immediate and 1-wk retention was examined in 200 undergraduates who had either read a 2300-word passage (LP) on science fiction or a 300-word short passage (SP). The SP was derived from the information retained over a 1-wk period by Ss who read and learned the LP. Retention was assessed by a 30-item multiple-choice test based upon information in the LP. 1-way analysis of variance of posttest scores indicates that for 1-wk retention the SP was retained significantly ($p < .01$) better than the LP. There was no significant difference on immediate retention. Results are discussed in terms of current cognitive learning theory, prose-learning paradigms, and classroom procedures related to the presentation of new material. (17 ref.)—*Journal abstract.*

4215. Paivio, Allan & Madigan, Stephen A. (U. Western Ontario, London, Canada) **Noun imagery and frequency in paired-associate and free-recall learning.** *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 353-361.—Investigates the effects of rated imagery (I) and Thorndike-Lorge frequency (F) of nouns in paired-associate (PA) and free-recall (FR) learning. In the PA task, I and F were factorially varied on the stimulus and response sides of 16-pair mixed lists. Ss (77 male high school graduates) had 4 PA study and recall trials with each of 2 such lists. In agreement with previous findings, I was strongly related to learning, more so on the stimulus than on the response side of pairs. Weaker effects of F were positive on the response side but negative on the stimulus side under certain combinations of stimulus and response I revealed by interaction effects. The FR task involved factorial variation of I and F in 32-item lists. 52 undergraduates were presented 10 trials with 2 such lists. Recall was consistently better for high-I than for low-I nouns. Frequency had a consistent positive effect when the nouns were high in I, but its effect was negative on early trials when the nouns were abstract. I and F therefore were clearly differentiated empirically in both tasks. Findings are discussed in terms of such factors as stimulus-evoked mediating imagery and response availability. (French summary) (21 ref.)—*Journal abstract.*

4216. Wallace, William P. & Nappe, Gary W. (U. Nevada) **Verbal-discrimination learning following a free-recall familiarization training procedure.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 27-33.—Investigated the effects of transfer from a modified free-recall task to verbal-discrimination (VD) learning. The free-recall procedure was designed to impact increments in experimental frequency to specific words that appeared in VD. 4 experimental groups, with 30 undergraduates in each, were given prior free-recall exposure to either all right VD items (A-R), all wrong (A-W), both the right and wrong items from same VD pairs (B-S), or both the right and wrong items from different VD pairs (B-D). A 5th group of 30 Ss served as a control and learned a free-recall list which did not contain any VD items (C). In terms of number of correct responses during VD learning, the groups were ordered as follows: A-R, C, A-W, B-S, and B-D. Results are interpreted as being consistent with derivations from the

frequency theory of VD learning. (French summary)
—*Journal abstract*

Verbal Paired Associate Learning

4217. Batchelder, William H. (U. California, Irvine) **A theoretical and empirical comparison of the all-or-none multilevel theory and the mixed model.** *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 82-108.—Compared 2 theories for stimulus generalization in paired-associate learning (PAL)—the mixed model and the all-or-none multilevel theory. Both theories postulate basic all-or-none learning processes but differ in their mechanism for generalization. The mixed model postulates that generalization occurs only during responding; whereas, the multilevel theory postulates that generalization occurs during learning itself. Theories were compared on PAL experiments with 154 undergraduates, involving lists composed of several duos of related items with similar Gibson form stimuli and identical responses. Interactions among related items were studied by considering the joint error-success process to both related items during learning. Both theories gave fairly adequate accounts of this joint data; however, the multilevel theory seems the more adequate. In addition to the empirical comparison of the 2 theories, several theoretical relationships are also presented. (22 ref.)—*Journal abstract.*

4218. Black, Harvey B. (Indiana U.) **Effects of overtiness of practice on learning.** *Bulletin of the School of Education, Indiana U.*, 1969(Nov), Vol. 44(6), 31-128.—Presents a series of 20 paired-associate experiments to investigate the effects upon acquisition of varying the overtiness of practice and the duration of the practice intervals. The task required the emission of practice response consisting of pressing a subset of 3 keys, selected from an array of 7 irregularly positioned keys, that was paired with each of the single letter stimulus elements. The experiments were controlled and results recorded automatically. Results reveal a relatively neutral effects assumption that the overt practice of highly overlearned verbal or simple motor responses has an essentially neutral, time-consuming effect upon acquiring associations to paired stimuli. 2 requirements for maintenance of this neutral effects assumption are presented. In contrast to the neutral effect, extension of the unfilled interstimulus intervals, and the extension of the ITI had a positive effect upon acquisition. This effect diminished under variable interval conditions imposed by making the interval duration contingent upon correctness of practice response. Under constant interval conditions the effect was most evident when the ITI was extended, and least evident when the anticipation interval was extended. Findings are discussed in terms of models that include implicit response assumptions. (45 ref.)—*Journal summary.*

4219. Boor, Myron & Harmon, John. (Milwaukee County Mental Health Center, North Div., Wis.) **Comment on Weiner's (1966) study: Role of success and failure in the learning of easy and complex tasks.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 256-257. Examined the study of B. Weiner (see PA, Vol. 40:4974) on the role of success and failure in the learning of complex and easy tasks. Although his findings seem to support the notion that an S's perception of success and failure influences performance, it is suggested that the research design is not

adequate to support his conclusion that the results obtained are evidence which is inconsistent with the Hull-Spence hypothesis, that anxiety interacts with response competition inherent in the task itself.—*Journal abstract*.

4220. Colman, Frank & Paivio, Allan. (Lakehead U., Thunder Bay, Ontario, Canada) **Pupillary dilation and mediation processes during paired-associate learning.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 261-270.—Describes 2 experiments with 54 undergraduates in which pupillary activity was continuously photographed during mediator-formation and paired-associate (PA) learning tasks involving nouns as items. Abstractness-concreteness of the nouns and mediation instructions (imagery, verbal, or none) were varied. The magnitude and latency of pupillary dilation as well as task performance were measured. The PA recall data confirm previous findings in showing strong positive effects of concreteness, especially as a stimulus variable. Learning was generally best under the imagery mediation set, its superiority over the verbal mediation condition being greatest in the case of pairs with abstract stimulus members. Pupil size during learning was largest when no mediation instructions were given and when stimulus members were abstract, supporting an interpretation of pupillary dilation as an index of cognitive task difficulty. (French summary)—*Journal abstract*.

4221. Damianopoulos, Ernest N. (U. Iowa) **Stimulus and response availability in associative learning.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 12-22.—A 3-stage transfer design—paired-associate (PA) task 1, free-recall learning, and PA2—was used to further assess the quantitative contribution of stimulus and response learning to the learning of paired associates. The stimulus and response items were drawn from different populations, and 2 rates of item exposure (2:2 and 4:4 sec.) were employed in the PA2 task. No specific facilitative effects due to stimulus and response learning were observed, contrary to the general conceptualization.—*Journal abstract*.

4222. Donaldson, Wayne & Glathe, Herta. (U. Pittsburgh) **Signal-detection analysis of recall and recognition memory.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 42-56.—Conducted 3 paired-associate learning studies to compare signal-detection analysis of recall and recognition memory performance. Exp. I with 80 female undergraduates, showed that (a) recall and recognition signal-detection model sensitivity measures (d' s) are substantially different in later trials, and (b) a previously suggested correction for guessing does not transform the data to theoretical expectations. Exp. II, with 45 Ss, showed that S's guessing rates change systematically over trials and further supported the inappropriateness of a guessing correction. Exp. III, with 40 Ss, attempted to hold constant the probability of guessing correctly. It is suggested that for purposes of comparing recognition and recall, a receiver-operating characteristic (ROC) analysis of recall data is inappropriate and that a better approach is the use of the forced-choice or 1-of-M-orthogonal signals model. A possible interpretation of a recall ROC d' is suggested. (French summary) (22 ref.)—*Journal summary*.

4223. Duffy, Thomas M. (U. Manitoba, Winnipeg, Canada) **Mnemonics and intra-list interference in paired-associate learning.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 33-41.—Hypothesized that mnemonics facilitate paired-associate learning by

increasing the distinctiveness of pairs thereby reducing intralist interference. Mnemonic devices were presented with pairs with intralist stimulus similarity being either high or low. Greater facilitation of learning due to mnemonic presentation was expected under high similarity. Ss were 85 male and 128 female paid volunteers. While mnemonics facilitated learning, the distinctiveness hypothesis was not supported in terms of learning rate. However, support was obtained in additional error analyses and when S report data were examined. It is concluded that mnemonics increase pair distinctiveness, but this effect is only 1 factor in mnemonic facilitation of learning. (French summary) (18 ref.)—*Journal abstract*.

4224. Martin, Edwin & Carey, Stephen T. (U. Michigan) **Retroaction, recovery, and stimulus meaningfulness in the A-B, A-Br paradigm.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 123-133.—Examined the role of stimulus meaningfulness in paired-associate transfer, retroaction, and recovery ($N = 96$ undergraduates). Stimulus meaningfulness did not affect performance in 2nd-list learning or in tests for retroaction in the A-B, A-Br paradigm. Relative to an A-B, C-B control paradigm, however, both transfer and retroaction were more negative with higher stimulus meaningfulness. Marginal absolute recovery was observed in the A-B, A-Br paradigm over repeated retroaction tests.—*Journal abstract*.

4225. Royer, James M. & Kulhavy, Raymond W. (U. Massachusetts) **Encoding behavior while learning: Thematically prompted paired associates.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 545-546.—Anderson and his associates have recently reported several experiments in which it was demonstrated that paired-associate learning could be facilitated by embedding the associates in thematically prompted sentences (e.g., After many months of walking, SUS develop holes.). The purpose of the present experiment was to examine the relationship between cue encoding and associative recall when the associates were embedded in sentences from the Anderson, et al., experiments. The major findings were: (a) a failure to replicate the Anderson, et al., results, which was attributed to procedural differences between the experiments; (b) a positive relationship between cue encoding and associative recall; and (c) the rather surprising result that unstable cue encodings (i.e., encodings that change over trials) were equally as facilitative to associative recall as were stable encodings.—*Author abstract*.

4226. Weiner, Bernard & Schneider, Klaus. (U. California, Los Angeles) **Drive versus cognitive theory: A reply to Boor and Harmon.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 258-262.—Argues that the Hull-Spence conception cannot clearly predict the findings in this area, that M. Boor and J. Harmon (see PA, Vol. 46:Issue 3) have misinterpreted B. Weiner's theoretical position, and that other conceptions of behavior (e.g., attribution theory) may account for the reported results. A replication of the Weiner study is presented, which includes the data called for by Boor and Harmon. Again drive theory was contradicted, while the data fit readily within cognitive conceptions.—*Journal abstract*.

4227. Young, Joseph L. (State U. New York, Stony Brook) **Reinforcement-test intervals in paired-associate learning.** *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 58-81.—Studied learning in

paired-associate items in relation to the lengths of the intervals between the reinforcements (Rs) and the test trials (Ts) on each item, in order to gather data on the roles of these intervals and of the Ts and Rs themselves in learning. Ss were 100 undergraduates. The sequence of events for an item can be depicted as follows (where I denotes an intervening trial on another item): R_1 , (Ils), T_1 , (Ils), R_2 , (10 Is), and T_2 . Some items had T_1 omitted entirely. Results indicate that (a) the inclusion of T_1 enhanced performance on T_2 ; (b) on items with T_1 omitted, as the R_1 - R_2 interval increased, the probability of being correct on T_2 ($P(C_2)$) 1st increased and then declined; and (c) with the R_1 - R_2 interval length fixed, as T_1 moved from just after R_1 to just before R_2 , $P(C_2)$ rose and then fell. The nonmonotonicity of these results made it impossible to fit these data with any simple variant of stimulus sampling theory or extant Markov models with long- and short-term memory stores. A new model, with its main innovative feature the postulation of multiple short-term memory states, each with unique properties, is proposed; its fit to the data is quite satisfactory. (28 ref.)—*Journal abstract*.

Reinforcement

4228. Dorsey, Thomas E., Kanfer, Frederick H., & Duerfeldt, Pryse H. (U. Portland) Task difficulty and noncontingent reinforcement scheduled as factors in self-reinforcement. *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 323-334. Frequency of self-reward (SR) was examined as a function of both socially mediated reinforcement provided by E during acquisition (E-administered reinforcement) and level of difficulty of the task for which self-reward was given ($N = 90$ female undergraduates). Results indicate both variables operate in an additive fashion, with higher self-reward rates following higher E-administered reinforcement training and lower self-reward rates when the task becomes more difficult. Thus, a high E-administered reinforcement tends to liberalize S's criteria for self-reward, while increased difficulty tends to make such criteria more conservative.—*Journal summary*.

MEMORY

4229. Ashby, W. R. (U. Illinois) Izmerenie pamyati. [Measurement of memory.] In V. V. Pavin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii" (See PA, Vol. 44 4609) 239-243. Discusses several aspects of the nature of memory. Since "quantities of memory" can be treated as "quantities of information" transmitted between earlier and later times, they are subject to the logic and mathematics of information theory. Hence, although a particular act of coordination in the nervous system may demand a certain total in quantity of communication, this total quantity has no unique partition into so much ordinary transmission and so much memory. The same act of coordination may be produced by differing mechanisms possessing different requirements for memory. The fact that the amount of memory required may be varied, provided that total memory required may be varied, enables (a) assessment of the possible mechanisms for efficiency and (b) selection of the most efficient. It is shown that the mechanism which is the most efficient may not be the obvious one. (English summary) *I. D. London*

4230. Bruce, Darryl & Papan, James P. The primacy effect of single-trial free recall. *CAI Center Technical Memorandum, Florida State U.*, 1970(Jul), No. 19, 42 p.—Reports 3 experiments with 84, 160, and 213 undergraduates using a single-trial free-recall procedure. Ss were sometimes presented a forget cue during a list, meaning that they were not responsible for recalling any of the words which preceded it only those which followed it. Since the primacy effect over the functional beginning of such lists was not diminished, the intra-serial-proactive inhibition hypothesis was rejected. The primacy effect may be due to initial list members being relatively free of proactive inhibition, spending longer time in a limited capacity rehearsal buffer or being associated with stronger retrieval cues. Tests of memory showed consistently depressed retention of items immediately preceding a forget cue. This result is considered to be more in harmony with a rehearsal-buffer notion than a stronger-retrieval-cues position. (23 ref.)

Journal abstract

4231. Carron, Albert V., & Marteniuk, Ronald G. (U. Saskatchewan, Saskatoon, Canada) Retention of a balance skill as a function of initial ability level. *Research Quarterly*, 1971(Dec), Vol. 41(4), 438-453. To examine the hypothesis that there would be differential forgetting among Ss differing in initial ability level, 180 high school males were given 50 practice trials on a balance skill the stabilometer. Layoff intervals of 1, 7, and 14 days were interpolated between trials 20 and 21, 30 and 31, and 40 and 41 respectively. Upon completion of the testing, all Ss were ranked according to performance scores on trials 1-4. To investigate the problem, 3 subgroups of 20 Ss each were formed: a high ability, an average ability, and a low ability group. Performance scores for these 60 Ss were used in the analysis. Although there were no differences in forgetting among the groups for the 1- and 7-day layoffs, a significant interaction between ability and forgetting was evidenced following the 14-day layoff.—*Journal abstract*.

4232. Clark, Linda, Knowles, John H., & Maclean, Alistair. (Queen's U., Kingston, Ontario, Canada) The effects of method of recall on performance in the dichotic listening task. *Canadian Journal of Psychology*, 1971(Jan), Vol. 24(1), 193-198.—Reports 2 experiments with 100 undergraduates in which Ss were required to recall dichotically presented digits (3) orally either vocally or in writing. It was found that items in the span reported and were recalled significantly more accurately with written as compared with vocal recall. Data suggest that the differential accuracy of recall of the items in the 2nd spans, which is normally reported, is attributable, partially at least, to interference at output produced by the vocalization of items in the 1st span.—(French summary)—*Journal abstract*.

4233. Dale, H. C., & McGlaughlin, Alex. (U. Hull, England) Evidence of acoustic coding in long-term memory. *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 1-10.—Contrary to previous indications, retroactive interference in long-term paired-associate learning was found to be a function of acoustic similarity. Experimental groups (Ss were enlisted men and undergraduates) were exposed to the A-B-A-C paradigm where corresponding stimuli were homophones. Their retention scores were substantially and significantly lower than control groups run with an A-B-C-D paradigm. The failure of previous studies to reveal effects of acoustic similarity in this way is attributed to

the use of an insufficiently high degree of similarity. —*Journal abstract.*

4234. Darwin, C. J. (U. Connecticut) **Ear differences in the recall of fricatives and vowels.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 46-62.—Reports 2 experiments on the free recall of dichotically presented synthetic speech sounds. In Exp. I, with 1 left-handed and 13 right-handed undergraduate and graduate students, it was shown that the right ear advantage for initial fricative consonants is not simply a function of the recognition response class, but that it is also a function of the particular acoustic cues used to achieve that response. This is true both for the whole response, and for the constituent phonetic features. In Exp. II, with 36 right-handed Ss, it was shown that when both the response class and the particular stimuli presented on certain trials are held constant, the right ear advantage for the constant stimuli can be influenced by the range of other stimuli occurring in the experiment. Vowels showed a right ear advantage when, within the experiment, there was uncertainty as to vocal tract size, but they showed no ear advantage when all the vowels in the experiment were from the same vocal tract. These results are interpreted as demonstrating that there are differences between the ears, and probably between the hemispheres, at some stage between the acoustic analysis of the signal and its identification as a phonetic category. (48 ref.)—*Journal abstract.*

4235. Donderi, Don; Case, Bruce; Rossoff, Leonard, & Willis, Joanne. (McGill U., Montreal, Quebec, Canada) **Change in visual memory following discrimination learning.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 401-416. Studied visual recognition memory for the size of circles for evidence of active memory change in 3 experiments with 34 paid volunteers and 83 undergraduates. In Exp. I the remembered difference in size between 2 circles which had been discriminated on the basis of size increased, while the remembered difference in size between the same 2 circles discriminated on the basis of brightness did not. In Exp. II, the remembered size of the smallest of 4 circles discriminated by size changed from 1 day to 1 wk. Each S in Exp. III inspected either 1 or 2 circles and was asked to remember their size. There was more memory distortion when 2 circles were remembered, but the distortion did not change over time. The evidence suggests that memory will actively change after a visual discrimination task. (French summary) —*Journal abstract.*

4236. Eagle, Morris; Goldberger, Leo, & Breitman, Martin. (Yeshiva U.) **Field dependence and memory for social vs neutral and relevant vs irrelevant incidental stimuli.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 903-910.—In 2 experiments with 21 female and 4 male paid volunteers in each (total N = 42 females and 8 males), field-dependent Ss showed better incidental memory for social words, while field-independent Ss showed an even division between recall of social and neutral words and a selective preference in recognition for neutral words.—*Journal abstract.*

4237. Kanungo, Rabindra N. & Mohanty, Gour S. (McGill U., Montreal, Quebec, Canada) **Differential roles of frequency and meaningfulness in free recall.** *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 161-168.—Performed 2 experiments with 91 experimentally naive high school students to study the comparative influence of frequency and meaningfulness (m) on free recall. In Exp. I, the free-recall scores of 3

lists of words matched for m but varying in frequency levels were compared. In Exp. II, free recall of 3 words matched for their frequency but varying in their values were compared. Findings reveal that frequency and not m of the words that influence free-recall, and that the influence of frequency is noticeable in the early times of free-recall learning. Findings are discussed in terms of the existing theories of verbal learning. (French summary) —*Journal abstract.*

4238. Levy, Betty A. & Baddeley, Alan. (McMaster U., Hamilton, Ontario, Canada) **Recall of semantic clusters in primary memory.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 1-13.—Investigated the use of semantic relatedness as a retrieval cue in the primary memory component in a free recall task using 24 paid undergraduates. 6-word semantically related clusters were placed in the middle and end positions of free recall lists. Retention was measured immediately after the list presentation and after a 15 sec retention interval of 15 sec. Pure primary memory functions were calculated. Results indicate that semantic cues were useful in retrieval from secondary memory but played no part in recall from primary memory. —*Journal abstract.*

4239. May, Richard B. & Tryk, H. Edward. (Victoria, British Columbia, Canada) **Word sequence, word frequency, and free recall.** *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 299-304. 3 groups of 22 undergraduates each were asked to memorize lists either (a) all common words, (b) all rare words, or (c) mixed list of alternating common and rare words. Terms of trials to criterion in free recall the groups ranked ordered rare > common > mixed. The typical high-frequency easier-recall effect was reversed in the mixed list where rare words were recalled more efficiently than common words. (French summary) —*Journal abstract.*

4240. McGaugh, James L. & Dawson, Ronald G. (California, Irvine) **Modification of memory storage processes.** *Behavioral Science*, 1971(Jan), Vol. 16, 45-63.—Reviews current findings and thinking concerning the nature and bases of "time-dependent" processes in memory storage. Considerable evidence indicates that there are 2 types of memory processes, short- and long-term memory. It is concluded that the bulk of the evidence is consistent with a "dual-store" hypothesis and that alternative interpretations of the findings are not well supported. Several conceptual models of the relationship between short- and long-term memory are presented and evaluated. The evidence most consistent with the hypothesis that short-term memory processes are different from but essential for development of long-term memory. Recent findings which provide some understanding of the neurobiological bases of the treatments which modify memory storage processes are reviewed. It is suggested that knowledge of the behavioral effects of treatments which influence memory considered together with knowledge of the effects at a neurobiological level may provide some clues to the biological bases of memory. (3 p. ref.) —*Journal abstract.*

4241. Nevel'skii, P. B. & Bocharova, S. P. (Khabarovsk, U.S.S.R) **Skorost' zapominaniya pri raznoyavostoynosti simvolov.** [Speed of memorization with different probabilities for the presentation of symbols employed.] *Problemy Bioniki*, 1968(Nov), No. 1, 120.—Investigated the speed of long-term memorization

when: (a) the number of memorized symbols (15 numbers) does not change and the numbers of digits (3) of these symbols remains also unchanged, but in connection with a change in the probability of presentation of these symbols; and (b) information in response to the symbols undergoes along with all transmitted information. Speed of memorization of units of information, transmitted in a unit of time, was utilized as an "important index." It was shown that speed of memorization depends in greater measure on quality of information rather than on number of symbols.—*I. D. London.*

4242. Perfetti, Charles A. & Goodman, Doba. (U. Pittsburgh, Learning Research & Development Center) **Memory for sentences and noun phrases of extreme depth.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 22-33.—Investigated memory for orally presented noun phrases and sentences using 40 undergraduates in Exp. I and 60 in Exp. II. Syntactic depth (D) of the phrases and sentences was varied with D approaching the values of 7 ± 2 . Consistent with recent investigations, these studies found D not to be generally related to recall of sentences, phrases, or individual words within sentences. However, recall of individual words from an adverbial noun phrase apparently was related to D. The apparent relationship is accounted for not by depth of individual words, but in terms primarily of superior noun retention and its interaction with serial position effects. In addition, conditional recall probabilities for another type of phrase, a noun phrase with prenominal adjectives, indicate stronger relationships between adjectives and the noun than between successive adjectives. It is concluded that the Yngve grammar is deficient as a psycholinguistic model.—*Journal abstract.*

4243. Postman, Leo & Stark, Karen. (U. California, Berkeley) **The effects of item familiarization on the long-term retention of paired-associate lists.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 486-498.—Investigated the effects of prior item familiarization on the acquisition and retention of paired-associate lists. Ss were 32 undergraduates in 8 experimental and 2 control groups. The critical items were trigrams which were paired with paralogues in the paired-associate task. There were 20 trials of learning, and recall was tested after 1 wk. The experimental treatments formed a $2 \times 2 \times 2$ factorial design. Familiarization was either (a) for stimulus or response terms, (b) relevant or irrelevant to the learning task, or (c) at a frequency of 10 or 40 exposures/item. Control groups were given no preliminary training. Performance on the early learning trials was facilitated by response but not by stimulus familiarization. Both relevant and irrelevant response familiarization increased long-term retention losses, whereas stimulus familiarization had no reliable effect on recall. It is concluded that response familiarization is a source of both facilitation and interference. (French summary) (15 ref.)—*Journal abstract.*

4244. Shapiro, S. I. (U. Hawaï) **Isolation effects, free recall, and organization.** *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 178-183. Studied the influence of isolated words upon free recall and clustering of categorized lists. For Exp. I with 104 undergraduates, the list contained 10 words from each of 4 conceptual categories and the category names, and for Exp. II with 96 Ss, 11 members of 4 categories and no names. Category members were presented in blocked or

random order for 4 presentation-recall periods. Isolation effects occurred for random presentation with either category names or members as isolates. The superior recall of isolates was at the expense of other words in the list. Clustering of the categories with an isolate or for the over-all list was not affected by isolates, indicating that they did not influence the organization of the lists. Recall and clustering with block presentation were superior to random presentation. (French summary)—*Journal abstract.*

4245. Šipoš, Ivan & Graca, Štefan. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Word recognition under load.** *Studia Psychologica*, 1970, Vol. 12(4), 282-289.—Ss had to recognize 40 out of a group of 160 words backplayed off a tape recorder. The load consisted of the Ss having to press a key to 1 of 10 figures on a special luminous panel. The load was presented to 3 groups of 25 Ss each, so that the 1st had it at the input, the 2nd at the output, and the 3rd at the input/output. The response parameter was the corrected performance and a high or low certainty of recognition. Results were compared with those of a similar experiment without load, and show the best mean performance to be with the output load which differed significantly from the other variants. The number of wrongly identified words in the 3 load variants increased by 100% as against the load-free experiment. With false alarms Ss use the response alternative of a low certainty in a significantly higher measure. Input load as also the input/output load—takes on the character of stress. Under influence of time the output-load performance proves to be the most stable while the load-free performance shows the biggest recognition decrement. (Czech & Russian summaries)—*Journal abstract.*

4246. Yarnes, A. Daniel & Barker, William J. (U. Guelph, Ontario, Canada) **Repetition versus imagery instructions in the immediate- and delayed-recognition of picture and word paired-associates.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 56-61.—22 undergraduates learned 2 paired-associate lists, each consisting of 18 picture pairs and 18 word pairs—of the items in each list were studied by repetition the remainder by imagery. Recall improved from List 1 to List 2 on the immediate test but there was no difference in lists on retest 1 wk. later. On both immediate and delayed tests picture pairs were recalled better than word pairs and imagery study proved superior to repetition study. Informing Ss of their study method for each stimulus at time of recall did not affect performance. Results lend further support to the superiority of pictorial memory over verbal memory and provide evidence supporting an hypothesis that imagery study is a more efficient learning strategy than is repetition study. (French summary)—*Journal abstract.*

Short Term & Immediate Memory

4247. Corballis, Michael C. & Luthie, Lorenz. (McGill U., Montreal, Quebec, Canada) **Two-channel visual memory.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 361-367. Reports 4 experiments with 20 undergraduates each in which Ss attempted immediate recall of word and color attributes of (a) series of 3 "Stroop" words (Exp. I and II), or (b) 3 colored number words (Exp. III and IV), presented either at 2 words/sec or 1 word/2 sec. Ss were instructed to give either channel

by-channel recall, grouping words and colors together, or temporal recall, in which the 2 attributes of each item were to be reported together. In Exp. I and III, in which words were to be reported before colors, channel-by-channel recall was better than temporal recall, especially at the fast rate. In Exp. II and IV, the colors were to be reported before the words, and channel-by-channel recall tended to be worse than temporal recall. In all experiments, serial position data suggests that the channel-by-channel strategy was to attend to 1 attribute (either words or colors) during presentation and hold the other in preattentive storage. By contrast, when instructed to give temporal report, Ss apparently alternated attention between attributes during presentation. (21 ref.)—*Journal abstract*.

4248. Cottrell, Nicholas B., Ingraham, Larry H., & Monfort, Franklin W. (U. Iowa) The retention of balanced and unbalanced cognitive structures. *Journal of Personality*, 1971(Mar), Vol. 39(1), 112-131.—To evaluate Heider's hypothesis that unbalanced cognitive structures are remembered less well than balanced structures, 32 Ss learned 4 balanced structures and 32 Ss learned 4 unbalanced structures. $\frac{1}{2}$ of each group was tested for retention 1 min. after learning, and $\frac{1}{2}$ of each group was tested 24 hr. later. 24 hr. after learning, individuals recalled fewer unbalanced structures than balanced structures ($p < .025$). From 1 min. to 24 hr., there was a decrease in the number of unbalanced structures recalled ($p < .005$), but not in the number of balanced structures recalled. (24 ref.)—*Journal summary*.

4249. Dowling, W. J. & Fujitani, Diane S. (U. California, Los Angeles) Contour, interval, and pitch recognition in memory for melodies. *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 524-531.—Demonstrated the role of melodic contour recognition in memory for melodies. Exp. I with 47 undergraduates as Ss (2×3 factorial design), involved short-term memory with comparison melodies either transposed or not transposed from the key of the standard. Separate groups had the tasks of distinguishing (a) between same and different melodies, (b) between some melodies and ones with only the same contour, and (c) between melodies with the same contour and different ones. The effects of transposition and task and their interaction were significant ($p < .001$). Untransposed melodies were recognized by their exact pitches, so that tasks a and b were equally easy. Contour recognition was more important with transposed melodies, so that task b was very difficult, and tasks a and c were easier. Task c was about equally difficult under both conditions. Exp. II with 28 undergraduates, involved recognition of distorted versions of familiar folk tunes having the same length and rhythmic structure. In ascending order of recognizability, these distortions preserved merely the harmonic basis of the melody, the melodic contour, and the contour plus the relative sizes of successive intervals between notes ($\chi^2 = 50.4$, $p < .001$).—*Journal abstract*.

4250. Fisher, Dennis F. Short-term memory: An annotated bibliography: II. Aberdeen Proving Grounds, Md., U.S. Army Human Engineering Lab., 1971, 67 p.

4251. Lindley, Richard E. & Brown, Donald R. (California State Coll., Fullerton) Acoustic and associative coding in short-term memory. *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1),

14-21.—Short lists of word-digit pairs were presented to 456 college students. 1 of the words was repeated as a memory probe either immediately after list presentation or after a short rehearsal interval. The stimulus words were either acoustically identical or associatively related (up, down). Both acoustic identity and associative relatedness produced a memory decrement which decreased with rehearsal. 1 interpretation of these results is that the primary memory trace is a multiple-dimension one and that, given time, Ss can recover nonacoustic information from it. The data also indicate that the "fate" over time is different for acoustically similar and associatively related items.—*Journal abstract*.

4252. Lowe, D. G. & Merikle, P. M. (U. Waterloo, Ontario, Canada) On the disruption of short-term memory by a response prefix. *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 169-177.—4 groups of 12 undergraduates each recalled 8-consonant sequences immediately following presentation, following an interpolated spoken prefix, and following an interpolated written prefix. For the different groups, presentation was either auditory or visual and recall was either spoken or written. Only the spoken prefix disrupted recall of the sequences, and in all cases immediate recall and recall following the written prefix did not differ substantially. The disruptive effect of the spoken prefix was less when recall was written than when spoken. Results indicate that the decrement in recall produced by an interpolated prefix results primarily from a disruption in the central verbal processes required to maintain short-term memory. (French summary) (17 ref.)—*Journal abstract*.

4253. Turnage, Thomas W. & Steinmetz, Jenny L. (U. Maryland) Unit-sequence interference and short-term recall. *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 112-122.—2 experiments (Ns = 96 undergraduates in Exp. I, and 240 in Exp. II) were performed to evaluate unit-sequence interference in short-term serial recall. Both experiments replicated the previous finding of a curvilinear relationship between item frequency and recall a relationship predicted by interference theory. However, since the data showed little direct evidence for associative disruption of serial order, an alternative interpretation that does not stress concepts of associative chaining was considered.—*Journal abstract*.

THINKING

4254. Adair, Charles H., Hansen, Duncan N., Rayner, Gail E., & Agarwal, Adesh. Two simulated inquiry environments: A social simulation game and a CAI-based information retrieval system. *CAI Center Technical Memorandum, Florida State U.*, 1970(May), No. 16, 74 p.—Building upon an earlier collection of 5312 social science generalizations and the development of a taxonomic retrieval system, an information retrieval (IR) system was implemented within a 1500 computer-assisted instruction system, a social simulation game was developed, an attitude scale to appraise 3 affective factors was constructed within the game and IR learning tasks, and teachers' inquiry behavior was studied. An experiment was designed and executed within the game and IR system to further examine the outcomes of the attitude scale and to examine human inquiry behavior more closely. Results with 58 undergraduates indicate that primarily the IR system experience leads to improved inquiry behaviors. The feasibility and the

associated positive reaction of Ss to both the game and the IR system was established. A discussion of factors to be considered for further study is presented. (16 ref.)—*Journal abstract.*

4255. **Burke, Ronald J.** (York U., Toronto, Ontario, Canada) **Correlates of the ability to fragment and reorganize stored information.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 183-189.—In a series of investigations N. R. Maier and his colleagues investigated qualitative differences in the way human beings store and utilize learned material. 3 basic abilities were identified: (a) respecting associative bonds, (b) fragmenting associative bonds, and (c) reorganizing single elements. This investigation examined the correlates of individual differences in ability to fragment and recombine past learning using data from 5 independent studies. 3 independent samples of Ss (total N=187) were tested on various external measures. 12 different correlates, some used in 3 or more separate inquiries, failed to produce significant relationships. Some reasons for these findings are suggested.—*Author abstract.*

4256. **Ernest, Carole H. & Pavio, Allan.** (U. Western Ontario, London, Canada) **Imagery and verbal associative latencies as a function of imagery ability.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 83-90.—Examines RTs of Ss high or low in imagery ability under instructions to elicit a verbal associate or arouse an image to concrete and abstract noun stimuli. 16 high and 14 low imagers were selected from a sample of 77 volunteer undergraduates. Latencies were significantly shorter for high than low imagers, for concrete than abstract words, and for verbal than imagery instructions. 1 interaction showed that imagery latencies were shorter to concrete than to abstract stimuli, whereas the latencies of verbal associations did not differ for the 2 types of words; another revealed that the relative superiority of high over low imagers in reaction speed was greater when the stimuli were abstract. Correlational data suggest that verbal associations may be mediated by both verbal and imaginal processes, thus favoring high imagers in both instruction conditions, and that self-reports of imagery ability can reliably predict imaginal behavior. (French summary)—*Journal abstract.*

4257. **Greaves, George.** (Georgia State U.) **Differences in the size of drawings of an important symbol as a function of level of conceptual system functioning.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 54.—2 groups of Ss (N=27 college sophomores) functioning at low and high levels of conceptual complexity (Conceptual Systems 1 and 3) drew representations of the Soviet and American flags. While both groups drew the American flags the same size, System-1 Ss drew the Soviet flag larger than the American flag, while System-3 Ss drew it smaller. This supported previous research indicating that System-1 Ss sensitized to threatening stimuli while System-3 Ss repress such stimuli.—*Author abstract.*

4258. **Hunt, Earl.** (U. Washington) **What kind of computer is man?** *Cognitive Psychology*, 1971(Jan), Vol. 2(1), 57-98.—In computing systems information handling components are organized into a system architecture which is exercised by a program. A system architecture and componentry for simulating human information processing is described. The system is characterized by a number of input channels containing buffer memories connected in series and a central computing device which monitors the channels. The

central system contains a short-term memory for information seen in the past few sec. and an intermediate term memory which holds an abstract interpretation of events observed in the past few min. Both the central system and the peripheral channels have access to a very large memory for permanently stored information, but only the central device can write into long-term memory. Psychological studies of short-term memory, language comprehension, and problem-solving are interpreted as tasks for the described system. (4 p. ref.)—*Journal abstract.*

4259. **Seymour, Philip H.** (U. Dundee, Scotland) **Effects of repetition of display components on the latency of multiple reports of congruence.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 82-96.—6 volunteer graduate and undergraduate students gave grouped multiple reports of the congruence of each member of arrays of 1, 2, or 3 word-shape or shape-shape pairs, and a measure was taken of the time elapsing between onset of the array and initiation of a multiple yes/no report. Double and triple reports were initiated less rapidly than single reports. Replicated arrays, involving repetition of a display pair, gave similar response times for double and triple reports, and were classified faster than nonreplicated arrays requiring the same overt report. In the case of nonreplicated arrays triple reports were initiated less rapidly than double reports. Both classes of array showed substantial effects for congruence, giving slow response times where all pairs in the array were incongruent or where the left-hand or 1st reported display was incongruent. (18 ref.)—*Journal abstract.*

Problem Solving

4260. **Gormly, John.** (Rutgers State U.) **Cognitive structure: Functional unity in verbal and mathematical performance.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 70-78.—Examined the association between a dimension of cognitive structure and problem-solving behavior. 104 undergraduates were given problems which varied according to their intrinsic difficulty (the amount of information which was necessary for solution) and extrinsic difficulty (the degree of abstractness in the language describing the problem). Each problem was accompanied by 2 kinds of information: that which was essential to the solution and that which was extraneous. Ss assessed as cognitively comprehensive, using Rokeach's Interrelations Task, performed better at solving more logically complex problems than those designated as noncomprehensive. (23 ref.)—*Journal summary.*

4261. **Guthrie, John T.** (Johns Hopkins U., Center for Study of Social Organization of Schools) **The effect of two types of verbal hierarchy on problem solving.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 213-218.—Research on objects problems, i.e., Maier's 2-string problem, is reviewed and critiqued. It is proposed that performance on objects problems is related to 2 types of mediators: uses, which are Ss' verbal responses to the object necessary for solution; and functions, which are Ss' verbal responses to the verbal statement of the problem. The dominance of these 2 types of mediators for a given problem was first obtained for each S (N=63 paid undergraduates). The time required to solve the problem was then measured for each S. The result was that speed of solution was directly

proportional to both the dominance of the use mediator and the dominance of the function mediator in their respective hierarchies for each S.—*Journal summary*.

4262. Joyner, Robert C. & Green, Christopher J. (York U., Toronto, Ontario, Canada) **Demonstration of computer-augmented group problem solving.** *Behavioral Science*, 1970(Sep), Vol. 15(5), 452-462.—Developed a computer program, CORD, that permits coordinated problem solving in conversational mode among operators of 3 computer terminals who are playing the common target game. CORD is trivially machine-adaptive in that the program makes inductive inferences from the players' inputs and outputs suggestions to the players for system performance improvement.—*Journal abstract*.

4263. Kürti, István. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Adatok a gondolkodási stratégiák vizsgálati eljárásához.** [Data concerning research methods for strategies of thought.] *Pszichológiai Tanulmányok*, 1968, No. 11, 127-145.—Examined strategies for optimal ways of problem solving in 2 experimental settings. Procedures which deviated from the optimal course and the dynamics of the search for the best strategy were registered so the process of development could be followed. In this way trends and changes in thought structures during problem solving could be observed. Statistical processing of data furnished information on the structure some of the tasks assumed by particular Ss. Data were obtained on the different facts of hypotheses Ss formed in the beginning and then modified in the course of their practical operations. Studying the structure of tasks led to the recognition of the process by which Ss gradually detected the structural constituents of the tasks. Statistical processing of the data also shows that Ss differ in the number of steps they require, in the speed at which they reach the solution, in their willingness to take risks, and in their ability to utilize their initial hypothesis. Nevertheless, it is possible to classify them into basic types employing analogous thought strategies. (Russian summary)—*English summary*.

4264. Kürti, Jarmila. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **A heurisztikus tevékenység pszichológiai vizsgálatáról.** [Psychological study of heuristic activity.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 85-102. Presents new ways of studying the process of heuristic activity. Among them, experimental games are applied as models of problem solving which has opened new vistas to psychological research. Original experimental methods, their fields of application, and their basic relations with psychology and with information theory are pointed out. 2 kinds of logical card-games are described with the experimental setting insuring automatic registration. Heuristic activity, the laws of rational behavior, manifested in the given experimental situation, can be investigated by (a) obtaining and processing of information and its role in plotting problem-solving strategies, (b) characteristics of orientation in the structure of the problem, (c) traits in developing the strategy leading to solution, (d) achievement in learning, (e) peculiarities in making decisions in the various cases of uncertainty as well as in wilful determination and self-assessment. (Russian summary)—*English summary*.

4265. Kürti, Jarmila. (Hungarian Academy of Sci-

ences, Inst. of Psychology, Budapest) **Az optimális stratégia alakulásának vizsgálata kísérleti modellhelyzetben.** [Examination of the development of an optimal strategy in an experimental model-situation.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 224-241. Through the use of the pyramid game (where a number of objects decreasing in size have to be transferred from position A, through B, to C) the effect of feedback on the development of an optimal strategy could be investigated. Knowledge of the number of steps required for the optimal solution influenced the development of such a strategy. (English & Russian summaries)—*M. Moore*.

4266. Simon, Herbert A. & Newell, Allen. (Carnegie-Mellon U.) **Human problem solving: The state of the theory in 1970.** *American Psychologist*, 1971(Feb), Vol. 26(2), 145-159.—Summarizes research of the past 15 yr. directed toward discovering and explicating the organization of information processes that underlies human problem solving. The basic characteristics of the human information processing system (IPS)—serial processing, small short-term memory, infinite long-term memory with fast retrieval but slow storage—impose strong conditions on the ways in which the system can seek solutions to problems in large problem spaces. The current theory is described in 4 broad propositions: (a) a few gross characteristics of the human IPS are invariant over task and problem solver; (b) these characteristics determine that a task environment is represented (in the IPS) as a problem space, and that problem solving takes place in a problem space; (c) the structure of the task environment determines the possible structures of the problem space; and (d) the structure of the problem space determines the possible programs that can be used for problem solving. These propositions and their relation to the known characteristics of the IPS are developed.—*Author abstract*.

4267. Stephenson, Robert W., Gantz, Benjamin S., & Erickson, Clara O. (American Inst. for Research, Silver Spring, Md.) **Use of analogies in order to facilitate invention.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 487-488. Undergraduates solved invention problems twice, using "obvious" as well as "strange and apparently irrelevant" analogies to help them arrive at a solution. Ss also listed all of their ideas for a solution before they started. The solutions arrived at with the aid of the analogies were rated as more original and more acceptable than the best preliminary suggestion for a solution. The solutions based upon the strange and apparently irrelevant analogy were rated as more original (but not more acceptable) than the solution based upon the obvious analogy.—*Author abstract*.

4268. Wason, P. C. & Shapiro, Diana. (University Coll., Psycholinguistics Research Unit, London, England) **Natural and contrived experience in a reasoning problem.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 63-71.—Studied the effects of prior experience on a deceptive reasoning problem. In Exp. I Ss (24 paid undergraduates) were presented with the problem after they had experienced its logical structure. This experience was, on the whole, ineffective in allowing subsequent insight to be gained into the problem. In Exp. II, with 32 undergraduates, the problem was presented in "thematic" form to 1 group, and in abstract form to the other group. 10 out of 16 Ss

solved it in the thematic group, as opposed to 2 out of 16 in the abstract group. 3 hypotheses are proposed to account for this result.—*Journal abstract.*

Concepts

4269. Cohen, John; Boyle, L. E., & Chesnick, E. I. (U. Manchester, England) **Inférences subjectives sur échantillon.** [Subjective inferences on scaling.] *Journal de Psychologie Normale et Pathologique*, 1970(Oct), No. 4, 389-402.—Ss were presented with a vase and asked to imagine that it contained 20 pearls some white, some black, but that the proportion of each color had been established by chance. The task was to indicate how many pearls of each color were in the vase, in a series of presentations. The following conclusions were drawn: (a) Ss prefer to maintain their evaluation of the composition of a binary population and to modify their level of confidence in these evaluations, rather than to maintain their level of confidence and modify their evaluations; (b) to the extent that the evaluations change, they tend to reflect the most recent binary presentation; (c) to the extent that levels of confidence change, independently of evaluations, they tend to augment rather than lower; and (d) though the extent of scaling is constant, the effect of an increase in the population to evaluate tends to make the Ss more reluctant to modify their evaluations as well as their levels of confidence.—L. A. Ostlund.

4270. Erickson, James R. (Ohio State U.) **Problem shifts and hypothesis behavior in concept identification.** *American Journal of Psychology*, 1971(Mar), Vol. 84(1), 100-111.—When college-age Ss (Ns = 128 in Exp. I, 100 in Exp. II, 48 in Exp. III, 40 in Exp. IV, and 80 in Exp. V) were given thorough instructions stressing the nature of the solution of the problems and pointing out stimulus dimensions, a reversal shift was more difficult than an extradimensional shift, or there was no difference between them. When Ss were given brief instructions that they were to learn which stimuli fell into each of 2 categories, the reversal shift was easier. A hypothesis-sampling model accounts for the 1st set of data; Kendler and Kendler's mediational theory of concept learning accounts for the 2nd. (15 ref.) *Journal abstract.*

4271. Evans, David R. (U. Calgary, Alberta, Canada) **Conceptual complexity, arousal, and epistemic behaviour.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 249-260.—Describes 2 studies with 90 undergraduate Ss testing D. E. Berlyne's theory of epistemic behavior. Exp. I investigated the relationship between (a) conceptual complexity and level of arousal; and (b) conceptual complexity and looking time. In Exp. II, the relationship between conceptual complexity and epistemic behavior was studied. Results suggest that there is an optimal level of conceptual complexity, and that exposure to conceptual complexity above the optimal level results in increases in both level of arousal and epistemic behavior. (French summary) (41 ref.) —*Journal abstract.*

4272. Hastings, Margaret A. & Evans, Selby H. (Texas Christian U., Inst. for the Study of Cognitive Systems) **Schematic concept formation as a function of stimulus display and mode of response.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Feb), No. 3-70, 28 p.—A pattern generation system, VARGUS 9, produced stimulus instances from 2

populations with known distributions. 20 instances from each population (schema family) were mapped into serriform, histoform, and airplane formats. Within each stimulus type, pattern pairs received both a schema-family classification and a graded-response judgment. Results with 45 undergraduates indicate both stimulus display and response requirement influence performance in schematic concept formation tasks. High positive correlations were obtained between dichotomous and graded response measures. Maximum discrimination was produced by a classification decision and a concomitant but separate similarity judgment.—*Journal abstract.*

4273. Miller, Lance A. (IBM, Thomas J. Watson Research Center, Yorktown Heights, N.Y.) **Hypothesis analysis of conjunctive concept-learning situations.** *Psychological Review*, 1971(May), Vol. 78(3), 262-271.—Presents mathematical expressions for a taxonomy of conjunctive concept-learning situations, giving the number of possible hypotheses concerning the problem rule as a function of the task informational variables. The number of initially possible hypotheses is shown to be a function of preproblem knowledge of the number of relevant dimensions, the type of initial focus stimulus, and the problem parameters. During problem solution, reduction in the number of possible hypotheses is shown to be a function of the interstimulus similarity. Optimal stimulus selection procedures and expressions for the expected trial of solution are derived for various task situations involving the selection paradigm. (16 ref.) —*Journal abstract.*

DECISION & CHOICE BEHAVIOR

4274. Lupfer, Michael & Jones, Mark. (Memphis State U.) **Risk taking as a function of skill and chance orientations.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 27-33.—Whether a person believes the outcomes of his decisions are dependent upon skill or chance presumably influences the riskiness of his choices. 32 undergraduates made a series of decisions while playing Jeopardy, a game which was perceived as requiring skill, and another series of decisions while playing a card game, the outcomes of which were believed to depend on chance. As expected, decisions made under a skill orientation were marked by (a) a higher mean level of risk, and (b) a less variable pattern of risk than decisions made under a chance orientation. However, attempts to identify the process that mediated the relationship between skill-chance orientation and risk taking were unsuccessful.—*Journal abstract.*

4275. O'Donnell, Clifford R. & Brown, Larry T. (Hawaii) **Post-decision changes in time spent viewing chosen and rejected alternatives.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 1-6.—Investigated postdecision changes in time spent viewing chosen and rejected alternatives as a function of providing 30 undergraduates with positive information (PI), negative information (NI), or no information (NOI) as to the correctness of their decisions. The procedure consisted of (a) recording the time spent by each S viewing each of a series of nonrepresentational patterns, (b) presenting the 2 patterns closest in viewing time for a decision, (c) providing either PI, NI, or NOI as to the correctness of the decision, and (d) presenting the series of patterns a 2nd time and recording once again the time spent viewing each. Consistent with the results of studies

employing ratings or rankings of attractiveness, analyses of variance revealed that the Ss of the NOI group increased their viewing of the chosen alternative ($p < .01$). In addition, the increase was greater for Ss of the NOI group than for Ss of group PI ($p < .05$). It is concluded that making a decision may affect the amount of time during which chosen stimuli are subsequently examined, and possibly that postdecision dissonance may be reduced by the receipt of positive information. (French summary)—*Journal abstract*.

4276. Rökusfalvy, Pál. (Hungarian Coll. for Body Culture, Budapest) **Eine mehrstufige Methodik zur untersuchung der Leistungsmotivation un der Entscheidung.** [A multi-stage procedure for ascertaining achievement motivation and decision-making.] *Studia Psychologica*, 1970, Vol. 12(4), 296-302.—Discusses theoretical aspects of the method of decision-making in experiments. On the basis of experiments by J. W. Atkinson, D. E. Berlyne, J. Cohen, W. Edwards, and H. D. Schmidt, the following items were studied: (a) transfer effects of performance motivation; (b) effect of the measure and type of risk on decision-making; (c) effect of experience of success and failure on various parameters of decision-making; (d) decision making times dependent on situational factors; and (e) relation between subjective and objective probability scales. 3 6-stage experiments were performed in the form of individual tests. Ss were 60 undergraduates divided into 3 homogeneous groups. The following combinations of tests and instruments were used: (a) Crawford Small Parts Dexterity Test; (b) an electronic meter for measuring RT with a digital recording instrument, and (c) an instrument for measuring decision-making time. The data were processed, for the most part, by non-parametric mathematical-statistical methods and information-theoretical procedures. (Czech & Russian summaries)—*English abstract*.

4277. Rökusfalvy, Pál. **Teljesítmény-motiváció és döntés.** [Performance motivation and decision.] *Psichológiai Tanulmányok*, 1970, Vol. 12, 267-283.—Presents a preliminary report on experimental methods employed in the field of psychological decision theory. Following J. W. Atkinson, W. Edwards, D. E. Berlyne, J. Cohen, and H. D. Schmidt, 5 Ss were investigated: (a) accidental transfer effects of performance motivation, (b) influence of degree and quality of risk upon decision, (c) effect of success and failure on various decision parameters, (d) the time it takes to arrive at a decision as a function of situation and probability factors, and (e) the connection of objective and subjective probability scales in decision. 3 series of experiments, each consisting of 6 steps, were conducted. The Ss—3 groups of undergraduates with 20 in each group—were tested individually. The following tools were used: (a) Crawford Small Parts Dexterity Test; (b) Rock and Taylor electronic RT apparatus, with RACAL-type digital registration unit; and (c) J. Tóth's decision time apparatus. Data processing was performed mainly with nonparametric mathematical statistical methods and information theory procedures (calculation of entropy). In the interpretation of results Atkinson's model of risk-taking behavior and Edward's SEU model were applied. (Russian summary) (17 ref.)—*English summary*.

PHYSIOLOGICAL PSYCHOLOGY

4278. Cadwallader, Thomas C., Semrau, Lorne A., & Cadwallader, Joyce V. (Indiana State U.) **Early phys-**

iological psychology: Circa 3000 BC. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 719-720.—Describes those portions of the Edwin Smith Surgical Papyrus relevant to the history of physiological psychology. This Egyptian papyrus, which contains material dating back perhaps to 3000 BC, records history's 1st description of the brain, its convolutions and meninges, of motor and sensory effects of neural damage, and, perhaps, of aphasia due to damage to the speech area of the brain. It further contains history's 1st record of: (a) inductive reasoning, (b) description of the heart and vascular system, and (c) recognition of the significance of the pulse. The Smith Papyrus contains the oldest science of which we have record.—*Author abstract*.

4279. Jacobs, Lewis. (Knickerbocker Hosp., New York, N.Y.) **Human Intelligence: The physiological view.** *Science Teacher*, 1968(Sep), Vol. 35(6), 13-17.—Discusses human intelligence, emphasizing the intrauterine environment of the growing fetus. Nutritional, metabolic, and neurological factors in maturational development are reviewed. The application of studies of the electrical activity of the human brain to intelligence is summarized. It is felt that the study of evoked potentials and their correlation with various social and psychological measures of intelligence has special promise.—*P. McMillan*.

4280. Makarova, A. R., Ponugaeva, A. G., & Rashevskaya, D. A. (Pavlov Inst. of Physiology, Leningrad, USSR) **O bezuslovnykh i natural'nykh uslovnykh refleksakh u yagnyat i kozlyat v rannem postnatal'nom ontogeneze.** [On unconditioned responses and natural conditioned responses in lambs and kids in early postnatal ontogenesis.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 246-249. Studied gas exchange in lambs and kids with changes in light and temperature of the environment and under the influence of food intake ("the specific dynamic action of food"). From the very 1st day of life chemical thermoregulation in kids was disclosed. In neonate kids gas exchange in the light was higher than in the dark. As the age of the animal increased, so did this reaction to light—from 4% on the 1st day to 28% on the 60th day. In lambs the reflex phase of the specific dynamic action of food was absent.—*I. D. London*.

NEUROLOGY

4281. Adey, W. R. (U. California, Los Angeles) **Kletochnye mekhanizmy i kharakteristiki nervnoi sistemy pri obrabotke informatsii.** [Cellular mechanisms and characteristics of the nervous system in information processing.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 219-238.—Discusses the construction of a theory to explain how information is coded at the higher levels of the brain, with great reliance put on wave processes and the "enormous ability" of the brain to operate in parallel fashion. The discussion is developed through consideration of the following topics: (a) essential phenomena in the transformation of information in nervous pathways, (b) intimate aspects of organization of brain tissue and the neuron as 1 of the elements of brain tissue, (c) the connection between neuronal activity and the usual EEG, (d) the correlation between EEG activity and the behavioral processes, and (e) the union of hypotheses on brain organization. "It is necessary to avoid simple analogies with nerve nets

where only impulses circulate or, what is worse, with the present generation of computer apparatus which are characterized by their limited character of parallel access and by logical elements possessing only binary function." (English summary) (59 ref.)—*I. D. London.*

4282. Alekseeva, M. S., Dmitriev, Yu. S., & Ereemeev, N. S. (Pavlov Inst. of Physiology, Leningrad, USSR) **K voprosu ob analizatornoi deyatel'nosti dlkikh serykh kryk.** [On the analyzer activity of wild gray rats.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 3-6.—10 wild gray rats, conditioned to a sequential stereotype of CSs (bell, light, bell) with maze electrode defensive reinforcement, were Ss in a study to elucidate the leading role of the visual or auditory analyzer in CR activity. Variations away from the stereotype were tested: (a) bell sounded 5 times, (b) light flashed 5 times in order, (c) bell and light applied simultaneously 10 times with choice in movement to either the left or right, and (d) 10 trials without utilization of signals. It was shown that (a) the chief role in CR activity belonged to the signal stimulus, and (b) the visual analyzer played the leading role.—*I. D. London.*

4283. Barchas, Jack D., Ciarello, Roland D., & Steinman, Alan M. (Stanford U., Medical School, Palo Alto, Calif.) **Epinephrine formation and metabolism in mammalian brain.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 31-48.—Studied the uptake and metabolic disposition of iv and intraventricularly administered epinephrine (E) and the enzymatic formation of epinephrine in male Simonson rat brain. Following iv administration, highest concentration of the catecholamine was seen in the pineal and pituitary glands, although the brain also took up significant amounts. The pineal and pituitary retained most of their activity as unchanged E, while the brain principally formed metanephrine and vanillyl-mandelic acid. Unlike the metabolic pathway employed for iv administered epinephrine, following intraventricular injection most of the epinephrine metabolites were seen to be conjugated products. The $\frac{1}{2}$ -life in the brain for an intraventricular dose of epinephrine was $2\frac{1}{2}$ hr. Therefore, despite low resting levels of the hormone, the evidence suggests that epinephrine is turned over rapidly in the brain. In the studies of the enzymatic synthesis of epinephrine, a specific anatomic distribution of enzyme activity was observed, activity being highest in the rostral brainstem region. This enzyme may be associated with the particulate fractions of brain homogenates. The presence of an inhibitor present in brainstem particulate fractions was observed which markedly inhibits adrenal phenylethanolamine N-methyl transferase and may exert a similar effect on the brain enzyme. Synthesis of epinephrine in the brain is probably associated with a particulate fraction and may be regulated by an inhibitor. It is concluded that epinephrine can be synthesized and rapidly metabolized by brain and may function as a neuroregulatory agent. (25 ref.) *Journal abstract.*

4284. Batuev, A. S. (Leningrad State U., USSR) **Znachenie kortikofugal'nykh vliyaniy dlya mezhanalizatornoi integratsii.** [Significance of corticofugal influences for interanalyzer integration.] In corticofugal influences for interanalyzer integration. S. P. Nariakashvili (Ed.). "Korkovaya regulatsiya deyatel'nosti podkorkovykh obrazovaniy golovno mozga." (See PA, Vol. 46:Issue 2) 189-206. Presents data on the physiological significance of the corticoregulatory mechanisms in the integration of

heteromodal information. Ss were cats and rats in experiments making use of electrophysiological and conditioning methods in combination with surgical intervention and pharmacological treatment of the cortex. It was shown that the regulatory effect of the cerebral cortex upon the relay nuclei is mediated through 3 mechanisms: (a) cortical regulation of each sensory system; (b) cortical action mediated by the reticular formation, modulating afferent inputs on the receptor and central relay levels; and (c) direct corticopyramidal regulation of a number of analyzers. From this point of view the frontal cortical regions and the brainstem reticular formation should be considered as a system regulating the afferent stream. The dynamics of the integration observed between cat analyzers during conditioning revealed that the properties of nervous processes differ significantly. It is concluded that direct integration of all 3 mechanisms of cortical regulation of the afferent systems provides the means by which previously unbalanced analyzers may be more completely integrated. (English summary) (2 p. ref.)—*I. D. London.*

4285. Bekhtereva, N. P. (Inst. of Experimental Medicine, Leningrad, USSR) **Nekotorye dannye o fiziologii strukturno-funktsional'nykh otnosheniyakh podkorkovykh obrazovaniy golovno mozga cheloveka.** [Some data on the physiology of the structural-functional relationships of the subcortical structures of the human brain.] In S. P. Nariakashvili (Ed.). "Korkovaya regulatsiya deyatel'nosti podkorkovykh obrazovaniy golovno mozga." (See PA, Vol. 46:Issue 2) 65-78.—Presents conditions for optimal physiological examination of the human brain along with methods for studying the neurophysiological bases of human mental activity. Ss were patients undergoing diagnosis and treatment through prolonged utilization of multiple electrodes. Data are presented on changes in (a) the electrosubcorticogram, (b) steady potential shift, (c) oxygen supply level, and (d) regional impulse activity in the brain during psychological testing (operative memory tests and presentation of emotional stimuli). Along with those on emotional reactions and changes in mental activity resulting from electrical stimulation of the brain. Changes in the electrosubcorticogram were shown to spread during psychological testing, the character of the former depending mainly on initial electrical activity. Changes in steady potential shift, impulse activity and oxygen supply level were consistently reproduced during testing. These changes depended on the particular structure involved and the test employed. It is suggested that a corticosubcortical morphophysiological system exists, with links of varying degrees of firmness, which participates in mental activity under changing conditions. (English summary) (21 ref.)—*I. D. London.*

4286. Benedetti, G. (U. Basel, Psychiatric Clinic, Switzerland) **Das Unbewusste in neuropsychologischer Sicht.** [The unconscious from the neuropsychological viewpoint.] *Nervenarzt*, 1969(Apr), Vol. 40(4), 149-155.—Reviews the neuropsychological literature dealing with the unconscious, a fringe subject of neuropsychology, the investigation of which essentially belongs to the domain of psychoanalysis and psychodynamics. Neuropsychology describes as unconscious those fragments of behavior which temporally as well as in their integration are less connected to the whole. Unconscious in the primary sense are (a) neurophysiological processes that occur outside the psychic behavior, e.g., the forming of macromolecules in memory processes; (b)

neuropsychological mental processes that concern the whole individual, and not just the interaction of individual neural systems, which last only a fraction of time and do not cross the threshold of consciousness; and (c) neuropsychological processes of longer duration that are not connected with word images, and in which phenomena like extinction, inhibition, transference-resistance, etc., play a part. (55 ref.)—*B. Schay.*

4287. **Beritashvili, I. S.** (Inst. of Physiology, Tbilisi, USSR) **O roli obratnoi afferentsatsii v individual'no priobretennom povedenii.** [On the role of feedback afferentiation in individually acquired behavior.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 270-276.—Using data derived from experiments with dogs, analyzes the role of feedback afferentiation and Anokhin's "acceptor of action," i.e., "a central cortical mechanism [in a self-regulatory functional system] picking up feedback impulsation arising as the result of reflex [or behavioral] action," in consummatory "image-directed behavior." The importance of feedback afferentiation in the beginning of formation of an alimentary-motor CR, directed chiefly by the image of the position of the alimentary reinforcement, is stressed. After the alimentary-motor behavior is automatized and operates as a chain CR, feedback afferentiation is no longer necessary. (English summary)—*I. D. London.*

4288. **Biryukov, D. A.** (Inst. of Experimental Medicine, Leningrad, USSR) **O roli afferentnykh sistem v funktsional'noi organizatsii tselostnoi deyatelnosti mozga.** [On the role of afferent systems in the functional organization of cerebral activity as a whole.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 276-283.—Discusses a number of themes connected with the problem of afferent influence on the holistic organization of cerebral activity. Division of afferentiation within the nervous system into specific and nonspecific inputs depends on (a) systems of internuncial neurons, generating high-frequency rhythmic discharges, and (b) the selective distribution of neurons with high integrative levels. The functional lability of single neurons depends on afferent impulsational input. The preferential participation of certain afferent systems in mechanisms responsible for central tonus should be attributed to ecological factors which also determine the qualitatively different influences, exerted by systems within the same sensory modality, as a function of the signal significance of environmental factors of 1 type. Event probabilities and the statistical characteristics of signals should be taken into account in any analysis of the tonic activity of cerebral regulatory systems and the character of their phasic reactions. A certain mean level and variety of incoming information are essential for normal functioning of the nervous system. (English summary)—*I. D. London.*

4289. **Bullock, T. H.** (U. California, Medical School, San Diego) **Yazykh nervnykh kletok.** [The language of nerve cells.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 11-17.—Discusses what forms of neuronal signals are utilized and how these signals are processed, and analyzes certain problems of information transmission in the CNS such as the coding of latencies, the coding of discharge-probability, and number coding. A consideration of the theory and related experimental data leads to the conclusion that there are a number of

coding and decoding mechanisms in the nerve cells which are complexly heterogeneous and permutationally sequential in operation. In addition to the classical impulse-frequency code, other types and principles of coding are described—some dependent on nerve impulses; others not dependent on spaced impulses (coding of latencies, coding of discharge-probability, number coding). (English summary)—*I. D. London.*

4290. **Cooper, Jack R., Bloom, Floyd E., & Roth, Robert H.** (Yale U., Medical School) **Cellular mechanisms in memory and learning.** In J. R. Cooper, F. E. Bloom, & R. H. Roth, "The biochemical basis of neuropharmacology." (See PA, Vol. 46:Issue 2) 205-217.

4291. **Cooper, Jack R., Bloom, Floyd E., & Roth, Robert H.** (Yale U., Medical School) **The biochemical basis of neuropharmacology.** New York, N.Y.: Oxford U. Press, 1970. viii, 220 p. \$4.50 (paper), \$6.95 (cloth).

4292. **Gantt, W. H.** (John Hopkins U., Medical School) **Vegetativnye komponenty uslovykh reflektsov i problemy shizokineza i autokineza.** [Autonomic components of conditioned responses and problems in schizokinesis and autokinesis.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 299-302.—Presents a survey of the author's experimental work from the 1920s to the present. Included are references to research where considerable divergencies show up between physiological systems with respect to the elaboration of CRs (referred to as schizokinesis) and to research on experimental neuroses where new symptoms, connected with past experience, arise during periods of quiet (referred to as autokinesis).—*I. D. London.*

4293. **Gillies, J. D., Burke, D. J., & Lance, J. W.** (U. New South Wales, Sydney, Australia) **Tonic vibration reflex in the cat.** *Journal of Neurophysiology*, 1971(Mar), Vol. 34(2), 252-262.—The tonic vibration reflex is a contraction of a muscle when the Ia afferent fibers are activated by muscle vibration. It was studied on decerebrated and pentobarbital anesthetized cats. The reflex has an abrupt onset with a 10-msec latency. It was unaltered by section of 1 or both dorsal quadrants of the spinal cord and not consistently changed by cerebellectomy or 8th nerve section.—*G. Westheimer.*

4294. **Jung, R.** (Freiburg U., W. Germany) **Opticheskaya regulatsiya dvizhenii glaz, vnimanie i vospriyatie dvizheniya.** [Visual regulation of eye movements, attention and the perception of movement.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 431-442.—Presents the results of quantitative studies on the relationships between optokinetic nystagmus and motion detection, using registration of eye movements and scaling of velocity perception. Ocular following movements in the slow phases of optokinetic nystagmus were facilitated by visual attention; at higher stimulus velocities and with inattention, following movements became slower than stimulus velocities. The difference produced a moving retinal image related to the subjective increase in velocity (about double that perceived during eye following). Only adequate following movements during the slow phase of optokinetic nystagmus resulted in a correspondence between stimulus velocities and velocity perception. Afferent velocity perception from moving retinal images was exaggerated during eye fixation or insufficient following, but was suppressed during the rapid phase of optokinetic nystagmus. The

selective function of visual attention was studied in "railway nystagmus." Subjective motion sensation was shown to be dominated by movements of the object tracked with foveal attention. Motion perception and spatial determination were shown to be different during slow and rapid eye movements. During rapid saccadic movements visual motion perception was canceled, but spatial determination of the final direction of gaze was signaled accurately after the saccadic movement. Thus, during ocular saccadic movements or the quick phases of optokinetic nystagmus the visual world does not move in spite of rapidly moving retinal images. The findings are discussed in relation to the constancy of spatial perception and the subjective stability of the visual world.—*J. D. London.*

4295. Karamyan, A. I., Zagorul'ko, A. A., Belekova, M. G., & Kosareva, A. A. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Morfofunktsional'nye osobennosti korkovo-podkorkovykh vzaimootnoshenii u domlekopitayushchikh pozvonochnykh.** [Morphofunctional features of cortico-subcortical interrelationships in premammalian vertebrates.] In S. P. Narikashvili (Ed.), "Korkovaya regulyatsiya deyatelnosti podkorkovykh obrazovani golovnoy mozga." (See PA, Vol. 46:Issue 2) 96-115.—Presents and discusses the specialization of some afferent and efferent functions in different divisions of the CNS in the early stages of their formation (in amphibians and reptiles). It was shown that the functional organization of the sensory system in premammalian vertebrates differs sharply from that in mammals. Thus, visual (frog, tortoise) and olfactory (tortoise) evoked potentials, recorded from the archi-, paleo-, and neocortex, are surface-negative, easily "fatigued," and have a tendency to recruitment in response to low-frequency stimulation. Study of the functional state of the cortical structures and the tectum opticum—the principal central structure of the tortoise visual system—showed that extirpation of the dorsal cortex (in the zone of maximal response to light flashes) results in augmentation of the visual evoked potentials in the tectum opticum evoked by light flashes. Strychninization or cortical stimulation produced a reverse effect (suppression of the evoked potentials). These data suggest the existence of a corticofugal regulatory influence of inhibitory character. In amphibians the thalamocortical integratory system is basically nonspecific in structure. In reptiles a clear tendency to articulate separate nuclear structures into communicational systems is noted. At the level of the reptile, specialization is more developed in the afferent system and arises earlier than in the efferent. The physiological and morphological findings show that afferent and efferent connections between subcortical structures and the cortex are established very early in cerebral phylogenesis. (English summary) (50 ref.)—*J. D. London.*

4296. Khanashvili, M. M., Obukhova, G. P., Silakov, V. I., & Burakova, N. S. (Inst. of Experimental Medicine, Leningrad, USSR) **Materialy k analizu kortikofugal'nykh vliyaniy na podkorkovye obrazovaniya zritel'noi sistemy.** [Materials for the analysis of corticofugal influences on subcortical structures of the visual system.] In S. P. Narikashvili (Ed.), "Korkovaya regulyatsiya deyatelnosti podkorkovykh obrazovaniy golovnoy mozga." (See PA, Vol. 46:Issue 2) 145-153.—Data from 15 nembalized cats suggest that the posterior thalamic nucleus, the pulvinar, preectal

region, lateral geniculate body, and especially the colliculus anterior may serve as a morphological substrate for the interaction of disconnected cortical centers. Thus, 1 of the mechanisms for cortical integration involves the relay of nerve impulses on the subcortical level. The data presented are considered as evidence for a descending cortical influence on the functions of subcortical visual centers, with the cortex acting tonically to exert a stabilizing influence upon the subcortical structures. (English summary)—*J. D. London.*

4297. Lisak, K. & Endröcz, E. (Inst. of Physiology, Pécs, Hungary) **Nervvanya i gormonal'naya regulyatsiya motivatsionnykh povedencheskikh reaktsii.** [Nervous and hormonal regulation of motivated behavioral reactions.] In V. V. Pann (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii" (See PA, Vol. 44:4609) 343-352.—In order to provide a neuroanatomical substrate for the integration of motivated behavioral patterns 2 antagonistically connected systems are proposed at the mes- and diencephalic levels: an inhibitory system in the caudal direction and an ascending facilitative system with an increase in the excitatory state in 1 of these systems resulting in a rebound effect in the other. Changes in the excitability level of these systems are held to form the neurophysiological basis of motivated behavior. Data derived from normal and castrated rats, are presented on the hormonal control of the excitability level of the brainstem-preoptic connections. By using the method of evoked potentials, a difference in the excitability level of the brainstem reticular formation between males and females was found—a sex dependent difference subject to conditioning with sexual steroids. The application of estradiol and/or testosterone in the preoptic region indicated the primary action of these steroids in this area. It is suggested that changes in the excitability level of the brainstem reticular core are due to influence of the forebrain structures exerted in the caudal direction. (English summary) (21 ref.)—*J. D. London.*

4298. Lisak, K. & Endröcz, E. (Inst. of Physiology, Pécs, Hungary) **The role of forebrain inhibitory functions in conditioning, motivation and self-stimulation behaviour.** In S. P. Narikashvili (Ed.), "Korkovaya regulyatsiya deyatelnosti podkorkovykh obrazovaniy golovnoy mozga." (See PA, Vol. 46:Issue 2) 156-170.—Discusses data amplifying the view that goal-directed motor patterns form the "spatial frame" of a learning and that the CR may be considered as a conditioned link between the motor pattern and the environmental signal. Thus, a conditioned link may be inhibited or facilitated by numerous environmental stimuli but the goal-directed motor pattern, acquired by a given situation cannot be eliminated from the brain. Experiments with cats and rabbits with chronically implanted electrodes show that (a) the medial forebrain bundle plays a basic role in the interpretation of motivated behavioral reactions, and (b) internal inhibition is highly implicated in the latter. The relationships between the ascending activating system and the frontal inhibitory system involved somatomotor and situation-specific reactions—an organizational pattern which forms the basis of motivated behavior. Positive self-stimulation is explained as a reinforced increase in internal inhibition and interruption of this enhanced inhibition results in "feedback action" on the part of the ascending activating system by integrating the same somatomotor pattern through which the animal received its intra-

cerebral stimulation. Electrical stimulation of the ascending activating system in the absence of specific sensory input results in (a) feedback action of the internal inhibitory processes, and (b) long-lasting inhibition of the integration of that somatomotor pattern which mediated intracerebral stimulation. (Russian summary) (21 ref.).—*I. D. London.*

4299. Mandell, Arnold J., Spooner, Charles E., & Brunet, Don. (U. California, Medical School, Irvine) Whither the "sleep transmitter." *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 13-30.—Reports studies exploring the actions of a wide range of amino acids in relationship to behavioral sleep, using 1-5 day old White Leghorn chicks as Ss. In spite of the current interest of investigators of neurochemical substrates of sleep in either the norepinephrine or serotonin "position," a large variety of other amino acids and their products are as worthy of consideration as the current favorites. In addition, it appears that more than simple amine products of the amino acids may be of interest in that a wide variety of metabolic transformations (e.g., transmethylation) are waiting to upset any prematurely simple, single substance theory of such a complex nervous system function as sleep or sleep stage. (66 ref.).—*Journal abstract.*

4300. Marton, Magda L. (Hungarian Academy of Sciences, Psychology Inst., Budapest) *A magasabb rendű idegműködés tipológiájának szemlélete és módszerei*. [Aspects and methods in the typology of higher nervous activity.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 51-60.—Examines experimental procedures used in determining the parameters of higher nervous activity. It is emphasized that the typology of higher nervous activity characterizes the varieties of type along with fundamental plastic functions and the dimensions recognized by studying conditional reflex processes; in the majority of these investigations the differences in learning capacity are brought to light. Former static, constitutional typologies have been replaced by a dynamic typological conception concerned with the traits of the learning process. The effect of this conception on the emergence of behavior typologies is also analyzed. The applicability in educational psychology of a typology which considers the nervous system is highlighted. (Russian summary) (29 ref.).—*English summary.*

4301. Meshcherskii, R. M. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Funktsional'naya organizatsiya kortikofugal'noi sistemy zritel'nogo analizatora*. [Functional organization of the corticifugal system of the visual analyzer.] In S. P. Narikashvili (Ed.), "Korkovaya regulatsiya deyatel'nosti podkorkovykh obrazovaniy golovnogo mozga." (See PA, Vol. 46:Issue 2) 132-142.—Rabbits, cats, and rats (anesthetized and not) were Ss in a detailed study of the functional organization of feedback connections from the visual cortex to the lateral geniculate body. An attempt was also made to determine the pattern of corticifugal regulation of the afferent volley in the central chain of the visual analyzer. It was shown that the visual cortex exercised 3 types of effects on the lateral geniculate body: (a) an excitatory influence transmitted through axodendritic synapses, (b) an inhibitory corticifugal influence transmitted through axosomatic synapses, and (c) an inhibitory corticifugal influence associated with the presynaptic inhibition of lateral geniculate body neurons. The system of corticifugal connections may be activated through the

following pathways: (a) specific visual afferent, (b) the oligosynaptic transcallosal and (c) the polysynaptic interhemispheric. Corticifugal influence from the primary visual cortex can be modulated from the secondary. It is suggested that, in the thalamic relay nuclei, corticifugal influence removes redundant information and helps in the detection of signals of pragmatic significance. (English summary) (48 ref.).—*I. D. London.*

4302. Moruzzi, G. (Inst. of Physiology, Pisa, Italy) *Funktsional'noe znachenie sna*. [Functional significance of sleep.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 372-375.—There are 2 kinds of recovery in the brain involving both fast and slow recovery processes, with sleep appearing to be necessary for only the latter. Nervous structures involved in inborn stereotyped activities are characterized by fast recovery processes related to change in membrane permeability. The higher nervous structures concerned with perception, learning, and, above all, consciousness require slow recovery processes. For these highly specialized nervous structures, recovery work is likely to require a prolonged period of inactivity. "If these SRPs [slow recovery processes] were not concentrated within a given period of time, called sleep, we should be neither really awake nor completely asleep." Thus, the meaning of the brainstem and diencephalic mechanisms underlying sleep is to organize all the slow recovery processes, implying a loss or reduction of consciousness, within a well-defined period of time, in order that the animal may be really awake during the rest of the day. (English summary)—*I. D. London.*

4303. Narikashvili, S. P. (Ed.) *Korkovaya regulatsiya deyatel'nosti podkorkovykh obrazovaniy golovnogo mozga*. [Cortical regulation of the activity of the subcortical structures of the brain.] Tbilisi, USSR: Metsniereba, 1968. 364 p.—Presents a collection of 19 articles representing the papers of a 1966 symposium held in Tbilisi during the 5th All-Union Conference on Problems in the Electrophysiology of the Nervous System. Much of the ensuing discussions is reproduced.—*I. D. London.*

4304. Sager, O. (Neurological Clinic of Colentina Hosp., Bucharest, Romania) *Study on the cerebral cortical functions regulating the subcortical centers*. In S. P. Narikashvili (Ed.), "Korkovaya regulatsiya deyatel'nosti podkorkovykh obrazovaniy golovnogo mozga." (See PA, Vol. 46:Issue 2) 173-187.—Dogs and cats were used in chronic experiments to study the role of the cerebral cortex (neo- and paleocortex) in regulating the activity of certain subcortical structures. It was shown that the neocortex by its inhibitory and facilitative corticifugal fibers modulates the activity of the subcortical structures following the receipt of information from these very structures, thereby inhibiting or facilitating their activity. Similarly, the paleocortex through its paleocorticifugal fibers was shown to: (a) be involved in the proper performance of certain important functions such as the alimentary and sexual functions, especially with respect to information received from the hypothalamic centers; and (b) play an important role in the emergence of certain affective states. The hippocampus was shown to participate very much in the sleep-waking function in cerebellectomized and bilaterally neocorticated animals. An attempt was made to explain the rapid extinction of hippocampal conditioning, based on the role of the hippocampus in the memory process. The neocortex was shown to be

deeply involved in the maintenance of normal posture in the act of walking. (Russian summary) (24 ref.).—*I. D. London.*

4305. Shelikhov, V. N. & Rogacheva, S. K. (1st Medical Inst., Moscow, USSR) **Znachenie vozratnoi generalizatsii pervichno-korkovkh vobuzhdenii dlya integrativnoi deyatel'nosti golovnogo mozga.** [Significance of reverse generalization of primary cortical excitation for integrated activity of the brain.] In V. V. Parin (Ed.) "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 417-421.—Discusses the available data showing that any primary cortical excitation is subjected to wide generalization not only through numerous intracortical fibers (horizontal generalization), but also through circuit systems such as cortex-subcortex-cortex. The latter mechanism is termed "reverse generalization" and involves the brainstem reticular formation, medial thalamic nuclei, and subthalamic structures. Reverse generalization plays a role in all processes connected with the convergence of different excitation in the cortical neurons, in the closure of conditioned connections and the elaboration of CRs, in the formation of emotional reactions, etc. Reverse generalization plays a role in the pathogenesis of those diseases at whose basis lies a primary cortical focus of irritation (injury, tumor, epilepsy, etc.). Reverse generalization is also involved in the formation of an inert subcortical focus of excitation which continues to operate as a secondary focus of excitation even after elimination of the primary cortical focus. (English summary) (25 ref.).—*I. D. London.*

4306. Shidlovskii, V. A. (1st Medical Inst., Moscow, USSR) **Problema vegetativnykh komponentov uslovnykh i bezuslovnykh refleksov, motivatsii i emotsii.** [The problem of the autonomic components of conditioned responses and unconditioned responses, motivations, and emotions.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 422-431.—6 dogs with a "strong type" of nervous system were Ss in a study of the autonomic components of the orienting reflex and of alimentary and defensive CRs and UCRs. It is concluded that the autonomic components of CRs have an adaptive character and reflect the adaptation of the organism to forthcoming activity. The character and intensity of these reactions are defined as both the motivated state of the animal (degree of hunger, thirst, etc.) and the emotional state, depending on the coincidence and noncoincidence of the expected with reality. Experimentation with probability reinforcement discloses the role of the animal's individual experience in evaluating the signal significance of stimuli. (English summary) (29 ref.).—*I. D. London.*

4307. Tomka, Imre. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **A homoklebeny kutatásának fejlődése a Szovjetunióban.** [Development in frontal lobe research in the Soviet Union.] *Psichológiai Tanulmányok*, 1970, Vol. 12, 379-385.—Presents a short account of the most important scientific results of Russian and Soviet workers on the frontal lobe of the brain during the last 70 yr. Special attention is given to the results achieved in the field of electrophysiology and to the works of A. R. Luria. (Russian summary) (24 ref.).—*English summary.*

4308. Traugott, N. N., et al. **O roli nespetsificheskikh sistem v deyatel'nosti bol'shikh polusharii golovnogo mozga cheloveka.** [On the role of nonspecific systems in the activity of the human cerebrum.]

In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol. 46:Issue 3) 287-323.—Discusses how, under the action of psychopharmacological agents, the redistribution of the activity of the nonspecific systems affects the activity of the cerebrum and how, under such action, increase or decrease in the activity of the different nonspecific systems affects CR activity, the sensory functions, and behavior as a whole. Data from the following areas of research are presented: (a) nonspecific systems and CR activity (retention of CRs, generalization of CRs, internal inhibition, defensive CRs, relatively complex forms of cortical activity), (b) nonspecific systems and sensory functions (absolute thresholds for long-acting sounds, differential thresholds for frequency and intensity, absolute thresholds for the detection of tonal messages of small duration—up to 20 msec.—thresholds of autonomic reactions to acoustic stimulation, adaptational capacity of the auditory apparatus, discrimination of articulated speech, discrimination of tonal signals and the sounds of speech from noise), and (c) nonspecific systems and behavior (dominance on the part of the ascending influences from the anterior hypothalamus and decrease in the activity of the reticular formation, the thalamic nonspecific systems, and the caudate nucleus; dominance on the part of ascending influences from the thalamic nonspecific systems with decrease in the activity of the nonspecific systems of the posterior hypothalamus and brainstem reticular formation; increase in the activating influences of the reticular formation, associative and nonspecific nuclei of the thalamus; increase in the activating influences of the reticular formation and posterior hypothalamus with depression of the activity of the nonspecific nuclei of the thalamus). (3 p. ref.).—*I. D. London.*

4309. Zachynayeva, I. A. & Éksler, N. D. (Inst. of General & Communal Hygiene, Moscow, USSR) **Elektrifiziologicheskii analiz deyatel'nosti obonyatel'nogo analizatora.** [Electrophysiological analysis of the activity of the olfactory analyzer.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 310-319. Ss were awake rabbits with chronically implanted electrodes. The orienting reaction to new experimental situations resulted in (a) desynchronization of the electrical activity in the sensorimotor cortex, and (b) regular rhythm in the temporal and occipital regions of the brain, in the hippocampus and the brainstem reticular formation. Simultaneously, an increase in spike activity in the olfactory bulb, the amygdaloid cortico-medial and central nuclei, and the prepyriform cortex occurred. Acoustic and photic stimuli and a jet of air produced similar activation in the neocortical regions and the brainstem reticular formation along with an increase in spike activity in the structures of the olfactory analyzer. Olfactory stimuli (acetone, benzol, fennel oil) depressed spike activity in the olfactory structures when the neocortex and brainstem reticular formation had been activated. (English summary) (22 ref.).—*I. D. London.*

Neuroanatomy

LESIONS

4310. Fields, Thomas A., et al. (Washington State U.) **Apparatus and training program for studying immediate effects of retinal damage in the rhesus**

monkey (Macaca mulatta). *USAF ARL Technical Report*, 1969(Dec), Vol. 69-18, 20 p.—Developed apparatus and training techniques to prepare 6 rhesus monkeys for a study of the immediate effects of retinal damage upon visual acuity. Ss were trained to perform a discrimination task involving punishment and avoidance procedures. Stimuli were 2 Landolt rings with the gap-openings oriented to either the right or to the left. 2 response levers were available. Initial training was an avoidance-punishment program but this was not successful. Control was obtained by putting the Ss on a positive reinforcement program with food reward. Once stimulus control was obtained, punishment was introduced and positive reinforcement was gradually eliminated. Using these procedures Ss were trained to a level of 90-100% correct responses in the avoidance-punishment program with stimuli requiring 20/100 visual acuity. Ss were then placed in a head restraint apparatus and viewed the stimuli through tubes. This technique and supporting apparatus allowed the rapid presentation of stimuli to either the left or right eye. The criterion of 90-100% correct responses was maintained under these conditions.—*USAF ARL*.

4311. **Gambaryan, L. S.** (Lab. of Neurobionics, Erevan, USSR) **K morfo-funktsional'noi arkhitekture uslovnogo dvigatel'nogo refleksa.** [On the morphofunctional architecture of the motor conditioned response.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 290-299.—Presents the results of studies on dogs and cats. When dorsal columns were cut or removed over a few spinal segments, previously established motor CRs remained unaffected. Impulses, elicited by exciting afferent fibers of spinal origin in the extremities, continued on to the sensorimotor cortex when all spinal pathways were sectioned except those of the ventrolateral tract. Bilateral transection of the medial lemniscus did not end the ability to execute CRs. Lesion of the medial lemniscus did not interfere with the transmission of impulses to the sensorimotor cortex, elicited by stimulation of the nerves arising in the hindleg muscles. Pyramidal section at the level of the medulla oblongata resulted in only slight disturbance of motor function. Retention of the CRs was in evidence, with only deficiency in the force of the CRs within the 1st postoperative days. Bilateral extirpation of globus pallidus resulted in adynamia and indifference to external stimuli. CRs were retained 12-20 days after extirpation. Neither partial nor total extirpation of the cerebellum interfered with the acquisition and execution of classic defensive CRs. (English summary) (19 ref.)—*I. D. London*.

4312. **Graham, Ernest S., Farrer, Donald N., Mark, Roger G., & Fields, Thomas A.** (Holloman Air Force Base, 6571st Aeromedical Research Lab., Alamogordo, N. M.) **Behavioral assessment of visual functioning immediately after exposure of the eye to a laser.** *USAF ARL Technical Report*, 1970(Mar), No. 70-9, 15 p.—Describes a behavioral program which permits assessment of visual functioning in rhesus monkeys immediately following laser-induced foveal impairment. 6 Ss were trained on a visual discrimination problem involving Landolt rings. Ss received stimuli via viewing tubes to either the right or left eye on a random basis. An equal number of stimuli were presented to each eye. Midway through the behavioral program the right eye was exposed to a neodymium laser. Postexposure

behavioral testing began immediately thereafter. The behavioral data predicted the occurrence of foveal impairment as verified by fundus photographs taken approximately 1 hr. after exposure.—*USAF ARL*.

4313. **Khudorozheva, A. T.** (Pavlov Inst. of Physiology, Leningrad, USSR) **Osobennosti vosstanovleniya dvigatel'noi funktsii posle deafferentsatsii u sobak v ontogeneze.** [Features of the restoration of motor functions after deafferentiation in dogs in ontogenesis.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 308-320.—7 1-3.5 mo. old puppies were Ss in a study of the mechanism involved in compensatory adaptability at different periods of postnatal ontogenesis when the hindleg had been deafferentiated by unilateral section of the posterior roots (L_5-S_2) proximally from the spinal ganglia. The operation led to functional changes in the CNS. CR motor-defensive reactions were utilized with simultaneous recordings of the movements of the deafferentiated and intact limbs. Serving as another criterion of the character of the operatively induced impairment of the deafferentiated limb and also of the speed and degree of its functional restoration were the rhythmic motor reactions of the deafferentiated limb due to stimulation of the intact limb, utilizing current with different rhythms of application. Showing the functional deficiency of the deafferentiated limb was its earlier inclusion in CR motor activity and the appearance of rhythmic activity in synchrony with the rhythm of stimulation of the intact limb (observed only in the range of slow rhythms). Quickening of the rhythm led to impairment of the rhythmic performance of the deafferentiated limb. Cessation of deafferentiated limb motor activity when CSs and UCSs were acting occurred earlier for those Ss which underwent operation before 3 mo. of age. The stability and degree of functional readjustment in the younger group are held to be connected with the high plasticity of the nervous processes, thanks to which, along with partial restoration of sensitivity of the deafferentiated limb, a gradual decline of its reactivity to stimulation was observed. (22 ref.)—*I. D. London*.

4314. **Khudorozheva, A. T.** (Pavlov Inst. of Physiology, Leningrad, USSR) **Rol' afferentnoi impul'satsii v reflektornoi deyatel'nosti u sobak v ontogeneze.** [Role of afferent impulsation in the reflex activity of dogs in ontogenesis.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 297-307.—10 1-3 mo. old puppies, with unilateral section of the posterior roots (L_5-S_2) proximally from the spinal ganglia, were Ss in a study to establish the dynamics of restoration of the locomotor and autonomic functions of the affected left hindleg. The deafferentiated hindleg exhibited (a) movements in synchrony with breathing, (b) a tendency toward straightening, and (c) the cross-extensor reflex. Age-specific differences occurred in the appearance and subsequent disappearance of these changes, lasting 1-3 mo. for the younger Ss and 4-6 mo. for the older Ss. Fuller restoration occurred in the former than in the latter group. In 5-6 mo. the compensatory process in the older group reached a level of restoration which stabilized with the development of irreversible structural changes in the posterior horns of the spinal cord. Autonomic changes were reflected in the presence of differences in temperature between the deafferentiated and intact limbs, being $.5-2^\circ\text{C}$ higher in the former for 30-40 postoperative days. A decline of temperature to the level of the intact limb paralleled the gradual

restoration of locomotor functions. (22 ref.)—*I. D. London.*

4315. Obratsova, G. A. (Pavlov Inst. of Physiology, Leningrad, USSR) *Izmeneniya uslovnoreflektornoi deyatel'nosti v rezul'tate udaleniya v rannem vozraste zritel'nykh retseptorov.* [Changes in conditioned-response activity as the result of removal of the visual receptors at an early age.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 255-264.—18 rabbits, enucleated at 3-5 days of age, were Ss in a study to determine the changes in subsequent CR activity, and UCR motor activity in the manifestations of CR activity in the blinded Ss. Beginning from the 3rd 5th mo. either a sharp decrease in mobility or an increase in motor activity appeared. Both types of changes bore a stable character and were retained a long time. Changes in general behavior were also reflected in CR activity. In slow inactive Ss shaking CRs were formed with difficulty and CR activity was distinguished by its low level. In active Ss, together with the rapid elaboration of CRs, their high level was observed along with all elements of "analytico-synthetic activity" inherent in intact Ss of the same age. It is suggested that these individual differences are connected with differences in the typological properties of the nervous system which undergo sharp intensification in cases of enucleation. (21 ref.)—*I. D. London.*

4316. Randall, Walter & Parsons, Virginia. (U. Iowa) **Thyroidectomy produces abnormal grooming behavior in cats.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 268-269.—Cats with midbrain lesions exhibit an abnormal dissociation between appetitive and consummatory grooming behaviors and some signs of hypothyroidism. To determine if a hypothyroid state causes the abnormal dissociation, 6 adult male cats were thyroidectomized and their behavior monitored. The thyroidectomized Ss exhibited the same abnormal dissociation in grooming behavior as did 14 Ss with midbrain lesions. However, certain considerations, including the latency and time course of the thyroidectomized-induced changes, suggest that the hypothyroid state is not directly involved, but rather brings about other endocrine and metabolic changes that are involved in the production of the behavioral abnormality.—*Journal abstract.*

4317. Schultz, Ronald & Norberg, Marty. (San Jose State Coll.) **Effects of visual loss on toad, *Bufo boreas*, activity.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 987-990. 15 blinded Western toads, *Bufo boreas*, exhibited significantly less closed-field locomotor activity than 15 with normal vision. It was postulated that this decrease in activity was due to the S's lack of an optimum arousal level.—*Journal abstract.*

Brain Lesions

4318. Jonason, Kim R. & Enloe, Linda J. (State U. New York, Upstate Medical Center, Syracuse) **Alterations in social behavior following septal and amygdaloid lesions in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 286-301.—Subjected 144 male hooded Long-Evans rats, which had previously been tested for social cohesiveness in the open field, to either septal, amygdaloid, or control lesions, and then retested for social attraction. Septal lesions produced dramatic and persistent increases in social cohesiveness, while amygdaloid lesions equally

dramatically reduced social cohesiveness. When an S which had sustained a septal lesion was paired with an amygdalotomized S, their social attraction scores were almost identical to those of paired control-operated Ss. Pairs consisting of septal and control Ss displayed slightly elevated cohesiveness scores compared with paired control Ss, while pairs consisting of amygdaloid and control Ss displayed substantially reduced cohesiveness scores. (23 ref.)—*Journal abstract.*

4319. Kelsey, John E. & Grossman, Sebastian P. (Chicago) **Nonperseverative disruption of behavioral inhibition following septal lesions in rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 302-311.—Examined the effect of septal lesions in 2 experiments with 12 and 16 male Sprague-Dawley rats. Lesioned Ss did not inhibit responding as well as controls on a modified DRL schedule unless an exteroceptive cue indicating the termination of the required interresponse delay was provided. However, the lesioned Ss did not inhibit behavior efficiently in a discriminated free-operant avoidance paradigm when responding prior to the presentation of such a cue was not punished. Since Ss received no operant training prior to the introduction of the final response contingencies, the disinhibitory deficits are concluded to be due to an inability to inhibit punished behavior in the absence of an exteroceptive cue and/or to a general change in incentive motivation. (18 ref.)—*Journal abstract.*

4320. Trafton, Clinton L. & Marques, Paul R. (Arizona) **Effects of septal area and cingulate cortex lesions on opiate addiction behavior in rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 277-285.—60 Sprague-Dawley albino rats were given bilateral lesions in the septal area or cingulate cortex and then subjected to a regimen previously shown to produce drug addiction in animals. The addiction was indexed by a learned preference for a bitter morphine HCl solution. Ss were tested for relapse following a 2-wk withdrawal of drugs. Bilateral anterior cingulate cortex lesions resulted in a decrement in both the acquisition and retention (relapse) of drug-oriented behavior. Bilateral septal lesions produced no changes in addiction behavior. Further tests with 20 Ss indicated that the results apparently were not due to any effects of cingulate cortex lesions on reactions to the bitter taste of morphine HCl. (16 ref.)—*Journal abstract.*

Brain Hypothalamic & Hippocampal Lesions

4321. Gromova, F. A. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Funktsional'naya sistema i khimicheskaya geterogennost' voskhodyashchikh vliyaniy gipotalamusa na kory golovnogo mozga.** [Functional system and chemical heterogeneity of ascending hypothalamic influences on the cerebral cortex.] In V. V. Barm (Ed.), *Sovremennaya organizatsiya fiziologicheskikh funktsii*. (See PA Vol. 44:4609) 302-310.—Studied the effect of stimulation and coagulation of various regions of the hypothalamus upon spontaneous and evoked cortical activity with unanesthetized cats and rabbits as Ss. High-frequency (40-300 cps) stimulation of most hypothalamic regions elicited the arousal reaction and decreased the response evoked by photostimulation in the visual cortex. Low-frequency (3-6 cps) stimulation of the same hypothalamic structures elicited the appearance of slow waves and increased the response evoked by photostimulation

Hypothalamic destruction was followed by EEG synchronization, whose degree varied with the hypothalamic structure involved. The serotonergic nature of the ascending influences of the medial structures of the anterior and middle hypothalamic regions on the cortex was established. The chemical heterogeneity of the hypothalamus is discussed in the light of Anokhin's views concerning the biological specificity of the ascending influences of the hypothalamus on the cortex. (English summary) (28 ref.)—*I. D. London.*

4322. Singh, Devendra. (U. Texas) **Sex differences in obesity and food-directed activity in normal and hyperphagic rats.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 306-308.—Compared 23 age-matched male and female Holtzman albino rats with lesions in the ventromedial hypothalamic area for food consumption as a function of fixed-ratio schedule and palatability of food. 12 sham-operated Ss served as controls. Results show marked sex differences in obesity: female lesioned Ss gained significantly more body weight than did male lesioned Ss. However, sex differences in hyperphagia were evident only when regular food was available and could be obtained at lower ratio schedules. Finally, unlike normal rats, no sex differences were evident for sucrose consumption in lesioned Ss.—*Journal abstract.*

4323. Spies, Gordon. (Indiana State U.) **Hypothalamic hyperphagia: Loss of weight through voluntary exercise.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 257.—Housed 6 hypothalamic hyperphagic female Long-Evans hooded rats in activity cages for periods ranging from 14-28 days. 5 Ss lost weight during the period, and rate of gain of the 6th was sharply attenuated. On return to their home cages, Ss' weight gain returned to above-normal levels. It is suggested that in a free environment the static phase of hypothalamic hyperphagia might not be attained and that it is an artifact of the manner in which the Ss are housed.—*Journal abstract.*

4324. Wampler, Richard S. (Kansas State U.) **Regulatory deficits in rats following unilateral lesions of the lateral hypothalamus.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 190-199.—Investigated deficits in regulatory behaviors following unilateral lesions of the lateral hypothalamus (LH) using 30 hooded and 8 albino female rats. Ss with unilateral damage to LH were aphagic and adipsic briefly, showed deficits in ability to respond to glucoprivation, and drank little water when food deprived. Ss showed normal drinking following hypertonic saline injections. A 2nd group of 8 Ss had similar LH damage and additional damage to the region of the fornix ahead of the ventromedial nucleus. Although this group showed some deficits in regulatory behaviors, Ss did not differ significantly from 5 Ss with minimal brain damage. Results suggest that 1 LH area cannot maintain regulatory behaviors, but damage to other areas can block the effect of unilateral LH lesions.—*Journal abstract.*

BRAIN STIMULATION

4325. Bureš, J. & Burešová, O. (Inst. of Physiology, Prague, Czechoslovakia) **Primenenie rasprostranyayushcheisya depressii v tselyakh izucheniya funktsional'noi organizatsii tsentral'noi nervnoi sistemy.** [The use of spreading depression for purposes of studying the functional organization of the central

nervous system.] In S. P. Narikashvili (Ed.), "Korkovaya regulyatsiya deyatelnosti podkorkovykh obrazovaniy golovnoy mozga." (See PA, Vol. 46:Issue 2) 116-131.—Unanesthetized curarized rats were used to study the remote effects of Leao's spreading depression on (a) spontaneous and evoked EEG activity, and (b) single neuronal activity in structures not directly invaded by spreading depression. During cortical spreading depression, the ipsilateral thalamus, hypothalamus, and caudate nucleus were severely depressed while the reticular formation was activated. The hippocampus was influenced intermediately. Striatal spreading depression reduced thalamic activity, but influenced very little the neocortex and the reticular formation. Striatal spreading depression interrupted the pyramidal and thalamocortical pathways. Thalamic spreading depression produced deafferentation of the cerebral cortex and decreased cortical, striatal, and hypothalamic activity without much affecting the reticular formation and hippocampus. It is concluded that long-distance connections between nerve centers are predominantly excitatory, while inhibitory mechanisms are mainly local in character (recurrent inhibition). Spreading depression may be used as a method of "inhibitory neuronography" to establish the character and intensity of the mean tonic influence exerted by a depressed area on the other intact centers. (English summary) (2 p. ref.)—*I. D. London.*

4326. Ito, M. & Olds, J. (California Inst. of Technology, Div. of Biology) **Unit activity during self-stimulation behavior.** *Journal of Neurophysiology*, 1971(Mar), Vol. 34(2), 263-273.—Measured the effect of self-stimulation on the neuronal activity in albino rats, in terms of the firing rate during stimulation periods as compared to that during nonstimulation intervals. In the cingulate region there was facilitation and driving, and in the hippocampus there was inhibition. It is concluded that axons or collaterals of the fibers whose stimulation was rewarded project to the anterior cingulate region and there exercise a profound influence on the hippocampal activity.—*G. Westheimer.*

4327. Van Der Meulen, J. P. & Ghez, C. (Western Reserve U., Medical School) **The effects of stimulation of the cerebral cortex on alpha and gamma motor units in cat hindlimb.** *Archives Italiennes de Biologie*, 1970(Dec), Vol. 108(4), 538-563.—Stimulation of the pericruciate area in cats under pentobarbital-chloralose anesthesia produced responses in motor units of nerves to hindlimb flexors that were of equal latency on the 2 sides; gamma responses had lower thresholds and longer latencies than alpha units. Lesion studies demonstrated that no 1 corticospinal system is responsible. Only gamma responses remained after hemisection of the cord on the side of the recording, suggesting that propriospinal fibers provide a differential input to these units.—*W. A. Wilson.*

Chemical Stimulation

4328. Burešová, Olga; Bureš, Jan. & Rustová, Milena. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **Conditions for interhemispheric transfer of initially lateralized visual engrams in hooded rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 200-205.—After 5 days of monocular overtraining of a horizontal-vertical discrimination in male hooded rats, 1 hemicortex was functionally eliminated by cortical spreading depression

(CSD). Retention tested with the hemisphere ipsilateral or contralateral to the trained eye revealed 0 or 90% savings, respectively. Binocular experience (retraining to criteria of 3/3 or 12/13 trials) between the monocular overtraining and retention testing under unilateral CSD did not change the above relationship. However, monocular overtraining followed by retraining with the untrained eye to the given criteria or to the 12/13 criterion 5 times improved the secondary trace to 46, 55, or 72% savings, respectively. It is proposed that interocular transfer starts with transcommissural readout which initiates a transcommissural write-in process rapidly improving the duplicate trace in the untrained hemisphere. (16 ref.)—*Journal abstract.*

4329. Shumilina, A. I. (Inst. of Normal & Pathological Physiology, Moscow, USSR) *Dinamika izmenenii vyzvannykh potentsialov na svet v kore i podkorkovykh obrazovaniyakh pri aplikatsii kholinergicheskikh i adrenergicheskikh veshchestv na koru golovnogo mozga.* [Dynamics of changes in evoked potentials in response to light in the cortex and subcortical structures when cholinergic and adrenergic agents are applied to the cerebral cortex.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 258-269.—8 awake rabbits with chronically implanted electrodes were Ss in the study which employed acetylcholine and adrenaline as cholin- and adrenergic agents, respectively. Results show that the direct action of adrenaline on the cerebral cortex produced entirely different changes in evoked potentials to light flashes than acetylcholine, beginning from local short-term facilitation of both phases of the primary response and the complete suppression of the late slow wave at the point of application of adrenaline—evidence for the different neurochemical nature of the mechanisms of generation of these components. These and other data show that in the same cortical point the synaptic organizations, participating in the generation of evoked potentials in response to a light flash, may be considered as involving both cholin- and adreno-reactive structures which selectively promote a corticofugal influence upon appropriate subcortical structures and transcallosal structures in the cortex of the contralateral hemisphere. (English summary) *J D London.*

Electrical Stimulation

4330. Flynn, John P., Edwards, Stephen B., & Bandler, Richard J. (Yale U., Medical School) *Changes in sensory and motor systems during centrally elicited attack.* *Behavioral Science*, 1971(Jan), Vol. 16(1), 1-19. Hypothesized that sensory and motor systems are readied to act in specific ways under the influence of electrical stimulation of the brain that induces attack behavior. In a number of experiments with cats, more lunges were directed towards a mouse presented to the eye contralateral to the side of the hypothalamus by stimulated. The visual system was also gated by hypothalamic stimulation. A bite ensued in some instances after section of the trigeminal nerve, but not in others. After the successful Ss were blindfolded they no longer bit. The tactile system around the mouth and lips was similarly influenced by hypothalamic stimulation. Reflexes became functional under the influence of stimulation. It is concluded that in the case of attack

behavior, the organism's sensory and motor systems are primed to bring about patterned reflexes, which constitute at least in part the overt behavior when suitable stimuli are present in the environment.—*Journal abstract.*

4331. Frederickson, C. J. & Hobson, J. A. (Harvard Medical School, Boston, Mass.) *Electrical stimulation of the brain stem and subsequent sleep.* *Archives Italiennes de Biologie*, 1970(Dec), Vol. 108(4), 564-576.—Compared the effects of 3 hr. of stimulation in or near the nucleus reticularis pontis (in which EEG desynchronization was maintained) and 3 hr. of sleep deprivation without such stimulation in cats. Latency to slow-wave sleep, and total amount of slow wave sleep and waking were unaffected, but periods of uninterrupted slow-wave sleep were longer and more frequent after stimulation. Stimulation produced a lower latency to paradoxical sleep and an increase in total amount. The results are considered to be evidence against the passive reticular deactivation theory of sleep.—*W. A. Wilson.*

4332. Gadzhieva, N. A. (Academy of Sciences of the Azerbaidzhan SSR, Baku, USSR) *Vliyaniye kory bol'shikh polushariy na vyzvannyye potentsialy v razlichnykh strukturakh zritel'nogo analizatora.* [Influence of the cerebral cortex on evoked potentials in different structures of the visual analyzer.] In S. P. Nankashvili (Ed.), "Korkovaya regulatsiya deyatelnosti podkorkovykh obrazovaniy golovnogo mozga." (See PA, Vol. 46:Issue 2) 289-305.—In chronic experiments on rabbits, recordings were made of the electroretinogram (ERG) and the evoked potentials of the cortex lateral geniculate body, and superior colliculus. Rhythmic electrical stimulation of the visual cortex and the sensorimotor cortex resulted in a pronounced depression of responses in the lateral geniculate body and superior colliculus, evoked by light flashes. The b wave in the ERG was also depressed, but at higher intensities of cortical stimulation than for the responses of the lateral geniculate body and superior colliculus. Lateral geniculate body evoked potentials were the most sensitive to cortical stimulation, since they were depressed at the lowest intensity of stimulation. In all cases, the degree of depression of evoked potentials was more marked and complete at the higher levels of the afferent pathway than at the lower levels, and occurred with lesser intensity of cortical stimulation. Both the positive and negative phases of the responses were depressed, with reduction of the latter being the more prominent. The facilitative influence of cortical stimulation on lateral geniculate body and superior colliculus evoked potentials and on the ERG was observed only after cessation of cortical stimulation. The influence from the visual cortex was greater than that from the sensorimotor cortex. During prolonged stimulation of the sensorimotor cortex a progressive "escape" of subcortical responses was observed. The influence of the visual cortex and sensorimotor cortex continued after aminazine (chlorpromazine) and amylal depression of the activity of the adreno- and cholinoreactive substrates of the reticular formation. The influence from the visual cortex was enhanced while that from the sensorimotor cortex remained unchanged or decreased. The data suggest the existence of corticofugal influence via the corticohypothalamic pathways and the brainstem reticular formation. (English summary) (59 ref.) *J D London.*

4333. Gillies, J. D., Burke, D. J., & Lance, J. W. (New South Wales, Sydney, Australia) *Supraspinal*

control of tonic vibration reflex. *Journal of Neurophysiology*, 1971(Mar), Vol. 34(2), 302-309.—Repetitive electrical stimulation of the lower pontine reticular formation and the lateral vestibular nucleus augmented the tonic vibration reflex in the anesthetized or decerebrate cat triceps muscle bilaterally, while stimulation of the medial part of the medullary reticular formation facilitated it.—*G. Westheimer.*

4334. **Golden, George H. & Lubar, Joel F.** (U. Tennessee) **Effect of septal and fimbrial stimulation on auditory and visual cortical evoked potentials in the cat.** *Experimental Neurology*, 1971(Mar), Vol. 30(3), 389-402.—Recorded cortical responses from the ectosylvian and marginal gyri, respectively, with both acutely and chronically implanted electrodes in 11 adult cats. After all recordings were completed, lesions were made in the septum in 3 Ss and both auditory and visual cortical evoked potentials (CEPs) were again studied. Depending on the location within the septum, septal stimulation in acute preparations either attenuated or facilitated both auditory and visual CEPs; stimulation of the fimbria had a facilitatory effect. With chronically implanted electrodes, septal stimulation led to decreases and fimbrial stimulation to increases in evoked response amplitudes. Certain effects were reversed after placement of the lesion: (a) auditory and visual CEPs attenuated by septal stimulation were facilitated, and (b) fimbrial stimulation resulted in the attenuation of CEPs. Findings implicate the septum and fimbria in processing sensory information and give evidence that a uniprocess concept of septal functioning is no longer adequate. (19 ref.)—*Journal abstract.*

4335. **MacLean, P. D., Reeves, A. G., & Yokota, T.** (National Inst. of Mental Health, Bethesda, Md.) **Reaktsii neironov gippokampa pri vnutrikletочноi registratsii u bodrstvuyushchikh obez'yan (Saimiri sciureus) i problema obuslovlivaniya na urovne staroi kory.** [Intracellular recording of the reactions of hippocampal neurons in awake monkeys (Saimiri sciureus) and the problem of evocation at the archicortical level.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 358-363.—Intracellular recordings of 75 hippocampal neurons and extracellular recordings of 82 hippocampal neurons in 13 awake squirrel monkeys were made. Electrical stimulation was applied to the septal and olfactory pathways, which may be viewed as representative of inputs from intero- and exteroceptive systems. Stimulation of the septum and olfactory bulbs was found to be effective in causing graded excitation of hippocampal neurons with the significant difference that only in response to septal stimulation did depolarizing postsynaptic potential lead to the emergence of cellular discharges. (English summary)—*I. D. London.*

4336. **Makarenko, Yu. A.** (1st Medical Inst., Moscow, USSR) **Osobennosti tsentral'nykh mekhanizmov vegetativnykh reaktsii pri samorazdrazhenii.** [Features of the central mechanisms of the autonomic reactions in self-stimulation.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 52-58.—6 dogs with electrodes implanted in different points of the hypothalamus were Ss in a study to determine whether (a) positive and negative reactions are specifically expressed in the autonomic processes, and (b) a correlation exists between the autonomic (peripheral) and central processes. Electrical stimulation of the positive structures induced

parasympathetic reactions (bradycardia, salivation, increased gastric motility, etc.)—effects observed simultaneously or in different combinations. Reverse reactions appeared after stimulation of negative zones. The autonomic responses exhibited a sympathetic character (tachycardia). The EKG and other autonomic indices reflected the quality and level of motivation, with stimulation of positive zones bringing about a partial decrease in motivation and of negative zones presumably an increase. The character of the autonomic effects emerging from self-stimulation makes it appear that action on the positive zones of the brain simulates various "fragments of natural reinforcement." (English summary)—*I. D. London.*

4337. **Phillips, A. G., Morgan, C. W., & Mogenson, G. J.** (U. British Columbia, Vancouver, Canada) **Changes in self-stimulation preference as a function of incentive of alternative rewards.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 289-297.—Tested 24 male Wistar rats on a 23-hr food and water deprivation schedule for preference between lever pressing for electrical stimulation of the lateral hypothalamus and liquid rewards, which varied in taste and caloric content. Preference for self-stimulation diminished as the alternative liquid became more palatable: with a saccharine-glucose solution as the alternative, Ss showed an equal preference for hypothalamic stimulation and the liquid reward. In longer 6-hr tests, Ss deprived of water for 24 and 48 hr. initially showed a preference for self-stimulation over water but eventually satisfied their water deficit by pressing for water. Neglect of physiological needs during self-stimulation appears to be more a function of the alternatives available and the length of the test session than intrinsic properties of the brain stimulation. (French summary) (15 ref.)—*Journal abstract.*

ELECTRICAL ACTIVITY

4338. **Daniel, Jozef.** (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Effect of various degrees of mental load on activation level.** *Studia Psychologica*, 1970, Vol. 12(4), 266-270.—Various degrees of mental load consisting of reading Stroop's subtests and panel monitoring were followed simultaneously with activation level by basic GSR being recorded in 35 Ss (15 undergraduates and 20 operators). An analysis of GSR curves failed to reveal any significant differences between various degrees of load despite a marked variability of activity in individual Ss. Results are in agreement with literary data. GSR curves seem to be suitable, before all else, for a qualitative analysis. (Czech & Russian summaries)—*Journal abstract.*

4339. **Fadeev, Yu. A.** (1st Medical Inst., Moscow, USSR) **Teoriya funktsional'noi sistemy kak osnova dlya izucheniya mekhanizmov zamykaniya uslovnogo refleksa.** [The theory of the functional system as basis for the study of the mechanisms of conditioned response closure.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 404-411.—In 16 urethanized cats, extracellular recordings were made of the reactions of 43 cortical neurons (26 in the visual projection and 17 in the somatosensory areas) to a CS (light flash) and a UCS (pain), applied in a definite sequence. Data indicate that neuronal responses to photic and nociceptive stimuli

ongoing wave processes of the EEG in subcortical and cortical sites during natural sleep and sodium-pentobarbital-induced anesthesia, is reported and compared with previous similar studies on man where electrodes had been introduced for purposes of either diagnosis or treatment. (English summary)—*I. D. London.*

4346. Buchsbaum, Monte; Silverman, Julian; Henkin, Robert L., & Pfefferbaum, Adolf. (National Inst. of Mental Health, Bethesda, Md.) **Contrast effects on the auditory evoked response and its relation to psychophysical judgments.** *Perception & Psychophysics*, 1971(Apr), Vol. 9(4), 379-384.—Used an auditory average evoked response (AER) procedure to search for a physiological counterpart of the contrast effect—the tendency for an S's judgment of the intensity of a stimulus to be modified by the intensity of prior stimulation. Ss were 10 male and 10 female 18-22 yr. old paid normal volunteers. When a tone was preceded by a softer tone, its AER amplitude increased; conversely, when a tone followed a louder tone, amplitude decreased. Irregular intervals between tones decreased the AER contrast effect, as did increasing the interval between tones. Significant correlations found between individual scores on the AER contrast procedure and performance on a battery of psychophysical tasks are discussed. (34 ref.)—*Journal abstract.*

4347. Giannitrapani, Duilio. (Michael Reese Psychosomatic & Psychiatric Inst., Chicago, Ill) **Scanning mechanisms and the EEG.** *Electroencephalography & Clinical Neurophysiology*, 1971(Feb), Vol. 30(2), 139-146.—Examined EEG recordings of 32 11-13 yr. old right-handed males under 8 conditions. Findings indicate that beta activity increases as long as a condition exists in which the stimulus, whether internal or external, requires structuring activity on the part of the organism. It is suggested that there is a hierarchy of scanning mechanisms beginning with alpha activity scanning for any stimulation. Its function ceases or subsides in the presence of a broad range of percepts, whether internal or external. At this point in the perceptual cycle, faster scanning mechanisms occur, such as beta activity in the temporal areas, scanning for structure. This activity subsides just as alpha activity does when the conditions for its existence are no longer present. Beta activity disappears when the stimulus has acquired the necessary structure. The existence of faster mechanisms to mediate even more complex processes is discussed. (French summary) (15 ref.)—*Journal summary.*

4348. Giaquinto, S. & Marciano, F. (National Research Council, Cybernetics Lab., Naples, Italy) **Automatic stimulation triggered by EEG spindles.** *Electroencephalography & Clinical Neurophysiology*, 1971(Feb), Vol. 30(2), 151-154.

4349. Hanley, J., Adey, W. R., Zweig, J. R., & Kado, R. T. (U. California, Brain Research Inst., Los Angeles) **EEG electrode-amplifier harness.** *Electroencephalography & Clinical Neurophysiology*, 1971(Feb), Vol. 30(2), 147-150.

4350. Lille, F., Provaznik, K., & Pottier, M. (Centre National Recherches Scientifiques, Physiology Lab., Paris, France) **Effets de stimulations sonores et lumineuses sur l'électroencéphalogramme (EEG) au cours de tâches psychosensorielles.** [Effects of auditory and visual stimuli on encephalograms during psycho-sensory tasks.] *Travail Humain*, 1970(Jan), Vol. 33(1-2), 77-86.—Alpha index increased during auditory stimulation by 10%, and during visual stimulation it decreased by 35%. Amplitude was less when stimuli were

alternated between the 2 senses. The alpha index and integrated EEG were closely correlated. As alpha index rose, cardiac frequency declined.—*R. W. Husband.*

4351. Ludlam, William M., Cohen, Stanley, & Ludlam, Diana P. (Optometric Center of New York, N.Y.) **The visual evoked response: A new tool in vision research.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Jul), Vol. 47(7), 505-519.—The minute electrical discharges which occur in the visual cortex upon brief stimulation of the eye by light can be monitored by topical scalp electrodes and, aided by computer summation techniques, their waveform can be extracted and displayed for study. Various factors, both external and internal to the human S, have been shown to influence the character of a given response. The visual evoked response (VER) has already been employed in laboratory investigations of such varied visual factors as amblyopia, color vision, intensity-time relationships, metaccontrast, dark adaptation, and foveal characteristics. A relationship between the contrast of borders in the retinal image and the character of a specific temporal portion of the VER has been recently reported by M. R. Harter and C. T. White. This discovery may make possible the development of an objective, nonverbal clinical test for refractive status. (74 ref.)—*Journal abstract.*

4352. O'Steen, W. Keith & Anderson, Kenneth V. (Emory U.) **Photically evoked responses in the visual system of rats exposed to continuous light.** *Experimental Neurology*, 1971(Mar), Vol. 30(3), 525-534.—Studied the effect of light on the photoreceptors of 8 adult albino rats exposed to constant illumination and a control group of 9 Ss exposed to cyclic light. The cells in the retina selectively degenerated after exposure to continuous, low intensity, fluorescent illumination, while cyclic light had no effect. Damage could be detected during the 1st 4 days and, after 30 days of exposure, normal receptors were completely absent. The pigment cell layer and the innermost layers of the retina were not damaged. The characteristics of photically evoked potentials in the optic tract, lateral geniculate nucleus, and visual cortex of the experimental Ss were examined. Evoked responses after 4 days of light varied according to the recording site and were typically of low amplitude and had long latencies of onset. Only responses of low amplitude and with long latencies were recorded after 14 days, and no photically evoked potentials could be recorded from the optic tract and lateral geniculate nucleus. Similar responses were recorded after 30 days, although, more commonly, no potentials could be evoked by flash stimuli. It is concluded that the limited retinal degeneration described provides a model for examining visual function in the absence of photoreceptor cells in the retina, but without apparent damage to other cellular components of the system.—*Journal abstract.*

4353. Sato, Kensuke, et al. (Nagasaki U., Medical School, Japan) **Cerebral visual evoked potentials in relation to EEG.** *Electroencephalography & Clinical Neurophysiology*, 1971(Feb), Vol. 30(2), 123-138.—Compared rhythmic algebraic summations of visual evoked potentials (VEPs) to single flash stimuli with averaged evoked responses elicited by rhythmic flash stimuli of the same frequencies as those of the summations in 12 human adults. Each of the main components in the average VEP to single flash was increased by summation at intervals corresponding to delta, theta, and alpha frequencies, whereas they were decreased by that at

intervals corresponding to beta frequencies. By summation and stimulation at a frequency corresponding to the alpha frequency range, deflections other than the 2nd surface negative (N_2) and 3rd positive (P_3) deflections in the VEP were fused or synchronised respectively to the N_2 and P_3 deflections to build up an enhanced surface negative-positive diphasic (alpha rhythm-like) configuration. By further increase in the frequencies of the summation and stimulations, the diphasic pattern deteriorated to form a small amplitude fast pattern. At frequencies higher than 12/sec, occlusive (negative interactive) effects between adjoining flashes of light in the photic stimulation were noted. New findings obtained from the contour maps created by drawing equipotential lines for both the rhythmically driven and summed VEPs in relation to the frequency of the stimulation and summation are outlined. (French summary) (42 ref.).—*Journal summary*.

4354. Volokhov, A. A. & Pisareva, N. L. (Inst. of the Brain, Moscow, USSR) **Evolutsiya vyzvannykh otvetov kryshi srednego mozga na svetovye razdrazheniya u ptits v rannem ontogeneze.** [Evolution of evoked responses in the roof of the midbrain to photic stimulation in birds in early ontogenesis.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 127-133.—Evoked responses to single flashes were recorded in 15-21 day old chick embryos and in 1-30 day old chickens from the dorsal surface of tectum opticum. The evoked response appeared at the 18th incubational day as a negative or a negative-positive wave, in which the amplitude of the negative component exceeded by far the amplitude of the positive wave. In the process of pre- and postnatal ontogenesis definite changes in the main parameters of the evoked response were shown to occur. The latent period of the evoked response and the duration of the chief negative component were demonstrated to undergo the most distinct and regular changes. In the process of individual development, changes were observed in the configuration of the evoked response of tectum opticum. This change consisted of a decomposition of the negative wave into 2 teeth. However, contrary to the case in mammals, the evoked response in birds remained negative-positive without initial positiveness throughout the whole process of development. (English summary) (24 ref.).—*J. D. London*.

4355. White, Carroll T. & Bonelli, Leonard. (U.S. Naval Electronics Lab. Center, San Diego, Calif.) **Binocular summation in the evoked potential as a function of image quality.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Apr), Vol. 47(4), 304-309.—Obtained evoked cortical potentials under monocular and binocular viewing conditions, with image quality and flash intensity as experimental variables, using 3 adult males as Ss. Results show that the degree of binocular summation obtained was directly related to the quality of the image presented to the 2 eyes. A complex interaction was indicated between sharpness of focus and flash intensity, with the higher degree of binocular summation being obtained with high flash intensities when defocused patterns were used. Results suggest that the most unequivocal results will be obtained with the use of low to medium flash brightnesses.—*Journal abstract*.

4356. Yoshii, N., Miyamoto, K., Shimokochi, M., & Hayase, S. (Osaka U., Medical School, Japan) **Izuchenie elektroentsefalograficheskikh izmenenii spetsificheskikh dlya opredelennogo tipa povedeniya,**

i neuronal'nykh mekhanizmov uslovnoreflektornogo povedeniya. [Study of electroencephalographic changes, specific for a definite type of behavior, and the neuronal mechanism of conditioned response behavior.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 319-338. Ss were 5 dogs with implanted cortical and subcortical electrodes. Behavior-specific localization of EEG changes prior to CR formation (alimentary instrumental reflex, defensive classical CR, avoidance instrumental reflex) was demonstrated by applying low-frequency electrical stimulation to intracerebral structures and analyzing the EEG responses continuously. The sensorimotor cortex proved indispensable for conditioning motor reflexes. In alimentary bar-pressing EEG changes in response to the CS prior to the CR usually appeared in the cortex and less often in the subcortical structures. However, extensive areas in the cortical and subcortical structures were involved in the defensive CR and in avoidance bar-pressing. The intracerebral stimulus became effective in inducing marked responses in the mesencephalic reticular formation, caudate nucleus, and hippocampus when it was properly paired with the CS (food). The cortical and subcortical areas, where EEG activity was changed prior to the CR by the positive CS, were also influenced by procedures inducing internal inhibition (experimental extinction, delayed conditioning, aftereffect of the negative CS). Conditioned limb movement was induced by the conditioned intracerebral stimulation during sleep, though the EMG was very small and the process of differentiation was disturbed. Despite the small peripheral CR, the central CR preceding the peripheral response was conspicuously observed in the frontal cortex during sleep. (English summary) (16 ref.)—*J. D. London*.

SENSORY PHYSIOLOGY

4357. Boernstein, Walter S. (New York U. Research Center for Mental Health) **Optic perception and optic imageries in man: Their roots and relations studied from the viewpoint of biology.** *International Journal of Neurology*, 1967, Vol. 6(2), 147-181.—Based on W. S. Boernstein's theory of specific sensorimotor sense-synergies in perceptual processes and E. M. von Hornbostel's theory of bright-dark perception correlations between sensory and allied motor functions are demonstrated as the basis of the ability to perceive bright-dark sensory stimuli and to experience allied emotions. The additive effect of nonoptic processes on the optic system is described as confirming the Hornbostel-Boernstein theory. The physiological mechanisms underlying the bright-dark process as the root of all perception are considered. The generally accepted theory that stability, constancy, figure-ground organization, and spatial perception are characteristic of all kinds of perception is disputed. Experimental proof is provided that perception may still occur without any 1 of these properties. It is concluded that an understanding of the basic facts of perception in man is possible only by tracing them back to their development during phylogenesis. (Spanish, French, & German summaries) (77 ref.).—*Journal summary*.

4358. Bradley, Robert M. & Mistretta, Charlotte M. (U. Oxford, Nuffield Inst for Medical Research, England) **Intravascular taste in rats as demonstrated by conditioned aversion to sodium saccharin.** *Journal of Comparative & Physiological Psychology*,

1971(May), Vol. 75(2), 186-189.—Injected 128 naive male Sprague-Dawley rats in the tail vein with 1 ml. of sodium saccharin. Ss were exposed to gamma radiation and, 24 hr. later, were given a sodium saccharin vs. water-preference test. As a result of the treatment Ss were aversive to the oral sodium saccharin. Iv injection of sodium chloride followed by radiation produced no aversion to sodium saccharin. Results indicate that rats perceive intravascular sodium saccharin as a saccharin taste, suggesting that there are receptor sites in the tongue which are sensitive to changes in blood constitution, and which may act to monitor the internal chemical environment.—*Journal abstract.*

4359. Pfaff, D. W. & Gregory, E. (Rockefeller U.) **Olfactory coding in olfactory bulb and medial forebrain bundle of normal and castrated male rats.** *Journal of Neurophysiology*, 1971(Mar), Vol. 34(2), 208-216.—Single units were recorded from castrated and normal male rats. Stimuli were urine odors obtained from estrous and ovariectomized female, and normal, castrated, and frightened male rats. Detailed analysis showed that proportions of responding units and differential responses were essentially the same in castrated as in normal male rats.—*G. Westheimer.*

4360. Snyakin, P. G. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Retseptornye i éffektornye proyavleniya v deyatelnosti analizatorov.** [Receptor and effector effects in analyzer activity.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 58-65.—Adduces materials bearing directly on (a) the problem of self-regulation in the activity of the perceptual organs, and (b) the characteristic traits of their reactions when efferent influences are taken into account. Effector influences on the receptors of any analyzer are very well expressed in the functional lability of the receptor elements, which may be active or inactive depending on quantitative and qualitative changes in stimulation. Optimal receptor sensitivity may be maintained through the influence of CRs and UCRs. Thus, if the S is warned against future cooling, the number of cold points in the skin increases; whereas a warning of future warming brings on an opposite reaction. The accuracy of receptor adjustment to the situation is an important component of analyzer function. Receptors are, accordingly, not passive apparatus, perceiving environmental changes, but are active elements within the general analyzer mechanism—elements consisting of separate units which undergo sequential inclusion and exclusion, mobilization and demobilization in response to changes in the environment. Feedback receptor mechanisms play an undoubted role in self-regulation of the receptor function. (English summary) (25 ref.)—*I. D. London.*

4361. Worden, F. G. (Massachusetts Inst. of Technology, Brookline) **Hearing and the neural detection of acoustic patterns.** *Behavioral Science*, 1971(Jan), Vol. 16(1), 20-30.—Discusses the neurophysiology of perception in terms of hearing and its role in adaptive behavior. The complexity which characterizes sounds of biological significance is contrasted with the emphasis on simple stimuli in the historical development of hearing theories and auditory neurophysiology. The auditory pathway is compared with the visual pathway for the purpose of deriving relationships between its information-processing task and its neurophysiological organization. 2 concepts of the acoustic message are contrasted in relation to the question of how sound inputs

are able to influence behavior. (48 ref.)—*Journal abstract.*

BIOCHEMISTRY

4362. Cooper, Jack R., Bloom Floyd E., & Roth, Robert H. (Yale U., Medical School) **Serotonin (5-hydroxytryptamine).** In J. R. Cooper, F. E. Bloom, & R. H. Roth, "The biochemical basis of neuropharmacology." (See PA, Vol. 46:Issue 2) 142-163.

4363. Dési, Illés; Sós, József; Farkas, Ildikó, & Zahumenszky, Zille. (Hungarian Academy of Sciences, Budapest) **Glutaminsav antagonistázás, illetve adagolás hatásai különböző malatartási folyamatokra.** [Behavioral influences of glutamic acid antagonization and administration respectively.] *Pszichológiai Tanulmányok*, 1968, No. 11, 11-30.—Produced deficiency of glutamic acid in rats by administering 1 of the antimetabolites of glutamic acid, glutamic acid ethylester. Deviations in behavior were observed. The influence of glutamic acid on the deviations of these Ss and on the behavior of untreated Ss was assessed. The experiments involved chronic and acute EEG, conditioning, maze-running, and observation of orientation. Selective elimination of glutamic acid from the metabolism of the nervous system has been found to produce differences in EEG, learning, and behavior. In the course of parenteral administration of glutamic acid, the symptoms characteristic of its absence were eliminated. A stimulating effect on normal Ss could be observed in regard to their learning achievement and motor activity. (Russian summary) (48 ref.)—*English summary.*

4364. Kleban, Morton H., et al. (Philadelphia Geriatric Center, Gerontological Research Inst., Pa.) **Neurochemical changes in brains of albino rats resulting from avoidance learning.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 3-13.—Observed the effects of avoidance training on the brain chemistry of trained rats. 36 Wistar female albino rats were run in an automated straight-runway maze. 12 Ss received limited avoidance training followed immediately by extinction training for avoidance response. 12 other Ss received limited avoidance training only, and 12 Ss acted as nontrained controls. Following training, each S's brain was removed, and chemical analyses for RNA, protein, and total nitrogen were performed. Significant increases in cerebrum, brainstem, and cerebellum RNA were found for both trained groups. Such differences in RNA were strongly present in the brainstem and cerebrum but were nonsignificant for the cerebellum. Brain protein showed significant increases as a result of the interaction of cerebellum with avoidance training. Total nitrogen levels were unaltered. 2 significant correlations obtained between neurochemistry and behavior: a 0-order correlation between brainstem RNA and extinction behavior and a multiple correlation among brainstem RNA, cerebral protein, and extinction behavior. (27 ref.)—*Journal abstract.*

4365. Roffman, Mark & Lal, Harbans. **Conditional alteration in the pharmacological response to hexobarbital.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 773-774.

Hormones

4366. Evans, J. L., MacLean, A. W., Ismail, A. A., & Love, D. (U. Edinburgh, Sleep Lab., Scotland) **Con-**

centrations of plasma testosterone in normal men during sleep. *Nature*, 1971(Jan), Vol. 229(5282), 261-262.—Examined the relationship between sleep and concentration of plasma testosterone by taking samples from 5 adult male Ss during sleep. All Ss showed evidence of an overall increase in plasma testosterone during sleep. "Peaks of testosterone occurred in conjunction with or adjacent to periods of REM sleep . . . Arousal and sudden shifts towards arousal were also often associated with an increase in plasma testosterone." It is felt that this relationship "suggests a link between the neurophysiological state underlying REM sleep and the mechanism regulating the production of testosterone."—S. Appelle.

4367. Levine, Seymour. (Stanford U., Medical School) **Stress and behavior.** *Scientific American*, 1971(Jan), Vol. 224(1), 26-31. Summarizes several studies investigating possible roles of the pituitary-adrenal system in the regulation of behavior. ACTH and adrenal hormones affect learning, extinction, sensory functioning, and time judgments. High levels of ACTH are associated with resistance to extinction of appetitive and avoidance responses; low ACTH levels retard acquisition of CERs. ACTH also inhibits habituation and facilitates timing performance. Low adrenal hormone levels are associated with increases in ability to detect signals, although integration of signals is impaired. Low hormone levels depress detection ability. Administration of glucocorticoids facilitates time judgment. While the mechanism regulating hormonal influences on behavior are unknown, it is possible that organs of the brain respond selectively to pituitary-adrenal hormones.—P. Tolin.

4368. McClintock, Martha K. (Harvard U.) **Menstrual synchrony and suppression.** *Nature*, 1971(Jan), Vol. 229(5282), 244-245. Investigated the influence of social groupings on the menstrual cycle. 135 female residents of a college dormitory were studied to determine similarity in the date of menstrual onset among roommates and closest friends. Data show a significant increase in synchronization of onset dates, and suggest that the "significant factor in synchrony . . . is that the individuals of the group spend time together. Whether the mechanism underlying this phenomenon is pheromonal, mediated by awareness or some other process is a question which still remains open for speculation and investigation." Variations in menstrual cycles as a function of the time spent with males is also discussed.—S. Appelle.

4369. Randall, Walter. (U Iowa) **The behavior of clouds correlates with thyroid activity in cats.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 270-271. Reports finding 3-5 mo rhythms in a lesion-induced abnormal grooming behavior and thyroid activity of cats. An analysis of the climatological data for the same period revealed similar rhythms in sunshine. The sunshine peaks preceded the thyroid activity peaks and a cross-correlation was significant with a temporal lag of 1 mo.—*Journal abstract.*

4370. Robertson, Richard T. & Whalen, Richard E. (California, Irvine) **Recent mating experience and olfactory preferences in androgenized female rats.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 266-267. Reports that 10 neonatally androgenized female Sprague-Dawley rats displayed a greater behavioral preference for the odor of sexually receptive female rats than did 8 controls. This preference was not seen under

conditions of low sexual arousal but was evident after a brief mating session. Results are discussed in regard to the "masculinizing" effects of early androgen treatment.—*Journal abstract.*

4371. Traugott, N. N., et al. **Insulin kak psikhofarmakologicheskoe sredstvo.** [Insulin as a psychopharmacological agent.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii chekoveka." (See PA, Vol. 46, Issue 3) 229-286.—The reported research covers materials on: (a) the clinical picture of insulin-induced hypoglycemia, (b) termination of insulin-induced hypoglycemia and the clinical picture of post hypoglycemic states, (c) UCR activity and autonomic functions, (d) CR activity (changes in earlier conditioned CRs during the development of hypoglycemic state of the CR closure function of the cerebral cortex), (e) sensory functions, (f) the motor function, (g) cerebral electrical activity, and (h) atypical reactions. In the process of a developing insulin-induced hypoglycemia, a redistribution of the activity of the deep structures of the brain is observed. In the 1st phase—the initial, reticular syndrome—signs of increased activity in the posterior hypothalamus and reticular formation are observed. After the activity of these structures falls off, a phase emerges marked by the dominant activity of the thalamic nonspecific systems. Dominance on the part of the anterior hypothalamus then follows. These phases develop against a background of gradually growing and deepening depression of cortical activity. (J. p. ref.)—D. London.

Drug Effects—Human

4372. Blackwell, B. & Ayd, Frank J. (Cincinnati) **Problems in the evaluation of a new antidepressant drug in prison volunteers.** *Journal of Clinical Pharmacology & New Drugs*, 1971(Jan), Vol. 11(1), 19-23. Prison volunteers were Ss in a double-blind comparison of imipramine, placebo, and dimethacrin (the new antidepressant). Problems in study design and data interpretation included the difficulty of matching on suspected variables that could reflectively increase or decrease toxicity, favorable treatment set effects, and concern about symptom reporting and cross-contamination of complaints due to proximity of drug and placebo-treated Ss. Dimethacrin had less adverse effects on toxicity than imipramine, as judged by measures of weight loss and pulse rate and by comparison of dose counts and constipation. Dimethacrin appears to have fewer sedative and more stimulant actions than imipramine.—P. J. Federman.

4373. Caldwell, D. F., Myers, S. A., Damasio, E. F., & Merriam, P. E. (Lafayette Clinic, Div. of Psychosomatic Psychiatry & Psychology, Detroit, Mich.) **Auditory and visual threshold effects of marijuana in man.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 759-759.—Measures auditory and visual thresholds before and after smoking marijuana for 20 experienced and 20 graduates. Marijuana was administered to 10 experienced graduates. Marijuana had no effect on expected a "high" reaction. No effect on expected visual acuity, whereas 10 of 20 experienced graduates differentiated between marijuana and control Ss.—*Journal abstract.*

4374. Caldwell, D. F., Myers, S. A., Damasio, E. F., & Merriam, P. E. (Lafayette Clinic, Detroit, Mich.) **Auditory and visual threshold effects of marijuana in man.** *Addendum Perceptual & Motor Skills*

1969(Dec), Vol. 29(3), 922. Reports that the marihuana used in a previous study (see PA, Vol. 46: Issue 3) by the authors was found to be considerably reduced in potency and to contain 1.2% Δ^9 THC. Implications of these findings on the results of the experiment are discussed. —P. Hertzberg.

4375. Chapman, Loring F. (U. California, Medical School, Davis) **Experimental induction of hangover.** *Quarterly Journal of Studies on Alcohol Supplement*, 1970(May), No. 5, 67-86.—Briefly discusses the literature on the symptomatology, pathophysiological mechanisms, and the possible role of congeners in the etiology of hangover. In experimental party settings 91 21-35 yr. old moderate drinkers (in groups of 4-10), drank 1-1.75 ml of alcohol per kg as bourbon, or vodka diluted with water. The amount of food and drink taken prior to, during, and after alcohol ingestion and dilution and amount of beverage consumed were controlled. Behavioral tests (subtraction series, digit span, speech defect, and Romberg sign) were completed before and 75 min. after beginning to drink. Hangover severity was assessed subjectively on a rating scale and a checklist of symptoms. Blood alcohol levels (by Breathalyzer) 75 min. after beginning to drink, ranged from .06-.08% after 1 ml/kg of alcohol; from .10-.12% after 1.25 ml/kg; from .08-.15% after 1.5 ml/kg; and from .10-.18% after 1.75 ml/kg. No significant differences between the groups receiving vodka or bourbon were observed on the behavioral tests. Only 1 of 10 who had drunk 1 ml/kg and 2 of 10 who had drunk 1.25 ml/kg reported hangover. At these levels no difference between vodka and bourbon could be discerned with regard to capacity for inducing hangover. Hangover was reported by 33 of 60 who had drunk 1.50 ml. kg and 6 of 11 who had drunk 1.75 ml. kg. Of the 30 vodka drinkers and the 30 bourbon drinkers who had drunk 1.5 ml. kg, 13 and 20, respectively, reported definite hangover and 1 and 10 reported severe hangover. Reasons for the differential effects of the 2 beverages are discussed (55 ref.)—*Journal abstract*.

4376. Itil, Turan M. (U. Missouri, Medical School, St. Louis) **Digital computer "sleep prints" and psychopharmacology.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 91-95.—The graphic form of the digital computer-classified sleep EEG shows the total profile of the all-night sleep process. Since these profiles seem to be characteristic for each individual and remain relatively stable under standard conditions, they have been called "sleep prints." A study of the all-night sleep records of 7 normal volunteers indicated that sleep prints are, however, easily altered by endogenous or exogenous factors that affect the sleep process. In the sleep prints of chronic schizophrenics, fewer very deep sleep stages, high variability of the sleep stages, and irregular cyclic variation of the periods were found. Psychotropic drugs induced marked changes in sleep prints and these changes were more significant than the alterations of the length of REM periods in discriminating psychotropic drugs. (18 ref.)—*Journal summary*.

4377. Karlin, Edward S., Hayes, William N., Teger, Allen I., & Pruitt, Dean G. (State U. New York, Buffalo) **Effects of alcoholic beverages differing in congener content on psychomotor tasks and risk taking.** *Quarterly Journal of Studies on Alcohol Supplement*, 1970(May), No. 5, 101-114. In a double-blind study, 18 21-30 yr. old male students drank tap water or 4 doses of .4 ml/kg of alcohol at hourly intervals, as bourbon or vodka. Psychomotor tests were given before and 1 and about 5 hr. after drinking began. Differences between

blood alcohol levels after both beverages (each containing 43% alcohol) were negligible at 1 and at 5 hr. Simple and complex RT tasks showed differences at 1 hr. after drinking between the water and the beverages conditions but not between the 2 beverages. On a mirror-drawing task the improvement which occurred between the predrinking and alcohol session at 1 hr. was greatest after water and least after bourbon ($p < .05$). Mean difference scores between initial and the 5-hr sessions in the RT and the mirror-drawing tasks showed the same trend: improvement was greatest after water and least after bourbon. The immediate effects of alcoholic beverages upon RT seem to be determined by alcohol, while the congener effects are minimal; after the alcohol is metabolized the congeners seem to have a deleterious effect which is maximized when decision-making is involved rather than simple "reflexive" responding. In Exp. II, 18 male students were given 4 doses of alcohol at hourly intervals, each containing .2 ml/kg of alcohol. They were assigned randomly to 1 of 3 beverages: synthetic bourbon, synthetic vodka, both containing 4 times the level of congeners in commercial beverages, or congener-free synthetic alcohol. Kogan and Wallach's 12-item choice-dilemma questionnaire was administered after drinking (mean blood alcohol level of .08%) and to another sober group of 18. The alcohol-affected Ss, on the average, took greater risks than did the sober ones. The only significant difference in performance was that between the sober and the bourbon-drinking groups. Those given bourbon took significantly more risks than those given vodka and tended to take more risk than those given synthetic alcohol. The pattern of differences in risk taking between the alcohol-affected and sober groups was similar to that found in previous research on young and old groups. Mechanisms which may account for greater risk taking after drinking seem similar to those in young people.

—*Journal abstract*

4378. League, Richard & Kulig, Sharon G. (U. Florida, J. Hillis Miller Teaching Hosp.) **Smoking and biolinguistic function.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 763-764.—Toxic agents in the blood of the heavy smoker lead to a condition of anoxia that predisposes the smoker to heart attack. The possible inhibitory effect of such anoxia upon the biolinguistic innerlanguage mechanisms of the brain was explored. Semantic spaces of heavy smokers were tested and compared with those of a matched sample of non-smokers. 5 classes of concepts were employed: (a) random, (b) environmental, (c) machisma, (d) body image, and (e) smoker oriented. Polarity responses resembling a chronic form of semantic satiation uniform throughout all concept groups were discovered in the semantic spaces of heavy smokers ($p < .025$).—*Author abstract*.

4379. Lobb, Harold & Kaplan, Jack. (U. Western Ontario, London, Canada) **Protection of GSR conditioning by dextroamphetamine.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 15-26.—Administered d-amphetamine (.175 mg/kg) or placebo capsules to 64 normal human adults on 2 successive days in a factorially designed study of GSR acquisition and extinction. Ss performed a phi-phenomenon task during sessions with tone and electric shock as the conditioning stimuli. The drug prevented habituation of conditioned GSRs during acquisition trials, and when given next day it prevented extinction. However, the capacity of this

dosage to offset GSR habituation to the tone in a control group was relatively weak, and no influence was discernible on GSRs to shock, levels of skin resistance, or phi-phenomenon response. (French summary) (15 ref.)—*Journal abstract.*

4380. **Murphree, Henry B., Schultz, Robert E., & Jusko, Allan G.** (Rutgers State U., Medical School) **Effects of high congener intake by human subjects on the EEG.** *Quarterly Journal of Studies on Alcohol Supplement*, 1970(May), No. 5, 50-61.—Briefly reviews previously reported studies of the effects of alcoholic beverages on the EEG. Some preliminary and tentative findings resulting from a new technique of time-serial frequency analysis of the EEG are also reported. Base-line EEG recordings from 3 scalp areas of both hemispheres were made in 10 21-40 yr. old healthy, light to moderate drinkers, after which they drank randomly either bourbon or vodka in amounts providing .8 g/kg body weight of alcohol, superbourbon providing .1 or .2 g/kg alcohol, and 4 or 8 times as much congeners in the same proportions as in bourbon, or orange juice placebo. Recordings were repeated at hourly intervals for 6 hr. In some Ss who had large amplitude alpha before alcohol ingestion bourbon produced a fast (beta) activity in the frontal areas (between 16-28 cycles with peaks at 23/sec). This activity was not seen in the parietal or the occipital areas. No reciprocity occurred between alpha-band frequencies and "fast" activity in the frontal areas. A qualitatively unique but not uniform effect was noted after the superbourbon. After the lower dose of superbourbon (yielding a blood alcohol level of about 15 mg/100 ml) the spectra were initially almost indistinguishable from base-line recordings: occipitals showed moderate alpha, parietals reflected this in muted form, and the frontals presented no characteristic peak frequency activity. During succeeding recordings the alpha amplitude diminished and prominent activity appeared in the parietals, peaking at 8.5/sec. The increased variability of alpha associated with drowsiness trends is similar to that found with other beverages but the 8.5/sec activity in the parietals is a new finding, similar to the effect of barbiturates.—*Journal abstract.*

4381. **O'Hanlon, James F.** (Human Factors Research, Inc., Santa Barbara, Calif.) **Adrenaline's effects on human vigilance: Continuous versus pulsatile infusions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 765-766.—In an earlier study a relationship was shown between the level of circulating adrenaline and the human ability for maintaining vigilance. This study was designed to determine whether that relationship is causal. In Exp. I, 4 men performed a visual monitoring task while receiving a graded series of continuous adrenaline infusions; in Exp. II, 6 men performed the same task while receiving a series of pulsatile adrenaline infusions. Corresponding infusions in the 2 series delivered equivalent doses of adrenaline and produced similar adrenaline excretion rates. Continuous adrenaline infusion had little effect on signal detection performance but pulsatile adrenaline infusion improved it significantly.—*Author abstract.*

4382. **Traugott, N. N., et al.** **Aminazin, ili khlorpromazin.** [Aminazine or chlorpromazine.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol. 46:Issue 3) 9-74.—The reported research covers materials on: (a) the clinical picture of typical reaction to aminazine administration (states of emotional indifference, motor rigidity, drow-

ness, and aminazine sleep), (b) UCR activity and autonomic functions, (c) CR activity (influence of aminazine on earlier elaborated CRs, state of the cortical closure function), (d) sensory functions (absolute auditory sensitivity, absolute threshold as a function of stimulus duration, differential thresholds for frequency and intensity, adaptational capacity of the auditory apparatus, comprehensibility of speech, discrimination of tonal and speech signals from noise), (e) the motor function, (f) cerebral electrical activity (spontaneous activity, evoked potentials, rhythmic assimilation of light flashes, i.e., driving response), and (g) clinical and experimental characteristics of atypical reactions to aminazine administration (states of affective excitation, deep sleep, trace exaltation; factors promoting the development of atypical reactions). The data demonstrate that the tranquilizing action of aminazine is due to the complex redistribution of activity in the deep structures of the brain. (6 p. ref.)—*I. D. London.*

4383. **Traugott, N. N., et al.** **Amital-natril, ili barbamil.** [Sodium amytal or barbamyl.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol. 46:Issue 3) 75-151.—The reported research covers materials on: (a) the clinical picture of sodium amytal (SA) action (euphorizing, weak soporific effect and quieting effects; acute motor and speech disinhibition, emotional release, state of affective easing, prolonged and relatively deep sleep), (b) UCR activity and autonomic functions, (c) CR activity (influence of SA on earlier elaborated CRs, state of the cortical closure function, absolute sensitivity, absolute threshold as a function of stimulus duration, differential thresholds for frequency and intensity, adaptational capacity of the auditory apparatus, speech comprehension, discrimination of tonal and speech signals from noise), (d) the motor function (action of SA in the absence of lesion of the motor systems, action of SA in stuporous states), and (e) electrical activity of the brain (changes in spontaneous electrical activity, reactions to afferent stimuli, effects of direct stimulation of the deep structures, spontaneous activity, desynchronization in response to afferent stimuli, evoked potentials, rhythmic assimilation of light flashes, i.e., driving response). The data show that the activity of the nonspecific nuclei of the thalamus and the caudate nuclei is sharply increased under the influence of SA. At the same time, the activity of the associative nuclei of the thalamus, brainstem reticular formation, and posterior hypothalamus is depressed. The structures of the anterior hypothalamus are not depressed by SA. (3 p. ref.)—*I. D. London.*

4384. **Traugott, N. N., et al.** **Amizil, ili benaktizin.** [Amyzil or benactyzine.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol. 46:Issue 3) 183-199. The reported research covers materials on: (a) the clinical picture of amyzil action, (b) UCR activity and autonomic functions, (c) CR activity, (d) sensory functions, (e) the motor function, and (f) cerebral electrical activity. Only the 2nd phase of amyzil action may be viewed as a manifestation of its cholinolytic effect, both central and, to a lesser degree, peripheral. The last phase in all its manifestations corresponds to a picture of very great excitation of the sympathoadrenal system: feelings of anxiety and internal disturbance, acute tachycardia, elevation of arterial pressure, etc. (48 ref.)—*I. D. London.*

4385. **Traugott, N. N., et al.** **Bemegrid, ili megimid.** [Bemegride or megimide.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol.

46: Issue 3) 200-228.—The reported research covers materials on: (a) the clinical picture of the antidepressant effect of a single injection of bemegride, (b) UCR activity and autonomic functions, (c) CR activity, (d) sensory functions, and (e) cerebral electrical activity (spontaneous activity, desynchronization, rhythmic assimilation, i.e., driving response, and evoked potentials). Bemegride is shown to have a marked antidepressant action. It improves mood, heightens sociability and motor activity, and eliminates asthenia and apathy. To a lesser degree the drug has an effect on anxiety and depressive forms of delusion. It sometimes intensifies anxiety. It is most effective in typical depression and in astheno-depressive syndromes, observed in the depressive phase of manic-depressive psychosis and in somatogenic psychosis. Bemegride is less effective in depressive-paranoid and anxiety-depressive syndromes and has no influence on depressive states arising in schizophrenia. The effect of single injections of bemegride is prolonged and is reproduced with repeated injections. (2 p. ref.)—*I. D. London.*

4386. Traugott, N. N., et al. **Ocherki psikhofarmakologii cheloveka.** [Essays on the psychopharmacology of man.] Leningrad, USSR: Nauka, 1968. 326 p.—Presents the results of many years of clinical and experimental research on the mechanisms underlying the action of various psychopharmacological drugs on the human brain. The general characteristics of the drugs are described along with contemporary conceptions concerning the mechanisms of their action.—*I. D. London.*

4387. Traugott, N. N., et al. **Tofranil, ili melipramin.** [Tofranil or melipramine.] In N. N. Traugott, et al., "Ocherki psikhofarmakologii cheloveka." (See PA, Vol 46 Issue 3) 152-182.—The reported research covers materials on: (a) the clinical picture of tofranil action, (b) changes in nervous activity and cerebral electrical activity (for the phases of adynamia and sleepiness, affective changes, and increased irritability and anxiety, UCR activity and autonomic functions, CR activity, sensory functions, the motor function, cerebral electrical activity), (c) some physiological mechanisms determining the clinical picture of the 2nd phase of tofranil action, and (d) the effect of single administration of tofranil as a function of the psychopathological syndrome. Data show that single administration of therapeutic doses of tofranil produces a nonuniform phasic effect. First sleepiness arises, followed by a period of improvement of mood or by a state of increased irritability and anxiety. The physiological mechanisms for each of these effects are different. (3 p. ref.)—*I. D. London.*

4388. Wilson, Arthur S., Barboriak, Joseph J., & Kass, Warren A. (Veterans Administration Center, Wood, Wis.) **Effects of alcoholic beverages and congeners on psychomotor skills in old and young subjects.** *Quarterly Journal of Studies on Alcohol Supplement*, 1970(May), No. 5, 115-129.—2 groups of 30 volunteers each (60-85 yr. old and 21-35 yr. of age) were given 3 psychomotor tests before and .5 hr. after drinking vodka, bourbon (both containing .75 g/kg of alcohol) or water. Beverages were presented randomly and each S served as his own control. In all 3 of the following tests young Ss performed better than did old Ss after water, while alcohol impaired the performance of the young more than that of the old. On the Digit Symbol test vodka in comparison with water significantly decreased speed and accuracy in both groups. In the young bourbon reduced the numbers of symbols attempted and correct but

impaired only accuracy in the old. On the Hand Steadiness test the performance of the 2 groups was similar after alcohol. The old group performed better after bourbon or vodka than after water while the young performed better after water than after bourbon or vodka. On the Body Sway test the young swayed less than the old after alcohol. The old swayed less after bourbon or vodka than after water, while the young swayed less after water than after bourbon or vodka. The hypothesis that bourbon, but in congeners, would have a more detrimental effect than would vodka was not clearly demonstrated. Vodka impaired performance of the old group in number of symbols attempted and in body sways while bourbon did not. Bourbon, however, reduced hand steadiness in the old group, while vodka did not. The differential effects of alcohol and congeners on the CNS are discussed.—*Journal abstract.*

Drug Effects—Animal

4389. Alpers, Hilma S. & Himwich, Harold E. (Galesburg State Research Hosp., Hudichum Psychiatric Research Lab., Ill.) **An in vitro study of the effects of tricyclic antidepressant drugs on the accumulation of C¹⁴-serotonin by rabbit brain.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 81-85.—Investigated the effects of psychotherapeutic agents imipramine, desipramine, and amitriptyline on the accumulation of serotonin by brain tissue. The method involved the determination of accumulation of radioactivity for each of the drugs in rabbit brainstem slices incubated 30 min. at 37°C in 5 ml. Krebs bicarbonate medium containing .25 nmole C¹⁴-serotonin. Results show that (a) brainstem slices concentrated radioactive serotonin 3-4 times above the initial concentration of amine in the medium in which the slices were incubated, (b) all 3 of the drugs interfered with this accumulation of radioactivity in a dose dependent fashion, and (c) imipramine was more effective than desipramine in antagonizing the accumulation of serotonin.—*P. McMillan.*

4390. Altman, Jack L. & Appel, James B. (U. Chicago) **Effects of LSD on fixed-interval responding in the rat.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 757-758. Rats were trained on a fixed-interval (FI) 5-min schedule of reinforcement, and then injected with various doses of LSD. High doses of LSD (.04-.32 mg/kg) tended to decrease the overall response rate and to disrupt the FI temporal discrimination. The effects appeared to vary directly with the dose, the greatest suppression and disruption of the discrimination occurring with the highest doses. *Author abstract.*

4391. Aprison, M. H. & Hingtgen, J. N. (Indiana U., Medical Center, Indianapolis) **Brain acetylcholine and excitation in avoidance behavior.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 87-89. Reports studies of the effect on the duration of behavioral excitation in animals following administration of iproniazid plus tetrabenazine. Adult male albino Wistar albino rats were stabilized on a Sidman shock-avoidance schedule. Ss were subcutaneously administered 50 mg/kg iproniazid phosphate 16-18 hr. before the session and 2 mg/kg tetrabenazine 30-60 min. after the start of the session. If no behavioral excitation occurred following tetrabenazine injection, these Ss were killed at times comparable to excited Ss on a predetermined basis. The brains were removed and dissected and acetylcholine (ACh) concentrations determined for 3

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4399. Findley, Jack D. & Robinson, William W. (Johns Hopkins U., Medical School) **Preference for self-infusion of seconal over librium in primates.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 753-754. 2 rhesus monkeys were exposed to a forced-choice procedure which provided opportunity for self-infusion of 2 drugs. After addiction to librium, Ss were given a choice between librium and seconal. The initial preference for librium was gradually supplanted by a preference for seconal. The data generally support the notion of a greater addiction liability for seconal and suggest the possibility of other drug preference studies. *Author abstract.*

4400. Göpfert, E. & Hashke, W. (Inst. of Physiology, Leipzig, E. Germany) **Osobennosti reaktsii tsentral'noi nervnoi sistemy pod uretanovym, pentobarbitalovym i khloraloznym narkozom u krolikov.** [Features of the reaction of the nervous system under urethane, pentobarbital and chloralose anesthesia in rabbits.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:609) 244-250. —Rabbits were used to study the effects of 1 g/kg urethane, 50 mg/kg pentobarbital (SPB), and 80 mg/kg chloralose in the light of Anokhin's view of anesthetics as "selective filters" of afferent impulses arriving in the CNS. Reticular formation and hippocampal stimulation thresholds, the electrocorticogram, respiratory changes, and phytically evoked potentials were recorded. Urethane, without definite effects on the reticular formation, depressed the excitability of hippocampal neurons. SPB depressed mainly reticular formation excitability. The influence of chloralose was not clear. While hippocampal stimulation thresholds were different for chloralose, the effect on the reticular formation was the same as for SPB. It is suggested that fine analysis of sensory evoked potentials should be helpful in future research. (English summary) (15 ref.)—*I. D. London.*

4401. Hendley, Edith D. & Snyder, Solomon H. (Johns Hopkins U., Medical School) **Correlation between psychotropic potency of psychotomimetic methoxyamphetamines and their inhibition of ³H-normetanephrine uptake in rat cerebral cortex.** *Nature*, 1971(Jan), Vol. 229(5282), 264-266. Describes "a close correlation between the psychotic potency of a series of methoxyamphetamines and their ability to inhibit the accumulation of normetanephrine by brain slices" in male Sprague-Dawley rats. This correlation suggests "that the sites of normetanephrine uptake may be related in some way to the locus of action of these drugs." It is suggested that the postsynaptic receptors for norepinephrine in the brain might be a good candidate for such a site. (26 ref.)—*S. Appelle*

4402. Jeter, Ronald D. & Hurst, Charles M. (Holloman Air Force Base, 6571st Aeromedical Research Lab., Alamogordo, N.M.) **Effects of staphylococcal enterotoxin B on complex operant behavior in monkeys.** *USAF ARL Technical Report*, 1970(Sep), No. 70-14, 25 p.—Tested 4 female rhesus macaques (*Macaca mulatta*) following gastric infusion of 20 µg/kg of staphylococcal enterotoxin B. Ss demonstrated significant performance decrements on shock avoidance schedules judged high activity, high concentration, and on positive reinforcement schedules judged medium activity, high concentration, and low activity, medium concentration. Results obtained under a con-

trolled atmosphere of 10,000-ft simulated altitude and 100% oxygen, indicate individual toxicological effects on behavior with avoidance schedules showing a stress level difference USAF ARL

4403. Johanson, Chris F. (U. Chicago) **The choice of cocaine by rhesus monkeys as a function of dosage.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 751-752. If animals are allowed to self-administer psychomotor stimulants, the higher the dosage, the lower the rate of self-administration. In the present study, rhesus monkeys were given a choice between a high and low dose of cocaine (5 and 1 mg/kg). The higher dose normally generated lower rates of self-administration. However, in the choice situation with trials separated by time, the higher dose was markedly preferred. Such results may indicate that rate is an inadequate measure of reinforcing efficacy because drugs have other properties as well. A similar situation has been found with reinforcing ICS. *Author abstract.*

4404. Kilbey, M. Marlyne; Harris, Robert T., & Aigner, Thomas G. (Texas Research Inst. of Mental Sciences, Houston) **Establishment of equivalent external- and internal-stimulus control of an operant behavior and its reversal.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 767-768. 24 rats were Ss in an operant discrimination task. A factorial design tested: (a) type of discriminative stimulus, amphetamine vs. saline or tactile stimulus vs. its absence, (b) an experience factor, 30 days prior exposure to the discriminative stimulus or no prior experience, and (c) duration of training, in 4 experimental and 2 control groups. Experimental Ss were trained to perform a 2-lever multiple DRI 15"-DRI 15" in which the correct lever was indicated by a specific discriminative stimulus. In Exp. I, the percentage of correct lever responses of the experimental Ss in extinction tests was significantly higher than that of the control groups, and showed significant improvement over tests. Experience was a significant factor with the performance of the preexposed amphetamine groups being superior to that of the other experimental groups. In Exp. II, a lever reversal discrimination was instituted with all other conditions remaining constant. The percentage of correct lever responses during extinction was significantly higher for the experimental groups and performance improved over tests. There was no difference in performance for the 2 types of stimuli employed. These data are discussed in terms of equivalence of external and internal stimulus cues and the question of whether internal cued behaviors are more resistant to change than those established using external cues.—*Author abstract.*

4405. Kodluboy, Donald W. & Thompson, Travis. **Adjunctive self-administration of barbiturate solutions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 749-750. Using the schedule-induced polydipsia technique, the parameter values of the inducing schedule appear to be the main condition determining such adjunctive oral drug self-administration. Rats working for food on a multiple fixed ratio-fixed ratio food reinforcement schedule, concurrently self-administered thiopental sodium, as a function of the fixed ratio schedule values and concentration of the drug solution. The total mg. consumption of thiopental was a negatively accelerating function of the drug solution

406.—In vitro, pyrazol and 4-bromopyrazol are strong inhibitors of alcohol dehydrogenase (ADH) of rat liver. The present study shows that, in vivo, pyrazol and 4-bromopyrazol decreased ethanol oxidation in the rat. The action of various inhibiting doses, and also the influence of the delay between their administration and the ethanol injection were studied. The comparison of the active doses in vivo of pyrazol and 4-bromopyrazol with their inhibition constants of ADH in vitro showed that their action on ethanol oxidation was due to ADH inhibition. The ADH inhibition in vivo caused by pyrazol was also revealed by sleeping time prolongation obtained with 2-phenylethanol. (German, Spanish, & Russian summaries)—*English summary*.

4414. Sterman, M. B., Fairchild, M. D., & Van Twyver, H. B. (U. California, Los Angeles) **Subconvulsive effects of monomethylhydrazine on runway performance in the cat.** *USAF AMRL Technical Report*, 1969(Jun), No. 68-183, 7 p.—Previous neurophysiological and behavioral studies of the toxic propellant 1, 1-dimethylhydrazine have indicated that its subtle low-dose influences can be most effectively evaluated in the cat by reference to trained locomotor performance. To determine similar fundamental information in evaluating monomethylhydrazine (MMH), a related derivative of hydrazine, this same technique was employed. Ss were trained and tested in a special runway apparatus to provide a reliable indication of performance changes over a 6-hr period following the administration of 1, 2, and 4 mg/kg MMH. These low doses significantly altered locomotor performance, both during drug session testing and saline control testing carried out 24 hr. later. Within 30 min. after injection of all 3 doses of MMH, runway performance was depressed. At 2 and 4 mg/kg, this influence was profound and was associated with overt physiological symptoms of toxicity. A total disruption of performance occurred with 4 mg/kg doses when tested 2-5 hr. after administration. Performance was still depressed after 24 hr. following 4 mg/kg, but was actually facilitated at this same point following 1 and 2 mg/kg doses.—*USAF AMRL*.

4415. Stern, Warren C. & Hartmann, Ernest L. (Boston State Hosp., Mass.) **Catecholamines and desynchronized sleep.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 743-744.—Presents behavioral evidence that following desynchronized sleep deprivation in rats the activity of catecholamine systems in the brain are depressed. D-amphetamine produced significantly less stimulation in both general activity levels and continuous avoidance responding following 4-7 days of desynchronized sleep deprivation. Acquisition deficits on active and passive avoidance tasks, which occurred following 4-5 days of desynchronized sleep deprivation, were reversed by drugs which enhance central catecholamine activity—imipramine, pargyline, and L-dopa. These agents did not improve avoidance acquisition in stress control or normal Ss. Results support the view that desynchronized sleep "maintains" central catecholamine systems.—*Author abstract*.

4416. Thor, Donald H. (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **Amphetamine induced fighting during morphine withdrawal.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 245-250.—Male hooded rats received ad lib d-amphetamine sulfate in concentrations of 50 or 200 mcg/ml in their drinking water for 10 days after withdrawal from

morphine (100 mg/kg/day). Lethal and near-lethal fighting occurred among Ss consuming the greater amphetamine concentration. Less intense, ritualistic fighting occurred among Ss consuming the lesser amphetamine concentration. A control group under withdrawal from the same morphine regimen also exhibited nontraumatic fighting. Amphetamine appears to be an effective pharmacological stimulus to violent fighting during a broad segment of the withdrawal syndrome.—*Journal summary*.

4417. Thuret, F., Lamothe, C., & Laborit, H. (Boucaut Hosp., Paris, France) **Action in vivo et in vitro du dichlorhydrate de la morpholino-N-éthylamino-3 méthyl-4 phényl-6 pyridazine (Agr 620) sur la monoamine oxydase des mitochondries du foie et du cerveau de rat.** [In vivo and vitro effect of N-morpholino-3-ethylamino-4-methyl-6-phenylpyridazine (Agr 620) on rat liver and brain mitochondria monoamine oxidase.] *Agressologie*, 1970, Vol. 11(5), 417-420.—Agr 620 in vitro, or injected into the S, did not possess any inhibiting effect on the MAO of isolated brain and liver mitochondrias marked enough to account for its pharmacological activity. (German, Spanish, & Russian summaries)—*English summary*.

4418. Tilson, Hugh A. & Sparber, Sheldon B. (U. Minnesota) **Releasable norepinephrine-³H, injected centrally, as a function of dose of d-amphetamine injected peripherally.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 739-740.—Trace doses of irritated norepinephrine were injected into the lateral ventricles of rats 1 hr. prior to perfusion using push-pull cannulas. While responding on a fixed-ratio schedule of reinforcement for food, they were injected, ip, with varying doses of d-amphetamine sulfate (1, 2.5, and 5 mg/kg), mescaline hydrochloride (10, 15, and 20 mg/kg), or .5 ml NaCl. Both drugs disrupted operant behavior, but only d-amphetamine produced a dose-related increase in radioactivity in the recovered ventricular perfusate. These data support the contention that d-amphetamine alters the disposition of catecholamines in structures bordering the cerebroventricular system.—*Author abstract*.

4419. Vavilova, N. M., Klyavina, M. P., & Toropova, N. V. (Pavlov Inst. of Physiology, Leningrad, USSR) **Vliyaniye aminazina na passivno-oboronitel'noe povedenie u sobak.** [Influence of aminazine on passive-defensive behavior in dogs.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 196-200.—Attempted to determine the effect of 5-5 mg/kg aminazine (chlorpromazine), administered im 40 min. before experimentation, on the passive-defensive behavior (absence of investigatory reaction, suppression of motor activity, refusal to eat in a new setting) of 5 adult dogs (the passive-defensive reflex was inherited in 2 Ss, and was experimentally initiated by electrotraumatization when young in 3 Ss). Aminazine weakened the passive-defensive reflex and promoted the appearance of the alimentary reaction. This was distinctly the case in the electrotraumatized Ss. When aminazine was administered in both the morning and the evening, motor activity was inhibited, especially in the evening. Aminazine, as an inhibitor of the nervous apparatus involved in tension and reactions to pain, "as a liberated the 'biologically positive reactions'—as a result of which the investigatory reflex returned, frequent nocturnal awakening disappeared, and the alimentary

results of studies relating heart rate in the rat to learning, motivation, arousal, etc. may be secondary effects of changed behavior patterns such as an increase or decrease in grooming. (French summary) (20 ref.)—*Journal abstract.*

4427. Vogt, J. J., et al. (Centre National Recherches Scientifiques, Centre d'Etudes Bioclimatiques, Strasbourg, France) **Estimation des charges de travail et des charges de chaleur en situation réelle de travail: Principes et applications d'une nouvelle méthodologie.** [Estimates of work and heat loads in a real working situation: Principles and applications of a new method.] *Travail Humain*, 1970(Jan), Vol. 33(1-2), 125-139.—A continuous telemetric heart rate recording was carried on in a regulated room, allowing a quantitative measure of heat stress and metabolism. Discussed are such applications as place of work, redesign of working environment, physical fitness testing, and allocation of manpower.—R. W. Husband.

ENVIRONMENT & STRESS

4428. Bell, R. W., Miller, C. E., Ord, J. M., & Roisten, Carolyn. (Northern Illinois U.) **Effects of population density and living space upon neuroanatomy, neurochemistry, and behavior in the C57Bl/10 mouse.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 258-263.—Assigned 156 male C57Bl/10 mice to live in groups of 1, 4, 8, 16, or 32 Ss. For all group sizes Ss were housed either in cages of a constant size, so that group size and crowding correlated, or were housed in cages with floor space varied proportional to the group size. Closed-maze exploration decreased with increased group size, irrespective of crowding, while wheel activity was an interactive effect of group size and degree of crowding. Reduced concentrations of brain protein and nucleic acids accompanied living in larger groups, whether crowded or not, but rate of intracellular synthesis of RNA and protein by DNA was more dependent upon the size of the living space. (15 ref.)—*Journal abstract.*

4429. Fröberg, Jan, et al. (Karolinska Hosp., Lab. for Clinical Stress Research, Stockholm, Sweden) **Conditions of work: Psychological and endocrine stress reactions.** *Archives of Environmental Health*, 1970(Dec), Vol. 21, 789-797.—Briefly discusses psychosocial stressors in modern working life and measurement of their psychophysiological effects, and presents 3 stress studies. In Study I, officers and soldiers were exposed to a stressful 75-hr vigil. Significant stress reactions occurred with respect to erythrocyte sedimentation rate, protein-bound iodine, serum iron level, EKG pattern, behavior, and catecholamine excretion. Pronounced circadian rhythms and significant psychophysiological correlations were demonstrated. In Study II, the remuneration of salaried invoicing clerks was abruptly changed to piece-wages. Ss exhibited a sharp rise in performance but also an increase in discomfort ratings and catecholamine excretion. In Study III, office clerks were moved to and from various types of offices. In general, moving from a conventional office to an office landscape was accompanied by an increase in fatigue ratings and catecholamine excretion. The implications of these findings for environmental health are briefly discussed.—*Journal abstract.*

4430. Golubeva, E. L. (All-Union Research Inst. of Obstetrics & Gynecology, Moscow, USSR) **Tsentral'nye mekhanizmy funktsional'noi sistemy rozhdeniya.**

[Central mechanisms of the natal functional system.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 133-142.—Attempted to determine the structures of the CNS which are the first to react to modifications of the gaseous composition of the blood and which form corresponding behavior in postnatal ontogenesis. Awake kittens with electrodes implanted in the cortex and subcortical structures were Ss in experiments employing asphyxia. During the 1st postnatal days asphyxia produced an activation reaction in the form of a stress-rhythm (4/sec) in the reticular nuclei of the pons and mesencephalon, in the sensory cortex, and in the structures of the limbic system. At 15-30 days of age the hypothalamic nuclei and the thalamic parafascicular complex were also involved in the reaction. A protracted afteraction was shown to exist as well as a rapid elaboration of CRs to the entire experimental situation. In the birth process a functional system exists, assuring not only the emergence of the 1st inspiration of the child and the beginning of rhythmic respiration, but also a definite complex of motor activity and cardiovascular reactions. It is this system which may be characterized as a natal functional system. (English summary) (36 ref.)—I. D. London.

4431. Gumma, Mitchel R. & South, Frank E. (U. Missouri) **Hypothermia and behavioural thermoregulation by the hamster (*Mesocricetus auratus*).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 504-511.—Investigated changes of environmental temperature preferences in adult male hamsters after 1 hr. hypothermia at 10 or 0° C. Immediately after cold treatment Ss exhibited a preference for 6, 12, and 18° C environment before returning to the normally preferred 26° C. Duration of this downshift was significantly longer following 10° C than that following 0° C. It is suggested that the lability in thermoregulation is the result of some physiological readjustment.—*Journal summary.*

4432. Krauklis, I. A. **Vegetativnye komponenty reaktivnoi trevogi pri situatsionnykh nevrozakh.** [Autonomic components of the anxiety reaction in situational neuroses.] In Kh. A. Maurinyan (Ed.), "Voprosy biologii." (See PA, Vol. 45:7735) 173-179.—12 dogs were used to study the autonomic components of the anxiety reactions under conditions of a developing "difficult state" of the nervous system and consequent situational neurosis. Mechanographic polygraphic photokymograms recorded several autonomic and somatic indices during formation of CR anxiety and tension reactions. Among the former indices were the sphygmogram, tachoscillogram of the general carotid artery, and the gastric contraction curve. A deep and prolonged "difficult state," turning into a situational neurosis, was in most cases accompanied by a passive form of the anxiety reaction or by the so-called passive-defensive reaction which is a characteristic form of behavior for dogs with a weak type of nervous system. The effector functional structure of the passive form of the anxiety and tension reactions were characterized by the absence of active behavioral reactions and the presence of violent autonomic reactions (great increase in respiratory rate, the emergence in the pneumogram of 2nd and 3rd order waves and of periodic stomach contractions in synchrony with these waves, and massive salivary excretion and flow from the oral cavity).—I. D. London.

4433. Malz, S. (Central Emek Hosp., Afula, Israel) **Psychological aspects of premature separation of the placenta.** *Harefuah*, 1970(Oct), Vol. 79(8), 339-

341.—In order to evaluate the possible effect of psychological trauma as a cause of accidental hemorrhage, the period of the "Six Day War," during which many women were emotionally and personally involved, was studied. The survey included 2408 births from 16 hospitals during June 1967, compared with 2920 births from the same hospitals, and the same month, in 1966. The incidence of prematurity, perinatal mortality, and toxemia was compared. The rate of accidental hemorrhage in June 1967, compared with the same month in 1966, was 1.7:1. However, this result cannot be statistically significant, because of the small number of cases compared with the relatively large number of births. The histories of 5 cases are presented. It is suggested that in cases of psychic stress the utero-placental junction and its arteriolar compartment are affected. This is a highly vulnerable area in pregnancy, which may react to psychic trauma by spasm of prolonged duration, resulting in vasorhexis and bleeding, leading to placental separation. This theory of triggering by psychic trauma has yet to be proven.—*English abstract.*

4434. Milyagin, Ya. A., Lebedeva, A. G., Kazakova, N. M., & Korchagina, A. A. (Medical Inst., Smolensk, USSR) Znachenie ekologicheskikh faktorov v razviti vrozhdennykh form integrativnoi deyatel'nosti mozga. [Significance of ecological factors in the development of inborn forms of integrative activity of the brain.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 154-160. Discusses experimental data on heterochronicity in the morphophysiological development of some functions of the organism due to ecological factors. In the rabbit the functional systems, ensuring respiration and sucking, are the most developed at parturition. The system for locomotion and that for ear movement seem to be delayed. In chicks the maturation of motoneurons in the shoulder segment of the spinal cord is almost complete at hatching, but that in the lumbar segment is incomplete. Heterochronicity in the morphophysiological development of the organism is a general biological principle of development which arises in phylogenesis and assures the unity of the organism and environment at each stage of its individual development. (English summary) (18 ref.)—*J. D. London.*

GENETICS

4435. Guttman, Ruth. (Hebrew U., Jerusalem, Israel) Parent-offspring correlations in the judgment of visual number. *Human Heredity*, 1970, Vol. 20(1), 57-65.—The estimation of 6 or fewer objects ("subitizing") is considered to be a form of judgment which differs in speed and accuracy from the "estimation" of 7 objects or more. 120 complete families (father, mother, and 1 or more children) and a further 100 families lacking either father or mother estimated 100 families of marbles or balls shown to them in the numbers of marbles or balls shown to them in transparent bags. Results indicate that there exist at least 2 phenotypes of judgment of numerosity: (a) subitizing of 6 marbles and 5 ping-pong balls, with high heritabilities, and (b) estimation of 34 small 15 small and 15 large marbles, with 0 to low heritabilities, in the same population tested at the same time. The heritability estimates are based on parent-offspring correlations corrected for assortative mating. Assortative mating was found for the 5 and 6 objects only. Father:son, mother:son, father:daughter, mother:daughter correlations were almost identical and gave no indication of

differential maternal or paternal influences on estimation. Analyses of phenotypic distributions, mapping from different types of matings, based on under- and correct estimation, indicate that estimating 2 sets of less than 7 objects (subitizing) may be inherited on a polygenic basis while estimating sets of 15 or 34 objects shows low to no genotypic control.—*Journal abstract.*

4436. McLearn, Gerald E. L. (Columbia Univ., Behavioral Genetics) Behavioral genetics. *Behavioral Science*, 1971 (Jan), Vol. 16(1), 64-81.—Review developments in the field of behavioral genetics since 1950. Research on human beings has largely involved application of quantitative genetic models to continuously varying traits of intelligence and personality. Results have shown that heredity contributes importantly to variation of these behavioral traits, and that different subcategories of these traits are influenced by heredity in different degrees. Single genes have been shown to determine a number of conditions of mental retardation. The behavioral correlates of chromosome anomalies appear variously to involve specific cognitive and personality functions as well as the gross mental retardation that characterizes some of these conditions. Research on infrahuman animals has shown heredity influence in a wide variety of traits including activity level, alcohol preference, learning, memory, and aggression. Conditions of mental retardation involving amino acidurias have been described in man, and a body of knowledge is coalescing concerning chemical, genetic, chemical, and hormonal as the pathways of genetic influence of animal behavior. Developmental, behavioral genetics and behavioral processes that may be of crucial importance to population genetics are noted.—*Journal abstract.*

4437. Smart, J. L. (1, Manchester, England) Total-and-error behaviour of inbred and F₂ hybrid mice. *Animal Behaviour*, 1970, Vol. 18(1), 147-153. Rats of bar pressing under CRF, partial reinforcement (PRF), and DRL conditions were compared in mice of 2 and F₂ hybrid generation. In all cases pure strains had the highest rate under CRF, the hybrids were most vigorous under PRF and the other pure strains performed better under DRL. Overall, a relatively relevant behavior the hybrid showed intermediate performance either inbred parent strain.—*Journal abstract.*

4438. Smirnov, G. D. (Inst. of Animal Physiology, Morphology & Physiology, Moscow, USSR) Nekotorye aspekty morfologicheskikh izmenenii nervnykh tsentrov v evolyutsii zhivotnykh. Some aspects of morpho-functional changes of nervous centers in animal evolution. In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 160-170. Discusses, in the light of the evolutionary development of the nervous system, the interdependence between functional systems in providing the basic functions of the organism: ensuring the functions of feeding and breathing, ensuring the functions of locomotion and the development of the nervous system. Thus, in the course of the development of the nervous system, the interdependence of functional systems is increasing, and the complexity of the nervous system is increasing. The development of the synaptic connections and the development of the internal organization of the nervous system. A new approach based on the study of the development of the functional CNS and the total dependence of the character of organization of the nervous system upon the character of

their activities in the light of their phylo- and ontogenetic development. (English summary) (30 ref.)—*I. D. London.*

4439. Streng, John. (U. Texas) **The generality of learning differences among inbred mouse strains.** *Journal of Psychology*, 1971(May), Vol. 78(1), 3-9.—Investigated the learning behavior of 10 mice of each sex of 4 inbred mouse strains (A, BALB/c, C57BL/6 and DBA/2) in a wheel-turn avoidance and a maze situation. Several phases of learning were studied and a variety of measures were taken in an attempt to determine whether learning abilities are inherited rather specifically or whether some general learning capacity is transmitted. Significant differences in learning between strains were observed; the rates of learning also were different for several learning measures. The strain rank-order was a clear function of the particular learning situation (appetitive vs. aversive) and also of the particular measure employed. It is concluded that learning ability in the mouse is inherited as a set of independent and rather specific capacities.—*Journal summary.*

PERSONALITY CORRELATES

4440. Häseth, Kjell; Shagass, Charles, & Straumanis, John J. **Perceptual and personality correlates of EEG and evoked response measures.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 49-60.—Recorded somatosensory (SSER) and visual evoked responses (VER) and EEG in 40 healthy undergraduates, and related the data to tests of extroversion, neuroticism, intelligence (including the MPI, Eysenck Personality Inventory, and Raven Standard Progressive Matrices of 1958), simple visual perception (letter recognition, line difference discrimination), complex visual perception (closure flexibility, closure speed), and lifted weight discrimination. Results failed to confirm predictions that high evoked response (ER) amplitude would be associated with greater extroversion and poorer perceptual performance. Data did indicate that ER-EEG amplitude concordance, in the sense that both were either high or low, was greater when performance on the simple visual perceptual and weight discrimination tasks was superior. Above average performance on these tasks was also associated with intermediate degrees of EEG frequency dispersion. Trends suggesting that ER-EEG amplitude concordance may differ with respect to the personality, and intelligence tests were also noted. ER-EEG concordance and frequency dispersion appear to be indicators of central regulatory mechanisms with functional correlates in the perceptual sphere. (15 ref.)—*Journal abstract.*

4441. Slaughter, Mary. (U. Illinois) **An analysis of the relationship between somatotype and personality traits of college women.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 569-575.—Compares the results of selected personality traits with the somatotypes of 157 college women with the conviction that biological factors significantly influence human behavior. Somatotypes were determined by the use of somatotype ratings as established by W. H. Sheldon. The personality profiles were determined by 2 personality measuring instruments: (a) the 16 PF, and (b) the CPI. Of the 23 hypotheses which were arbitrarily derived from Sheldon's work on physique and temperament of men, only 1 proved to be tenable. This hypothesis stated that the component of mesomorphy is significantly correlated with the 2nd order Factor I of the 16 PF (low anxiety). (20 ref.)—*Journal abstract.*

NUTRITION & GASTROINTESTINAL PROCESSES

4442. Booth, D. A. (U. Sussex, Lab. of Experimental Psychology, Brighton, England) **An expression of body weight regulation in feeding behavior.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 293.—In an experiment with 6 female hooded rats and 12 faster-growing male albino rats, it was found that the variability of body weight at the time an S started a meal was less than its variability at the end of a meal. It is therefore possible that regulatory signals correlated with body weight more tightly control the duration of intermeal intervals (decay of satiety) than the amount eaten during a meal (initiation of satiety). Ss were tested in a reversed light/dark cycle and given powdered maintenance food for a 3-wk period.—*Journal abstract.*

4443. Borer, Katarina T. (Scripps Inst. of Oceanography, LaJolla, Calif.) **Control of food intake in Octopus briareus Robson.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 171-185.—Studied the role of environmental factors on the control of food intake in 6 experiments with 2 male and 9 female Octopus briareus Robson. Water temperature and crab density were found to exert the most pronounced effect. Food intake doubled with a temperature rise of 10° C and with doubling of crab density. Food intake was unaffected by overeating. Undereating small-size crabs had a weak augmenting effect. Higher percentage of offered crabs was eaten and body weight loss progressively decreased with increasing food deprivations. 2 wk. before egg laying, and subsequently, females reduced their food intake by 50%. Octopus daily food intake appears as a fluctuating visual-acceptance threshold affected by intensity of crab stimulus, food deprivation, and water temperature. (40 ref.)—*Journal abstract.*

4444. Sudakov, K. V. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Roľ karkovo-podkorkovykh mekhanizmov pishchevoi motivatsii v funktsional'noi sisteme pitaniya.** [Role of the cortical-subcortical mechanisms of alimentary motivation in the functional system of nutrition.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (In PA, Vol. 44:4609) 397-404.—It was shown that the neurophysiological mechanism involved in alimentary motivation is based on the ascending activating influences of the hypothalamic alimentary centers on cortical structures. The influence was clearly manifested in Ss (cats) anesthetized with urethane. The ascending activating influences of the hypothalamic alimentary centers in hungry animals may involve also the mesencephalic reticular formation and the medial thalamic structures. The selective activation of other subcortical structures through influences from the hypothalamic alimentary centers is viewed as demonstrating the existence of a specific ascending activating system to ensure alimentary motivation. (English summary) (18 ref.)—*I. D. London.*

4445. Szantay, I. & Szirmai, E. (Radioisotope Lab., Cluj, Romania) **Incorporation de la ³⁵S-méthionine dans les protéines du foie chez le rat stressé par immobilisation.** [³⁵S-methionine incorporation in liver proteins on the rat under stress induced by restraint.] *Agressologie*, 1970, Vol. 11(5), 427-430.—The administration of ³⁵S-methionine causes the incorporation into proteins not only of the amino acid itself, but also of a definite amount of ³⁵S-cysteine, which depends on the transmethylation reaction in which methionine plays an

important part. To demonstrate the participation of methionine in the mechanism of the general adaptation syndrome in the rat under stress induced by restraint, the degree of incorporation of the 2 sulfur radio amino acids (^{35}S -methionine and ^{35}S -cysteine) was measured in liver proteins after administration of ^{35}S -methionine. In comparison with controls, an increase was noted in the amount of radiocysteine incorporated in liver proteins. These results confirm an earlier hypothesis, i.e., the process of transmethylation, in which methionine plays an important part, is activated in the event of increased demands on the organism. (German, Spanish, & Russian summaries)—*English summary*.

ANIMAL PSYCHOLOGY

COMPARATIVE PSYCHOLOGY

4446. Ambrose, Anthony. (Ed.) (Centre for Advanced Study in the Developmental Sciences, Oxford, England) **Stimulation in early infancy.** London, England: Academic Press, 1969. xvi, 289 p. \$12. Presents proceedings of a conference on the functions of stimulation in early postnatal development, including studies by various authors of both animal and human Ss. Animal studies include rodent-handling experiments and their implications for research with human infants, the mode of action of early stimulation on the developing CNS, the role of genotypic factors in influencing the nature of the long-term effects, and imprinting and the development of preferences. Human studies concern early conditioning, the role of stimulation in early cognitive development, and the effects of mother-infant interaction in establishing the child's behavioral dispositions.

4447. Davenport, John W. (U. Wisconsin, Regional Primate Center) **Species generality of within-subjects reward magnitude effects.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 1-7. 12 female pigtail, stump-tail, and squirrel monkeys and 4 female Holtzman albino rats were given acquisition, extinction, and reacquisition training in a discrete-trials 2-lever spatial discrimination situation. In acquisition the left and right levers were associated with 5- and 1-pellet rewards, respectively, and in reacquisition, response to either lever produced 5-pellet reward. The 4 species showed similar patterns of preference for the 5-pellet lever on 2-lever choice trials and differential responding on 1-lever forced trials in acquisition, and similar within-Ss extinction effects which were at variance with the typical crossover of large- and small-reward extinction curves in between-groups reward magnitude studies with rats. Species differences appeared in over-all relative rate of extinction, with the macaques showing the fastest extinction, and in the degree to which historical effects of acquisition conditions appeared and persisted in reacquisition. (French summary) *Journal abstract*.

4448. Garai, László. (Hungarian Academy of Sciences, Inst. of Philosophy, Budapest) **A specifikusan emberi alapszükséglet illogenezisének vázlatja.** [Outline of the phylogenesis of the specifically human basic need.] *Pszichológiai Tanulmányok*, 1968, No. 11, 63-82. —In every living organism 4 basic tendencies of dynamic tension may be found: food-taking, regeneration, aversion, and multiplication. They involve the

input and discharge of various substances: the building up and breaking down of the organism's structural program, but do not in themselves constitute needs. They become needs insofar as they function as motivations for mentally controlled behavior. In such cases, however, they are not aimed solely at the realization of the above tendencies, but also at performing the activity pattern representative of a certain tendency and at performing the objective functions required by the activity. Based on the data of A. N. Leontiev, phylogenesis of the activity structure is reviewed. It is noted that on the higher evolutionary levels, not only the new structure-forming factors but also objects required for their realization become objects of need in animals. This accounts for the evolution of the stage-specific basic need, the dynamic structure of which is determined by the activity pattern of the species, while the class of objects to be acquired at that stage will be delimited by the functions the objects in question play in the activity pattern. In the 4th stage of phylogenesis, the specifically human basic need develops. It is determined by the specific activity of man, i.e., by the pattern of his tool-making activity, and by the specific functions these objects are called upon to perform, i.e., production. (Russian summary) (24 ref.)

English summary

4449. Luckard, Robert B. (U. Washington) **Reflections on the fall of comparative psychology: Is there a message for us all?** *American Psychologist*, 1971(Feb), Vol. 26(2), 168-179. Traces the development of comparative psychology from Darwin's *The Descent of Man* and summarizes widely held premises of the field in the 1950s. The growth of behavioral biology is outlined. 2 principles are distinguished: (a) the principle of phylogenetic relatedness ("behavioral homologies increase in frequency and detail among different animal species as proximity to a common ancestral species increases") and (b) the principle of ecological convergence ("similar behaviors among unrelated forms result from similar selection pressures"). In the light of findings from behavioral biology the premises of comparative psychology are reexamined and found to be false. Implications for comparative psychology, animal laboratories, animal learning, developmental psychology, and human psychology are discussed. It is concluded that comparative psychology clung to a culture of traditions even as they became discredited, and that the time has come for a unification with the natural sciences. (22 ref.) —S. Anapp.

4450. Schachter, Stanley. (Columbia U.) **Some extraordinary facts about obese humans and rats.** *American Psychologist*, 1971(Feb), Vol. 26(2), 129-144. Examined similarities between experimental findings with obese human Ss and exsated hyperphagic rats with obese human Ss and exsated hyperphagic rats. In comparison to normals, obese Ss: (a) eat more of a good- and less of a bad-tasting food; (b) eat fewer meals/day, eat more meal and eat more rapidly; (c) react more emotionally; (d) eat more when food is easy to procure and less when it is difficult; (e) do not regulate food consumption when preloaded with solids, but do when preloaded with liquids; and (f) are less active. N. Mrosovsky's theory that the ventromedial hypothalamus is functionally quiescent in obese Ss is discussed. The function of the hypothalamus is examined. It is hypothesized that obese Ss are stimulus-bound. Experiments reveal that obese Ss: (a) do better on recall tests, (b) respond faster with fewer errors on complex R1 tasks, (c) are more distractible, and (d) work harder for

food when food cues are prominent. Reexamining the activity levels of Ss, it was found that beyond a given stimulus intensity, Ss are more reactive than normals. Difficulties with the comparison and formulation are noted. (38 ref.)—S. Knapp.

4451. Schulze Schenking, M. (U. Münster, Zoological Inst., W. Germany) **Untersuchungen zur visuellen Lerngeschwindigkeit und Lernkapazität bei Bienen, Hummeln und Ameisen.** [Discrimination learning of different color- and form patterns in honeybees, bumblebees and ants.] *Zeitschrift für Tierpsychologie*, 1970(Jul), Vol. 27(5), 513-552.—Honeybees and bumblebees were trained to enter the front hole of a hexagonal area. At the 2 oblique rear walls visual patterns were displayed. Ss found a sugar solution behind the positive pattern which they reached through a small hole in the pattern itself. Colors (yellow vs. blue) were learned faster than patterns. Generalization to a light green vs. a dark green color stimulus were observed: Learning a 2nd pair of colors took longer than a learning task consisting of a striped pattern vs. a black square after a color learning task had been completed. It took the bumblebees 3 times as long to learn the striped pattern vs. the black square combination than the honeybees, but the bumblebees had not learned the green stimuli before, but only afterwards. Even a 4th stimulus combination, a cross vs. a circle, was learned. Ss were able to discriminate all 4 pattern combinations at a time, although the immediate color transfer mentioned above made it somewhat difficult for the honeybees. Memory of the learned tasks lasted for several days (76 ref.)—K. E. Grossmann.

NATURAL OBSERVATION

4452. LaResche, Robert E. & Sladen, William J. (Kenai Moose Research Center, Dept. of Fish & Game, Soldotna, Alaska) **Establishment of pair and breeding site bonds by young known-age Adelle penguins (*Pygoscelis adeliae*).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 517-526.—From field observations, behavioral data were obtained from 2700 birds over 5 yr., including the observation of 422 breedings by 341 birds from 370 marked nests and flipper banded mates. Early wandering by young Adelles is at first wide and narrows toward the time of 1st breeding. Site of 1st breeding (at the age of 5 yr. in males, 4 yr. in females) is likely to be near the site of hatching. 44% of young breeders change mates and 50% nest site vs. 10% of established breeders who change mates, and 22% who change nest site. Breeding incidence in successive years is significantly lower in young breeders than in adult breeders. Young birds change mate and site during a single breeding season as well as between seasons. The normal population age for faithfulness to site or mate is older than 7 yr.—*Journal summary*.

EARLY EXPERIENCE

4453. Hopf, Sigrid. (Max Planck Inst. für Psychiatrie, München, W. Germany) **Report on a hand-reared squirrel monkey (*Saimiri sciureus*).** *Zeitschrift für Tierpsychologie*, 1970(Jul), Vol. 27(5), 610-621.—The male S was hand-reared from its 19th day until its death at its 61st day. Feeding problems are discussed. Behav-

ioral development continued after physical development had stopped. Adoption attempts failed: there was friendly but not close interaction with lack of maternal behavior. The infant directed infantile behavior patterns toward a substitute: nipple-searching, body investigation, quick approach and clinging when frightened, genital display before climbing on the substitute, and avoidance of soiling the substitute during elimination. Thumb-sucking, which did not occur during normal rearing conditions, was observed. Many social and expressive behavior patterns toward the substitute and toward solid food, which was generally not eaten, were observed.—K. E. Grossman.

4454. Rubel, Edwin W. (U. California, Irvine) **Effects of early experience on fear behaviour of *Coturnix coturnix*.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 427-433. 30 quail poult were exposed to a moving, flashing, and clicking orange cylinder at 5-9 and 10-14 hr. after hatching. Only exposure at 5-9 hr. was effective in reducing distress calls and flight responses. No following or approach behavior was observed in any group. Results also suggest that there is a systematic hierarchy of behavioral responses to novel stimuli in this species. A testable hypothesis was presented which suggests a mutually exclusive set of responses with probabilities of occurrence dependent on the amount of novelty in the stimulus complex of the organism. This hypothesis is amenable to direct experimental testing since both stimulus parameters, novelty, and response parameters, activity and distress calls, can be readily quantified. (21 ref.)—*Journal summary*.

4455. Schulman, A. H., Hale, E. B., & Graves, H. B. (Virginia Polytechnic Inst.) **Visual stimulus characteristics for initial approach response in chicks (*Gallus domesticus*).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 461-466.—Dark-reared isolated 18-hr-old chickens were presented with alternately approaching and retreating red stimulus discs of 7 sizes between 5-71 cm. diameter. Initially Ss moved toward approaching stimuli rather than followed retreating ones. Response latency and proportion of responding Ss revealed a size preference between 10-20 cm. Results contradict stimulus intensity theory but suggest an optimal range corresponding to biologically appropriate social objects.—*Journal summary*.

4456. Strobel, Michael G., Freedman, Sidney L., & Macdonald, Glenn E. (U. Montreal, Quebec, Canada) **Social facilitation of feeding in newly hatched chickens as a function of imprinting.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 207-215.—Describes 3 experiments with cornish × white ruck or white comet × New Hampshire red newly hatched chicks. In Exp. I, it was demonstrated that 12 Ss fed communally gained more weight during a test period than 12 Ss fed in isolation. This effect seemed more pronounced in Ss reared communally. Exp. II showed that 30 communally reared Ss ate very much more, as measured by weight gain, than 30 isolated Ss, but if communal experience was started after Day 3 of life this effect was not observed. However, communally reared Ss that were placed in isolation after Day 3 continued to gain weight at the same rate as those remaining in community. In Exp. III, with 24 Ss, it was found that brief exposures to an artificial imprinting stimulus in the 1st 3 days of life also had a marked facilitating effect on eating in a communal test situation. (French summary)—*Journal abstract*.

INSTINCTS

4457. Bates, Brian C. (U. Oregon) **Territorial behavior in primates: A review of recent field studies.** *Primates*, 1970(Sep), Vol. 11(3), 271-284.—Primate field studies of the last decade have reported much information of relevance for understanding primate territoriality. Material considering the primate use of home range and core areas, intertroop vocalizations, and the relevance of these concepts for the analysis of territorial behavior is reviewed. Several reports of field studies of territorial behavior are included. The data suggests that there are territory-related spacing mechanisms operating in some primate species. However, territorial relations between primate groups are far from universal even among those species which do establish territories; the significance of territoriality will have to be understood as 1 of a number of ecological adaptations. (40 ref.)—*Journal abstract.*

4458. Makarova, A. R. (Pavlov Inst. of Physiology, Leningrad, USSR) **Issledovaniya nekotorykh fiziologicheskikh reaktivnykh novorozhdenykh losей.** [Studies of some physiological reactions of neonate elk.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 241-245.—For 4 elk (up to 20 days of age) an increase in gas exchange, pulse and respiratory rates occurred after sucking milk. After 30 min. these reverted to initial levels. The reactions to odors of indifferent objects were different from the reactions to odors of edible objects. The motor reaction to shade over the head, an inborn property of lambs and kids, was not observed in neonate elk. The study supports the view that research on inborn reactions in the early stages of postnatal life makes it possible to understand the development of UCR reactions and the formation of the natural CRs which determine the adaptation of the animal to the conditions of its surrounding environment.—*I. D. London.*

4459. Núñez, Josué A. (U. Buenos Aires, Faculty of Agriculture & Veterinary, Argentina) **The relationship between sugar flow and foraging and recruiting behaviour of honey bees (*Apis mellifera* L.).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 527-538.—Attempted to create an experimental arrangement in which an entire hive could be kept under carefully controlled food-flow conditions. Single foragers from this hive were then conditioned to feed at a recording automatic feeder with an adjustable food flow. This feeder was located so that the conditioned bee's behavior could be continuously observed at both the feeder and the hive. The behavior of several such conditioned bees was observed over an extended period of time and under a programmed regime of food flows. It is suggested that the duration and order in which foraging and recruiting behavior occur depends on the relative rewarding of the food source, as measured on the relative rewarding of the food source, as measured by food flow. It is proposed as a hypothesis that the time spent by a bee at a food source or at the hive in each foraging cycle results from a balance between 2 tendencies to stay and to go.—*Journal summary.*

4460. Nyby, John; Thiessen, D. D., & Wallace, Patricia. (U. Texas) **Social inhibition of territorial marking in the Mongolian gerbil (*Meriones unguiculatus*).** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 310-312.—Tested 14 male gerbils for marking frequency in a residents' territory over a number of days. Experimental Ss were allowed contact with 11 male and female residents immediately after each marking trial;

controls were not. Ss exposed to residents eventually decreased their marking to about 25% of control males; however, marking was reestablished in novel territories. Olfactory cues from residents or other intruding males depressed marking. Visual and auditory cues were ineffective. Moreover, odors from the residents' colony were avoided in a Y-tube preference test. Autopsies revealed no evidence for androgen inhibition or stress effects. Evidently, gerbils are territorial and defend their claims primarily by olfactory intimidation.—*Journal abstract.*

4461. Reventlow, Iven. (Copenhagen U., Denmark) **Konfliktforskning: Dyrepsykologisk set.** [Conflict research: Viewed from animal psychology.] *Nordisk Psykologi*, 1969, Vol. 21(5), 335-346.—Following observations of conflict between 2 rutting male sticklebacks (*Gasterosteus aculeatus* L.), a description is given of how the territory of a stickleback can be said to be delimited by various "borders," which, taken separately, obviously do not depend on quite the same factors. Conversely, other observations showed that a certain connection existed between the various "borders" so that if 1 factor of particular significance for 1 certain "border" was altered so that the "border" concerned was displaced, then other "borders" also changed their position after a while. In the stickleback experiments it turned out to be preferable to abstain from a simple causal description of how the individual behavior appeared in an inter-individual conflict and, instead, a probabilistic model is used. The epistemological consequences of such a view are briefly discussed. The probabilistic model was consequently employed for the description of observations concerning how advocates make attempts to reach agreement. Also it has been attempted by use of the model to describe the choice of reaction in foreign affairs. In both cases it has been mentioned how the model could be used to throw new light on these issues.—*English summary.*

4462. Willey, Robert B. & Willey, Ruth L. (U. Illinois, Chicago Circle) **The behavioural ecology of desert grasshoppers: I. Presumed sex-role reversal in flight displays of *Trimerotropis agrestis*.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 473-477.—Using a sound spectrograph in field observations, it was found that both males and females produced distinct acoustic signals (crepitations) during spontaneous and socially induced flight. When disturbed they flew silently. Signaling patterns of this subspecies did not differ in kind from those of other oedipodines.—*Journal summary.*

MOTIVATION & EMOTION

4463. Bolotina, O. P., Rokotova, N. A., Troshikhina, Yu. G., & Nurgaleeva, F. M. (Pavlov Inst. of Physiology, Leningrad, USSR) **Ob orientirovochno-issledovatel'skoi deyatel'nosti u nizishkikh obez'yan.** [On orienting-investigatory activity in the lower simians.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Jeb) Vol. 12, 36-43.—43 lower simians (4 species) of different ages were Ss in a study to (a) elucidate the character of the orienting-investigatory reaction to different nonedible objects, and (b) attempt the formation of CRs on the basis of this reaction. The orienting-investigatory reaction was shown to be closely connected with other UCRs: alimentary, defensive, playful, etc. The latter determined the character of its manifestation. The expression, stability, and intensity of the orienting-

investigatory reaction were, to a considerable degree, a function of the age-specific features of the Ss. The most expressed and steady reaction was observed in adolescent and young sexually mature Ss, in which it bore the character of play. In these Ss it was possible to elaborate stable motor CRs on the basis of the orienting-investigatory reaction. The reaction extinguished much faster than the alimentary. The orienting-investigatory reaction appears to be constantly directed toward securing the adaptive behavior of the animal.—*J. D. London.*

4464. Campbell, Howard W. (Florida State Museum, Gainesville) **Prey selection in naive *Elaphe obsoleta* (Squamata: serpentes): A reappraisal.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 300-301.—Exposed 14 naive hatchling *Elaphe obsoleta* to extracts prepared from prey eaten by young (lizard, frog) and adults (mouse, bird, rat). A preference was shown for the frog (*Hyla*) extract, a favorite food of young of this species. Young will also accept adult prey species provided they are cut into small pieces. This suggests that prey size is an important determinant of the feeding response in this species.—*Journal abstract.*

4465. Cone, Donna M. & Cone, A. L. (Lynchburg Coll.) **Cage activity in cottontail rabbits.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 259-260.—Measured cage activity of 2 American cottontail rabbits twice daily (morning and night) under 6 levels of ambient illumination (dark, less than 1, 2.5, 5, 25, and 50 ft-c). Analysis of variance indicates that the Ss were significantly more active at night than in the morning under all levels of illumination. In addition, the Illumination \times Time of Day interaction was significant. Increasing levels of illumination produced decreasing cage activity at night, but did not significantly affect cage activity in the morning. Results are discussed as providing further generalization of earlier findings with nocturnal Virginia opossum and diurnal California antelope ground squirrels.—*Journal abstract.*

4466. Hsiao, Sigmund. (U. Arizona) **Feeding-drinking interaction: Intake of salted food and saline solutions by rats.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 8-14.—Deprived 16 naive female Wistar albino rats of both food and water for 24 hr. and then received 25 combinations of 5 food conditions (no food, 0, .9, 1.8, or 2.7 gm. of NaCl/100 gm plain food) and 5 liquid conditions (no liquid, plain water, .9, 1.8, or 2.7% saline solutions). Each combination of food and liquid was presented for 2 hr. to measure intake of food and liquid. This was followed by a 22-hr recovery period of plain food and water until the next deprivation day began. All Ss were given all 25 conditions in sequences designed to balance possible residual effects. Results indicate: (a) as NaCl concentration in food increased, the amount of intake of water and various saline solutions increased; (b) the rate of increase was greatest for water; (c) when food was presented, water and less-concentrated saline solutions were drunk more, but when there was no food, .9 and 1.8% saline solutions were drunk more than water; (d) food intake was reduced by NaCl content in liquid; and (e) food intake was independent of NaCl concentration in food. Results are discussed in terms of the colligative property of NaCl and the capacity of the rat to concentrate urine. (French summary) (28 ref.)—*Journal abstract.*

4467. Hudgens, Gerald A. **Stress and the adrenocortical response: Enriched past experience re-**

duces the stress response. *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Aug), No. 23-70, 7 p.—Male Wistar rats from 37 1st litters were either handled or not handled on Days 1-15 following birth. In adulthood Ss were exposed for 3 min. to a large open field for 1, 2, 3 or 4 days. 15 min. after the last exposure Ss were sacrificed and free plasma corticosterone was assayed. Handled Ss showed a significantly lower adrenocortical response to the open field than nonhandled Ss. This finding supports the previously reported open-field findings by G. A. Hudgens (see PA, Vol. 46:Issue 3) from these same Ss, which showed that early handled Ss react less emotionally when exposed to a novel environment. The mothers were rebred to rear 2nd and 3rd litters which were not handled in infancy. These litters received 4 days of open-field testing before being sacrificed. No differences were obtained on the corticosterone measure as a function of the mothers' 1st litters being handled or nonhandled. Some methodological difficulties are discussed.—*Journal abstract.*

4468. Hudgens, Gerald A. **Stress and emotional behavior: Enriched past experience reduces emotional response to stress in first and second litter rats.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Aug), No. 22-70, 7 p.—Male Wistar rats from 37 1st litters were either handled or not handled on Days 1-15 following birth. Starting on Day 50 Ss were tested in the open field for 1, 2, 3, or 4 days. Activity and defecation scores were obtained. Handled Ss were less active on Day 1 and more active on Day 4 than nonhandled Ss. The mothers were rebred to rear 2nd and 3rd litters which were not handled in infancy, but which were tested for 4 days in the open field, starting on Day 50. 2nd-litter offspring of mothers whose 1st litter was handled were more active on Day 1 and defecated less over the 4 days of testing than offspring of mothers whose litters were not handled. The effects were similar but considerably reduced for the 3rd-litter offspring. It is concluded that handling a rat mother's 1st litter affects the behavior of her subsequent offspring. Results obtained from 1st-litter Ss fit the traditional emotionality interpretation for the effects of handling, but the results obtained from 2nd-litter Ss suggest that exploratory behavior as well as emotionality may be affected.—*Journal abstract.*

4469. Hutchinson, R. R., Renfrew, J. W., & Young, G. A. (Western Michigan U.) **Effects of long-term shock and associated stimuli on aggressive and manual responses.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 141-166.—Exposed 8 squirrel monkeys to response-independent, fixed-frequency shock that produced biting attack upon a pneumatic hose. Attacks decreased within and across sessions at low intensities and high frequencies of shock, but increased within and across sessions at higher intensities and lower shock frequencies. Stimuli paired with shock, when presented alone, came to produce biting, and stimuli correlated with shock parameters that produced increases in responding within sessions produced similar increases when presented alone. Further experiments with 1, 4, 6, 4, and 2 squirrel monkeys, respectively, showed that continuing exposure to shock also produced lever pressing or chain pulling, with longer shock exposure again producing higher response rates. Whereas biting generally decreased throughout the intershock interval, manual responding generally in-

creased as shock time approached, but immediately before shock was often suppressed. Following shock, biting attack predominated over manual behavior. Results suggest a possible explanation for the extreme resistance of avoidance behavior to extinction, and may also partially explain the persistence of responding during schedules of response-produced shock. Relationships of the present findings to naturalistic observations of relations between fleeing, freezing, and fighting performances are discussed. (65 ref.)—*Journal abstract.*

4470. Ibuka, Nobuo. (Tokyo U. of Education, Japan) **The relationship between visual exploratory behavior and spontaneous activity in rhesus monkeys (*Macaca mulatta*).** *Primates*, 1970(Sep), Vol. 11(3), 201-214.—10 rhesus monkeys underwent a visual exploration test with steady or flickering light as a stimulus. The frequency and cumulative time of peeping or observing responses was measured for each stimulus. Results show that the relative effectiveness of steady or flickering light as an incentive could not be found differentially; the visual stimulus, however, whether steady or flickering light, elicited more peeping responses than the slit without any light, i.e., the operant condition. These peeping responses were rapidly satiated not only within a session, but also between sessions as well as between days. Independent measures of spontaneous activity, obtained concurrently with visual exploration, show that spontaneous activity was relatively stable regardless of ongoing peeping behavior. It was found that 2 measures of frequency and duration on peeping behavior were highly correlated.—*Journal abstract.*

4471. LaBarba, Richard C. & White, Jerry L. (U. South Florida) **Litter size variations and emotional reactivity in BALB/c mice.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 254-257.—Measured emotional reactivity in 36 large- and 36 small-litter BALB/c mice. Each S was tested for 3 consecutive days in an automated open field where 3 dependent measures were obtained: activity level, quadrants traversed, and defecation. Ss reared in large litters exhibited significantly greater emotional reactivity than Ss reared in small litters. Effects were consistent across all 3 indices of emotionality. Results strongly implicate litter size variations as a confounding variable in developmental research with rodents, and may weaken those studies which have failed to control for this variable.—*Journal abstract.*

4472. Myer, James S. (Johns Hopkins U.) **Experience and the stability of mouse killing by rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 264-268.—Tested groups of Long-Evans hooded rats for mouse killing with varying intervals between series of tests. The proportion of Ss that killed on the initial test series did not vary with age from 50-200 days. Every S that killed more than 3 mice eventually reached a criterion of killing on 10 successive days, and every S that reached criterion killed consistently when retested after intervals of up to 150 days. Some Ss that did not kill when tested initially did kill when retested, and the proportion of nonkillers which later killed was greater the longer the interval between tests. (17 ref.)—*Journal abstract.*

4473. Niemi, R. Ronald & Thompson, W. R. (U. Manitoba, Winnipeg, Canada) **Effect of age and test situation on reinstatement of fear.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 442-451.—Compared

young with adult rats for reinstatement of fear. Ss were 72 hooded rats, 25 or 70 days old, randomly assigned to each of 3 treatments in groups of 12. Ss received 30 shocks in a black compartment; or this treatment plus single reinstatement shocks at 3 weekly intervals; or reinstatement shocks alone. 1 wk. after the last reinstatement, fear was measured by observing time spent in the shock compartment vs. time in an accessible (nonshock) white compartment. Groups of Ss were tested for active or passive avoidance by placing them 1st either in the shock or in the safe compartment. A reinstatement of fear effect occurred, but only for those Ss treated with original shock plus reinstatement, and then tested in the passive avoidance situation. Although all adults displayed greater fear under all conditions of treatment and test, both adult and young Ss were affected in the same way by these conditions. Results suggest that reinstatement is a somewhat fragile phenomenon and that its importance in the retention of prior experience does not vary with age. (French summary)—*Journal abstract.*

4474. Padilla, A. M. (State University Coll. New York, Potsdam) **Note on frustration theory and the partial reinforcement effect following a few acquisition trials.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 81-82.—Proposes that frustration theory is unable to explain PREs following limited acquisition training. It is suggested that attempts to explain these findings may have implications for conditioning theories in general, and that more attention should be given to the early acquisition process.—*Journal abstract.*

4475. Poley, Wayne; Yeudall, L. T., & Royce, J. R. (U. Alberta, Edmonton, Canada) **Factor analyses of alcohol and water consumption in laboratory mice.** *Canadian Journal of Psychology*, 1970(Feb), Vol. 24(1), 34-41.—Tested 99 mice from 9 different genotypes for 10 consecutive days in a 2-choice situation with drinking tubes containing water and dilute ethanol. Separate recordings of alcohol and water consumption were taken according to the light cycle, at 9:30 AM and 9:30 PM on each day. The 20 measures of alcohol and water consumption were factor analyzed separately by alpha analysis with varimax rotation. 2 factors with eigenvalues greater than 1 were obtained for alcohol and 3 for water consumption. Factors differed strikingly depending on the fluid involved. Water-consumption factors reflected the nocturnal-diurnal activity cycle. Alcohol-consumption factors were related to changes over days but not to the activity cycle. (French summary)—*Journal abstract.*

4476. Rachlin, Howard. (State U. New York, Stony Brook) **On the tautology of the matching law.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 249-251.—The generalized matching law, that organisms divide their time between alternatives in proportion to the value of the reinforcement consequent on the choice, is derivable from the assumption that an organism choosing between alternatives is under no constraints except those the contingencies of reinforcement impose. Hence, the law is not subject to empirical test. Its value lies in its simple codification of assumptions underlying choice experiments.—*Journal abstract.*

4477. Senini, Adriano. (Catholic U., Inst. of Psychology, Milan, Italy) **Il confinamento nello "startling-box" come fattore di frustrazione.** [Confinement in the startling box as a factor in frustration.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Sep), Vol. 31(5), 450-456.—Reports support both a drive and a cognitive hypothesis of frustration.—L. L'Abate.

4478. Streng, John. (U. Texas) **Open-field behavior in four inbred mouse strains.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 62-68.—Describes an objective, detailed analysis of the open-field behavior of 4 inbred strains of mice: A, BALB/C, C57BL/6, and DBA/2. During a 20-min period, 400 observations were made of the behavior of an S and scored into categories such as rearing, locomotion, grooming, sniffing at objects, freezing, etc. Significant differences between Ss of different strains were observed with regard to frequency of categories. The changes in frequency over time were strain-dependent for some behaviors. Some acts (e.g., rearing and grooming) occurred more frequently with the passage of time, whereas others changed little or decreased in frequency (e.g., sniffing at objects). The very infrequent occurrence of freezing behavior could not account for the large differences in activity between strains. (French summary)—*Journal abstract*.

4479. Szabó, Imre. (Medical U., Pécs, Hungary) **A megrezzenési (startle) reakció mértékének összefüggése az éhség-drive szintjével patkányoknál.** [Correlation of the intensity of startle reaction with the level of hunger drive in rats.] *Pszichológiai Tanulmányok*, 1968, No. 11, 31-44.—Recorded intensity of acoustic startle reaction in 20 fed rats and in 20 rats kept without food for 24, 48, and 72 hr. The intensity of the reaction was found to correlate negatively with the period of food deprivation (downward trend, $p < .02$). At the same time, repeated experiments have shown that the reaction in Ss deprived of food only for 17-21 hr. is somewhat greater than in fed controls ($p < .10$). Findings refute views based on the experiments of J. S. Brown, H. I. Kalish, and I. E. Farber and that of J. W. Meryman, respectively, who maintain that the intensity of the startle reaction is positively correlated with the arousal level of the motivational system. (Russian summary) (18 ref.)—*English summary*.

4480. Wilton, R. N. & Clements, R. O. (U. Texas) **Observing responses and informative stimuli.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 199-204.—Trained 3 adult homing pigeons on a trial procedure. A trial began with the illumination of a pecking key by a white light. After a fixed interval, a key peck could turn the key to 1 of 2 equiprobable colors and produce a delayed trial outcome—an equiprobable occurrence of either reinforcement or nonreinforcement. After a trial, the key turned dark and the trial ended. The response could be made into an observing response by correlating the key colors with the outcomes. Response rates in the fixed interval then increased to a level greater than when the colors and outcomes were uncorrelated. In another phase, the response produced only the colors. The trial outcomes occurred some sec. after the fixed interval without a response being required. Correlating the colors with the outcomes again increased response rates. In a 2nd experiment with 4 adult homing pigeons, a further condition was added in which reinforcement was the outcome on every trial. Response rates were lower than when there were equiprobable reinforcement and nonreinforcement outcomes with correlated colors, and about the same as when there were equiprobable outcomes with uncorrelated colors. Results suggest that stimuli providing information about the probability of reinforcement are themselves reinforcing.—*Journal abstract*.

LEARNING

4481. Booth, D. A. & Simson, P. C. (U. Sussex, Lab.

of Experimental Psychology, Brighton, England) **Food preferences acquired by association with variations in amino acid nutrition.** *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 135-145.—Protein-deprived rats were given, on 1 day, a balanced mixture of amino acids followed by access to protein-free food having a distinctive odor. On another day, an imbalanced (histidine-free) amino acid mixture was given just before food having another odor. Afterwards Ss preferred the balance-paired odor to the imbalance-paired odor. The preference was acquired whether the duration of odor presentation, or the amount of odorized food taken, was kept constant on the 2 conditioning days. Retention of the preference seemed unattenuated after 4 wk. An attraction to the balance-paired odor (relative to odors paired with a water load) contributed to the acquired preference. There was also a relative aversion to unfamiliar odors when they had been paired with imbalance. Such acquired chemosensory control of preferences, together with an anorexigenic effect of imbalanced amino acid mixtures, can account for characteristics of feeding behavior under conditions in which the diet is deficient in an essential amino acid. (16 ref.)—*Journal abstract*.

4482. Goulet, L. R. (U. Illinois) **Basic issues in reversal-shift behavior: A reply to Kendler and Kendler.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 286-289.—Discusses selected nonmediational factors which affect performance on reversal-shift tasks. The factors highlighted are those associated with the logical operation of reversing and the role of implicit associative responses in discrimination-shift tasks involving conceptually related materials. It is concluded that the reversal-shift vs. $\frac{1}{2}$ -reversal-shift is not appropriate for use in assessing the unitary effects of mediation or in a test of a mediational model of development. The joint operation of mediational and nonmediational factors in the execution of the reversal shift are also discussed. (15 ref.)—*Journal abstract*.

4483. Grossmann, Klaus E. (U. Freiburg, Zoological Inst., W. Germany) **Erlernen von Farbreizen an der Futterquelle durch Honigbienen während des Anflugs und während des Saugens.** [Learning of color stimuli at a feeding-site by honeybees during approach, landing and sucking.] *Zeitschrift für Tierpsychologie*, 1970(Jul), Vol. 27(5), 553-562.—Honeybees landed on a transparent cone which was illuminated from beneath with orange light. Upon sucking a 40% sugar solution, the light changed from orange to blue. During choice tests Ss landed on orange cones 75% of the time and approached orange 60% of the time. Control Ss landed and sucked on orange cones. During tests they landed on orange 90% and approached orange 80% of the time. In Exp. II, Ss landed on yellow pieces of cardboard. After landing they were passively carried to a blue one. During tests they landed on yellow 67% and approached yellow 60%. Control Ss landed and sucked on yellow after being passively carried from one to another yellow cardboard. During tests they landed on yellow 100% and approached yellow 90% of the time. When the color during the sucking phase varied from the color present during the landing phase it tended to interfere with learning the color present during approach behavior; the latter color, however, dominated even if there was a delay of 3-10 sec. between landing and reinforcement.—*English abstract*.

4484. Kendler, Howard H. & Kendler, Tracy S. (U. California, Santa Barbara) **Definitely, our last word!**

Psychological Bulletin, 1971(Apr), Vol. 75(4), 290-293.—Argues that the suggestion of L. R. Goulet (see PA, Vol. 46:Issue 3) that 2 rule-based nonmediational mechanisms (doing-the-opposite and frequency cues) can account for developmental changes obtained in reversal vs. $\frac{1}{2}$ -reversal discrimination-shift experiments suffers from several limitations: (a) means of differentiation of mediated and nonmediated mechanisms is not specified; (b) the doing-the-opposite hypothesis fails to account for several reversal-shift phenomena; (c) the data offered in support of the doing-the-opposite hypothesis possess methodological, informational, and logical insufficiencies; and (d) the frequency theory of verbal discrimination as it applies to ontogenetic changes in reversal-shift behavior is not sufficiently developed to be evaluated. It is concluded that although other formulations may prove to be more valid, at present the coordinated single-unit and mediational stimulus-response formulation most adequately integrates the phenomena associated with developmental changes in reversal-shift behavior.—*Journal abstract*.

4485. Miller, N. E. (Rockefeller U., New York, N.Y.) *Dvigatel'noe obuchenie, vistseral'noe obuchenie i gomeostaz*. [Motor learning, visceral learning and homeostasis.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 363-372.—Citing the data of experiments with rats, discusses (a) the ways in which behavioral and physiological mechanisms for maintaining homeostasis, affecting the water balance of the organism, are interrelated, and (b) how both skeletal and visceral responses can be modified by instrumental learning. Thus, direct thermal and chemical stimulation of the brain has been shown to elicit not only the physiological response of secreting the antidiuretic hormone which causes the animal to save water by forming a more concentrated urine, but also the behavioral response of working for and drinking water. It is proposed that, in every case where the homeostatic mechanism acts through the CNS, a deviation from homeostasis functions as a drive and a return toward an optimal level as a reward. When the animals are dehydrated, securing the water that will restore homeostasis serves as a reward to reinforce any responses that immediately precede the drinking of water. In some cases the instrumental learning of visceral responses, reinforced by strong enough rewards, can overcome the innate physiological mechanisms for maintaining water balance and produce at least some deviation from homeostasis. The cited experiments remove 1 of the strongest arguments for a fundamental difference between classical conditioning and instrumental learning. They show that the autonomic nervous system is not inferior to the CNS by being limited to learning by classical conditioning. (English summary) (21 ref.)—*J. D. London*.

4486. Motiff, James P., De Kock, Arlan R., & Davis, Roger T. (U. South Dakota) *Concealment of stimuli during delay in the delayed-response problem*. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 788-790.—Unless their level of performance on delayed-response problems was very high, 11 rhesus monkeys showed a decrement when the opaque screen of the Wisconsin General Test Apparatus was lowered. This did not occur when the objects were concealed for a comparable period by a small hand screen, suggesting the deficit was due to the signal that lowering the screen meant trial termination.—*Journal abstract*.

4487. Smith, Stanley G., Borgen, Lowell A., Davis, W.

Marvin, & Pace, Henry B. (U. Mississippi) *Automatic magazine and bar-press training in the rat*. *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 197-198.

4488. Sonnberg, Andreas & Schmidt-Koenig, Klaus. (U. Göttingen, Zoological Inst., W. Germany) *Zur Auslese qualifizierter Brilleitungen durch Übungsflüge*. [The selection of qualified homing pigeons through exercise flights.] *Zeitschrift für Tierpsychologie*, 1970(Jul), Vol. 27(5), 622-625.—In order to select qualified pigeons for homing experiments all inexperienced Ss were subjected to a sequence of exercise releases. In 4 modified sequences, as in previously used sequences, between 10-20% of the initial number of Ss qualified. The most economical sequence turned out to be one in which the Ss were released, for the 1st $\frac{1}{4}$ of the sequence, in flocks from rapidly increasing distances without change of direction. The releases most difficult for the Ss (i.e., causing high losses) were those between 20 and 70-130 km. in distance. This result represents additional evidence that homing appears to be more difficult from these distances than from shorter or longer distances.—*English abstract*.

Conditioning

4489. Adamec, Robert & Melzack, Ronald. (McGill U., Montreal, Quebec, Canada) *The role of motivation and orientation in sensory preconditioning*. (*Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4) 230-239. Explored the effect of hunger on sensory preconditioning. Ss were 17 male cats. An appetitive task was used to test for sensory preconditioning effects in order to avoid complications arising from differences of drive state during preconditioning and testing for preconditioning. It was found that hunger facilitated the association between paired auditory and visual stimuli, but not between stimuli presented separately and in random order. Examination of the orientation responses of Ss during preconditioning indicate that the auditory stimulus becomes an arousing cue that signals the onset of the visual stimulus. It is suggested that the orientation responses produced as a consequence of this cue function are responsible for the association of the auditory and visual stimuli. (French summary) (19 ref.) *Journal abstract*.

4490. Baru, A. V. (Pavlov Inst. of Physiology, Leningrad, USSR) *Sledovye uslovnye refleksy u krol'kov*. [Trace conditioned responses in rabbits.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 14-21.—15 2-yr old rabbits were Ss in a study of trace motor-alimentary and defensive-shaking CRs with delays ranging from 30 sec to 6 min. These reflexes were evaluated by the magnitude of their latent period and by the distribution of response reactions during the time of the stimulus action and that of the delay. The latter appeared to be the most essential. Reinforcement could be delayed from 30 sec to 3-4 min. for elaborating trace CRs. Correct reckoning of time appeared more distinctly when use was made of alimentary-motor conditioning.—*J. D. London*.

4491. Burdina, V. N., Melikhova, E. F., Krasuskaya, N. A., & Bystrov, V. V. (Pavlov Inst. of Physiology, Leningrad, USSR) *Tipologicheskie osobennosti vyshego nervnogo deyatel'nosti sobak porody russkaya gonchaya*. [Typological features of higher nervous activity in dogs of the Russian hound breed.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(1 Feb), Vol. 12,

44-49.—Presents the results of determinations of the typological features of higher nervous activity in 13 Russian hounds, a relatively new breed of dog. Type of nervous system was determined by inspection of the salivary CRs, utilizing the basic "minor standard" tests. Variations in higher nervous activity were encountered principally in the equilibration and lability of the nervous processes, although with respect to behavior and strength of the basic nervous processes, the breed tends definitely toward the homogeneous.—*I. D. London.*

4492. Chebykin, D. A. (Pavlov Inst. of Physiology, Leningrad, USSR) **Raspredelenie intensivnosti dvigatel'nykh reaktsii kak vozmozhnyi pokazatel' pri sravnitel'nom izuchenii sledovykh uslovnykh pishchevykh reflektsov.** [Distribution of intensity of motor reactions as a potential index in the comparative study of trace alimentary conditioned responses.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 178-185.—5 unrestrained dogs were Ss in a study to substantiate the applicability of the distribution law of reaction intensity to motor-alimentary CRs, using as indices of CR activity (a) latent periods of general and local motor reactions (approach and bar-pressing for food, respectively), (b) the rate of bar-pressing during the delay prior to reinforcement, and (c) the distribution of time spent holding the pedal down. Increase in bar-pressing and in the duration thereof as reinforcement time neared reflected the intensity of local motor reaction in the presence of a trace reflex. The distribution of duration of single bar-pressings/min during the delay prior to reinforcement was the most effective index of the trace motor reflexes under study. This index is basic; that for reaction latencies is supplementary.—*I. D. London.*

4493. Coulter, Winifred R. & Weiss, Stanley J. **Suppressive summation controlled by compounding a shock-associated and a shock-extinguished CS.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 711-712.

4494. Fedorov, V. K. (Pavlov Inst. of Physiology, Leningrad, USSR) **K voprosu o starcheskikh izmeneniyakh v uslovno-reflektornoi deyatel'nosti myshei.** [On senile changes in conditioned-response activity in mice.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 292-296.—Presents the results of a study of the divergencies observed in the CR activity of old and young mice. Motor-alimentary CRs to a bell and light were used. In the case of old Ss, CR activity was characterized by greater variability, a sharp decline of magnitude, and more marked dependence on experimental conditions. It is suggested that, at the basis of the observed decline of CR activity, there are: (a) a growth of inertness of the nervous processes, manifested in the slow establishment of the optimal functional level of the nerve cells; and (b) a narrowing of the range of optimal alimentary excitability. In order to procure a higher level of CRs in old Ss, it was necessary to increase the intervals between stimuli and the time between experimental sessions.—*I. D. London.*

4495. Kettlewell, Neil M. & Papsdorf, James D. (U. Montana) **A role for cutaneous afferents in classical conditioning in rabbits.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 239-247.—Severe attenuation of cutaneous afferent activity from the orbital region of the eye during training prevented development of the classically conditioned nictitating membrane response in New Zealand white

rabbits. Afferent activity levels were controlled by corneal applications of a local anesthetic (.5% tetracaine hydrochloride), varying UCS locus, and by exerting mechanical tension on the eyelids. To determine if learning or performance was affected by such "deafferentation," 3 groups were trained under low levels of afferent activity for 3, 6, or 15 days. When subsequently given additional training under higher levels of afferent input, Ss performed no better than did naive Ss. Results indicate that the reduction in cutaneous afferent activity had prevented learning. (27 ref.)—*Journal abstract.*

4496. Khudorozheva, A. T. (Pavlov Inst. of Physiology, Leningrad, USSR) **K voprosu o razviti differentsirovannogo i ugastatel'nogo tormozheniya u sobak v ontogeneze.** [On development of differential and extinctive inhibition in dogs in ontogenesis.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 321-329.—16 17 day to 6 mo. old puppies were Ss in a study of the mechanism involved in the transformation of diffuse generalized forms of reflex reactions into rapid, precise motor acts, utilizing positive and negative defensive CRs to auditory stimuli. The ability to develop differential and extinctive inhibition was shown to grow with age. Differentiation became more stable with age and after 3 mo. it became possible to form absolute differentiation. In the process of elaborating both kinds of inhibition in the motor and autonomic components of the CR reaction, dissociation appeared, expressed with special sharpness in the younger puppies. Differential and extinctive inhibition were earlier elaborated in the motor components and later in the autonomic component. Earlier primitive forms of motor and autonomic reactions appeared in the process of extinguishing the CR in puppies up to the age of 3 mo. Restoration of a CR against this background led to their elimination. (17 ref.)—*I. D. London.*

4497. Kobakova, E. M. (Pavlov Inst. of Physiology, Leningrad, USSR) **Formirovanie zapazdyvayushchikh uslovnykh reflektsov v ontogeneze u sobak.** [Formation of delayed conditioned responses in ontogenesis in dogs.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 219-229.—25 puppies (starting at the age of 2-3 wk.) and 4 adult dogs were Ss in a study which employed delayed (20 sec. to 3 min.) secretory-alimentary and acidic-defensive CRs to a tone over a 6-7 mo. period. Formation of the processes of internal inhibition in the early period of growth (1.5-4 mo.) proceeded with difficulty and was entirely unstable. In the beginning inhibition developed in the motor and afterwards in the secretory components of the delayed CRs. The formation of CRs in 3-5 mo. old puppies was accompanied by the development of sleep inhibition. The degree and duration of this inhibition were functions of the age and individual features of the Ss. By the 5th-6th mo. sleep inhibition either decreased or diminished and the delayed CRs displayed the character of those in adults. The dynamics of formation and the speed of formation of the alimentary and acidic-defensive CRs proceeded similarly and within the same periods of growth.—*I. D. London.*

4498. Kornorski, J. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Znachenie kharaktera uslovnykh razdrashitelei v raznykh formakh differentsirovki.** [Significance of the character of conditioned stimuli in various forms of differentiation.] In V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh

funktsii." (See PA, Vol. 44:4609) 338-343.—Experiments with dogs showed that 2 forms of training exist for differentiation: (a) "food-no food," and (b) "go left-go right." In "food-no food" differentiation, where 1 auditory CS was positive and another one was negative, the nature of the stimuli played a decisive role. In "go left-go right" differentiation, where 1 auditory CS elicited 1 instrumental response and the other one a 2nd response, the training was based on the orienting responses produced by each of these stimuli. As a result, when the stimuli were presented from different places, training for this differentiation was easy; when the stimuli were presented from the same place, it was extremely difficult, even if the qualitative difference between the stimuli was great. It is suggested that (a) direct potential connections do not exist between the auditory analyzer and the kinesthetic analyzer, and (b) the motor response, elicited by each CS, must, therefore, be mediated by an appropriate orienting response. (English summary)—I. D. London.

4499. Krasuskaya, N. A. & Firsov, L. A. (Pavlov Inst. of Physiology, Leningrad, USSR) *Issledovanie otsrochennykh reakttsii i korotko-otstavlennykh uslovnykh refleksov u nizshikh obez'yan v techenie polovogo tsikla.* [Study of delayed reactions and briefly lagging conditioned responses in lower simians in the course of the sexual cycle.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 71-76.—Sexually mature female baboons were Ss in a study to evaluate, over a 4-wk period, slightly lagging motor CRs and delayed reactions—the latter also when superimposed upon the action of pharmacological agents possessing a sedative or excitatory character. Delayed reactions in Ss underwent regular changes in connection with the sexual cycle, while the motor CRs were distinguished by stability. Extended dosage of bromines facilitated the percentage increase of correct choices in the execution of delayed reactions in the beginning and final phases of the sexual cycle. Subcutaneous injections of a 10% solution of 1.2 ml. sodium benzoic caffeine exerted no noticeable influence on the state of delayed and briefly lagging CRs, studied during the course of the sexual cycle.—I. D. London.

4500. Levinthal, Charles F. & Papsdorf, James D. (U. Michigan) *The classically conditioned nictitating membrane response: The CS-US interval function with one trial per day.* *Psychonomic Science*, 1970(Dec), Vol. 21(5), 286-297.—Determined acquisition rates for the classically conditioned nictitating membrane response of the rabbit, using 1 paired presentation of tone and shock/day for 12 days, in 24 male New Zealand rabbits trained at a CS-UCS interval of either 250 or 1250 msec. Although both groups displayed substantial conditioning, the 1250-msec group was significantly superior to the 250-msec group, in marked contrast to the usual findings of experiments dealing with the CS-UCS interval parameter. Results are interpreted primarily in terms of the role of the orienting response in CR acquisition.—*Journal abstract.*

4501. Lukina, E. V. (Pavlov Inst. of Physiology, Leningrad, USSR) *K voprosu o razviti uslovno-reflektornoï deyatel'nosti vorob'inykh ptits v ontogeneze.* [On the development of conditioned-response in finches in ontogenesis.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 234-240.—Canaries were used to study alimentary and defensive conditioning in ontogenesis. This was possible

from the 6th-10th postincubational day. The CRs, however, were unstable and disappeared by the next day. The 1st half of the period as nestlings was characterized by (a) the gradual development of the motor coordinations of the alimentary reflex, and (b) an extension of the range of its unconditioned stimulation as a result of the functional inclusion of new analyzer systems. The 2nd half was characterized by a diminution of this range as a result of (a) the formation of CR-alimentary connections with the parents, and (b) the sharp extension of the range of stimuli eliciting the unconditioned passive-defensive reaction of "freezing," which in time was replaced by active flight from the nest. During the period when freezing may take place, the same UCS elicited 2 reactions: in the beginning a defensive reaction with an alimentary one following immediately.—I. D. London.

4502. Mackintosh, N. J. (Dalhousie U., Halifax, Nova Scotia, Canada) *An analysis of overshadowing and blocking.* *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 118-125.—In classical aversive conditioning experiments, rats do not always learn about all aspects of a compound stimulus predicting shock. A strong stimulus may overshadow a weaker one; and pretraining on 1 component may block learning about a 2nd component. These results have been explained either by appealing to a notion of selective attention, or by assuming that learning about 1 component is a function of prior response strength to the entire compound of which it forms a part. In Exp. I (N = 40 male hooded rats), overshadowing was demonstrated on the 1st trial of conditioning, i.e., before either component had acquired any response strength. In Exp. II (N = 30 male rats), pretraining on 1 component resulted in complete failure to learn about a 2nd component during compound training, but did not prevent additional learning about the 1st component. Both results were interpreted as supporting an attentional analysis of blocking and overshadowing. (17 ref.) *Journal abstract.*

4503. Miczek, Klaus A. & Grossman, Sebastian P. (U. Chicago) *Positive conditioned suppression: Effects of CS duration.* *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 243-247. During a brief CS (15 or 30 sec.) that terminated with the response-independent delivery of banana pellets, operant responding reinforced by other food pellets according to a variable-interval schedule of reinforcement was suppressed in 2 squirrel monkeys. CSs of longer duration (1, 2, and 3 min.) did not reliably affect the rate of operant performance. Brief CSs generated homogeneous response patterns of nearly complete suppression. Increasing the CS duration did not enhance responding, as previously reported, but led to alternate bursting and pausing, which suggested a loss of control by the CS. Results suggest that the magnitude of "positive" or "negative" conditioned suppression reflects the strength of the classical conditioning process. *Journal abstract.*

4504. Millenson, J. R. & Dent, Jill G. (Oxford U., England) *Habituation of conditioned suppression.* *Quarterly Journal of Experimental Psychology*, 1971(Feb), Vol. 23(1), 126-134.—Investigated habituation of CIR using a procedure which eliminated contaminating temporal discriminations. 3 rats were trained to bar press on a random-interval 60-sec schedule of milk reinforcement and variable duration tone-shock pairings. Very little recovery from conditioned suppression was found over

60 sessions of testing and no systematic differences were found after a month's "vacation" from the procedure. Analysis of responding within the CS period showed uniform suppression. Data are discussed in terms of stimulus predictability. (17 ref.)—*Journal abstract.*

4505. Pavlov, B. V. (Pavlov Inst. of Physiology, Leningrad, USSR) **Sledovye pishchevye uslovnye refleksy u golubei.** [Trace alimentary conditioned responses in pigeons.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 96-103.—10 domestic pigeons were used to study the formation and dynamics of alimentary trace reflexes with different lengths of delay (5 sec. to 6 min.) and repeated application of a photic CS. With repeated application of the photic CS, stable alimentary-motor trace CRs with a marked inhibitory phase were formed comparatively quickly (in the course of 2-4 experimental sessions). In small trace delays (5 sec.), motor CRs took place mostly during the time of action of the CS. With increase in the delay to 15 and 30 sec., the relationship between "immediate, immediate-trace, and trace" motor CRs changed in the direction of a decrease in immediate reactions and a growth of trace reactions. In delays of 1, 3, and 6 min. almost all the motor CRs became trace CRs.—*I. D. London.*

4506. Poulos, Constantine X., Sheafor, Patrick J., & Gormezano, I. (U. Iowa) **Classical appetitive conditioning of the rabbit's (*Oryctolagus cuniculus*) jaw-movement response with a single-alternation schedule.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 231-238.—Conducted 3 experiments with a total of 144 male and female albino rabbits to evaluate the implied generality of E. J. Capaldi's aftereffects concept. The effects on single-alternation behavior (SAB) of 1-, 10-, and 20-cc water UCSs, and of the factorial manipulation of 2 levels of CS duration (.5 and 15.05 sec.) on reinforced (R) and nonreinforced (N) trials, were assessed. It was found that SAB: (a) did obtain a classical appetitive conditioning, (b) was an increasing function of UCS magnitude, and (c) was significantly facilitated by increased CS duration on N but not on R trials. It is suggested that the effects of reward on magnitude and duration of goal-box stimuli on SAB in instrumental appetitive-conditioning paradigms may be similarly mediated by classical appetitive CRs.—*Journal abstract.*

4507. Prazdnikova, N. V. (Pavlov Inst. of Physiology, Leningrad, USSR) **K kharakteristike sledovykh uslovnykh reflektsov u ryb.** [On the characteristics of trace conditioned responses in fish.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 134-143.—6 crucian carp with previous experience in conditioning experiments and 5 without such experience were used to study trace motor and electrodefensive CRs, respectively, in order to determine the dynamics of formation of the former (delays in reinforcement: gradually up to 3, 4, 5 min.) and that of the latter (delay of reinforcement: gradually up to 1.5 min.). Trace alimentary CRs with delays of 45-285 sec. could be formed. The character of trace CRs was (a) not changed on disturbance of the experimental stereotype, brought about by a change in order of presentation of the CSs; and (b) not affected even when CSs, evoking immediate CRs, were introduced into the experiment. Trace alimentary CRs in the fish were found to be (a) specific with respect to the kind of CSs used, and (b) specific to the location of the conditioned signal. In a 90-sec delay

the number of trace defensive CRs can reach 99% of all reactions in some fish. With the same delay of reinforcement, the inhibitory phase in trace defensive CRs was considerably shorter than for the alimentary. The reason for this is attributed to the conditions of the experiment.—*I. D. London.*

4508. Quinsey, Vernon L. (Dalhousie U., Halifax, Nova Scotia, Canada) **Conditioned suppression with no CS-US contingency in the rat.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 69-82.—Presented CS to rats licking sucrose after 1 of several off-the-baseline Pavlovian defense conditioning procedures. 2 random procedures in which there was no CS-UCS contingency were constructed by programing CS and UCS on independent random schedules which had either a long or a short variable inter-CS interval (VITI). Ss were 48 naive male Sprague-Dawley rats in Exp. I and II and 20 rats from Exp. II in the 3rd experiment. Because the CS took up more of the session in the short VITI procedure, it contained more CS-UCS pairings and produced CS-elicited suppression of licking. Suppression occurred with neither the long VITI group nor with shock alone controls. Conditioning was all-or-none after both classical and random procedures. (French summary)—*Journal abstract.*

4509. Schastnyi, A. I. (Pavlov Inst. of Physiology, Leningrad, USSR) **Fiziologicheskie mekhanizmy dinamiki obrazovaniya slozhnogo povedeniya chelovekoobraznykh obez'yan (shimpanze).** [Physiological mechanisms involved in the formational dynamics of complex behavior in anthropoid apes (chimpanzees).] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 152-162.—3 chimpanzees were Ss in a study which made use of positive and inhibitory motor CRs involving key-fitting to open locked boxes. These reflexes were united into complex sequential chains or functional systems, providing the form for different behavioral acts. A definite level of complexity in the behavioral acts was found to be in correspondence with the complexity of elaborated differentiated inhibition. Functional systems of conditioned connections that had been formed and differentiations elaborated with respect to them developed with gradually growing complexity. Of special interest is the fact that, if a required key were hidden in a pile of other keys, the chimpanzee would engage in an active search through the pile for it in order to insert it in the corresponding lock.—*I. D. London.*

4510. Schastnyi, A. I. (Pavlov Inst. of Physiology, Leningrad, USSR) **Vzaimodeistvie funktsional'nykh sistem mozga u antropoidov.** [Interaction of functional systems in the anthropoid brain.] *Trudy Instituta Fiziologii imeni I. P. Pavlova*, 1968(Feb), Vol. 12, 144-151.—3 chimpanzees were Ss in an investigation, using motor CRs, of the physiological mechanisms involved in the formation and interaction of different cerebral functional systems lying at the basis of complex forms of behavior. The single CRs which were elaborated came to be mutually interconnected and patterned into different systems of conditioned-unconditioned connections proceeding in the form of complex behavioral acts. A certain degree of excitation in 1 of the unconditioned centers could be attained by means of satiation, hunger, etc.—something that was revealed in the functional systems formed of conditioned-unconditioned connections. The interaction of different functional systems was attained by concentrating excitation or inhibition in 1 of them, with the subsequent devel-

opment of induction. The latter promoted the appearance of 1 or another functional system and the electivity of excitatory propagation along formed pathways, thus, securing the adequacy of anthropoid behavior in a complex experimental setting.—I. D. London.

Discrimination

4511. Bowen, Richard W. & Nevin, John A. (Columbia U.) **Discrimination and generalization with an alternative response.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 681-682.—Pigeons could obtain reinforcement for pecking 1 key independently of a discrimination procedure arranged on another key. The availability of this alternative response seemed to alter the functional properties of the discriminated stimuli as evidenced during subsequent generalization tests, but did not affect the usual behavioral characteristics of discrimination acquisition. In particular, the training conditions produced behavioral contrast but postdiscrimination peak shift and inhibitory stimulus control were not observed. These phenomena normally are correlated in the acquisition of stimulus control by simple successive discrimination training. The alternative response can itself come under the control of the stimulus dimension associated with the discriminated response, thus providing an additional behavioral metric for the experimental analysis of discrimination learning.—*Author abstract*.

4512. Dinsmoor, James A., Browne, Michael P., Lawrence, Charles E., & Wasserman, Edward A. (Indiana U.) **A new analysis of Wyckoff's observing response.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 679-680.—When allowed to produce discriminative stimuli for grain-reinforced key-pecking by standing on a pedal, 3 pigeons maintained green illumination of the key (which accompanied a random interval schedule of reinforcement) for a greater portion of the time it was available than they did red (which accompanied extinction.) As a result of this selective sampling, the average frequency of reinforcement was higher in the presence of these stimuli than when S was off the pedal. Therefore, there seems to be no need to hypothesize a factor like "information" to account for the reinforcement of observing behavior.—*Author abstract*.

4513. Gossette, Robert L. (Hofstra U., Comparative Animal Behavior Lab.) **Variation in magnitude of negative transfer on successive discrimination reversal (SDR) tasks across species.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 803-811.—Notes the isolation of the dimensions of successive discrimination reversal (SDR) methodology which make it sensitive to interspecies performance differences that have systematic taxonomical significance. 2 particular dimensions are indicated: inconstancy of reinforcement and the maximum opportunity for the generation of negative transfer. To determine if variation in magnitude of negative transfer is diagnostic of phyletic level, indices were studied across different phyletic levels of birds: 5 White Leghorn chickens, 4 trumpeters, 4 Guinea fowls, 4 White King pigeons, and 3 Himalayan magpies. More "primitive" birds developed greater magnitudes of negative transfer than more "advanced" birds. The relevance of the data to the retention decrement and the differential extinction hypotheses is examined. (16 ref.)—*Journal abstract*.

4514. Hearst, Eliot. (Indiana U.) **Differential transfer of excitatory versus inhibitory pretraining to intradimensional discrimination learning in pigeons.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 206-215.—12 groups of 4 naive female White Carneaux pigeons received different kinds of pretraining. All Ss had to master a successive discrimination between 2 lengths of a vertical line projected on the response key. Ss pretrained with differential reinforcement for responses to the positive stimulus of the forthcoming discrimination (but with no exposures to the negative stimulus) acquired the discrimination much faster than Ss pretrained with extinction for responses to the negative stimulus of the discrimination (but with no exposures to the positive stimulus). The latter group was not consistently superior to single-stimulus or extradimensional control groups. Group differences are interpreted in terms of differential response levels created along the line-length dimension by the various kinds of pretraining. (21 ref.)—*Journal abstract*.

4515. Johnson, Daniel F. & Anderson, William H. (Virginia Polytechnic Inst.) **Generalization gradients around S₂ following errorless discrimination learning.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 298-300. 4 naive White King cock pigeons were shaped by an errorless procedure to discriminate a blank key as S₁ and a key lit by 576 normal modulation as S₂, and then discrimination training continued on a multiple random-interval 1-min extinction schedule before generalization tests were conducted on wavelength and intensity dimensions. Generalization gradients along wavelength were flat at 0 response rate, while intensity generalization gradients were sloped to high response rates at low intensities. Implications for defining generalization of inhibition are drawn.—*Journal abstract*.

4516. Mackintosh, N. J. & Little, Lydia. (Dalhousie U., Halifax, Nova Scotia, Canada) **An analysis of transfer along a continuum.** *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 362-369. 10 white carneaux pigeons trained on an easy wavelength discrimination subsequently performed more accurately on a hard wavelength discrimination than did 10 controls trained on the hard problem from the outset. The effect was not a simple consequence of learning an easy problem, for a 3rd group (N=10), initially trained on the hard wavelength discrimination but with a 2nd relevant dimension added, performed no more accurately than controls. Nor was it due to a greater difference in response strengths to the stimuli of the hard problem, since a 4th group (N=10), initially trained on the reversal of the easy problem, eventually performed more accurately than controls. A 2nd experiment with 20 white carneaux pigeons of the same age, further disconfirmed this 2nd analysis, leaving it probable that the basic result is partly a consequence of the strengthening of attention to the relevant dimension. (French summary) *Journal abstract*.

4517. Matyniak, Kenneth A. & Stettner, Laurence J. (U. Sussex, England) **Reversal learning in birds as a function of amount of overtraining.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 308-309. 40 male adult bobwhite quail were given 80, 240, 400, 640, or 2000 overtraining trials after learning a simultaneous visual-pattern discrimination and were then reversed. Reversal performance after all levels of overtraining either did not differ from or was significantly inferior to that of 8

nonovertrained birds. Failure to obtain an overtraining reversal effect was attributed to the fact that overtraining did not reduce responding to an irrelevant position dimension.—*Journal abstract.*

4518. Stoddard, L. T. & Sidman, Murray. (Massachusetts General Hosp., Boston) **Stimulus control after intradimensional discrimination training.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 147-157.—Trained 4 rhesus monkeys on intradimensional discrimination initially at distant and then at near points on circle-ellipse continuum. The training did not necessarily produce good stimulus control \times test-stimulus differences smaller than the original training values. It is concluded that the original controlling stimulus-response relation did not correspond with the relations being evaluated by the generalization test.—*Journal abstract.*

4519. Swenson, Leland C. (Occidental Coll.) **One versus two discrimination by whiteneked ravens (*Corvus cryptoleucus*) with non-number dimensions varied.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 454-460.—3 Ss were trained to respond to the number concept of 1 (represented by a red circle on white background) for food, while the number concept of 2 (2 red circles) remained unrewarded. Area, pattern, position, extraneous noise, odor, and visual cues were controlled. 1 S suddenly reached 90% correct criterion after 640 trials of chance performance and showed good transfer of stimuli to new colors and shapes. 1 S gradually reached 75% correct in over 1000 trials, as if the S had been responding to area cues. The 3rd S remained at chance level apparently responding to both position preference and area cues. Suppression of responding to partially reward-correlated information may be a necessary condition for acquisition of abstract concepts. (19 ref.)—*Journal summary.*

4520. Telegdy, Gabor A. & Cohen, Jerome S. (U. Windsor, Ontario Canada) **Cue utilization and drive level in albino rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 248-253.—Trained 32 male albino rats under either a moderate or high water-deprivation level. Ss did not differ in their acquisition rate of a simultaneous discrimination task in which 2 redundant dimensions were present. Test trials in which only 1 of the dimensions was present revealed that moderately deprived Ss were more able to utilize both cue dimensions than highly deprived Ss. A drive-counterbalancing procedure was used to show that the inverse relationship of drive level and cue utilization was based primarily on training rather than testing deprivation level. Cue-utilization differences between drive levels appear to be learning rather than only a performance effect.—*Journal abstract.*

4521. Ward, Jeannette P. & Yehle, Arthur L. (Memphis State U.) **Cross-modal reversal in the rabbit.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 261-263.—Established a classically conditioned discrimination between 2 rates of intermittent stimulation in the auditory modality for 4 New Zealand albino rabbits and in the visual modality for 4 additional rabbits. Following acquisition in the original modality, both stimulus modality and stimulus contingencies were changed in a cross-modal reversal test. All Ss were subsequently tested in reacquisition of the original discrimination. Results are compared to a previous test of direct cross-modal transfer. It is concluded that results of cross-modal reversal support the earlier finding of cross-modal transfer in the rabbit.—*Journal abstract.*

4522. Williams, Ben A. (Colorado Coll.) **Color alternation learning in the pigeon under fixed-ratio schedules of reinforcement.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 129-140.—Trained 8 White Carneaux pigeons on a nonspatial delayed alternation task in which the correct stimulus was that color not responded to on the preceding trial. Ss required to emit either 15 or 30 pecks to the correct stimulus within a trial learned the task; those required to emit only 1 or 5 pecks did not. Also, alternation was learned more easily after an incorrect than after a correct trial. Later experiments with the same Ss showed that a minimum fixed-ratio was required for successful color alternation to occur, even though no fixed-ratio requirement was necessary when a position cue was available. The mechanism of the fixed-ratio effects derived from the Ss' tendency to repeat their response in the presence of the color reinforced on the last trial. Whereas Ss trained on larger fixed-ratios corrected this error tendency within a trial, Ss trained on smaller fixed ratios did not.—*Journal abstract.*

Avoidance & Escape

4523. Baum, Morrie; Jaffe, Peter G., & Leclerc, Robert. **The effect of a loud buzzer upon the acquisition and extinction of a simple avoidance response in rats.** *Canadian Journal of Psychology*, 1971(Feb), Vol. 25(1), 24-32.—Bishop's U., Lennoxville, Quebec, Canada—Describes 2 experiments to determine the effect of a loud buzzer on avoidance acquisition and extinction in rats. In Exp. I with 66 naive female hooded rats, a 2×3 factorial design was employed, in which the buzzer was introduced as a redundant CS in a simple avoidance situation, with different groups being trained at different CS-UCS intervals. Having the buzzer as CS hastened acquisition and increased resistance-to-extinction of the avoidance response. The effect of CS-UCS interval was also significant, as were many interaction effects. In Exp. II with 44 naive female hooded rats, the buzzer was introduced for the 1st time in extinction, i.e., after the response had been acquired. If the buzzer was introduced as a redundant "CS," it increased resistance-to-extinction. If the buzzer was applied continuously during extinction or only during the ITI, it tended to make the Ss extinguish more quickly. (French summary)—*Journal abstract.*

4524. Bresnahan, Elaine L. & Riccio, David C. (Kent State U.) **Effects of variations in stimulus similarity and response requirement during pre-shock upon subsequent one-way active avoidance learning.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 427-433.—Describes 2 experiments with 48 adult male Holtzman albino rats, which examine further the stimulus and response conditions under which prior fear conditioning facilitates 1-way active avoidance acquisition. Fear in both experiments was established during passive avoidance training by administering a single 2-sec shock following a cross-through response from a white to a black compartment. Subsequent active avoidance acquisition was facilitated in Exp. I even though the response requirements of the 2 tasks were incompatible. In Exp. II reversed stimulus-shock arrangements existed in the 2 learning tasks. Facilitation of avoidance acquisition as a function of the prior task was again obtained. (French summary) (15 ref.)—*Journal abstract.*

4525. Cicala, George A., Masterson, Fred A., & Kubitsky, Grace. (U. Delaware) **Role of initial response rate in avoidance learning by rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 226-230.—Measured shuttle responses in the absence of response-contingent reinforcement for different periods of the intershock interval (ISI) with different intensities of signaled and unsignaled shock. In Exp. I with 30 male Wistar rats, a CS was employed. Responding was directly related to shock intensity early in the ISI and inversely related to shock intensity late in the ISI (during the CS). In Exp. II with 30 male Wistar rats, no CS was presented and the same interaction was obtained. Results (a) permit an interpretation of the inverse relation between shock intensity and shuttle-avoidance learning in terms of initial response probability, and (b) suggest that CS introduction increases the shuttle-response probability immediately preceding shock.—*Journal abstract.*

4526. Crawford, M. L. (Baylor Coll. of Medicine, Houston, Tex.) **Shock-avoidance and shock-escape drinking in rats: Rate of licking.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 304-305.—Measured the drinking rates in 6 albino and hooded rats by interresponse times for licking under shock-avoidance or shock-escape contingent licking conditions. Interresponse times were quite comparable under either set of shock-contingent drinking conditions with the modal interlick interval approximately 145 msec. Well-established principles of behavior maintained on fixed ratio schedules would predict such results.—*Journal abstract.*

4527. Gibbon, John. (New York State Psychiatric Inst., New York) **Scalar timing and semi-Markov chains in free-operant avoidance.** *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 109-138.—Proposes scalar timing as the basic latency mechanism underlying asymptotic free-operant avoidance performance. Timing in free-operant schedules results in a semi-Markov chain, in which transition times may depend on the state to be entered as well as the state occupied. Results for finite chains on asymptotic state occupancy probabilities are summarized, and an explicit solution for the mean 1st passage time matrix is derived. Applications of these results using the scalar property provide a 1st-order description of mean interresponse and intershock time functions for a variety of cued and uncued free-operant schedules. Occasional deviant performances appear to result from the standard scalar timing mechanism with infrequent random breakdowns. (31 ref.)—*Journal abstract.*

4528. Gilbert, R. M. (Alcoholism & Drug Addiction Research Foundation, Toronto, Ontario, Canada) **Signal functions in discriminated avoidance behavior.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 97-108.—Trained 4 male hooded rats to lever press under a discriminated avoidance/escape schedule in which separately signaled safe and escape periods were 100 and 32 sec., respectively. The auditory and not the visual component of the compound warning signal became associated with the discriminative control of lever pressing. Avoidance behavior also came under temporal control, in that the probability of lever pressing increased as the warning period progressed. Timing began with the onset of the warning signal rather than the offset of the safe signal. However, after the warning signal had been progressively eliminated, timing began with the offset of the safe signal. When neither

signal was normally available, the temporal distribution of avoidance behavior changed markedly. Drifts in the temporal distribution of lever pressing occurred throughout the study; these were manipulated for 2 Ss. (43 ref.)—*Journal abstract.*

4529. Halasz, Michael F. & Lindsay, Gary M. (U. Manitoba, Winnipeg, Canada) **Servomechanistic oscillation of a vestibular conditioned response after impulse-like incrementation of US intensity.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 677-678.—In vestibular escape, rats terminated externally initiated aversive tilt-oscillation of the chamber by discrete-trial bar press. Response latency to tilt onset became a stable function of UCS intensity (tilt frequency). Impulse-like (abrupt, brief) changes of UCS intensity elicited transient excursions of this performance measure. The impulsive transients appeared similar to servomechanistic damped oscillations even though the paradigm included no external loop arranged by reinforcement contingencies. The interpretation is that S maintains the total accelerational stimulus at a regulated value by compensating changes in tilt frequency with reciprocal adjustments of response latency, via a feedback pathway inside S.—*Author abstract.*

4530. Henderson, Norman D. (Oberlin Coll.) **Motivation-performance relationships using different shock-avoidance shuttlebox techniques.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 314-315.—Trained 112 naive male Wistar rats on either a running or a barrier-jumping shuttlebox avoidance task over a wide range of shock levels. Performance changed relatively little across shock levels on the running task and was U-shaped on the jumping task. Early escape performance was a strong determinant of avoidance performance at some shock levels. The overriding effects of specific situational factors in the shuttlebox must be considered when the instrument is used for the study of motivation-performance relationships.—*Journal abstract.*

4531. Kadden, Ronald M. (Columbia U.) **Response-dependence and predictability of shock as continuous variables.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 707-708. Probability of shock delivery may be manipulated independently for responses or failures to respond (not-responses). When these probabilities are programed within a temporal system of reinforcement schedule classification, they provide a parametric basis for relating schedules of response-dependent and response-independent shock, and for varying shock predictability. Lever-press responding was studied in 16 rhesus monkeys, using probability schedules on avoidance extinction. It was found that response rates increased as both the relative response-independence and predictability of shock values were increased.—*Author abstract.*

4532. Krasnegor, Norman A., Brady, Joseph V., & Findley, Jack D. (Walter Reed Army Inst. of Research, Washington, D.C.) **Second-order optional avoidance as a function of fixed-ratio requirements.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 181-187.—2 rhesus monkeys responded on a fixed-ratio schedule in Stimulus 1 (blue light) to avoid the onset of Stimulus 2 (green light). Failure to avoid Stimulus 2 required a 2nd fixed-ratio performance to avoid Stimulus 3 (red light) in the presence of which unavoidable shock occurred. Relative frequencies of

avoidance performance in the blue light and in the green light were inversely related to the ratio requirement under each stimulus condition. Both differential response-cost and avoidance-failure probability factors were related to the observed changes.—*Journal abstract.*

4533. Maxian, Paul M. & Igarashi, Makoto. (U. Houston) **Baseline rail-running performance in the squirrel monkey.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 959-965.—Describes an avoidance rail-running test for squirrel monkeys. It permitted measurement of base-line motor performance for study of balance. The effect of several amounts of pretraining on base-line level was investigated, and no differences in base-line level were found. Factors including avoidance acquisition and initial rail-running ability were normally distributed. The stability of rail-running performance was adequate for use as a base-line measure.—*Journal abstract.*

4534. Posluns, Donald & Vanderwolf, C. H. (U. Western Ontario, London, Canada) **Improved avoidance performance following exploratory movement.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 499-504.—Acquisition of 1-way active avoidance is improved by about 40% by (a) exploration in the avoidance apparatus immediately before training; (b) exploration in an irrelevant, empty box immediately before training; (c) a single ECS 24 hr. before training; and (d) a combination of a and c. Exploration in the avoidance apparatus 24 hr. before training did not improve avoidance acquisition. Ss were 69 naive male hooded rats. It is suggested that the effect of exploration on active avoidance performance is due to a "warm-up" of diencephalic-limbic mechanisms concerned with the control of motor activity. (French summary) (17 ref.)—*Journal abstract.*

4535. Powell, Robert W. (U. South Florida) **Free-operant (Sidman) avoidance in field-raised and laboratory-raised wild rats.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 216-225.—Studied avoidance learning in 12 cotton and 8 black rats, 9 of which had been raised in the field and 11 in the laboratory. The majority of the Ss learned to avoid, with the laboratory-raised Ss performing as successfully as a group of 10 albino rats. Feral Ss performed more inconsistently both within and between Ss, with the field-raised Ss differing significantly from the albino Ss in this respect. Both feral species displayed stereotyped UCR to electric shock which appeared to compete with the avoidance response, and had to be suppressed before effective avoidance developed. In most cases, this required intense electric shocks. The albino Ss consistently received a disproportionately large number of shocks early in the session (warm-up), while neither feral species displayed this tendency.—*Journal abstract.*

4536. Pritchatt, Derrick. (U. Leeds, England) **Further studies on the avoidance behaviour of *Periplaneta americana* to electric shock.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 485-492.—Conditioned leg dipping into water in cockroaches at 20 or 60 μ A for 6 or 20 min.; Ss were then tested for retention during extinction. The higher shock intensity resulted in poorer performance during acquisition and extinction. 6 min. of training were insufficient for learning. The attempt to establish light as a secondary reinforcer resulted in deterioration of performance. Reversal learning did not improve over trials. (26 ref.)—*Journal summary.*

4537. Riess, Dave. (Galesburg State Research Hosp. Ill.) **The buzzer as a primary aversive stimulus: II Unavoidable buzzer presentations and conditioned acceleration.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 302-304.—2 experiments explored the effects of a 76-db buzzer on Sidman avoidance. In Exp. I with 3 female Wistar rats with a history of avoidance, it was shown that a variable interval 1 schedule of unavoidable 2-sec buzzer presentations would increase avoidance rates during entire 30-min sessions. In Exp. II with 4 naive female Wistar albino rats, it was shown that conditioned acceleration could be produced when a light CS predicted a 5-sec buzzer UCS. Both these effects were small in magnitude but highly reliable, and both effects attenuated rapidly when the buzzer was removed.—*Journal abstract.*

4538. Rohrbaugh, Michael; Brennan, James F., & Riccio, David C. (Kent State U.) **Control of two-way shuttle avoidance in rats by auditory frequency and intensity.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 324-330.—Following acquisition by 15 male albino Holtzman rats of shuttle-avoidance responding to a tonal CS, 6 Ss were given stimulus generalization tests under each of 3 conditions: (a) variation of frequency, (b) variation of intensity, and (c) concurrent variation of both frequency and intensity. Resulting generalization gradients for the frequency-alone dimension show that response speed was greatest when the training-CS value was presented, with a decrement in response strength occurring to the other stimuli. Variations in the intensity dimension alone revealed a monotonic relationship between response speed and stimulus intensity. Simultaneous variations in both frequency and intensity indicate that both dimensions exerted behavioral control, and that frequency gradients tend to steepen as intensity increased. Results are interpreted with respect to aversively motivated stimulus control and multidimensional stimulus generalization. (28 ref.)—*Journal abstract.*

Reinforcement

4539. Ayres, John J. & Quinsey, Vernon L. (U. Massachusetts.) **Between-groups incentive effects on conditioned suppression.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 294-296.—Rats licking 12% sucrose suppressed to a preaversive CS as much as those licking 8%, but recovered their base-line response rates faster following shocks. It is suggested that an earlier finding by J. R. Vogel and N. L. Spear, of greater suppression under low incentive, could have been due to the use of a recovery time measure of suppression—a measure that confounds CS-elicited suppression with rate of recovery of base-line responding. 60 male albino Sprague-Dawley rats were Ss.—*Journal abstract.*

4540. Davis, Jennifer & Bitterman, M. E. (U. South Florida) **Differential reinforcement of other behavior (DRO): A yoked-control comparison.** *Journal of Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 237-241.—After training to press a lever on a variable interval 30-sec schedule, 1 group of 10 naive hooded rats was shifted to a differential-reinforcement-of-other-behavior (DRO) 10-sec schedule, while a 2nd group was shifted to a noncontingent yoked-control schedule that provided the same frequency and distribution of reinforcement. Then, both groups (Total N = 10) were extensively retrained on the variable-interval schedule.

after which the 1st was shifted to a series of DRO 30-sec sessions alternating daily with variable-interval 30-sec sessions, while the 2nd was treated like the 1st on variable-interval days and yoked with the 1st as before on DRO days. In both phases, response-decrement was more rapid and more marked in the DRO Ss than in the controls. The difference was due largely to sustenance of response in the controls by adventitious reinforcement. All the DRO Ss developed "other" behavior—the same distinctive pattern of waiting at the foodcup—but there was no direct evidence that it contributed in any way to the decrement in lever pressing.—*Journal abstract*

4541. Lolordo, Vincent M. (U. North Carolina, Chapel Hill) Facilitation of food-reinforced responding by a signal for response-independent food. *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 49-55.—5 male White Carneaux pigeons whose key pecking was maintained by 4-sec access to grain on a variable-interval 2-min schedule received Pavlovian differential conditioning trials superimposed upon the instrumental base line. The CSs were changes in the stimulus on the key from white to red, or to a white horizontal line against a dark background. The positive CS was 20 sec. long, and was followed immediately by 8-sec access to grain. The negative CS, also 20 sec. long, was never paired with response-independent food. All Ss responded more rapidly in the presence of the positive CS than in the presence of the negative one. The positive CS produced an increase in response rate over the preconditioned stimulus period. The negative CS had no marked effect upon response rate. When the roles of the positive and negative stimuli were reversed, and the duration of the response-independent reinforcement was reduced to 4 sec., the new positive CS came to facilitate responding, and the new negative CS no longer produced facilitation. A 2nd discrimination reversal produced similar outcomes. When a 3rd reversal was initiated, and the duration of response-independent reinforcement was reduced to 2 sec., the difference between the effects of the positive and negative stimuli diminished. (17 ref.)—*Journal abstract*

4542. Weinstein, Lawrence. (U. Melbourne, Victoria, Australia) Negative incentive contrast effects with saccharin vs. sucrose and partial reinforcement. *Psychonomic Science*, 1970(Dec), Vol. 21(5), 276-278.—30 male hooded rats received 7 sessions of barpress training with sucrose (16 or 4%) and saccharin (.10 or 1.5%) as reward, followed by a shift from 16-4% sucrose and 10-1.5% saccharin. 4 dependent measures indicate that concentrations of sucrose and saccharin that produced equivalent levels of performance produced equivalent negative contrast effects. In Exp II, 18 Ss received 4 sessions of barpress training with (.10 or 1.5%) saccharin under a fixed ratio 7 schedule of reinforcement followed by a shift from .10-1.5%. 4 of the 5 measures indicate negative contrast effects. Confounding inherent in the use of solid food or sucrose does not appear to account for negative incentive contrast effects. —*Journal abstract*

Reinforcement Schedule

4543. Brandon, Paul K. (Mankato State Coll.) A reinforcer-density-change schedule of reinforcement. *Proceedings of the Annual Convention of the*

American Psychological Association, 1971, Vol. 6(Pt. 2), 689-690.—A rat was run on a reinforcement schedule where the consequence of lever pressing was a shift from a specified interval from a low reinforcer density condition to a high reinforcer density. The delivery of reinforcers was not contingent upon behavior. Responding was maintained at a higher rate than under a control condition providing completely noncontingent reinforcement at the same density as that maintained by a higher reinforcer density change condition. It is concluded that positive reinforcement is best defined as an increase in reinforcer density consequent to behavior, resulting in an increased frequency of occurrence of that behavior.—*Author abstract*

4544. Brownstein, Aaron J. (U. North Carolina, Greensboro) Concurrent schedules of response-independent reinforcement: Duration of a reinforcing stimulus. *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 211-214.—Determined presentations of grain to 3 adult White Carneaux pigeons by 2 response-independent schedules. Interpresentation intervals varied with a mean interval of 1.5 min. for each schedule. Both were concurrently operative, but grain was presented by 1 only when the chamber was illuminated with blue light and by the other only during amber illumination. A response on a white key, the only key in the chamber, alternated the stimulus conditions and the effective schedule. Grain presentation durations associated with the illumination conditions were varied from 1.5-4.5 sec. The proportion of the total session time spent in an illumination condition closely approximated the relative grain presentation duration provided in that illumination. For 2 of the Ss, the proportion of the total number of grain presentations obtained in an illumination condition was an increasing function of the presentation duration in that illumination.—*Journal abstract*

4545. De Lange, John. (U.S. Naval Aerospace Medical Research Lab., Pensacola, Fla.) The effects of brief stimuli presented under a multiple schedule of second-order schedules. *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 19-25.—Investigated the effects of briefly presented stimuli paired or not paired with food reinforcement in 4 male adult White King pigeons on a multiple schedule containing 2nd-order schedules. A stimulus paired with food reinforcement was presented on a variable-interval schedule in 1 unit of the multiple schedule and either a stimulus not paired with food reinforcement or no stimuli were scheduled in the other unit. Response rates were highest when behavior was followed by the food-paired stimulus. Presentation of the food-paired stimulus at completion of each 1-min variable-interval component maintained a steady rate of responding between consecutive food presentations. Pausing following food reinforcement was greatest in the 2nd-order schedule not containing the paired stimulus. Reversing the stimulus pairings or by a reversal of the response rates and patterns of responding for each stimulus.—*Journal abstract*

4546. Donaldson, Ralph I. & Schull, Richard I. (U. North Carolina, Greensboro) The effects of prefeeding on a response-initiated DRL schedule of reinforcement. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 695-696.—4 rats were trained on a 2-response DRL schedule. The 1st response turned on a light and the 2nd

response turned off the light. If the time between the responses exceeded 20 sec., the 2nd response produced food. If the time between the responses was less than 20 sec., food was not presented and another initiating response was needed to start the DRL. The mean latency of the terminating response increased slightly for 2 of the Ss during prefeeding sessions. The mean latency of the initiating response increased markedly for all 4 Ss during prefeeding.—*Author abstract.*

4547. Gibbon, John & Eaton, Charles R. (New York State Psychiatric Inst., New York) **Choice between responding and not responding on an appetitive "Sidman-like" schedule.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 713-714.—Studied the choice between responding and not responding in rats in an appetitive schedule analogous to a free-operant avoidance paradigm. The schedule programs reinforcement at a constant time (s) from the preceding reinforcement when no response intervenes. When a response occurs, reinforcement follows at a different constant delay (r). Response probability was a decreasing function of r for a fixed value of s. All Ss showed a bias away from an optimum strategy which would maximize reinforcement density.—*Author abstract.*

4548. Hymowitz, Norman. (Rutgers State U.) **Comparison between FI and VI schedules of punishment: Response suppression.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 709-710.—A 2×2 design was used to compare response suppression in rats following fixed interval (FI) and variable interval (VI) schedules of punishment. A general trend toward greater suppression for FI punishment in Exp. I ($N = 12$ male rats) failed to obtain statistical significance. Exp. II ($N = 12$ male rats), however, revealed significantly more suppression for FI than for VI schedules of punishment. The difference between the 2 studies was attributed to clearer specification of the minimum intershock interval in Exp. II. The data suggest that periodicity of shock may be an important determinant of response suppression.—*Author abstract.*

4549. Jones, Cora L., Schull, Richard L., & Brownstein, Aaron J. **The effect of a variable-interval changeover contingency on concurrent responding.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 693-694.—Previous studies using concurrent variable-interval (VI) schedules have indicated that when a changeover delay is used, the distribution of responses approximates the distribution of reinforcements. In the present experiment with 4 adult white Carneaux pigeons, a VI contingency imposed on the changeover resulted in large discrepancies between these distributions. These results are in agreement with other procedures that impose contingencies on the changeover that separate the main-key behavior from the changeover behavior.—*Author abstract.*

4550. Kop, Pieter F. & Snapper, Arthur G. (Franklin D. Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **Responding and heart rate under temporally defined schedules of signalled electric shock.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 703-704.—Employed a contingency space consisting of the continuous and independent variables of probability of shock given a response during a stimulus and probability

of shock given no response, in the stimulus. Behavioral and cardiac effects in the rhesus monkey were obtained under discriminated avoidance, Pavlovian conditioning avoidance extinction, discriminated punishment, and intermediate cases defined by variations in the 2 probabilities. When the probability of shock given a response was greater than probability of shock given no response, response rate in the stimulus was suppressed.—*Author abstract.*

4551. Lachter, G. D., Cole, B. K., & Schoenfeld, W. N. (Queens Coll., City U. New York) **Response rate under varying frequency of non-contingent reinforcement.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 233-236.—Exposed 2 White Carneaux hen pigeons to a 60-sec random-interval base-line procedure. 6 different exteroceptive stimuli were successively correlated, within a single session, with blocks of 10 reinforcement presentations. Following this training, a noncontingent reinforcement procedure was instated with interreinforcement intervals of 5, 15, 30, 60, 120, and 240 sec. Within a single session, each noncontingent frequency was correlated with 1 of the previously presented discriminative stimuli. After an initial increase in the rate of responding as the result of a high density of noncontingent reinforcements, the rate declined as exposure to each noncontingent frequency was prolonged.—*Journal abstract.*

4552. Marr, M. Jackson. (Georgia Inst. of Technology) **Sequence schedules of reinforcement.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 41-48.—Studied the performance of 3 naive White Carneaux pigeons under a 2nd-order schedule composed of fixed-interval (FI) components, each of which was associated with a different discriminative stimulus, the stimuli occurring in a fixed order. In 1 condition, food presentation followed the completion of the 4th component. This was designated a fixed-ratio sequence schedule. In another condition, responses in the 1st component completed after a fixed time were reinforced. This was designated a FI sequence schedule. Although the stimulus order and maximum reinforcement frequency were identical under the 2 schedules, considerably more responding occurred under the FI sequence schedule in all components. Relatively few food presentations occurred after responding during any but the terminal components of the FI sequence schedule, a feature independent of the parameter values investigated. In addition, while a pattern of increased responding between food presentations prevailed under both schedules, under the FI sequence schedule the rate in the terminal component was frequently less than in the penultimate component. The FI sequence schedule appeared to have several properties of simple FI schedules. (15 ref.) *Journal abstract.*

4553. Meehan, J. T., Sewell, W. R., & Cooper, A. M. (California State Coll., San Bernardino) **Comparison of chained and tandem schedules of reinforcement.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 15-25.—Compared the performance of 6 silver king pigeons on —chained and tandem variable interval-fixed ratio (VI-FR) and VI-DRL schedules of reinforcement. In the FR and VI-DRL schedules, varying the value of the FR or DRL chained schedules, varying the value of the FR or DRL schedule in the final component seemed to have little effect on the rate of responding in the initial component. When a FR schedule was programmed in the final component, consistently higher rates of responding were found in the initial component of the tandem schedules

when compared to the chained schedules. However, when a DRL schedule was programed in the final component the opposite effect was observed, i.e., consistently lower rates of responding were observed in the initial component of the tandem schedule when compared to the chained. Results seemed to indicate that separate factors were controlling performance in the chained and tandem schedules.—*Journal abstract.*

4554. Sette, William F. & Wood, Ronald W. (U. Rochester, School of Medicine & Dentistry) **Stochastic reinforcement of response duration.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 675-676.—3 dogs were exposed to a schedule of reinforcement which determined the probability of reinforcement as a linear function of response duration. The slope of this function was parametrically manipulated and related to measures of central tendency of the distributions of response durations and interresponse times. As the slope of the function decreased, response durations increased, and vice versa. These findings indicate that response durations as well as interresponse times are subject to control by stochastic reinforcement contingencies.—*Author abstract.*

4555. Shanab, Mitri E. & McCuiston, Sharron. (Fresno State Coll.) **Effects of shifts in magnitude and delay of reward upon runway performance in the rat.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 264-266.—42 naive male Sprague-Dawley rats in 6 independent groups were 1st trained in a runway to receive either 1 or 12 pellets after a 0-, 15-, or 30-sec delay (Phase 1). Subsequently (Phase 2), all Ss received 12 pellets under the same delay interval as in Phase 1. Finally (Phase 3), all Ss were delayed 15 sec. before receiving the 12-pellet reward. In Phase 1 performance was a positive function of amount of reward and a negative function of delay of reward. The effects of magnitude and delay of reward were independent of each other. In Phase 2 no elation effects were obtained in the 0-, 15-, or 30-sec delay conditions. A depression, but not an elation, effect was obtained in Phase 3.—*Journal abstract.*

4556. Shimp, Charles P. & Wheatley, Kimbal L. (U. Utah) **Matching to relative reinforcement frequency in multiple schedules with a short component duration.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 205-210.—3 White Carneaux pigeons performed on 2-component multiple variable-interval variable-interval schedules of reinforcement. There were 2 independent variables: component duration and the relative frequency of reinforcement in a component. The component duration, which was always the same in both components, was varied over experimental conditions from 2 180 sec. Over these conditions, the relative frequency of reinforcement in a component was either .2 or .8 ($\pm .03$). As the component duration was shortened, the relative frequency of responding in a component approached a value equal to the relative frequency of reinforcement in that component. When the relative frequency of reinforcement was varied over conditions in which the component duration was fixed at 5 sec., the relative frequency of responding in a component closely approximated the relative frequency of reinforcement in the component. i.e., the familiar matching relationship, obtained previously only with concurrent schedules, was obtained in multiple schedules with a short component duration.—*Journal abstract.*

4557. Shull, Richard L. (U. North Carolina, Greensboro) **Sequential patterns in post-reinforcement pauses on fixed-interval schedules of food.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 221-231.—Responding by 1 of 2 adult male Silver King pigeons was reinforced with food on fixed-interval (FI) schedules of 30-, 60-, and 300-sec duration. A 2nd S was studied under FI durations of 60 and 300 sec. For both Ss, the average postreinforcement pause was $1/2$ the duration of the FI. Autocorrelation coefficients revealed 1st-order sequential dependencies in series of postreinforcement pauses. On the 300-sec FI schedule successive postreinforcement tended to alternate between long and short durations. At the shorter FI durations there was less evidence of alternation sequences. Exp. II with the same Ss was conducted to determine if the time intervals between the 1st response after reinforcement and the next reinforcement (the work periods) were responsible for the alternation patterns in the series of postreinforcement pauses. To evaluate the role of the work period, several procedures were used to modify the work period from that obtained on the FI 300-sec schedule. Adding a schedule to the FI schedule that set the minimum amount of time that could elapse between the 1st response after reinforcement and the next reinforcement eliminated the alternation pattern. Control schedules indicate that the elimination of alternation patterns resulted from constraints on the work period per se and not from confounded changes in the interreinforcement intervals. (22 ref.)—*Journal abstract.*

4558. Snapper, Arthur G., Schoenfeld, William N., & Shimoff, Elliot H. (Franklin D. Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **Varying temporal location and intensity of an added electrical stimulus in a fixed-interval schedule.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 705-706.—After 4 groups of rats were trained on a fixed-interval 3-min schedule of positive reinforcement, a 15-sec mild electric shock was intruded into different segments of the interval. When the shock occurred in the beginning, middle, or 3rd quarter of the interval, each S showed a positively accelerated response rate until shock, followed by a 2nd positively accelerated curve up to the reinforcement. When shock immediately preceded reinforcement, rates early in the interval were decreased. As shock intensity increased, response and reinforcement rate decreased differentially according to the temporal locus of shock.—*Author abstract.*

4559. Squires, Nancy & Fantino, Edmund. (U. California, San Diego) **A model for choice in simple concurrent and concurrent-chains schedules.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 27-38. Responses of 8 adult White Carneaux pigeons in the presence of 2 concurrently available (initial-link) stimuli produced 1 of 2 different (terminal-link) stimuli. Entrance into the mutually exclusive terminal links was arranged by different and independent variable-interval (VI) schedules for each key, while responses during the mutually exclusive terminal-link stimuli produced a single food reinforcement according to identical and independent VI schedules. Ss emitted more initial-link responses on the key with the shorter average interreinforcement interval in the initial link. This difference in initial-link response rates varied directly with the difference between the

average interreinforcement intervals of the initial-link schedules and decreased when the initial-link schedule with the longer average interreinforcement interval was followed by several consecutive food reinforcements on the VI schedule in the terminal link on that key. Results are incompatible with previous formulations of choice behavior with the concurrent-chains procedure. A modified formulation with a multiplier for the overall rate of primary reinforcement obtained on each key provides a better description of choice. The new formulation also applies to behavior in simple (concurrent) choice situations, an advantage not achieved by previous formulations. (18 ref.)—*Journal abstract*.

4560. Tombaugh, T. N. (Carleton U., Ottawa, Ontario, Canada) **A comparison of the effects of immediate reinforcement, constant delay of reinforcement, and partial delay of reinforcement on performance.** *Canadian Journal of Psychology*, 1970(Aug), Vol. 24(4), 276-288.—Investigated the relation between immediate reward, constant delay of reward, and partial delay of reward in 3 experiments with 149 naive female Sprague-Dawley rats. A discrete operant bar-press apparatus was employed. In Exp. I, constant delay produced less resistance to extinction than either immediate reward or partial delay, which were not different from each other. Changing the delay contingencies from training to extinction did not substantially influence performance. Exp. II showed that resistance to extinction was an increasing function of the length of the delay interval (7.5, 15, 30, or 45 sec.) in a partial-delay paradigm, and Exp. III demonstrated that resistance to extinction was a decreasing function of a constant delay interval (15, 30, or 45 sec.). Results are discussed in the context of A. Amsel's frustration theory and E. J. Capaldi's sequential hypothesis. (French summary) (23 ref.)—*Journal abstract*.

4561. Winton, A. S. & Beale, I. L. (U. Auckland, New Zealand) **Peak shift in concurrent schedules.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 73-81.—Exposed 6 experimentally naive White King pigeons to 2 keys, a main key and a changeover key. Initially nondifferential training was given in which pecking the main key was reinforced on a variable-interval (VI) 2-min schedule when the key displayed the 1st stimulus, a black line on a blue background, and was reinforced on an identical but independent VI 2-min schedule when the key displayed a plain blue stimulus. Later, differential training was given in which pecking the main key was reinforced on a VI 2-min schedule when the 1st stimulus was displayed; and was reinforced on a VI 10-min schedule when a 2nd stimulus, a black line of another orientation on a blue background, was displayed. During nondifferential and differential training, each peck on the changeover key changed the stimulus on the main key. Generalization tests were given before and after the differential training. These consisted of presentations on the main key of 7 orientations of the black line on the blue background, including the 1st and 2nd stimuli, with no reinforcements being given. Changeover-key pecks changed the stimuli on the main key. Generalization gradients were obtained using 3 measures: time spent, responses, and response rate in the presence of each test stimulus. Typically, maximum values on these measures occurred to stimuli away from the 1st in a direction opposite the 2nd stimulus, and minimum values occurred to stimuli away from the 1st in a direction opposite the 1st.—*Journal abstract*.

Punishment & Extinction

4562. Alcock, John. (U. Washington) **Punishment levels and the response of black-capped chickadees (*Parus atricapillus*) to three kinds of artificial seeds.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 592-599.—3 groups of chickadees were presented with sunflower seed shells empty, containing salted meal worms, or containing meal worms contaminated with quinine sulphate, over 3 days of trials. Ss initially rejected the emetic quinine worm most, the salted worm nest, the empty shell not at all. After 8 presentations the empty seed was also left untouched. Following a 6-day pause the salted worms were eaten significantly more often than before. The rapid and stable avoidance of the empty and emetic seeds may be attributed to the absence of any food reward. It is the nutritive value of a prey rather than its associated punishing qualities which will determine the degree of protection from predation enjoyed by that prey.—*Journal summary*.

4563. Baum, Morrie. (Bishop's U., Lennoxville, Quebec, Canada) **Extinction of an avoidance response in rats via response prevention (flooding): A test for residual fear.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 203-208.—Trained 80 female hooded rats, in a 2 x 2 factorial design, to avoid either .5 or 1.3 ma. shock in an automated apparatus. Following acquisition, Ss were extinguished with or without response prevention. Results confirm that response prevention is effective in hastening the extinction of an avoidance response. Following extinction, the application of a loud buzzer induced a recovery-from-extinction of the response in all groups, indicating that residual fear was present in all groups and roughly to the same extent. Various theoretical implications are discussed. *Journal abstract*.

4564. Dardano, J. F. (Johns Hopkins U., Medical School) **Control of concurrent avoidance and appetitive behaviors by an indicator of shock proximity.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 167-180. Exposed 2 monkeys to concurrent schedules in which every 5th response on 1 lever had the dual consequences of delivering food and stepping a 20-step light counter upward; responses on a 2nd lever stepped the light downward. By responding appropriately on each lever, a ration of food could be obtained without exposure to a brief shock that occurred when the counter reached the 20th step. Behavioral patterns of light-counter control were analyzed when the Ss were handicapped by several types of discontinuities in the 20-step counter: (a) different sets of 4 consecutive lights inoperative, (b) the upper or lower 10 steps inoperative, and (c) all lights inoperative. Generally, Ss maintained the light in the upper 5 steps of the 20-step light counter if the lights immediately preceding the shock position were functional. However, when these counter positions were inoperative, Ss maintained the counter around the highest operative position. With all positions of the light counter inoperative, no systematic pattern of responding on the food and avoidance levers occurred.—*Journal abstract*.

4565. Dawson, Ronald G. (U. California, School of Biological Sciences, Irvine) **Retrograde amnesia and conditioned emotional response incubation reexamined.** *Psychological Bulletin*, 1971(Apr), Vol. 75(4), 278-285.—Examines the CER incubation hypothesis advanced by A. A. Spevak and M. D. Suboski (see PA. Vol. 43:12407). Spevak and Suboski reviewed the

evidence bearing upon the nature of the retroactive effects of ECS upon learned responses, and proposed an interpretation for the wide variety of retrograde amnesia gradients reported in the literature. They suggested that the "true" retrograde amnesia gradient occupies only several seconds following learning, and that longer retrograde amnesia gradients reflect, not an ECS effect upon memory, but the halting by ECS of the incubation, i.e., change-over time of an experimentally produced CER. The evidence for this interpretation is considered weak. An explanation of the wide variety of retrograde amnesia gradients, in terms of treatment effectiveness, is put forward as a more reasonable alternative. (40 ref.)—*Journal abstract.*

4566. Furumoto, Laurel. (Wellesley Coll.) **Extinction in the pigeon after continuous reinforcement: Effect of number of reinforced responses.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 331-338.—Measured number of responses and time to extinction of 52 adult white Carneaux pigeons after 3, 10, 1000, 3000, 5000, and 10,000 reinforced key-peck responses during conditioning. Each response was reinforced with a .045-gm food pellet. The number of responses in extinction was a monotonically increasing function which became asymptotic beyond 1000 reinforced responses. Number of reinforced responses during conditioning significantly affected the number of responses in extinction ($p < .001$) but not the time to extinction. Results support the findings of previous free-operant bar-press studies with rats. Free-operant animal studies of extinction after continuous reinforcement have consistently produced monotonically increasing functions and have typically employed relatively small amounts of reinforcement. It is suggested that amount of reward may be an important parameter determining the shape of the extinction function in the free-operant studies. (22 ref.)—*Journal abstract.*

4567. Holt, Gary L. & Scharlock, Donald P. (State University Coll. New York, Geneseo) **Correction procedures in extinction of matching behaviors.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 683-684. 3 experiments using 2 pigeons, were designed to assess correction procedure functions in acquisition and extinction of matching behavior. In Exp. I, correction procedure removal from blue and amber center-key conditions during operational extinction produced sustained chance matching. Red center-key conditions, not operational extinction, remained at high base-line values. In Exp. II, removal of incorrect red center-key correction responses slightly increased between-session variability in accuracy on red center-key conditions. In Exp. III, percent correct responses to red center-key conditions became more variable between sessions under base-line and extinction sessions following removal of correction procedure from all conditions. Blue and amber center-key accuracy decreased, maintaining near chance performance.—*Author abstract.*

4568. James, W. T. (U. Georgia) **A methodological study of conditioning and extinction of an avoidance response via social facilitation in dogs.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 275-279. 6 puppies were trained to make a conditioned escape response in a runway by responding with a decoy previously trained to run. A spray of water was used as the UCS with the decoy. 4 Ss also extinguished readily when placed with a decoy that had not been trained to escape. Conditioning and extinction of an aversive

behavior can be more readily studied in dogs by the use of water spray than by shock. (18 ref.)—*Author abstract.*

4569. Leach, David A. (Coll. of Wooster, O.) **Rats' extinction performance as a function of deprivation level during training and partial reinforcement.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 317-323.—Examined the finding of J. Theios (see PA, Vol. 38:507) that drive level during training has a relatively permanent effect on habit strength persisting in extinction. The running behavior of 48 male albino Holtzman rats trained with partial reinforcement or CRF with body weights under 70% (high deprivation) or over 90% (low) of normal was extinguished with all Ss at low deprivation. Neither training-deprivation level nor its interaction with reinforcement percentage affected the extinction performance. The partial reinforcement extinction effect resulted solely from interfering responses and reactions to nonreward included convulsive seizures in Ss with a history of malnutrition. The failure to replicate Theios' results supports the conclusion that habit strength is not a function of drive level during acquisition. (19 ref.)—*Journal abstract.*

4570. Powell, Robert W. (U. South Florida) **Some effects of punishment shock intensity upon discriminative responding.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 109-116.—3 adult White Carneaux pigeons received visual discrimination training under both multiple variable-ratio extinction and variable-interval extinction schedules. All Ss developed nearly perfect discrimination. When punishment for every 10th response during food reinforcement was presented, responding decreased as shock intensity increased. At the same time, responding during extinction, which was not punished, increased at intermediate punishment intensities, but returned to low levels under severe punishment. A 2nd procedure, in which punishment and no punishment sessions alternated unsystematically, was employed with 2 of the Ss. Results under this procedure essentially replicate the data obtained as punishment shock intensity increased gradually.—*Journal abstract.*

4571. Roberts, Carl L. & Blase, Karen. (Colorado Coll.) **Elicitation and punishment of intraspecies aggression by the same stimulus.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 193-196. Elicited fighting responses in 15 pairs of naive, male albino Sprague-Dawley rats by shocks over a 46-day period. During certain blocks of these days "punishing" shocks were made contingent on the shock-elicited fights. Fighting frequency was reduced as a direct function of the intensity of the contingent shocks. Fighting frequency recovered completely when contingent shocks were removed.—*Journal abstract.*

4572. Rollings, J. Paul & Melvin, Kenneth B. (Alabama) **Effects of a punitive noise on self-punitive running established with shock.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 313-314.—3 groups of male hooded rats ($N = 8$ group) were trained to escape electric shock by traversing a straight alley. 2 groups punished in the alley showed more resistance to extinction than did a nonpunished group. An additional punishment, noxious noise summated with shock punishment to produce and maintain faster self-punitive running.—*Journal abstract.*

4573. Russin, Raymond; Bover, William N., & Cross, Henry A. (Colorado State U.) **Extinction as a function of varied quality and quantity of reward sequence in**

a straight alley. *Psychonomic Science*, 1970(Dec), Vol. 21(5), 274-275.—4 groups of male albino Charles River rats ($N = 48$) were extinguished in a straight alley after receiving 2 daily trials on 1 of the following varied quality and/or quantity of reward sequences: (a) 1 alfalfa pellet followed by 1 sucrose pellet, (b) 1 sucrose pellet followed by 1 alfalfa pellet, (c) a single alfalfa pellet followed by 16 sucrose pellets, and (d) a single sucrose pellet followed by 16 sucrose pellets. Results indicate that a high-quality following a low-quality reward produced greater resistance to extinction than when a low-quality followed a high-quality reward. Findings are interpreted within E. J. Capaldi's sequential theory.—*Journal abstract*.

4574. Stein, Norman; Hoffman, Howard S., & Christopher, Stitt. (Syracuse U.) **Collateral behavior of the pigeon during conditioned suppression of key pecking.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 83-93.—Ethological recording procedures measured collateral behavior in 5 male homing pigeons whose key-pecking performance was suppressed during a tone that ended with unavoidable electric shock. Independent recordings of gross behavior were made by 2 Os throughout 60-sec intervals immediately before, during, and after tone presentation. Results indicate significant reductions in the frequency of collateral movements and an increase in the time between successive movements during tone presentations. These effects were observed in all Ss, despite differences in the sequential patterns of behavior. Only partial recovery of the behavior evidenced before tone presentation was found during a 60-sec interval following shock. It is concluded that conditioned suppression procedures caused the S to "freeze" during tone presentation and in this fashion produced a general inhibitory effect on ongoing overt activity, including key pecking.—*Journal abstract*.

4575. Van Houten, Ronald & Rudolph, Robert. (Dalhousie U., Halifax, Nova Scotia, Canada) **Summation of punishment suppression.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 117-121.—In 2 experiments, 8 male Sprague-Dawley albino rats were trained to lever press with food on a variable-interval (VI) schedule. Bar pressing produced shock on a VI schedule in the presence of 2 independently presented stimuli, a light and a tone. 2 Ss in each experiment received alternative presentations of the light and the tone and were consequently always in the presence of a stimulus that signaled VI punishment. The other 2 Ss in each experiment were treated similarly except that they received periods in which neither light nor tone was present. During these periods, bar pressing was not punished. The 2 stimuli that signaled punishment were then presented simultaneously to evaluate the effect of stimulus compounding on response suppression. The Ss trained without punishment-free periods did not show summation to the compound stimulus; the Ss trained with punishment-free periods showed summation of suppression. The major difference between the 2 experiments was the longer mean interval of VI punishment used in the 2nd experiment. This manipulation made the summation effect more resistant to extinction and thus increased its magnitude.—*Journal abstract*.

4576. Walters, Gary C. & Glazer, Rochelle D. (U. Toronto, Ontario, Canada) **Punishment of instinctive behavior in the Mongolian gerbil.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2),

331-340.—Using a secondary punishment procedure, 8 male gerbils received response-contingent punishment for either a sand-digging or an alert-posturing response. Compared with 8 nonpunished Ss, Ss punished for digging showed immediate and long-lasting response suppression during the entire punishment phase. Ss punished for posturing displayed an increase in the posturing response throughout punishment. A 2nd study with 5 Ss demonstrated the efficacy of the aversive conditioning procedure employed to establish a tone as a secondary punisher. It is argued that digging and posturing represent different classes of behavior which are differentially affected by punishment. Findings emphasize the importance of an understanding of the nature of the response being studied in investigations of punishment. (19 ref.)—*Journal abstract*.

SOCIAL & SEXUAL BEHAVIOR

4577. Barth, Robert H. (U. Texas) **The mating behavior of periplaneta americana (Linnaeus) and Blatta orientalis Linnaeus (Blattaria, Blattellinae), with notes on 3 additional species of Periplaneta and interspecific action of female sex pheromones.** *Zeitschrift für Tierpsychologie*, 1970(Sep), Vol. 27(6), 722-748.—In *P. americana*, a volatile female sex pheromone is important in sex recognition, attraction and release of courtship behavior. The relationship between wing-raising display of the male and motivational factors is described. Backing movements and phallomere protrusion are released by tactile stimulation of the abdominal tip, which leads to frequent unsuccessful copulation attempts with unreceptive females. Successful copulation requires active mounting on the part of a receptive female; both chemical and tactile stimuli are involved. The sex pheromones of the 3 other species appear to have a less prominent role in the release of male courtship behavior. *Blatta orientalis* lacks a volatile female sex hormone, thus, sex recognition, etc., depends on chance contacts. Female sex pheromones are effective in releasing male courting behavior within groups of closely related species, but not between these groups. During phylogenesis cockroaches may have developed several pheromones independently of each other. (36 ref.)—*Journal abstract*.

4578. Brain, Carolyn L. & Griffin, Gary A. (U. Waterloo, Ontario, Canada) **The influences of the sex of littermates on body weight and behaviour in rat pups.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 512-516.—Male and female rat weanlings were heavier when reared in the absence of littermates of the opposite sex as compared to sexually heterogeneous conditions. These differences were evident at Day 14 and persisted for several weeks after weaning. Fostering did not contribute to this finding nor were there differences in maternal behavior towards the pups. Members of homogeneous litters were more active and displayed fewer clustering responses than those of litters with both sexes.—*Journal summary*.

4579. Brian, M. V. **Communication between queens and larvae in the ant Myrmica.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 467-472.—Investigated the influence of queens on larvae growth with respect to either direct queen action on larvae or interworker transmission. Queens are ineffective if screened from workers and brood in decreasing growth of potential queen larvae and increasing growth of small ones. If

workers have access to the queen they can be induced to scar large larvae. Workers do not communicate information about the presence of queens through gauze screens.—*Journal summary.*

4580. Cherney, Edward F. & Bermant, Gordon. (U. California, Medical School, Los Angeles) **The role of stimulus female novelty in the rearousal of copulation in male laboratory rats (*Rattus norvegicus*).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 567-574.—Long-Evans rats copulated with single females to satiation (30 min. without intromission). A "priming" female was then presented to each male for 1 intromission and removed. 30 sec. later either the original or the priming female was reintroduced and the male again allowed to copulate until satiation. Mean ejaculation frequency with the priming female was 2.8 times greater than with the reintroduced original female (1.4 vs. .41 ejaculations). In Exp. II the original female was reintroduced while the priming female was placed in a wire cage within the test arena. The visual, olfactory, and auditory presence of the priming female did not enhance ejaculatory capacity (.36 vs. .41 ejaculations in Exp. I). Data are discussed in terms of revisions of the dual-mechanisms theory of rat copulation originally proposed by Beach. (26 ref.)—*Journal summary.*

4581. Grant, P. R. (McGill U., Montreal, Quebec, Canada) **Experimental studies of competitive interaction in a two-species system: II. The behaviour of *Microtus*, *Peromyscus* and *Clethrionomys* species.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 411-426.—Tested the interaction between 4 species of microtine rodents with respect to habitat. Within the same species dominance was a function of body weight, but 2 species had a mutually dispersive effect upon each other in relation to habitat occupied. Early exposure to habitat features in young animals was an important factor. (51 ref.)—*Journal summary.*

4582. Gwinner-Hanke, Helga. (U. Vienna, Zoological Inst., Austria) **Zum Verhalten zweier stridulierender Spinnen *Steatoda bipunctata* Linné und *Teutona grossa* Koch (Theridiidae, Araneae), unter besonderer Berücksichtigung des Fortpflanzungsverhaltens.** [The behavior of two stridulating spiders (*Steatoda bipunctata* L. and *Teutona grossa* Koch, Theridiidae, Araneae), with special reference to reproductive behavior.] *Zeitschrift für Tierpsychologie*, 1970(Sep), Vol. 27(6), 649-678.—Courtship of *T. grossa* males consists of 7 partial behavior patterns: jerking runs of the female web, blows with the forelegs, trillering on the female, spinning the mating-web and pulling on it, stridulating, and attempts to copulate. Jerking and pulling are negatively correlated. They elicit jumping and the copulation posture of the female, respectively. Jerking and stridulation are elicited by chemotactile stimuli of the female web. The greater the dissociation of the courtship sequence, the greater the amount of stridulation. The female of *S. bipunctata* reacts to a stridulating male even when it remains outside the web. If the stridulation organ is covered up, *S. bipunctata* does not court, while *T. grossa* does continue in an untypical manner and is unable to copulate. Both species' stridulation organ consists of a movable abdominal part (a prominence with hairs and teeth) and a fixed thoracic part (parallel ridges). *S. bipunctata* rubs 1 tooth over about 23 ridges/stridulation movement, producing a metallic click sound of 700-1400 cycles which has to be amplified in order to be heard. *T. grossa* makes a

scraping noise. Other behavior patterns are described. (22 ref.)—*English abstract.*

4583. Haacker, Ulrich & Fuchs, Stefan. (Darmstadt Technical School, Zoological Inst., W. Germany) **Das Paarungsverhalten von *Cylindroiulus punctatus* Leach.** [The mating behavior of *Cylindroiulus punctatus* Leach.] *Zeitschrift für Tierpsychologie*, 1970(Sep), Vol. 27(6), 641-648.—The mating behavior of *Cylindroiulus punctatus* is typical for most Julidae species. Promerites and mesomerites of the male gonopods serve as tongs and pull the female's vulvae out of their pouches. The hook-shaped 1st pair of legs fixes the female's head. Mating attempts are elicited by conspecific females, less often by males, presumably by olfactory stimuli. In mating behavior only the male plays an active role: he runs up to the female's back, clinging to her by aid of his solepads. The mates face one another with their ventral sides, the female's head is fixed by the male's 1st pair of legs. The female's head is swung laterally, presumably for stimulation. The vulvae are pulled out by the male's gonopodial tongs. If the female is not ready to mate, she may withdraw the vulvae. Insertion of the opisthomerites (free from sperm) and rhythmic movements of the flagella occur, presumably to prepare sperm transfer. Sperm is taken from the erected genital papilla into the opisthomerites, which are held forward. The vulvae are pulled out again. Insertion of the sperm-laden opisthomerites and sperm transfer with no movement of the flagella.—*English abstract.*

4584. King, M. G. & Dua, J. K. (Macquarie U., North Ryde, New South Wales, Australia) **Cues eliciting social approach in male albino rats.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 258-259. Social approach between 120 male albino rats was best elicited initially by a combination of visual and olfactory cues. Later, (a) the frontal aspect of the seen-smelt stimulus became more salient for approach, and (b) olfactory cues alone elicited approach. After 20 trials over 2 days, the social approach response was extinguished. *Journal abstract.*

4585. Lagerspetz, Kirsti. (Turku U., Finland) **Aggressivt beteende hos möss.** [Aggressive behavior among mice.] *Nordisk Psykologi*, 1969, Vol. 21(1/2), 45-59.—Describes investigations aimed at the questions of heredity, learning, and relationships to sexuality. Measurement of aggressive behavior took place in a situation where 2 male mice had been in the same cage for 7 min. Factor analysis revealed an aggression factor corresponding to higher values on the 7-point scale and a nonaggressive factor. Selective breeding resulted in significant differences in aggression already in the 2nd generation with an increase until the 7th generation, i.e., a hereditary variation. Adoption of mice from the other strain did not influence the amount of aggression. A high level of aggressivity was associated with a high level of activity in the sympathetic system. Results indicate that learning can overshadow the hereditary disposition. As with sexuality, learning of aggressive behavior did not require satisfaction through rewards. Aggression functions like a need for achievement but only after arousal of the motive, this is a difference from sexuality. Frustration was not necessary for aggressive behavior but may be sensitizing. A mutual inhibition between aggression and sexuality was found but training increased both of them. Inhibition of aggression on the other side did not inhibit sexuality, maybe because fear also is a more parasympathetic reaction. P. Mylon

4586. Morrison, Bruce J., Forman, Hal; Harris, Connie, & Hogan, James. (Miami U.) **Dependence on smell of social and overpopulation effects in the white rat.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 316.—64 albino rats were obtained at 30 days of age, and $\frac{1}{2}$ of them had their olfactorial bulbs aspirated. 2 wk. later $\frac{1}{2}$ of the Ss were housed in groups of 4/cage and $\frac{1}{2}$ in groups of 16/cage. After 6 wk. all Ss were tested both individually and in groups in a counterbalanced manner in an open field where 7 indices of emotionality were recorded. Results show that smell is the dominant, if not sole, cue to group reduction of emotionality in the white rat. It is not, however, responsible for the increased emotionality found in overpopulated rats. The abnormal social behavior in overpopulated rats, however, tends to be eliminated by loss of smelling ability.—*Journal abstract*.

SENSORY PROCESSES

4587. Blough, Patricia M. (Brown U.) **The visual acuity of the pigeon for distant targets.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 57-67.—Measured the acuity of 6 pigeons (2 White Carneaux, 1 White King, and 3 homers) in an apparatus that required Ss to make visual discrimination at a distance of 28.75 in. (73 cm.) from the stimulus targets. The stimuli were black and white gratings of varying stripe width. A forced choice procedure was used, and both the method of constant stimuli and a descending series technique determined the order of stimulus presentation. Thresholds, obtained by interpolating at the 25% error point on the psychometric functions, ranged from 1.16-4' of arc. Thresholds measured in the same apparatus for 2 human Os were .79 and .82' of arc. The descending series design produced lower percent error rates at the widest stripe value, but otherwise there appeared to be no difference between psychophysical methods. Position preferences occurred in most of the Ss; differential percent error functions and differential latency functions to the 2 keys illustrate these. Retinal histology revealed shallow, centrally located foveae in the 3 pigeon breeds used. (23 ref.)—*Journal abstract*.

4588. Corballis, M. C. & Beale, I. L. (McGill U., Montreal, Quebec, Canada) **Monocular discrimination of mirror-image obliques by pigeons: Evidence for lateralized stimulus control.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 563-566.—3 pigeons were trained monocularly to peck a key when it displayed an oblique line sloping at 135° (positive stimulus) but not when it displayed the lateral mirror-image sloping at 45° (negative stimulus; S-). When tested with the untrained eye open, Ss generally favored S-, although the preference was rather small. Transfer tests with the trained eye open showed that the original discrimination was controlled primarily by cues on the side of the key towards the seeing eye and that the main cue was an up-down one.—*Journal summary*.

4589. Ginsburg, Norman & Nilsson, Virginia. (Lakehead U., Thunder Bay, Ontario, Canada) **Measuring flicker thresholds in the budgerigar.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 189-192.—Describes a method of measuring thresholds in animals, and the case of flicker fusion in the budgerigar is illustrated. After training with reinforcement for pecking at a high-frequency light (115 Hz.) and nonreinforcement for pecking at a low-frequency light (20 Hz.), Ss were given threshold trials and

reinforcement trials mixed randomly in equal number. In threshold trials (no reinforcement), the target began flashing at 115 Hz. and decreased in flash rate with each peck until the S stopped responding. During reinforcement trials, the target continued to flash at 115 Hz., and responses were reinforced on a variable-ratio schedule. Flicker thresholds obtained from 2 Ss showed a linear relation to the logarithm of intensity in accordance with the Ferry-Porter law.—*Journal abstract*.

4590. Jones, Gwennyth & Pasmak, Robert. (Catholic U. of America) **Light deprivation and visual-cliff performance in the adult cat.** *Psychonomic Science*, 1970(Dec), Vol. 21(5), 278-279.—8 adult cats were light deprived for 80 days and tested on the visual cliff. No deficit in performance was found on this measure of depth perception. Species differences and implications for explanations in terms of visual activity and critical maturation periods are discussed.—*Journal abstract*.

4591. Popper, Arthur N. (U. Hawaii) **Auditory capacities of the Mexican blind cave fish (*Astyanax jordani*) and its eyed ancestor (*Astyanax mexicanus*).** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 552-562.—Using avoidance conditioning mean pressure thresholds of -41.5 db. (re 1 μ b) for the river fish and -48.2 db. for the blind cave fish were found to be both a minimum at 1000 Hz. There is no evidence that the blind cave fish can detect pressure levels any better or worse than its ancestral eyed relative. Although not enough ostariophysines have yet been investigated, data substantiate earlier findings that they can hear a wider range of sounds and lower intensities than nonostariophysines. There is no obvious selective advantage for maintaining a side auditory range upon entry into the cave since no sounds above 1000 Hz. are present there. During initial training and testing the river fish had difficulty responding appropriately at 200 Hz. and between 2500-3000 Hz. possibly because the visually oriented species had learned to respond to some nonauditory stimulus aspect. (37 ref.)—*Journal summary*.

4592. Wright, Anthony A. & Cumming, William W. (Columbia U.) **Color-naming functions for the pigeon.** *Journal of the Experimental Analysis of Behavior*, 1971(Jan), Vol. 15(1), 7-17.—Trained 6 experimentally naive White Carneaux pigeons to match wavelengths in a 3-key matching-to-sample paradigm. Test trials were occasionally presented, where probe wavelengths appeared on the center key and choices were made to the training stimuli presented on the side keys. Color naming functions were obtained by plotting the percentage of test trials that each training stimulus wavelength was chosen for each center key probe wavelength. The wavelength where the functions intersected was interpreted as a transition point between pigeon hues. 3 experiments employed different wavelengths as training stimuli. Exp. I and II demonstrated that the intersection of the color-naming functions occurred in all cases at 540 and 595 nanometers (nm.). Exp. III employed 540 and 595 nm. as 2 of the 3 training stimuli, and the relatively slow acquisition, together with the resulting color-naming functions, supported the proposition that 540 and 595 nm. may be transition point wavelengths between pigeon hues.—*Journal abstract*.

DEVELOPMENTAL PSYCHOLOGY

4593. Blount, H. Parker & Johnson, Ronald E. (Purdue U.) **Syntactic influences in the recall of**

sentences in prose. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 529-530.—Attempted to determine whether complex sentences embedded within meaningful paragraphs are recalled better if (a) the sentences are constructed in the active or the passive voice, and (b) the described events within the sentences are presented in the same sequence as their correct temporal order. White 6th graders were Ss in Exp. I, and undergraduates were Ss in Exp. II. Contrary to previous results, active and passive sentences were recalled equally well. The similarity in recall apparently resulted from the use of meaningful paragraphs as context for the critical sentences. Complex sentences were recalled significantly better when the events within a sentence came in the same sequence as their temporal order.—*Author abstract.*

4594. Flax, Nathan. (Optometric Center of New York, N.Y.) **Problems in relating visual function to reading disorder.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 366-372.—Discusses the fact that inappropriate structuring of the problem of relating visual function and reading disability may obscure their actual relationship. The visual requirements for successful reading vary as a function of reading itself. Oversimplification of both vision and reading, and failure to consider the role of adaptive changes, contribute to the lack of emergence of clear research findings. Utilization of group data tends to mask specific relationships. (16 ref.)—*Journal abstract.*

4595. Hoemann, Harry W. & Ross, Bruce M. (Bowling Green State U.) **Children's understanding of probability concepts.** *Child Development*, 1971(Mar), Vol. 42(1), 221-236.—Reports 4 experiments administering probability judgment tasks using children ranging from preschool to early adolescence. Exp. I showed equivalent results with probability and proportionality instructions when judgments were performed between 2 circles with different black and white proportions. Exp. II showed that fewer correct probability than proportionality judgments occurred when Ss judged a single circle. It is concluded that the 2-circle task does not require probability concepts, since Ss need not construct probability ratios to succeed. Results confirm those of Piaget and Inhelder. Exp. III and IV modified the 2-circle task to require use of probability concepts and administered a probability task with double arrays of discrete objects. Results are comparable to those found for the single-circle task. Researchers who have claimed that preschoolchildren use probability concepts are criticized since their experimental tasks have been similar to the unmodified 2-circle task of Exp. I.—*Journal abstract.*

4596. Lacazu Gonzales, Enrique. **La actividad como factor fundamental de la educación infantil y adolescente.** [Activity as a fundamental factor in infantile and adolescent education.] *Revista del Instituto de la Juventud*, 1970(Aug), Vol. 30, 55-71.—Examines the importance of activity in the physical, mental, and emotional development of the child and adolescent, and discusses the role of the educator in fostering this activity. It is suggested that 1 of the fundamental considerations in creating activities is their precise adjustment to the age and true interests of an individual. To fail in this regard means rendering the activity worthless and causing problems for the child. It is proposed that (a) every activity occur within an environment that is conducive to the child or adolescent; (b) the child be able to choose his own activities without

outside pressure from either parent or educator; (c) the educator at all times show competence and sensitivity in advising and helping the child in his activities, so that dialogue, understanding and guidance can be maintained. (25 ref.)—*S. Maze.*

4597. Lerner, Richard M., Pendorf, James, & Emery, Anne. (Eastern Michigan U.) **Attitudes of adolescents and adults toward contemporary issues.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 139-145.—93 adolescents (mean age = 16.1 yr.) and 91 adults (mean age = 44.1 yr.) completed a 29-item questionnaire containing items pertaining to contemporary issues, e.g., drug use, police and military authority and power, sexual behavior, and religion. Significant attitudinal differences between the generations obtained on 89.5% of the items. Insofar as attitudes toward these contemporary issues are concerned, it is concluded that evidence for a generation gap was found with this sample. Results are compared with those of other studies which have investigated political-social attitudes.—*Journal abstract.*

4598. Matheny, Adam P. & Brown, Anne M. (U. Louisville, Medical School) **The behavior of twins: Effects of birth weight and birth sequence.** *Child Development*, 1971(Mar), Vol. 42(1), 251-257.—Compared behavioral differences between 32 sets of twins with minimal birth-weight differences (.25 lb. or less) with those between 15 sets of twins with maximal birth-weight differences (1.5 lb. or more). Behavioral differences were reported by mothers of the twins enrolled in a longitudinal study. In the maximal difference group, 10 of 18 behavioral variables were significantly related to birth weight, but, in the minimal group, only 2 of the 18 variables were significantly related to birth weight. The lighter Ss in the maximal difference group tended to exhibit more "problem" behaviors, and they were relatively less proficient on aspects of cognitive behaviors. Birth sequence was not found to be related to birth weight, nor did it contribute significantly to behavioral differences. The lighter Ss of the maximal difference group were comprised of small-for-term premature, whereas the lighter Ss of the minimal difference group were comprised of premature by both length of pregnancy and birth weight. Since disparities between birth weight and gestational age were related to the magnitude of differences in twins' behavior, birth weight and the length of pregnancy are important factors in studies of child behavior.—*Journal abstract.*

4599. Morehead, Donald M. (Stanford U., Medical School, Palo Alto, Calif.) **Processing of phonological sequences by young children and adults.** *Child Development*, 1971(Mar), Vol. 42(1), 279-289. Observed input-output correspondences in 3 groups of young children (mean ages of 4.2, 5.4, and 7 yr.) and adults (mean age of 20 yr.) while imitating phoneme sequences that systematically violate the sequencing rules of English. The 3 younger groups produced more phonetic and semantic interpretations of the phoneme sequences than did the adults. All 4 age groups (with 12 Ss in each group) consistently followed the rules of English when changes were made in the original phoneme sequence. As a result, few inadmissible changes occurred. Basic findings indicate that children are guided by the similar linguistic constraints as adults but are more flexible in processing new or odd phoneme sequences. Also, the children tended to "filter" linguistic input through their own internalized linguistic systems, while the adults relied more on perceptual-motor processing. It is

concluded that children seek form and meaning within the constraints imposed by the language more actively than do adults when imitating phoneme sequences that violate the sequencing rules of English.—*Journal abstract.*

4600. Poresky, Robert H. (Cornell U.) **Noncontingency detection in children and adults.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 691-692.—Adults and children demonstrated their ability to detect and react appropriately to noncontingent reinforcement. Adults showed a higher detection rate than children. The behavioral parameters of response distribution, pause time, and last response time clearly discriminated between Ss who reported noncontingency detection and those who did not. Noncontingent reinforcement was a more efficacious extinction technique than classical extinction.—*Author abstract.*

4601. Reynolds, Richard J., Bickley, A. C., Champion, Sharon, & Dekle, Ocie. (U. Georgia) **Effects of mode of presentation of stimulus materials in word-association tasks.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 211-215.—Compared differences in paradigmatic response to oral and visual presentation of word-association tasks for 40 educationally deprived Ss at 4 age levels. The syntagmatic/paradigmatic shift was investigated as a function of mode of stimulus presentation. Younger Ss produced more paradigmatic responses than older Ss. The oral mode produced more paradigmatic responses than the visual mode for all Ss. The syntagmatic/paradigmatic shift did not occur, nor was the variation across age groups consistent for the 2 modalities. Evidence indicates that response to word-association tasks was a function of stimulus modality.—*Journal abstract.*

4602. Straub, Mary F. **Self-stimulation in utero.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 55-63.—Proposes that the human fetus, in utero and often of itself, experiences the physiological effects of passion. Devoid of the sensuality denoted by common psychological reference, this embryonic emotion predisposes the fetus for some distinctly human qualities. (24 ref.)—*Journal abstract.*

4603. Traxler, Anthony. (Southern Illinois U., Edwardsville) **Age differences in interference effects in R-S recall as a function of transfer paradigm.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 607-608.—Studied the role of interference as an age-related variable in response-stimulus (R-S) recall performance by contrasting the R-S recall of a select population of young ($n = 60$ male graduate students) and old ($n = 60$ retired university professors) Ss in a paired-associate learning situation under 3 transfer conditions varying in associative interference effects (A-B, C-B; A-B, A-C; and A-B, C-D). An Age \times Paradigm interaction in R-S recall was predicted, with the old Ss showing poorer recall under the A-B, C-B paradigm due to the A-B, A-C interference relationship R-S associations form in this paradigm. Results indicate that both age and interference affected R-S recall and that the Age \times Paradigm interaction was due to the better performance of the young Ss on the A-B, C-D control paradigm, instead of the predicted poorer performance of the old Ss in the A-B, C-B condition. It is concluded that adult age differences in "interference proneness" may or may not appear depending on whether the source of interference

is due to "forward" S-R or "backward" R-S associations.—*Author abstract.*

INFANCY

4604. Barkóczi, Ilona. (Eötvös Lóránd U., Budapest, Hungary) **A kognitív motiváció néhány problémája az élet korai szakaszában.** [Some problems of cognitive motivation in the early periods of life.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 199-205.—Presents a review of the literature on the curiosity drive and the orientation reflex as applied to the cognitive development of infants. (34 ref.)—*M. Moore.*

4605. Barten, Sybil; Birns, Beverly, & Ronch, Judah. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Individual differences in the visual pursuit behavior of neonates.** *Child Development*, 1971(Mar), Vol. 42(1), 313-319.—Determined whether stable individual differences in amount of visual pursuit exist at birth. 2-day-old babies presented with 2 moving stimuli and retested 24 hr. later showed high day-to-day correlations in amount of oculocephalic pursuit of both stimuli and also in ocular pursuit of the stronger stimulus. These 2 responses seemed to be on a single dimension.—*Journal abstract.*

4606. Bell, Richard Q. & Haaf, Robert A. (National Inst. of Health, Child Research Branch, Bethesda, Md.) **Irrelevance of newborn waking states to some motor and appetitive responses.** *Child Development*, 1971(Mar), Vol. 42(1), 69-77.—During each of 2 different interfeeding periods, 6 states, ranging from low wakefulness to agitated crying, were assessed in 63 newborns between the 3rd and 4th days postpartum before a test of motor response and again before tests of nonnutritive sucking and of reaction to nipple removal. Scores for each of 6 logically different orders of these states, including 1 order which follows common usage, were related to subsequently elicited behaviors. Only 1 of the elicited behaviors showed a significant correlation with any of the orders, and this correlation was low. The findings set some limits on the general importance attached to states as predictors of response in young infants. (17 ref.)—*Journal abstract.*

4607. Brackbill, Yvonne. (U. Denver) **Cumulative effects of continuous stimulation on arousal level in infants.** *Child Development*, 1971(Mar), Vol. 42(1), 17-26.—Questioned whether level of arousal decreases as an inverse function of the number of sensory modalities continuously stimulated. 24 1-mo-old infants served as Ss under 5 different conditions: no extra stimulation (control condition) and continuous stimulation of 1, 2, 3, and 4 sensory modalities. The 4 types of stimulation were auditory, visual, proprioceptive-tactile (swaddling), and temperature. Indices of arousal level included state, heart rate, respiration regularity, and gross motor activity. Results reaffirm the pacifying effect of continuous stimulation, indicate that the effect is not restricted to 1 sensory modality but is a general characteristic of sensory stimulation in early development, and demonstrate that the pacification effect is indeed cumulative across modalities. Theoretical and practical aspects of these are discussed.—*Journal abstract.*

4608. Jackson, Jan C., Kantowitz, Susan R., & Graham, Frances K. (U. Wisconsin) **Can newborns show cardiac orienting?** *Child Development*, 1971(Mar), Vol. 42(1), 107-121.—Typically, newborn

heart rate (HR) accelerates in response to brief sensory stimuli while the HR response of older infants and adults is primarily decelerative. Since HR acceleration has been associated with a protective-energizing system that may inhibit stimulus processing and HR deceleration has been associated with an orienting and facilitating system, a developmental change in HR response has behavioral significance. However, the evidence of a developmental change is unsatisfactory on at least 2 grounds, i.e., newborns have generally been studied in drowsy states and with stimuli that may evoke a startle reflex. 3 experiments were conducted to remove these grounds for objection. Stimuli were pure tones of low to moderate intensity whose rise time was controlled. In a group of 24 newborns whose state was not monitored, HR acceleration still occurred, but the relatively prolonged latencies suggested that startle effects had been removed. In 2 groups of 12 awake newborns each, there was no clear acceleration and no convincing evidence of deceleration. It appears difficult to elicit the cardiac component of orienting from newborns even when conditions parallel those used with older infants. (23 ref.)—*Journal abstract.*

4609. Meierhofer, Marie. ("Zum Holderbach," Oberägeri, Switzerland) *Entwicklungskrisen und Konflikt-situationen im Säuglings- und Kleinkindalter.* [Development crises and conflict situations in infants and toddlers.] *Praxis der Psychotherapie*, 1969(Dec), Vol. 14(6), 266-274.—Traditional practices based on concepts of hygiene, pediatrics, and psychoanalysis, which introduce isolation and discipline into infantile experience as a means of accelerating development, are overlooking evidence concerning the nature, needs, and dangers inherent in the earliest months and years of life. Infants cry for the mother, rather than for food. A longitudinal study of 400 infants at the Institut für Psychohygiene im Kindesalter in Zurich, Switzerland, showed that mechanized care does not provide the infant with the necessary supportive and stimulating human contacts. Lack of human contact produces acute and chronic desolation syndromes with severe psychomotor excitability. Motor, social, and speech development are retarded. Children with introverted tendencies and cerebral lesions experience the greatest harm. Early frustration and feelings of desolation have longlasting impact on personality development. While psychotherapy may rectify the situation, the real solution involves prophylaxis thorough counseling and organized social work.—*B. Stanton.*

4610. Ramey, Craig T. & Ourth, L. Lynn. (Wayne State U.) *Delayed reinforcement and vocalization rates of infants.* *Child Development*, 1971(Mar), Vol. 42(1), 291-297.—15 normal, home-reared infants at each of 3 age levels (3, 6, or 9 mo.) were submitted to operant conditioning procedures designed to increase the rate of vocalization behavior. $\frac{1}{3}$ of the Ss received immediate reinforcement, $\frac{1}{3}$ received a 3-sec delay between response and reinforcement, and $\frac{1}{3}$ received a 6-sec delay of reinforcement. Results indicate that learning occurred only under immediate reinforcement and that there was no developmental trend in the ability to withstand the detrimental effects of delayed reinforcement.—*Journal abstract.*

4611. Rebelsky, Freda & Hanks, Cheryl. (Boston U.) *Fathers' verbal interaction with infants in the first three months of life.* *Child Development*, 1971(Mar), Vol. 42(1), 63-68.—Fathers' verbal interactions with

their infants were gathered by means of a microphone attached to the infant for a 24-hr period every 2 wk., from the time the infant was 2 wk. of age to the time he was 3 mo. old. Ss were 7 male and 3 female infants and their fathers. Data show that fathers spend little time vocalizing to their infants and that the number of interactions varies by time of day, age and sex of infant, and the kind of activity occurring during the interaction.—*Journal abstract.*

4612. Schmidt, Katalin & Birns, Beverly. (Albert Einstein Coll. of Medicine, Yeshiva U.) *The behavioral arousal threshold in infant sleep as a function of time and sleep state.* *Child Development*, 1971(Mar), Vol. 42(1), 269-277.—In a group of 14 2-5 day old infants the behavioral arousal threshold (BAT) for a cold thermal stimulus was found to be significantly higher in the 2nd quiet sleep epoch than in the 1st. This finding points to the importance of the time effect concerning the BAT in infant sleep. The BAT in quiet vs. active sleep was not significantly different for the same stimulus. The role of different modalities of stimulation and individual differences as determinants of responsiveness during neonatal sleep states is discussed. (20 ref.)—*Journal abstract.*

4613. Serafica, Felicissima C. & Uzgirls, Ina C. (Clark U.) *Infant-mother relationship and object concept.* *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 141-142.—Investigated the relationship between development of the infant-mother relationship and object concept development. 19 male and 17 female 4-12 mo. old infants were Ss. Infant-mother relationship was defined within the broader context of the construct "interpersonal relationship." Development of the infant-mother relationship was hypothesized as a progression from a state of relative undifferentiatedness to increasing differentiation and hierarchic integration among 4 hypothesized components of an interpersonal relationship, namely, discrimination, affect, approach, and expectancy. Findings are interpreted as indicating a reciprocal relationship between development of the infant-mother relationship and object concept development. Discussion focuses on the changing interaction between object concept and specific components of the infant-mother relationship.—*Author abstract.*

4614. Tardos, Anna; Dragosinova, Raisza, & Mityeva, Júlia. *Különböző feltételek mellett nevelt 3-12 hónapos csecsemők optikus és taktil-motoros explorációs viselkedése.* [Optical and tactile-motor explorational behavior of infants between 3 12 months reared under different circumstances.] *Psichologiai Tanulmányok*, 1968, No. 11, 287-298. Reports parallel investigations on children who were reared under different conditions in 2 institutions. Observation was focused on the time period infants spent on optical- and tactile-motor explorational behavior, and on the attention processes in course of these operations. Infants were subjected to longitudinal observation in a well-defined setting. (Russian summary) *English summary.*

CHILDHOOD

4615. Árochová, Ol'ga; Jelenková, Alena; Dornič, Stanislav, & Halmiová, Ol'ga. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) *Search time, recall and recognition in 4-5 year old children.* *Studia Psychologica*, 1970,

Vol. 12(4), 303-305.—Investigated the developmental aspects of searching behavior. Ss were 20 4-5 yr. old kindergartners (15 boys and 5 girls). The effect of color in the search matrix, recall, and recognition of the searched targets was followed. In addition, the effect of short-term memory loading on the searching activity at this age level was investigated. It was found that short-term memory loading can not be successfully investigated in Ss of this age. Only 11 Ss completed the experiment since the others had search times greater than 2 min. (Czech & Russian summaries)—*Journal abstract*.

4616. Balthes, P. B., Balthes, Margaret M., & Reinert, G. (West Virginia U.) **The relationship between time of measurement and age in cognitive development of children: An application of cross-sectional sequences.** *Human Development*, 1970, Vol. 13(4), 258-268.—Administered 4 measures of cognitive functioning (induction, verbal comprehension, number, perceptual speed) from the Begabungstestsystem to 315 male, and 315 female children obtained by random sampling from 48 elementary schools using cross-sectional sequences as data collection strategy. 3 cross-sections separated by 4-mo intervals were conducted to test for the effects of age, time of measurement, and sex. Age was varied in 3 levels (8, 9, 10), and time of measurement in 3 levels (November 1964, March 1965, July 1965). Analysis of variance resulted in significant main effects of age and time of measurement for all measures. Time of measurement differences are interpreted as representing differential amounts of schooling rather than season of birth effects and appear to concern primarily crystallized intelligence measures. Results are in close agreement with a previous study and further support the need for applying sequential strategies in age-developmental research. (20 ref.)—*Journal abstract*.

4617. Connell, R. W. (U. Chicago, Center for Social Organization Studies) **Class consciousness in childhood.** *Australian & New Zealand Journal of Sociology*, 1970(Oct), Vol. 6(2), 87-99.—Presents an account of the development of class consciousness among a sample of 91 Sydney, Australia, 5-16 yr. old schoolchildren. 3 stages could be identified. A marked age change in the belief that differences in wealth are fair is related to the development of class schemes and the pervasiveness of the gospel of work among adolescents. 2 pockets of heightened class consciousness are identified, but most of the Ss had little conception of, and no strong feelings about, their own class positions. These facts are related to the relative insulation of the children from the workings of the industrial system.—*Journal summary*.

4618. Garvey, Catherine & Baldwin, Thelma. **Studies in convergent communication: III. Comparisons of child and adult performance.** *Center for the Study of Social Organization of Schools Report*, Johns Hopkins U., 1971(Feb), No. 94, 43 p.—Compared the communications of 47 (5th grade) child dyads and 24 adult dyads, which were observed during the performance of 3 convergent communication tasks, on various features of communication structure and content. Compared to child dyads, adult dyads more consistently marked the organization of the communication and included more evidence of verbal cooperation and reclarification of encoded messages. Children's communications showed more variability in the inclusion of the identified structural features than did adult dyads. No differences in these features were observed in the communication of children from different socioeconomic status, race, and sex subgroups.—*Journal abstract*.

4619. Geréb, György. **Intenzív tevékenység és monoton állapot kölcsönhatásának vizsgálata általános iskolai tanulókánál.** [Examinations of the interaction between intensive activity and monotonous states in primary school pupils.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 249-266.—Examines the interaction between intensive activity and monotonous states by (a) having Ss practice simple activities to the point of monotony; (b) performing tremometric measurements; (c) administering the children's series of the Dükér-Lienert KLY before and after monotonous activity; (d) asking Ss to remember a table that had been perfected tachistoscopically; (e) testing acoustic memory; (f) performing tapping tests; and (g) collecting Ss' subjective experiences through a questionnaire. It was found that activity involving intensive concentration of attention has a favorable effect on the level of monotonous activity, i.e., by increasing attention energy. The monotonous situation is considered to be a state involving a specific energetic level, the regularities of which can be studied only in association with the preceding and succeeding forms of activity. Boring activity results in a state of saturation, which in turn elicits impulsive, nervous, oppositional, hyperactive forms of response in the pupils. (Russian summary) (44 ref.)—*English summary*.

4620. Gitter, A. George; Satow, Y., & White, A. (Boston U.) **Racial misidentification skin color and physiognomy.** *CRC Report*, Boston U., 1968(Dec), No. 33, 24 p.—Examined the effects of race, sex, and age of 80 4-6 yr. old Negro and white children on racial misidentification. Both skin color and physiognomy of stimuli (9 male and 9 female dolls) were varied. Race and sex effects were significant for both color and physiognomic misidentification. *Journal abstract*.

4621. Golden, Mark; Birns, Beverly; Bridger, Wagner, & Moss, Abigail. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Social-class differentiation in cognitive development among black preschool children.** *Child Development*, 1971(Mar), Vol. 42(1), 37-45. Reports a longitudinal study of 89 Negro children from different social classes. While there were no significant SLS differences on the Cattell Infant Intelligence Scale at 18 and 24 mo. of age, there was a highly significant 23-point mean IQ difference on the Stanford Binet at 3 yr. of age between Ss from welfare and middle-class Negro families. The range in mean IQs of the Negro Ss in the extreme SES groups (93-116) was almost identical to that obtained by L. M. Terman and M. A. Merrill in their standardization sample of 831 white children between 2½ and 5 yr. of age.—*Journal abstract*.

4622. Gough, I. R., et al. (U. Queensland, Brisbane, Australia) **Aspirations of aboriginal children.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 267-269. Reports on a project which attempted to assess what aboriginal children thought the future held for them. 126 5-11th graders were interviewed with 4 questions pertaining to future involvement. Results indicate that: (a) girls aspired to higher occupational levels than boys, (b) the children were interpreted to have limited ambitions, (c) both boys and girls aspired to higher occupational status than their fathers, and (d) 53% of the wishes were for material possessions.—*H. Roemmich*.

4623. Goulet, L. R. (U. Illinois) **Training, transfer, and the development of complex behavior.** *Human Development*, 1970, Vol. 13(4), 213-240. Current research concerned with the role of experience in development is directed to assessing the effects of training on

child behavior. This approach is discussed as a general strategy for experimental research in the study of developmental phenomena, and for its implications in contrasting models of development in terms of their assumptions relating to the joint roles of experience and maturation in behavior. The similarities of these assumptions to those made in learning theories are also discussed. Experimental methods for the systematic assessment of training-related changes in behavior are presented as procedures for studying phenomena which typically covary with age in the natural environment. (47 ref.)—*Journal abstract.*

4624. Grosvenor, Theodore. (U. Waterloo, School of Optometry, Ontario, Canada) **Refractive state, intelligence test scores, and academic ability.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 355-361.—In an experiment with 707 intermediate school European and Maori children, it was found that myopes had higher mean scores than hypermetropes on both the Otis Self-Administered Test and the Raven Progressive Matrices test. Myopes also occurred in significantly greater numbers in high ability than in low ability classrooms. Results are discussed in terms of 4 hypotheses, previously suggested by M. J. Hirsch in his experiment with 554 school children given the CTMM: (a) myopia is an overdevelopment of the eye just as hypermetropia is an underdevelopment; (b) intelligence test scores may be influenced by the amount of reading a child does; (c) the more intelligent child may read more and thus become more myopic; and (d) in taking the test, a premium is placed upon the ability to perceive fine detail efficiently, thus giving the myope an advantage.—*Journal abstract.*

4625. Guillaume, Paul. **Imitation in children.** Trans. E. P. Halpern. Chicago, Ill.: U. Chicago Press, 1971. xvii, 214 p.

4626. Ireton, Harold R. & Thwing, Edward J. (U. Minnesota) **The Child Development Inventory: For the description of the development of preschool children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 453-454.—The Child Development Inventory (CDI) was devised for purposes of clinical evaluation, mass screening, developmental research, and parent education. The CDI consists of 320 statements describing the behaviors of children in the 1st 6 yr. of life. The inventory is completed by the child's mother who endorses those statements which describe the child's behavior. Results are represented in a profile of 8 developmental scales: Gross Motor, Fine Motor, Situation Comprehension, Expressive Language, Verbal Comprehension and Conceptualization, Self-Care, Personal-Social, and General Development.—*Author abstract*

4627. Jung, John. (California State Coll., Long Beach) **Modeling effects in children on a successive word association test.** *Canadian Journal of Psychology*, 1970(Dec), Vol. 24(6), 381-388. 27 8th graders received a word association test involving successive tests on the same list with no instruction as to whether the responses to each given stimulus should be the same or different on successive tests. Wide individual differences were obtained in the level of consistency of responses. In a 2nd study, pairs of Ss were formed which consisted of 1 high and 1 low consistency S, as determined by a pretest. 127 7th and 8th graders were Ss. Each S was tested with a different list in the pair-wise situation, with 1 member observing the performance of the other before being

tested himself. Significant matching occurred within pairs in Group H-L where a high consistency model preceded a low consistency O. Nonsignificant changes in the expected direction occurred for high consistency Os who followed low consistency models in Group L-H. The possibility that the pretest may have anchored the performance of the Os against the influence of the models was discussed. (French summary) *Journal abstract.*

4628. Lassó, Károly & Hoffmann, Lajos. **A gyermekkorúak életkori sajátosságainak jelentősége a kihallgatás taktikájában.** [The bearing of age characteristics on the tactics of interrogating juveniles.] *Pszichológiai Tanulmányok*, 1968, No. 11, 607-621.—Comparing the evidence of 5-6 yr. old children with that of adults who suffer from some sensory defect, the evidence of the children was found to be more reliable. Manifestations of age characteristics are analyzed in the development of the evidence and in their bearing on evaluation. The importance of choosing proper surroundings for the interrogation is stressed. Experience has shown that interrogations conducted in the presence of parents or others are likely to lead to distortions. Methods aimed at revealing indoctrination for fixing false evidence and at facilitating memory processes in children are treated. Tactics of interrogation should be based on the study of problems associated with attention and speech. (Russian summary) (25 ref.)—*English summary.*

4629. McGhee, Paul E. (U. Toronto, Ontario, Canada) **Cognitive development and children's comprehension of humor.** *Child Development*, 1971(Mar), Vol. 42(1), 123-138. Investigated the relationship between children's level of cognitive functioning (according to Piaget's theoretical framework) and their comprehension and appreciation of humor based on violation of cognitive expectancies. A distinction was drawn between novelty and incongruity humor differing in the nature of expectancy violation represented. The general hypothesis tested was that operational thinking is necessary for comprehension of incongruity humor but is not necessary for comprehension of novelty humor. Ss were 30 5-, 7-, and 9-yr-old boys. The above hypothesis was confirmed only for the 7-yr-old group. Also, for the incongruity humor (but not novelty humor) operational thinking was found to be an important factor in the ability to give interpretive, as opposed to descriptive explanations. Level of cognitive development was not significantly related to humor appreciation for either novelty or incongruity humor. Analyses of age differences indicate consistent significant increases in comprehension with increasing age for all humor stimuli. Similar analyses for humor appreciation yielded no significant age differences. (17 ref.)—*Journal abstract.*

4630. Nagy, György. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **8-15 éves leányok és fiúk sportágválasztási indokai kérdőíves felmérés alapján.** [Motives of girls and boys between 8 and 15 for choosing a particular branch of sport, assessed by means of questionnaires.] *Pszichológiai Tanulmányok*, 1968, No. 11, 431-440.—Reports a survey conducted on 1310 children. Motives were classified according to the eliciting agent into external and internal motives, and then related to the age of the Ss. It was found that from age 13 Ss tend to make their choice on the basis of internal motives and that they hang on to their choice only if their achievements are rewarded both in the training period and in contests. Results may serve

as a basis for a more detailed motivational analysis of sport activities. (Russian summary)—*English summary*.

4631. Nagy, László. (Central Library of Education, Budapest, Hungary) **A fejlődéslelektan kutatásának néhány módszertani problémája.** [Methodological problems of child psychological research.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 179-184.—Since systematic training and instruction are the main factors of child development, the methods of child psychology must include the developmental process. An active method of influencing the development of an S (e.g., the school laboratory established by D. B. Elkonyin) is contrasted with the traditional passive one of describing the course of development. Problems of the longitudinal study method are also considered because analysis refers only to a cross-section, and only to various phases of development, so the whole period of development and that of the longitudinal examination do not coincide. The resulting description of mental development is much too general and abstract. It could be made more concrete by introducing "typical courses of development" or developmental models. (Russian summary)—*English summary*.

4632. Osborn, D. K. & Endsley, R. C. (U. Georgia) **Emotional reactions of young children to TV violence.** *Child Development*, 1971(Mar), Vol. 42(1), 321-331.—Using a procedure for recording continuously the amount of emotional sweating (GSR), 4- and 5-yr-old children were shown 4 brief TV film episodes. 2 films, 1 employing cartoon characters (CV) and the other human characters (HV), contained violent actions among the characters. 2 other films contained only nonviolent (N) actions among the characters (NCV and NHV). As measured by their GSR, Ss responded more emotionally to CV and HV, particularly the latter, than they did to the nonviolent films. Ss also subsequently selected HV as the "scariest" film, and recalled more detail from HV 1 wk. later than from the other 3 films. Finally, Ss most frequently selected the 2 cartoon films, particularly NCV, as the "best liked" films. (15 ref.)—*Journal abstract*.

4633. Péterffyné-Mirtse, Márta. (Medical U. Budapest, Children's Clinic, Hungary) **Balkezes gyermekek elemi konstruáló tevékenységének vizsgálata.** [Examination of the elementary constructing activity in left-handed children.] *Pszichológiai Tanulmányok*, 1968, No. 11, 317-331.—Reports experiments with 15 reeducated and 10 manifest left-handed 8.6-11.3 yr. old children. Using the method designed by J. Salamon, the study aimed at revealing thought process traits manifested by Ss while performing the constructing tasks according to model. Results, which were quantified in terms of period of orientation activity, number of operations required for assembling, solution of mental tasks, and level of task solution, did not show any important differences between the 2 groups. Difference in hand preference, however, made it possible to analyze specific manifestations of handedness in the course of particular operations. Reeducation of left-handed children did not seem to significantly influence their constructing ability and thought processes. However, in order to generalize, examination of left-handed children would have to be conducted on a larger scale. (Russian summary)—*English summary*.

4634. Popper, Péter. (Medical U., Children's Clinic, Budapest, Hungary) **A klinikai gyermekpszichológia alapvető kutatómódszertani problémáiról.** [Fundamental methodological problems of clinical research

in child psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 371-378.—Denies the existence of antagonism between clinical practice and experimental method and by showing that the 2 are inseparable, tries to effect their synthesis. A brief survey of the cardinal methodological postulates of clinical psychology, mainly in relation to psychodiagnostics and psychotherapy are presented. These postulates are: (a) complexity of methods employed; (b) necessity to interpret results; (c) historical relations of research method; (d) employment of indirect projective research methods and tests; and (e) necessity of attending to the family as a group. Particular stress is laid on studying the connections between symptom and diagnosis, a systematic treatment of the following points being advised: (a) complaint, (b) symptom, (c) the problem as it presents itself to the S, (d) the problem as it presents itself to the environment, and (e) the problem as it presents itself to the psychologist. The personality of the psychologist has to be taken into account, especially in respect of his emotional equilibrium. This postulate is considered to be of basic importance and must be considered in the training of psychologists. (Russian summary)—*English summary*.

4635. Rossi, Sheila & Wittrock, M. C. (U. California, Los Angeles) **Developmental shifts in verbal recall between mental age two and five.** *Child Development*, 1971(Mar), Vol. 42(1), 333-338.—Investigated a developmental progression in children's bases for organizing words in free recall. The hypothesized developmental progression began with rhyming responses peaking at MA 2, followed by syntactical, clustering, and serial ordering responses reaching their peaks at MA 3, 4, and 5, respectively. 2 stimulus lists of 12 words each were presented individually to 144 children rated as having low, average, or high IQs. It was found as hypothesized that in free recall: (a) rhyming reached its peak proportion at MA 2; (b) syntactical responses reached their highest proportion at MA 3; (c) clustering reached its peak proportion at MA 4; (d) serial ordering reached its peak at MA 5; (e) clustering showed a positive linear trend with intelligence; (f) intrusions showed a negative linear trend with intelligence; and (g) the most frequent responses at a given age were rhyming at MA 2, clustering at MA 3 and 4, and serial ordering at MA 5.—*Journal abstract*.

4636. Rowland, G. Thomas & McGuire, J. Carson. (New York U.) **The mind of man: Some views and a theory of cognitive development.** Englewood Cliffs, N.J.: Prentice-Hall, 1971. xix, 167 p. \$5.95.

4637. Sylvester, John D. (Inner London Education Authority, England) **Confidence and set in learning and perception.** *Studia Psychologica*, 1970, Vol. 12(4), 306-313.—Postulated that confidence is a definite psychological factor, with a clear physiological and neurological basis, i.e., that it appreciably affects performance of both mental and physical skills directly (as a causative factor), and that it can be increased or decreased by various methods classifiable under the term suggestion. 3 experiments are described. The 1st consisted of giving 8-14 yr. old children an intelligence test and an attainment test, and then deriving a measure of "confidence-level." It was found that the confidence-level score accounted for more than 58% of the discrepancy between innate ability and actual performance. The other 2 experiments (with 46 undergraduates and a class of school children, respectively) dealt with the manipulation of confidence and show how discouragement considerably impairs both perception

and learning. (Czech & Russian summaries)—*Journal abstract*.

4638. Young, Frances A., et al. (Washington State U., Primate Research Center) **Refractive errors, reading performance, and school achievement among Eskimo children.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(May), Vol. 47(5), 384-390.—Presents the relationship between refractive errors and various measures of reading and school achievement on 204 3rd-6th grade Eskimo students at Barrow, Alaska. Comparisons were made with the Caucasian population of school children at Pullman, Washington, using the Betts II Level Reading Test and the California Achievement Test as measures. Results show the same relationships in both groups between reading performance, achievement test performance, and refractive error. The more myopic Ss tended to score higher on reading and achievement tests.—*Journal abstract*.

Learning

4639. Bucher, Bradley & Anthony, Julie. (U. Western Ontario, London, Canada) **Effects of different reinforcement patterns on the inhibitory properties of S-** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 685-686.—Current conceptualizations of inhibition imply that S- function after training is affected by the consequences of S- responding. Studies of the inhibitory functions of S- after errorless training, or overtraining, show inconsistent results. In this study, children were trained in simultaneous discrimination problems with 3 patterns of contingencies for responding. These included positive reinforcement only, response-cost only, and both contingencies combined. It was expected that preferences for S- over neutral cues on probe trials would depend on training contingencies. Results showed an inhibitory effect of S- invariant over the 3 conditions.—*Author abstract*.

4640. Caruso, John L. & Resnick, Lauren B. (U. Pittsburgh) **Task sequence and overtraining in the learning and transfer of double classification skills.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 553-554.—Attempted to: (a) validate empirically a hypothesized hierarchical sequence of 3 double classification tasks, (b) investigate transfer to an untrained 4th double classification task, and (c) assess the effects of overtraining a relatively easy task on the learning of a more difficult task as compared with learning a related task of intermediate difficulty. 55 kindergartners, who were shown by pretesting to possess negligible double classification skills, were trained on matrix tasks involving color and shape dimensions. The hierarchical hypothesis was strongly supported and some evidence of additional transfer was found, but overtraining had no significant effect.—*Author abstract*.

4641. Francis, Robert. (Faculty of Letters & Humane Sciences, Nanterre, France) **Apprentissage perceptif et apprentissage de l'orthographe.** [Perceptual learning and learning to spell.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6-8), 416-421.—Analysis of orthographic errors made by children indicate 3 types of errors. (a) usage, the displacement, additions, and subtractions of letters which do not change the phonetic identity, (b) rules, alteration of a word through faulty grammatical con-

struction; and (c) phonetic alterations which change a word's phonetic nature. Children given perceptual training showed significant reductions in all 3 error types when compared with their untrained controls.—*R. F. Smith*

4642. Jacobs, Paul I. & Vandevanter, Mary. (Yeshiva U., Ferkau Graduate School) **The learning and transfer of double-classification skills by first graders.** *Child Development*, 1971(Mar), Vol. 42(1), 149-159.—The double-classification problem requires S to take into account simultaneously 2 different dimensions of stimulus variation while inferring logical relations. 42 1st grade Ss matched for pretest score were randomly assigned to either an experimental or control condition. Experimental Ss were given highly structured yet individualized training in solving double-classification problems with easily labelable stimuli that varied in color and shape. These Ss scored significantly higher than control Ss on a posttest involving color and shape and on a near transfer test involving new stimulus dimensions, both immediately and 4 mo. later. There was no group difference on items from Raven's Coloured Progressive Matrices, which served as a test of remote transfer. Implications of these results for intelligence testing are considered.—*Journal abstract*

4643. Jurčo, Martin. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Poznávanie a praktické záujmy, ich vzťah ku schopnostiam a učebným výsledkom.** [Knowing and practical interests and their relation to abilities and learning results.] *Jednotná škola*, 1970(Apr), Vol. 22(4), 334-349.—Distinguishes between 2 types of interest: (a) knowing interest which manifests itself in the tendency to learn something new or solve problems, and (b) practical interest which manifests itself in the tendency to interfere in the course of processes, influence the properties and relations between objects, and master them. It was hypothesized that within some individuals, practical and theoretical tendencies would be in agreement or 1 would prevail. A survey of secondary general education students examined these interests and found a positive, but moderate relationship between knowing and practical interest in the respective fields. The relationships between interests and school grades, tests of proficiency, and aptitudes were positive but low. Implications for counseling students on the selection of academic specializations and vocations are discussed. (Russian summary).—*Foreign summary*

4644. Kattaker, R. J. & Daks, Larry A. (U. Missouri, Kansas City) **Errorless discrimination of alphabet letters: Effects of time and method of introducing competing stimuli.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 29-35.—Trained 62 4-5 yr old kindergarten children to discriminate the letters b and d when these letters were 1st presented in succession. Ss were divided with respect to the time and manner in which competing stimuli (Ss) were introduced during training. Early-late and progressive-constant dimensions of the method of S- introduction were compared, which resulted in 4 conditions: early-progressive (EP), late-progressive (LP), early-constant (EC), and late-constant (LC). Subsequently, Ss were trained to discriminate b's and d's presented simultaneously. Following this simultaneous discrimination training, stimuli were again presented in succession. Performance was analyzed in terms of the proportion of errors emitted in the presence of Ss. Progressive and early methods of S- presentations were found to be most functional in minimizing errors

during both simultaneous and successive discrimination training. Comparisons of error proportions during acquisition of the successive discrimination, to error proportions during later successive discrimination, suggested differential effects generally favorable to EP and unfavorable to LC method of presentation.—*Journal abstract*.

4645. Keenan, Verne. (U. Colorado) **Presentation method and learning-time constancy in serial learning.** *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 311-320.—Investigations of paired-associate, serial-anticipation, and free-recall learning have shown that the effective variable is total learning time, independent of presentation order or rate. In this light serial recall was studied as a function of 6 presentation methods and 2 presentation rates. 192 8th graders practiced word lists for 10 min. Rate did not influence recall. No differences in recall resulted from the 5 methods that presented words singly, but the whole-list presentation produced superior recall scores. Learning strategies used by Ss were discussed. (French summary) (16 ref.)—*Journal abstract*.

4646. Loadman, William E. (Indiana U.) **The effects of a mediational device on paired-associate learning: Learning and retention of sixth grade students.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 223-225.—Attempted to determine the effect of different levels of mediational aids on a paired associate task when presented to 6th grade students for amount and rate of original learning and long-term retention. 3 levels of strategies were employed. High level mediational aids were found to significantly effect the amount and rate of original learning; the retention data also suggest similar inferences.—*Journal abstract*.

4647. Prickett, Jimmie L. (U. Oklahoma) **Associative learning rates of second, fourth, and sixth grade black and white students with a socioeconomic difference.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3377.

4648. Rettig, Edward B. & Clement, Paul W. (Fuller Graduate School of Psychology, Pasadena, Calif.) **Effects of variable amounts of reinforcement on a lever-pulling response in children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 687-688.—Studied 4 parameters of variable amounts of reinforcement, i.e., mean amount, peak, gap between largest and smallest amounts, and number of different amounts. Ss were 96 7-9 yr. olds. These 4 parameters were combined into 4 variable-amount reinforcement schedules on a fixed-interval paradigm. All 4 schedules increased response rate during acquisition and produced resistance to extinction; however, there were no statistically reliable differences in response rate between the 4 schedules during acquisition or extinction. A method is described for predicting relative resistance to extinction for 2 or more reinforcement schedules, prediction being based upon the 4 parameters listed above. Although "variable amounts of reinforcement" has not received much attention in operant literature, it is proposed that all intermittent schedules are merely special cases of variable-amount schedules.—*Author abstract*.

4649. Serpell, Robert. (U. Zambia, Lusaka) **Discrimination of orientation by Zambian children.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 312-316.—Presented 56 urban and 24 rural Zambian children with 4 orientation-

discrimination tasks under identical conditions to those used by R. Rudel and H. Teuber (see PA, Vol. 38:4071) among American children. A similar trend of improvement was found with increasing age and education to that observed in the American children, with a lag of 2-3 yr. Differences in difficulty among the 4 problems were closely replicated. Implications are discussed for cross-cultural differences in the incidence of orientation errors in form-copying tasks. (16 ref.)—*Journal abstract*.

4650. Van Duyne, Homer J. (U. Rochester) **The development of verbal control of nonverbal behavior as a function of orientation reactions.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3358.

Concepts & Language

4651. Baldwin, Thelma & Garvey, Catherine. **Studies in convergent communication: II. A measure of communication accuracy.** *Center for the Study of Social Organization of Schools Report*, Johns Hopkins U., 1970(Nov), No. 91, 48 p.—Defines a type of problem-solving communication in which communication accuracy is expected to be facilitated by common factors. 43 dyads of 5th grade children were observed performing 3 tasks which represent the defined type of communication. As predicted, the accuracy scores achieved in these communications were consistent across the 3 tasks. 3 components of accurate communication were identified and measures for describing the adequacy of dyads' performance of these components were derived and correlated with communication accuracy. Each component correlated significantly with accuracy and the 3 components combined accounted for 44% of the observed variance in accuracy scores. Results are interpreted as an initial step in identifying communication components which could be taught in language arts curriculum to help students communicate more accurately. The observed relationship of socioeconomic status, race, sex, and IQ characteristics of communicators to communication accuracy is presented (18 ref.)—*Journal abstract*.

4652. Bat-Haee, Mohammad A. (Pahlavi U., Shiraz, Iran) **Conservation of mass, weight, and volume in intermediate grades.** *Psychological Reports*, 1971(1 Feb), Vol. 28(1), 163-168. Tested 84 female and 97 male 4th-6th grade students for quantity conservation. Results confirm the Piaget description of the sequential attainment of the conservation of mass, weight, and volume. Sex differences were not significant. The more intelligent Ss scored better than those with lower IQs. (17 ref.)—*Journal abstract*.

4653. Dyer, George B. (U. Chicago) **Continuity and discontinuity of development in the equilibrium model.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 201-211. Through an exposition of Piaget's equilibrium model a functionally continuous process in cognitive development is identified within structurally distinct but perfection-oriented stages. A clear functional continuity which is derivative and an equally clear structural discontinuity defined by certain criteria make possible a clearer conceptualization of the notion of regression in thinking. Thinking, therefore, in an equilibrium model remains functionally the same throughout development, but is structurally different at the discrete stages or periods of that development.

4654. Furth, H. G. (Catholic U. of America. Center

for Research in Thinking & Language) **On language and knowing in Piaget's developmental theory.** *Human Development*, 1970, Vol. 13(4), 241-257.—Within Piaget's developmental theory the distinction between figurative and operative knowing is clarified and related to symbolic functioning. Acquisition of language is placed within the framework of the child's acquisition of representational behavior. Questions about the relation of thinking and language can be meaningfully discussed if one focuses on the operative aspect of thinking and the figurative aspect of language. The meaning of a symbol, verbal or otherwise, is identified with the underlying operative scheme of the user of the symbol and is not an inherent property of the symbolic material. Piaget's view is antiempiricist; yet he explains the development of the operative structures and does not posit them as innate. A propositional language becomes a chief aid to thinking at the formal operational stage; however, Piaget does not consider verbal language as a principal determiner of development at the sensorimotor or concrete operational stages.—*Journal abstract.*

4655 Garvey, Catherine & Baldwin, Thelma. **Studies in convergent communication: I. Analysis of verbal interaction.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Nov), No. 88, 79 p. Describes a study of the structure and use of language in a defined type of communication situation. A review is presented of linguistic, psychological, and sociological studies which deal with the structure of communication or the structure of discourse. A type of goal-directed or convergent communication is defined in which consistent patterns of language use are expected to occur. The language of 48 dyads of 5th grade children and 24 dyads of undergraduates was observed in 3 standard convergent communication situations and used to develop a system for analyzing the verbal interaction. The system defines structural units of the communications and permits a description of the behaviors, the connecting structural relationships, and the content occurring in and between utterances during the communication process. The manual used to instruct coders in the use of the system and the estimates of interjudge agreement obtained with the manual are presented in appendices. (32 ref.)—*Journal abstract.*

4656 Garvey, Catherine & Dickstein, Ellen. **Levels of analysis and social class differences in language.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Oct), No. 83, 14 p. —Examined the effect of level of linguistic analysis on correlations observed between language variables and status variables. 3 levels of analysis of a linguistic construction were selected for study: (a) grammatical form, (b) lexical choice, and (c) use of a predication type. The corpus was the speech of 48 dyads of 5th grade children (male, female; low, middle socioeconomic status, Negro, white) performing 3 problem solving tasks. The grammatical form of the construction differentiated between social groups, sexes, and races. Lexical choice within the construction differentiated between social groups. Use of the predication type, however, seemed to depend primarily on the task itself. Findings demonstrate that status differences in speech behavior at 1 level of linguistic analysis cannot be taken as evidence that similar status differences exist at another level.—*Journal abstract.*

4657 Gerhardt, Lydia A. (New York U.) **The role of body movement in the child's conceptualization of**

space: A multidisciplinary view. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3412.

4658 McNeill, David; Yukawa, Ryoza, & McNeill, Nobuko B. (Chicago) **The acquisition of direct and indirect objects in Japanese.** *Child Development*, 1971(Mar), Vol. 42(1), 237-249.—3, 4-, and 5-yr-old Japanese children demonstrated comprehension of imperative sentences by manipulating toys. The sentences took various forms but all included 2 nouns which were intended to be the direct and indirect objects of verbs. Evidence was found in the S's errors for self-created definitions of direct and indirect objects. Linguistic rules appeared to undergo change during the course of the experiment. Results can be understood as showing that children are guided in their behavior by certain universals of language. These give rise at times to "super-normal" sentences analogous to the supernormal stimuli of ethology.—*Journal abstract.*

4659 Nummedal, Susan D. (U. Minnesota) **The existence of the substance-weight-volume décalage.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3347.

4660 Quay, Lorence C. (Temple U.) **Language dialect, reinforcement, and the intelligence-test performance of Negro children.** *Child Development*, 1971(Mar), Vol. 42(1), 5-15.—Administered the Stanford-Binet to 100 4-yr old Negro children from Project Head Start under 2 conditions of language (standard English and Negro dialect) and 2 conditions of reinforcement (praise and candy). No reliable IQ differences among the groups and no significant interactions occurred. Differences in performance on individual Stanford-Binet items were negligible. Findings raised questions concerning the existence of motivational and language differences in young Negro children who are provided experiences designed to bring them into the mainstream culture. (19 ref.)—*Journal abstract.*

4661 Scholnick, Elin K. (U. Maryland) **Effects of stimulus availability on children's inferences.** *Child Development*, 1971(Mar), Vol. 42(1), 183-194.—5- and 7-yr-old children inferred which 1 of 4 cues (red-green-flower, or circle) was relevant on the basis of information about 2 stimuli. Tasks varied in information (positive, negative, or mixed instances), cue availability (1 or no prior instance), and presence of memory aids. Younger Ss chose forms or the dimension which changed between trials. Older Ss searched for commonalities and lacked response biases. Since both groups performed worst on tasks lacking positive instances despite variations in cue or memory and availability, poor recall of stimuli may not explain difficulty in interpreting negative information. Perhaps knowing the dimensional structure of the set is important. (21 ref.)—*Journal abstract.*

4662 Simpson, Robert E. (U. Alabama) **The effects of cognitive styles and chronological age in achieving conservation concepts of substance, weight, and volume.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3383.

4663 von Raffler Engell, Walburga. (Vanderbilt U.) **Suprasentential and substitution test in first language acquisition.** *Revue de Psychologie Appliquée*, 1968, No. 88-90, 33-41.—Discusses the acquisition of language in children including bilingual formation. There are 2 steps in acquiring a language from infancy: imitation followed by analogical extension. "In its early stages, a child's understanding of language is as gross . . . as his own production." The importance of

analogy in language is in syntax, morphology, and phonology. Neologisms as well as spontaneous creations are classified with analogical change, e.g., children's disguised speech, teenage slang, and hippie language. The rate of language acquisition depends on "functionality," the learner's participation in the communicative system. (43 ref.)—*A. M. Farfaglia.*

Abilities

4664. Cattell, Raymond B. (Illinois U.) **La teoria dell'intelligenza fluida e cristallizzata: Sua relazione con i tests "culture fair" e sua verifica in bambini dai 9 ai 12 anni.** [The theory of fluid and crystallized intelligence: Its relationship to culture free tests and its verification in 9-12 yr. old children.] *Bollettino di Psicologia Applicata*, 1968, No. 88-90, 3-22.—Studied the theory of fluid and crystallized intelligence in terms of the characteristics appropriate to each factor. A g factor includes the activity in which judgment becomes crystallized, e.g., vocabulary, numerical ability, mechanical ability; a 2nd g factor for fluid aptitude includes series and analogies. "The general crystallized aptitude factor is the product of the fluid aptitude which functions during the years of development on areas of scholastic and cultural skills." 153 boys and 153 girls (9-12 yr. old) were given culture free tests. It is concluded that the culture free test offers greater possibility of analytical prediction. In every case the results favor the use of the double IQ in applied psychology: 1 founded on the fluid g factor, and the other founded on the crystallized g factor. (41 ref.)—*A. M. Farfaglia.*

4665. Crockett, David; Klonoff, Harry, & Bjerring, James. (U. British Columbia, Vancouver, Canada) **Factor analysis of neuropsychological tests.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 791-802.—Administered the Halstead-Reitan Battery, 2 Benton tests, and the WISC to a sample of 240 normal 5-8 yr. old children. Results of a principal-component factor analysis indicate that at least 9 different areas were being measured. The areas of neuropsychological functioning were: analytic-synthetic visual-motor ability, undirected motor speed, verbal abstract ability, resistance to distraction, ability to alternate between motor sets, directed motor speed, environmental awareness and judgmental skills, sequencing visual stimuli, and checking behavior. Regression weights and composite score formulae for estimating Ss' scores in these 9 areas were presented. Dimensions were found which correspond to the Verbal-Performance division of the WISC. 5 of the factors were found to be relatively independent of psychometric measures of intelligence. 2 factors involving higher-order complex skills were also found. The derived factors were related to other factor analytic studies. (16 ref.)—*Journal abstract.*

4666. Doubras, Steve G. & Mascarenhas, Juliet. (Diocesan Child Guidance Center, Columbus, O.) **Relations among Wechsler full-scale scores, Organicity-sensitive Subtest scores and Bender-Gestalt errors scores.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 719-722.—To help clarify the nature of associations between the Bender-Gestalt Visual Motor test and WISC scores, the test records of 71 6-12 yr. old children were examined. Intercorrelations (-.22 to -.43) showed significant relationships between the 2 tests in all instances but 1. Age appeared to have a significant effect on the G. Pascal and B. Suttell scoring of the

Bender but sex differences were negligible.—*Journal abstract.*

4667. Fiedler, Miriam F. & Schmidt, Ellen P. (Children's Hosp. Medical Center, Boston, Mass.) **Sex differences in Bender-Gestalt drawings of seven-year-old children.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 753-754.—Tests a nonclinic population of 7-yr-old children, 300 boys and 300 girls, with the Bender Visual Motor Gestalt test and their protocols scored by the Koppitz system. No significant sex differences were found when the mean raw scores were compared. Similar studies of nonclinic populations at different age levels are indicated.—*Journal abstract.*

4668. Flammer, August, et al. (U. Fribourg, Inst. de Pédagogie Curative, Switzerland) **Bildertest 2-3 (BT 2-3): Intelligenztest für 1., 2. und 3. Schulklassen.** [Picture Test 2-3: Intelligence test for 1st, 2nd and 3rd classes of Swiss elementary schools.] Basel, Switzerland: Beltz Schooltests for Switzerland, 1971. 31 p.—This is a Swiss adaptation of Emmet's Deeside Picture Test for Seven-Year-Olds after the 1966 German adaptation by Ingenkamp. Item analyses with n's of 444 and 487 forced an alteration of 9 items and the replacement of 4 others. Split-half reliability coefficients varied about .96 for the total test and .80 for the 7 subtests. Norms (percentiles, T, stanines) are based on n=1800. External criterion and factor analytic validity results are included.—*Author abstract.*

4669. Guinagh, Barry J. (U. Florida) **An experimental study of basic learning ability and intelligence in low-socioeconomic-status children.** *Child Development*, 1971(Mar), Vol. 42(1), 27-36.—Examined 2 constructs, basic learning ability and intelligence, as proposed by A. Jensen to explain the different patterns of ability found in middle and low socioeconomic status (SES) levels. Basic learning ability was measure by Raven's Progressive Matrices (RPM). 40 low-SES Negro and 40 low-SES white 3rd graders were tested. Training on the RPM had different effects on the 2 races. In the low-SES white sample, both the high and low digit-span groups had scores on the RPM posttest significantly greater than their respective control groups. In the low-SES Negro group, only the high digit-span experimental group had RPM posttest scores larger than its control group. The low digit-span group did not gain from the experimental treatment.—*Journal abstract.*

4670. Kennett, K. F. & Cropley, A. J. (U. Saskatchewan, Div. of Social Sciences, Regina, Canada) **Intelligence, family size and socio-economic status.** *Journal of Biosocial Science*, 1970(Jul), Vol. 2(3), 227-236.—Tested a sample of 170 11-15 yr. old Regina schoolchildren, divided into subgroups according to schoolchildren, divided into subgroups according to family size and socioeconomic status, on the Otis Beta Mental Ability Test. Results demonstrate the existence of a definite relationship between intelligence and socioeconomic status, but no significant relationship between family size and IQ, except among low socioeconomic status males. These results, interpreted as reflecting the changing relationship between intelligence and family size, are possibly the outcome of a changing fertility pattern within the various socioeconomic status groups. (43 ref.)—*Journal abstract.*

4671. Stein, Aletha H., Pohly, Sheila R., & Mueller, Edward. (Pennsylvania State U.) **The influence of masculine, feminine, and neutral tasks on children's achievement behavior, expectancies of success, and attainment values.** *Child Development*, 1971(Mar),

Vol. 42(1), 195-207.—Tested the hypothesis that children's attainment values (AV), expectancies of success (Exp), and achievement behavior (time spent on a task) would be greatest on a sex-appropriate test, intermediate on a neutral test, and least on a sex-inappropriate test. 96 6th grade boys and girls were given 3 tests introduced as measures of masculine, feminine, and neutral skills. For boys, the hypothesis was strongly supported on all measures. For girls, AV and Exp scores were approximately equal on the feminine and neutral tests, but significantly lower on the masculine test; girls' time scores on the 3 tests did not differ. A measure of masculine and feminine role preferences partially predicted girls' AV and time scores but was not related to any of the measures for boys. (15 ref.)—*Journal abstract.*

Perception

4672. Black, Kathryn N., Williams, Tannis M., & Brown, D. R. (Purdue U.) A developmental study of preschool children's preference for random forms. *Child Development*, 1971(Mar), Vol. 42(1), 57-61.—Presented pairs of polygons containing 4, 8, 12, 16, and 20 sides in random order to preschool children. The 8-sided form was most preferred by a group of 3-yr-old Ss (10 girls and 8 boys), while the 12-sided form was most preferred by a group of 4-yr-old Ss (8 girls and 6 boys). The functions relating stated preference to complexity level, defined as sidedness, were significantly different for the 2 groups. 1 yr. later the preferences of the younger group had changed. Now 4 yr. of age, they chose the more complex stimuli more frequently than previously. It is suggested that preferences may be multidimensionally determined.—*Journal abstract.*

4673. Concannon, Josephina. (Boston Coll.) A review of research on haptic perception. *Journal of Educational Research*, 1970(Feb), Vol. 63(6), 250-252.—Formulated by Piaget and indirectly brought into focus by the Montessori methodology, haptic perception is a relatively new concept in American education. Work in England and Russia antedates that found in the United States. J. Concannon and J. V. Coyle completed studies in haptic perception with young children from Montessori and non-Montessori classes. Differences in kind of treatment were nonsignificant (individual vs. group teaching) while Ss in Montessori classes differed significantly from non-Montessori Ss. (27 ref.) *Journal abstract.*

4674. Glitter, A. George & Quincy, Arthur J. (Boston U.) Race and sex differences among children in perception of emotion. (RC Report, Boston U., 1968(Sep), No. 27, 26 p.) Utilized a $2 \times 2 \times 2$ factorial design to investigate the effects of race of expressor (3 Negro and 3 white adults), and race and sex of perceiver (40 white and 40 Negro 4-6 yr. old males and females) on perception of emotion (POE) in children. Perception of anger, happiness, surprise, and pain was analyzed in terms of 3 scores as dependent variables (DVs): (a) overall accuracy scores, (b) correct perception of individual emotions scores, and (c) erroneous perception of individual emotions scores. Results indicate insignificant main and interaction effects for all of the DVs. Theoretical implications of the impact of cultural forces on POE are discussed. (4 p. ref.) *Journal abstract.*

4675. Graham, Louella W. & House, Arthur S. (Imory U.) Phonological oppositions in children: A perceptual study. *Journal of the Acoustical Society of America*, 1971(Feb), Vol. 49(2, Pt. 2), 559-566. Studied

the relationship between the development of a phonological system and auditory perception by examining the errors of 30 3-4 yr. old girls in discriminating among a group of English consonants. The perceptual equivalence and additivity of linguistic features were studied. A nonmetric multidimensional analysis procedure was used in an attempt to specify the number of processes by which Ss made decisions, and speculations about the nature of these processes were made. The discrimination errors of the Ss were similar to those of adults, except that Ss produced more errors. Results failed to show that current linguistic descriptions identify the perceptual parameters children use in categorizing speech sounds. (22 ref.) *Journal abstract.*

4676. Hill, Patricia J. Visual motor perceptual performance as compared with tests of recognition. *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Jun), Vol. 47(6), 469-473.—The Perceptual Forms Test for visual motor perception is currently used by some optometrists to predict the general achievement of school children. The ability of 50 3rd and 4th graders to copy specific geometric forms was compared with their ability to recognize parts of these forms when varying the spatial orientation on paper. Although other studies show that there was some relation to these functions in kindergarten, results reveal no relation between the ability of 3rd and 4th grade Ss to reproduce forms and their ability to discriminate and recognize forms. *Journal abstract.*

4677. Klapper, Zelda S. & Birch, Herbert G. (Albert Einstein Coll. of Medicine, Yeshiva U.) Perceptual and action equivalence to objects and photographs in children. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 763-771. Compared the pantomime responses given by 134 3-9 yr. old middle class children of normal intelligence to real objects and to pictures of them on the Peabody Picture Vocabulary Test. Results indicate that up to age 7 photographs of objects were not equivalent to the objects they pictorially represented as directive stimuli for appropriate action. Although equivalence in perceptual recognition was present even in the youngest Ss, equivalence between object and picture in directing action was increasingly manifested over a period of years. Findings suggest that the processes underlying the discrimination of differences and the recognition of sameness are not necessarily identical with those which underlie the use of perceptual attributes for the direction of action. The findings are considered in relation to verbal and other features of mediation. *Journal abstract.*

4678. Kostić, Djordje; Duić, Rhea S., Vladavljević, S., & Blagojević, D. (Inst. for Experimental Phonetics & Speech Pathology, Belgrade, Yugoslavia) Children's verbal responses to phonetically different auditory stimuli. *International Journal of Psychology*, 1970, Vol. 5(3), 161-171. 20 6-yr. old normal Ss in Belgrade, 10 of whom were normal in articulation and possessed the intelligence, repeated verbal stimuli presented in the phonological structures of Serbo-Croatian or English. Responses of normal Ss differed significantly from responses of abnormal Ss for 7 of the 10 stimuli on dimensions of duration, accentuation, tonality, and quality of pronunciation. Since no significant differences occurred in responses to pure tones and to noise extracted from speech sounds of the Ss language sensory apparatus, per se cannot account for the observed differences. Results suggest that the feedback process involved in language

development utilizes, not only sensory receptors and cortical centers, but conditioning of higher centers as well. Linguistics and psychology appear to complement each other in the understanding of language phenomena. (French abstract)—*S. E. Gavin.*

4679. **Prince, Albert I.** (Marietta Coll.) **A vanished visual cue for auditory perception.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 673-674.—Loudness detection thresholds were obtained from 4 3rd graders by a modified Békésy technique. Ss were provided a visual cue for auditory perception by a light that changed in brightness as the auditory stimulus changed in intensity. The light was systematically vanished during the initial quarter of each test session. Ss learned to monitor and adjust the auditory test stimulus more quickly with visual help and their detection thresholds were lower and more reliable. This audiometric procedure appears to be applicable to developmentally retarded children because it can be taught without verbal instructions and generates fewer disruptive emotional responses.—*Author abstract.*

4680. **Shantz, Carolyn U. & Watson, John S.** (Merrill-Palmer Inst., Detroit, Mich.) **Spatial abilities and spatial egocentrism in the young child.** *Child Development*, 1971(Mar), Vol. 42(1), 171-181.—Hypothesized that the ability of the young child to predict the location of objects on a mock landscape after he has physically moved around the landscape is positively related to his ability to identify object locations from another's (doll's) viewpoint. Each of 48 3½-6½ yr. old children predicted object sites on a covered landscape after moving 180° and 90°, and on 2 trials were confronted with a "trick" perspective. A modified version of Piaget's mountain-scene task was also administered as a measure of spatial egocentrism. There was a significant relation between the number of errors on the 2 tasks. Of those Ss who verbally recognized the 1st trick perspective, significantly more had had some success on the egocentrism task compared with the number of Ss who completely failed it. Generally, predicting object sites when the child himself moves is an easy task in this age range, but identifying object locations from another's viewpoint is very difficult. There were no significant differences among the 3 age groups in accuracy on either task.—*Journal abstract.*

Personality

4681. **Bradfer-Blomart, J.** (Free U., Brussels, Belgium) **Analyse des thèmes fournis au CAT par des garçons de huit ans: Comparaison des récats d'un groupe de garçons et de filles du même âge.** [Analysis of themes in CAT responses of eight-year-old boys: Comparison of the replies of a group of boys and girls of the same age.] *Enfance*, 1970(May), No. 2, 215-234.—Compared the Children's Apperception Test responses of 50 8-yr-old boys from 3 schools in Brussels with those obtained from a similar sample of girls. There was considerable similarity but the boys were less prone to oppose adult control, gave more common responses, and revealed less aggressive feeling. Girls revealed themselves more and in general were more mature in their manner of responding.—*S. S. Marzolf.*

4682. **Buchanan, Edith B.** (U. California, Los Angeles) **The relationship of affective behavior to movement patterns, body image, and visual perception in four-**

and five-year old children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3406.

4683. **Croake, James & Knox, Frances H.** (Florida State U.) **A reinvestigation of fear retention and dissonance theory.** *Psychology*, 1971(Feb), Vol. 8(1), 51-53.—Attempted to account for the retention of children's fears within a theoretical frame of cognitive dissonance. It was assumed that an individual would likely avoid and minimize references that indicate that he should not retain a given fear. Festinger contends that 1 method of reducing dissonance is to proselytize. As evidence that proselytizing has occurred, an effort was made to confirm that the more unrealistic and intense fears would be more widely held than the less unrealistic and less intense fears. 212 children from 4 Southeastern states were sampled. Ss were compared on a 69-item checklist of fears. The results, although in the predicted direction, were not significant.—*J. A. Blazer.*

4684. **Guilford, Joan S. & Gupta, Willa.** (Sheridan Psychological Service, Los Angeles, Calif.) **Development of the Values Inventory for Children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 513-514.—The purpose of this developmental project was to construct an objective, self-administering inventory of values which could be used at the 1st, 2nd, and 3rd grade levels and which would be equally useful for children in the major United States ethnic groups: Anglos, Orientals, Mexican-Americans, Negroes, and Indians. The 60-item test was administered to 996 children equally divided with respect to ethnic group, grade level, and sex. The results were factor-analyzed, providing 8 meaningful factors: social conformity, academic health, me first, masculinity, adult closeness, sociability, aesthetic, and asocial behavior. Interethnic comparisons suggested value conflicts which might affect success in school.

4685. **Orpen, Christopher.** (U. Cape Town, South Africa) **The effect of cultural factors on the relationship between prejudice and personality.** *Journal of Psychology*, 1971(May), Vol. 78(1), 73-79. —92 English-speaking schoolchildren reared in the relatively "prejudiced" climate of white South Africa were given 2 measures of prejudice toward minority groups, a special measure of "South Africanism" and 2 measures of personality, Rokeach's Dogmatism Scale and Smith and Rosen's Worldminded scale. The high correlations between South Africanism and the measures of prejudice, together with the insignificant correlations between these measures and dogmatism or worldmindedness, was taken as evidence that it is accommodation to cultural norms rather than deep-lying personality trends that determines the holding of prejudiced views in this "prejudiced" climate. (22 ref.)—*Author abstract.*

4686. **Ozechosky, Richard J. & Clark, Edward T.** (St John's U., Jamaica, N.Y.) **Verbal and non-verbal measures of self-concept among kindergarten boys and girls.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 195-199.—Describes a comparison of the criterion-related validity of a verbal (sentence-completion test) and of a nonverbal (pictorial) measure of self-concept. Following teacher ratings of 1042 kindergartners, high and low self-concept criterion groups were established. Each S was administered the Quantified Self-Concept Inventory and a new nonverbal test. Congruence was noted between assessments of S's self-concept by teacher's ratings and by a nonverbal instrument. It is concluded that verbal devices, e.g., sentence-completion

tests have little validity at the kindergarten level.

—*Journal abstract.*

4687. Petrie, Ronald G. (Oregon State U.) **A comparison of verbal responses of Anglo-migrant and Anglo-resident children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3181.

4688. Thomas, Alexander; Chess, Stella, & Birch, Herbert G. (New York U., Medical School) **The origin of personality.** *Scientific American*, 1970(Aug), Vol. 223(2), 102-109.—Behavioral characteristics of 141 children were longitudinally studied for over a decade. A behavioral profile, defining a child's temperament, was obtained for each child based on ratings of each of 9 characteristics on a 3-point scale. Results indicate that the original temperament tended to persist in most Ss over the course of the study. 3 general types of temperament were defined (although some Ss did not fit into any of the 3). Implications for parental guidance, education, and medical and psychiatric treatment are discussed.—*P. Tolin.*

4689. Walsh, Richard P. (Southern Illinois U., Edwardsville) **Generalization of self-control in children.** *Journal of Educational Research*, 1969(Jul), Vol. 62(10), 464-466.—Compared self-control in the classroom, in an isolated temptation situation, and at home. Ss were 114 6-8 yr. olds, who were rated on 5 control indicators by their teachers. Each S was placed in a room with toys that they were warned not to touch. Also, 55 were observed at home where trinkets were exposed in E's attache case. Of those without control in isolation, 75% were well controlled at home. Of those with high control in isolation, 34% displayed less control at home. Teachers ratings of classroom control tended to agree with isolation behavior, but less so with home control. Results suggest that generalizability of self-control did occur, but individual differences were also present.—*Journal abstract.*

Social Behavior

4690. Estes, B. W. & Rush, D. (U. Kentucky) **Social schemas: A developmental study.** *Journal of Psychology*, 1971(May), Vol. 78(1), 119-123.—Investigated the development of social schemas using 214 Ss: 14 3- and 4-yr-olds, and 20 Ss at each yr. from 6-15 yr. Powerful regularities and a strong developmental progression were found which reflected an increasing awareness of how people "go together." With increasing age, children learn the meanings of human situations and perform like adult Ss as reported in previous investigations.—*Author abstract.*

4691. Gramza, Anthony F. & Witt, Peter A. (U. Illinois, Children's Research Center) **Choices of colored blocks in the play of preschool children.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 783-787.—35 4-5 yr. old nursery schoolchildren were given trials during which they were allowed to play with blocks colored red, blue, green, and gray that were presented in varied spatial arrays. Position preferences were more important than color preferences in Ss' use of blocks. The prominent role of stimulus context in play behavior is emphasized.—*Journal abstract.*

4692. Grusec, Joan E. (U. Toronto, Ontario, Canada) **Power and the internalization of self-denial.** *Child Development*, 1971(Mar), Vol. 42(1), 93-105.—Children observed an adult model who controlled resources important to them (a powerful model) or one who had no

power to administer rewards. The model then played a game and displayed self-denial by donating $\frac{1}{2}$ his winnings to charity in Exp. I with 24 7-11 yr. old boys and 24 7-11 yr. old girls, and rewarding himself only for excellent performance in Exp. II with 20 7-11 yr. old boys and 20 7-11 yr. old girls. When Ss played the game alone, those who had observed the powerful model shared more or set higher standards of self-reward than those exposed to a model low in power. In the sharing study the model's nurturance was also manipulated. There was a tendency ($p < .07$) for nurtured Ss to share less than nonnurtured Ss. From this and other studies it appears that nurturance facilitates imitation of only neutral behaviors, while power facilitates imitation of both neutral and self-denial or aversive behaviors. The theoretical implications of this are discussed.—*Journal abstract.*

4693. Hicks, David J. (Chico State Coll.) **Girls' attitudes toward modeled behaviors and the content of imitative private play.** *Child Development*, 1971(Mar), Vol. 42(1), 139-147.—Examined the relationship between female attitudes toward modeled behaviors and imitative performance. 25 88-119 mo. old girls viewed and rated a series of behavioral displays. 2 mo. later, another viewing followed by a judged performance opportunity was conducted. Results indicate that Ss' imitation of modeled behavior was markedly related to their attitudes toward it. Some evidence demonstrated that varied elements within a model's display can serve as the basis for such children's attitudes.—*Journal abstract.*

4694. Jasperse, Coby S. & van Hekken, Suus M. (Free U., Amsterdam, Netherlands) **Effect of nurturance on imitative behavior.** *Psychological Reports*, 1971(1 eb), Vol. 28(1), 201-202.—Reports a partial replication of P. Mussen and A. Parker (see PA Vol. 39 12022) testing the hypothesis that a model's nurturance enhances the imitation of task-relevant behavior but not of task-irrelevant behavior. 24 5-6 yr. old girls either interacted for 15 min. with a friendly model or played alone for 15 min. In a subsequent individual session the model solved 3 Porteus Mazes during which she performed also 4 irrelevant acts. Thereafter, Ss had to solve the same mazes. Results confirm the hypothesis.—*Journal abstract.*

4695. Kabaié-Husza, Anónia. (Hungarian Academy of Sciences, Inst. of Psychology Budapest) **A csecsemőotthonban nevelkedő 1-36 hónapos gyermek szociális érzelmének alakulása játékhelyzetekben.** [Trend of emotions manifested towards grown-ups during play in institutionalized children aged 1-36 months.] *Psychológiai Tanulmányok*, 1968, No. 11, 299-315.—Analyzed data of 434 institutionalized and 432 family-raised children to reveal the trend of emotional reactions elicited by adults in prearranged play situations. A significant correlation between environment and the children's behavior was found. Behavioral forms of institutionalized children were summarized as follows: (a) active acceptance of the contact with adults; (b) in the play situation the presence of and contact with the adult is of greater importance than the playing activity; and (c) reaction to the breaking off of contact already in the 1st yr. but acceptance of the departure of the adult with passive resignation from the 2nd yr. on. However, the child will make an attempt at restoring the contact up to age 2; responses elicited by the adult's conduct are similar to those following a

negative emotional manifestation of an adult. Prohibitions are understood only above 2 yr., which is a lag of 6 mo. behind the family-reared child. Prohibitions make the child offended and depressed. The affective catering in institutions may give some amount of security to the children and lower the deprivation. It is debatable whether the foster-mother relation established within institutions is preferable to the nurse-infant relation. (Russian summary) (20 ref.).—*English summary*.

4696. Lorber, Neil M. (Newark State Coll.) **Permissive home environment and exploitative-dominating preadolescent peer behavior.** *Psychology*, 1971(Feb), Vol. 8(1), 12-15.—Defines exploitative-dominating (E-D) peer behavior as social relations involving the use of one's peers for one's advantage and their control and manipulation for one's self-serving purposes. 43 teachers of 9 groups of 7th graders rated each S on the degree of E-D behavior displayed by each. An 18-question instrument for parents was developed to assess parental permissiveness in the home. To "a statistically significant extent [.01 level], parents of preadolescents with pronounced E-D scores reported greater permissiveness in their homes than parents of preadolescents with moderate E-D scores and, especially, parents of preadolescents with slight E-D scores. The findings therefore lend support to the contention that children who tend to exploit and dominate their peers are more apt to come from relatively permissive homes than children who do not tend to display such social behavior. In this light and to this extent, the outcomes of the study contribute to the viewpoint that permissive upbringing does not generally encourage optimum socialization and social adjustment on the part of children. In addition, the results of the study suggest the need for closer investigation of permissiveness."—S. Knapp.

4697. Masters, John C. & Driscoll, Sally A. (U. Minnesota) **Children's "Imitation" as a function of the presence or absence of a model and the description of his instrumental behaviors.** *Child Development*, 1971(Mar), Vol. 42(1), 161-170.—In 2 experiments with 16 and 10 4-yr-old nursery school-children, respectively, Ss heard a story which described toys arranged in novel ways. A performance-description story included a model who actively arranged the toys. A location-description story described the toys as already arranged, and the model simply discovered them so. A location-description, no-model story described the toys as already arranged, but no model was mentioned. Ss in the control conditions heard a story in which toys were mentioned but not arranged in any novel fashion. Imitation was defined as the extent to which Ss subsequently arranged toys in a fashion similar to that described in the story. Ss who had heard descriptions of the novel arrangement of toys "imitated" more than the controls, regardless of whether the model was present or absent or whether his instrumental behaviors were described.—*Journal abstract*.

4698. Rivenbark, W. H. (U. Alabama) **Self-disclosure patterns among adolescents.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 35-42.—Investigated self-disclosure behavior in late childhood and adolescence. 149 Ss in grades 4, 6, 8, 10, and 12 were administered a modified form of S. M. Jourard's self-disclosure questionnaire. It was observed, as hypothesized, that (a) girls disclose more than boys, (b) disclosure to peer targets increases with age, (c) mothers are favored over fathers

as disclosure targets, and (d) same-sex peers are disclosed to more than those of the opposite sex. Disclosure difference between boys and girls increased with age only for disclosure to parents. No difference in over-all disclosure to male and female peer targets was observed. (15 ref.).—*Journal abstract*.

4699. Selman, Robert L. (Boston U.) **The relation of role taking to the development of moral judgment in children.** *Child Development*, 1971(Mar), Vol. 42(1), 79-91.—In order to explore the relationship in middle childhood between 2 social-cognitive processes, role-taking ability, and moral reasoning, 60 8-, 9-, and 10-yr-old middle-class children (10 boys and 10 girls at each age) were administered Kohlberg's Moral Judgment Scale, 2 role-taking tasks, and the Peabody Picture Vocabulary Test. Results indicate that at this age range, with intelligence controlled, the development of reciprocal role-taking skills related to the development of conventional moral judgment. Results of a reexamination 1 yr. later of 10 Ss whose role-taking and moral-judgment levels were low in the original study support the hypothesis that the development of the ability to understand the reciprocal nature of interpersonal relations is a necessary but not sufficient condition for the development of conventional moral thought.—*Journal abstract*.

4700. Shapira, Ariella. (U. California, Los Angeles) **Competition, cooperation and conformity among city and kibbutz children in Israel.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3641-3642.

Parent-Child & Family Relations

4701. Blois, Marsden S. (U. Washington) **Child-rearing attitudes of hippie adults.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3329-3330.

4702. Bruni, Pietro. **Analisi fattoriale e contributo alla validazione esterna del Parental Attitude Research Instrument (P.A.R.I.).** [Factorial analysis and contribution to the external validity of the Parental Attitude Research Instrument (PARI).] *Bollettino di Psicologia Applicata*, 1968, No. 88-90, 77-86.—Studied the external validity and factorial analysis of the Parental Attitude Research Instrument (PARI). The PARI is a questionnaire on the raising and education of children, applicable in various fields of psychology. A survey was conducted in 30 families composed of mother, father and child. The factorial analysis was determined after studying the records of 283 female Ss (18-52 yr. old). A scale of "family gratification" was also devised. The following examples of gratifying situations were chosen: (a) parents' favoring association with both sexes of the child's age group, (b) parents' approval of sports and other types of recreation, (c) not exercising control over selection of friends, (d) not overemphasizing studies, (e) showing affection, and (f) collaboration between parents and children concerning decisions. 3 factors were isolated from the factorial analysis of the PARI: (a) hyperprotective and authoritarian type discipline, (b) rejection of the domestic role on the part of females, and (c) possessive authoritarianism. These factors are similar to results obtained in the United States. There is a definite relationship between attitudes declared in the questionnaire and the usual behavior of the Ss.—A. M. Farfaglia.

4703. Christophersen, Edward R. & Arnold, Caroline

M. (U. Kansas, Medical Center) **A behavior modification program for parents of children with behavior problems.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 665-666.—A set of token reinforcement procedures, based on E. L. Phillips (see PA, Vol. 43:7134), were instituted to modify the behavior of an 11-yr-old boy who lived at home with his mother. Points, earned for specified appropriate behaviors and lost for specified inappropriate behaviors, were redeemable for a variety of privileges. During temporary removal of the point system (a vacation) Ss' maintenance behaviors decreased while his social behaviors remained stable. Reinstatement of the point system brought the maintenance behaviors back to the prevocation level. Token reinforcement procedures in the natural family setting appear practical and effective for dealing with behavior problems.—*Author abstract.*

4704. Hall, R. Vance, et al. (U. Kansas) **Modification of behavior problems in the home with a parent as observer and experimenter.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 669-670.—Presents 4 experiments in which parents devised and conducted procedures to alleviate their children's behavior problems. The techniques involved different types of positive reinforcement, extinction and punishment. The behavior difficulties included infrequent use of an orthodontic device, the low-level performance of household tasks, whining and shouting, and a long duration of dressing time. The parents used recording procedures which did not upset the daily routine, and demonstrated that scientific rigor can be applied in a household setting.—*Author abstract.*

4705. Kogan, Kate L. & Wimberger, Herbert C. (U. Washington, Medical School) **Sex role and relative status in the relationship of mothers to children.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 782.—Studies Mother \times Child social interaction in 10 pairs of Head Start Ss and 10 pairs of middle- and upper-class Ss in unstructured play situations. Units of analysis were 4-sec intervals, 1260 of which were examined for each S pair. Results demonstrate a strong differential relationship between the amount of high-status control afforded by the S's environment and the role expectations and social reinforcement afforded by his sex.—*P. Hertzberg.*

4706. McFarlane, Paul T. (Johns Hopkins U.) **Racial and social class differences in the play of a parent-child simulation game.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3640.

4707. Murlidharan, Rajalakshmi & Topa, Venita. (National Council of Educational Research & Training, New Delhi, India) **Need for achievement and independence training.** *Indian Journal of Psychology*, 1970(Mar), Vol. 45(1), 1-21.—Attempted to probe into the nature of the relationship between independence training and need for achievement in the Indian population and to examine if it operates differently in the Western and Indian cultures. Ss were 42 5 yr. olds belonging to the lower-middle socioeconomic strata of Delhi. Aronson's Graphic Expression Test was used for assessing need for achievement in the Ss. The nature of independence training imparted by the mothers was ascertained by interviewing the mothers. The questionnaire used was an Indian adaptation of the one used by Winterbottom. Along with this, a thorough investigation of the child's background was made under 10

headings. Results indicate in general a relationship between independence training imparted in early childhood and the development of need for achievement in the child. Although the results are in keeping with Winterbottom's study on an American sample, the Indian samples showed some sex differences which were not noted in the American study.—*B. Roy.*

4708. Schuhan, Anthony I. & Freshley, Harold B. (U. Oklahoma, Medical Center, Oklahoma City) **Significance of the nonverbal dimension of family interaction.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 455-456.—The interaction of 4 family triads was scored under conditions of access to (a) only the verbal content of the family's interaction, and (b) access to the family's verbal interaction plus the nonverbal activity contained in a videotape recording of their discussions. 3 of the 4 families showed a significantly different interaction profile when their nonverbal interaction was taken into account. The inclusion of nonverbal interaction had the effect of changing behaviors originally classified as instrumental to behaviors interpreted as affective, especially to negative affective tension indicators. Implications for investigators pursuing research in family interaction processes are discussed.—*Author abstract.*

4709. Winnicott, D. W. **The child, the family, and the outside world.** Baltimore, Md.: Penguin Books, 1969. 239 p. \$1.25(paper).

ADOLESCENCE

4710. Amerio, Piero. **Componenti psicologiche dei fenomeni di "irrealità": Evidenziati in esperienze di livello di aspirazione: Contributi sperimentali.** [Psychological components of the phenomena of unreality: Evidenced in experiments of the level of aspiration: Experimental contribution.] *Bollettino di Psicologia Applicata*, 1968, No. 88 90, 63 72. Studied the psychological meaning of N. Cassel's "unreality" by means of its concurrence with other types of variables, and sought a new experimental contribution to the problem of affective and emotional factors on the perceptive and cognitive activity. 104 16-yr-old students were given Cassel's Group Level of Aspiration Test (CGAT) and P. Amerio's Color Naming after being given R. Cattell's Scale of Anxiety, T.P.P.S. and Raven's Progressive Matrices test. It is concluded that this study confirms Cassel's phenomena of unreality. 2 types of personalities emerge from the CGAT. 1 type has high but realistic aspirations and is an individual who is sure of himself. The other, too, has high aspirations but not in proportion to his potential; he is insecure, anxious, and incapable of valid human relationships on an affective level. The interference of emotional factors on the cognitive level occurs at the moment of decision (19 ref.)—*A. M. Farfaglia.*

4711. Buckley, John J. (Wayne State U.) **The dreams of young adults: A sociological analysis of eleven hundred and thirty-three dreams of black and white students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3635.

4712. Dacey, John S. & Madaus, George F. (Boston Coll.) **An analysis of two hypotheses concerning the relationship between creativity and intelligence.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 213-216. Tested Q. McNemar's hypothesis that at high IQ levels there will be a wide range of creativity, whereas

at the average IQ and lower levels the scatter for creativity will be less and less. Ss were 867 American 8th grade junior high school students and 182 Irish secondary school students. In the American sample, divergent thinking was measured by 4 tests adopted from those of Torrance, and the Lorge-Thorndike Intelligence Test, Level 4, Form A, Verbal Battery. Selected tests from the Minnesota Tests of Creative Thinking and the AH 4 General Test of Intelligence were administered to the Irish sample. In both samples the IQ distributions were divided into 3 equal ranges. A 1-way analysis of variance and a correlational analysis were performed. Results offer only slight support for the McNemar hypothesis. 3 possible explanations of these findings are suggested. (20 ref.)—*Journal abstract.*

4713. Entwistle, Doris R. & Greenberger, Ellen. A survey of cognitive styles in Maryland ninth graders: IV. Views of women's roles. *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.* 1970(Nov), No. 89, 26 p.—Examines the acquisition of a few specific attitudes: whether women should work, what kinds of jobs women should hold, and whether women are intellectually curious. Views of women's work role held by 575 9th grade boys and girls in Maryland are sampled with respondents drawn from 7 residential areas chosen to typify segments of the United States population. Boys were consistently more conservative than girls. Although in general Ss of higher IQ held liberal views, middle-class boys of high IQ were the least liberal. Negro Ss were less opposed than white Ss to women's working outside the home, but were just as conservative about women's holding men's jobs as other groups. The greatest differences between girls' and boys' views were found for middle-class whites.—*Journal abstract.*

4714. Erikson, Erik H. (Harvard U.) Reflections on the dissent of contemporary youth. *Daedalus*, 1970(Win), Vol. 99(1), 154-176.—A certain amount of identity confusion, if not crisis, is beneficial at a certain stage of psychosocial development. Youth in advanced industrial cultures today tends to reject the status quo, yet is disillusioned with the long-range results of all known revolutionary movements. The condition is one of confused rebellion, which may be characterized as a revolt of the dependent. Many specific phenomena of youth protests during recent years are readily related to, and in a measure explained by classical depth psychological mechanisms. This thesis does not deny the ethical validity or the social import of some protests. The universal semiawareness that social progress involves the same governmental forms that are presupposed by preparation for possible suicidal conflict, shifts some of the psychodynamic patterns into a configuration unknown to classical psychoanalytic theory. The clinician, furthermore, is involved in the very dilemmas he is called upon to ameliorate.—*R. F. Creegan.*

4715. Gardner, R. C., Taylor, D. M., & Feenstra, H. J. (U. Western Ontario, London, Canada) Ethnic stereotypes: Attitudes or beliefs? *Canadian Journal of Psychology*, 1970(Oct), Vol. 24(5), 321-334.—Used a factor-analytic approach to investigate the role of both parents' and children's attitudes on children's reactions to French-speaking and English-speaking people. Ss were 111 14-15 yr. old English-speaking students and their parents. Findings support the conclusion that 2 components influence the tendency of children to ascribe traits to ethnic groups: (a) their attitudes toward the group, and (b) the community-wide stereotypes about

the group. Other findings indicate that children's general authoritarian attitudes reflect those of their parents, but that their attitudes toward French-speaking people are not highly related to those of their parents. (French summary) (20 ref.)—*Journal abstract.*

4716. Harsányi, István. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) *Milyen személyiségtulajdonságok megjelölésével értékelik egymást iskolásaink?* [Verbalized personality traits on the basis of which our school-children judge each other.] *Pszichológiai Tanulmányok*, 1968, No. 11, 199-215.—Pupils in 4 forms of Budapest schools (2 junior high and 2 secondary with 1 male form and 1 female form in each age group), filled in a sociometric questionnaire containing questions as to (a) cooperation in learning together, (b) camping in the same tent, and (c) which of their classmates would merit their confidence when they had grown up and were in need of expert advice. There were 3 other questions asking for the same information but worded negatively. Ss justified their choice by specifying at least 1 trait. The most frequent traits figuring in the reasons given for both the positive and negative judgment were collected and ranked. The most highly appreciated personality traits were reliability, helpfulness, orderliness, exactitude, gaiety, intelligence, compatibility, and cleverness. The main reasons for negative judgments were character traits, e.g., laziness, truancy, showing off, querulousness. At 1st sight no important differences appeared between the 2 age groups (13-14 and 17-18) nor between sexes, but on closer examination shifts in ratios due to age and sex could be detected. These, however, have no bearing on educational practice and need not be necessarily considered by the teacher. The differences would be more marked if more distant age groups were compared and research in this direction is recommended. (Russian summary) (18 ref.)—*English summary.*

4717. Kelly, Delos H. (U. Oregon) Social class, school status, and self-evaluation as related to adolescent values, success, and deviance. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3656.

4718. Kollárik, Teodor. (Inst. for the Training of Executives in Chemical Industry, Bratislava, Czechoslovakia) *K problematike konfliktových situácií u mládeže.* [Conflicting situations in young people.] *Jednotná škola*, 1969(Sep), Vol. 21(7), 625-647.—Investigated the occurrence of internal and external conflicts in connection with social adjustment and acceptability in teenagers. 286 16-18 yr. old boys and girls completed questionnaires. Ss reported the greatest number of conflicts with companions of the same age, then with parents, and last with teachers. Boys reported more conflicts in all 3 areas than girls. Conflicts with equals prevailed among youth of the same sex, with the mother, and with female teachers. Girls indicated more internal conflicts than boys. Both sexes mentioned a number of conflicts resulting from their unsuitable actions or behavior. It was found that the lower the ability to adjust, the greater the occurrence of conflicts. No relationship was found between external and internal conflicts, although there was a tendency for internal conflicts to increase with external conflicts. No relationship was found between acceptability and conflict making. (Russian summary)—*English summary.*

4719. Messini, Pietro. (U. Rome, Inst. of Psychiatry, Italy) *Conduite adolescente et équilibre personnel.*

[Adolescent conduct and personal equilibrium.] *Rivista di Psichiatria*, 1970(Mar), Vol. 5(2), 97-115.—Defines adolescent conduct as a dialectic synthesis between thesis and antithesis dependent upon the exigencies of social extrafamilial environment. These 2 poles play a dynamic role in the constitution of 2 types of conduct. Adolescent conduct does not constitute a neurosis, as neurotic conduct entails a revolt accompanied by compulsive passiveness which generates conflict and anxiety. In adolescent conduct, however, 2 types of evolutionary anxiety-producing tendencies occur and are characterized by emotional instability. This instability is reflected in personal identity which is defined as being the general capacity to exercise a social role. The major factor contributing to instability is the simultaneous desire for independence and dependence. The process of integration of adolescent conduct through the formation of significant libidinal identifications is described. (English summary)—*B. A. Stanton*.

4720. Nevel'shtein, V. S. O sotsial'no-psikhologicheskoi issledovanii nekotorykh sotsial'nykh ustremlenii molodëzhi. [On a social-psychological study of some aspirations of youth.] In V. P. Rozhin (Ed.), "Filosofskie i sotsiologicheskie issledovaniya." (See PA, Vol. 45:7193) 87-93.—Over 500 adolescent boys and girls participated in a study of the "moods and frames of mind of student groups," employing a complex of methods: observation, interviews, questionnaires, natural experiment, test situations, etc. Youths were discovered whose outlooks were determined by feelings of dominance or by "romantically heightened or optimistically realistic or prosaically skeptical moods." While the goals of Soviet upbringing are fully represented, contradictions exist which cannot be glossed over—contradictions whose source is essentially the insufficient life experience of the adolescent.—*I. D. London*.

4721. Ondrejko, Peter. (Ministry of Education, Slovakia, Czechoslovakia) Výskum hodnotových orientácií mládeže. [A survey of the appreciation of values by the young.] *Jednotná Škola*, 1969(Apr), Vol. 21(4), 339-347.—Considers the attitudes of the young, their evaluation of realities, and their orientation in the world of values. The roles played by values in the life of man, the standards of value, the types of behavior, and the structure of moral systems are discussed. The link between questions on values and effective methods of acquisition is considered. Emphasis is placed on the needs of depoliticized and passive young people for aid in choosing aims and learning how to act in the present situation. A social research on youth and value orientation project is described which may provide youth with historically true life experience and lead them successfully into social practice. (Russian summary)—*English summary*.

4722. Rehberg, Richard A., Schafer, Walter E., & Sinclair, Judie. (State U. New York, Binghamton) Toward a temporal sequence of adolescent achievement variables. *American Sociological Review*, 1970(Feb), Vol. 35(1), 34-48.—Studied data from 1455 freshmen high school males to evaluate the tenability of 2 causal orderings of adolescent achievement variables. Model I depicts the variables according to the ordering suggested by H. H. Hyman, W. H. Sewell, B. Rosen and others, i.e., adolescent educational expectations are linked with parental socioeconomic status via achievement values (mobility attitudes) and measured intel-

ligence. Model II depicts the variables according to the ordering suggested by R. Turner, i.e., mobility attitudes and measured intelligence are linked with parental socioeconomic status via educational expectations. The criteria for temporal sequence as per the Simon-Blalock correlational procedure render Model II more tenable than Model I. The rhetorical plausibility of Model II and a caveat regarding the testing of temporal inferences from cross-sectional data are discussed. (33 ref.)—*Journal abstract*.

4723. Ruzsnyák, Péter. (Arany János Experimental School, Budapest, Hungary) Az analógiaalkotás gondolkodási műveltségének vizsgálata középiskolába lépő tanulóknál. [Examination of thought based on analogy in students entering secondary school.] *Psichológiai Tanulmányok*, 1968, No. 11, 147-165.—Examined the ability of 14-yr-old students entering secondary school to form analogies using verbal problems. Of the solutions given to the simpler tasks 53% were correct. The majority (31%) of wrong solutions were due to mechanical searching for causal connections. This was attributed primarily to the oneness of teaching methods that stress the "pragmatic" aspects of events. Analysis of 5 other types of mistakes is given. When faced with more abstract tasks both the Ss and 1 other control group did considerably better: 88 and 74%, respectively, gave a correct solution. This is in harmony with Soviet Research on "secondary" abstractions. A great need for a scientifically based series of tasks for assessment, and for carrying out the required improvement is noted. (Russian summary)—*English summary*.

4724. Schludermann, Shirin & Schludermann, Eduard. (U. Manitoba, Winnipeg, Canada) Adolescents' perception of themselves and adults in Hutterite communal society. *Journal of Psychology*, 1971(May), Vol. 78(1), 39-48.—A group of 163 Hutterite 13-15 yr. old boys and girls described on rating scales the following concepts: (a) the average teenager, (b) the average adult, (c) teenagers viewed by adults, and (d) adults viewed by adults. Girls tended to rate all 4 concepts more favorably than boys. The adolescents rated adults more favorably than teenagers. However, Ss rated teenagers more favorably than the expected reputation of teenagers among adults.—*Author abstract*.

ADULTHOOD & OLD AGE

4725. Ahammer, Inge M. (Catholic U., Nijmegen, Netherlands) Actual versus perceived age differences and changes: Young adults and older people view themselves and each other. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 593-594. 30 18 23 yr. old young adults and 30 64-84 yr. old older people were presented with a questionnaire which measured 10 personality dimensions under 3 instructions: self-description, other-perception, and retrospection-prospection. Age differences in the 1st 2 instructions reflected actual and perceived age differences, and the congruence between the 2nd and the 3rd reflected perceived age change. For 5 dimensions, age differences were perceived even though actual differences were obtained in only 2 instances. For no dimension were the perceived age differences seen as a function of age change.—*Author abstract*.

4726. Ehrlich, Ira F. (Washington U.) A study of disengagement and life styles among the aged.

Dissertation Abstracts International, 1971(Jan), Vol. 31(7-A), 3647.

4727. **Granick, Samuel.** (Philadelphia Psychiatric Center, Pa.) **Brief tests and their interrelations as intelligence measures of aged subjects.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 599-600.—Evaluated the intelligence of applicants and residents of a home for the aged by means of the Ammons Full-Range Picture Vocabulary, Raven's Progressive Matrices, and the WAIS. Intercorrelations among the test and subtest scores showed a wide array of correlations, ranging from .37 to .92, and reflecting a probable factorial composition of intelligence which is similar to that of younger adults. The Ammons Information and Vocabulary scores were found to correlate highly (.89 and above) with the Full Scale WAIS. Various combinations of 2 tests also correlated .90 and above with the WAIS, the Ammons and Block Design being highest (.94). Brief type tests are, thus, effective in approximating the results achieved by aged Ss on the WAIS.—*Author abstract.*

4728. **Kaplan, Jerome, et al. (Ed.) Social planning: A continuing challenge.** *Gerontologist*, 1970(Fal), Vol. 10(3, Pt. 1), 189-213.—Presents 6 articles which "have perspectives related to both voluntary effort and government involvement at differing structural points as they affect social planning and the subsequent direct service. From several differing philosophical bases and approaches, these articles relate to local, regional, state, and federal planning. An international flavor is added with an article from England." Beattie, in "The design of supportive environments for the life-span," concludes that "Central to social planning of the physical environment is the development of new conceptual frameworks which may serve as models for continuous experimentation. They may provide fundamental solutions to problems which now abound in our urban centers, including those associated with aging." Stressing the importance of impact research, Cohen calls for new relationships between social gerontologists and governmental program administrators in order to assure sufficient resources for relevant research. The needs of the aging have not been adequately delineated because of bureaucratic and political bargaining, according to Dwight. An effort is being made in Massachusetts to modernize its services. Oriol points out that in social policy priorities the emphasis should be age and youth and not age vs. youth. Schooler, using "a probability sample of 4000 elderly persons, demonstrates how morale is related to environment and social relationships . . . Inferences are drawn regarding the desirability of future research analogous to market research . . ." Inadequacies in local government systems are held responsible for the lack of social development plan and program in Britain.—*I. Linnick.*

4729. **Nuttall, Ronald L., Fozard, James L., Rose, Charles L., & Birney, Spencer.** (Boston Coll., Inst. of Human Sciences) **The ages of a man: Ability age, personality age, and blood chemistry age.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 605-606.—3 functional ages were developed on 1146 25-83 yr. old healthy men. Personality age, using 16 PF data, accounted for 12.7% of variance of CA. Ability age, using General Aptitude Test Battery (GATB) subtests, accounted for 28% and blood chemistry age, in 2 runs each accounted for 12%. The most powerful variables were

GATB Disassemble test, followed by GATB Tool Matching. Next in importance were blood sedimentation rate and phosphorus level. The next most important variables were 16 PF self-sentiment and surgency. All 3 domains acting together accounted for 42% of variation in CA.—*Author abstract.*

4730. **Sheppard, Harold L.** **The potential role of behavioral science in the solution of the "older worker problem."** *American Behavioral Scientist*, 1970(Sep), Vol. 14(1), 71-80.—Reviews statistical data which leads to the conclusion that we "have been drifting into a pattern of labor market behavior that has increasingly negative consequences for the older worker, especially the male older worker." Much of this trend is ascribed "to our national value system that defines retirement . . . as a clear sign of undiluted social progress." Suggested is research in such areas as: changes of job aspirations and motivation of workers as they grow older, the discouragement process experienced by older unemployed workers, and the development of 2nd careers by older workers.—*J. J. Parnicky.*

4731. **Witzke, Donald B., Swartz, Jon D., & Drew, Clifford J. (U. Texas)** **Level of perceptual development of normal adults as measured by the Holtzman Inkblot Technique.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 609-610.—To investigate the relationship between CA of adults and selected scores from the Holtzman Inkblot Technique, 136 normal Ss comprising 4 criterion age groups ranging in age from 20-61 yr. were tested. Each group was composed of identical numbers of males and females matched for CA. Following a statistical correction for number of rejections, a double classification (Age Level \times Sex) analysis of variance revealed significant age-level differences for only 1, but significant sex differences for 5, of the 10 variables studied. These results are interpreted as providing evidence that there is a reversal of perceptual development, as outlined by Werner's organismic-development theory, for women in the middle ages but not for men.—*Author abstract.*

SOCIAL PSYCHOLOGY

4732. **Hall, Elizabeth.** **A conversation with Arthur Koestler.** *Psychology Today*, 1970(Jun), Vol. 4(1), 62-65, 78-84.—Discusses sources of social change (the yogi vs. the commissar), the hunger for meaning possessed by youth which is opposed to the reductionism of the present educational establishment, the use and abuse of language, and the physiological contradictions superimposed in the human brain.—*E. J. Posavac.*

4733. **Luchins, Abraham S. & Luchins, Edith H. (State U. New York, Albany)** **Wertheimer's seminars revisited: Value: I.** Albany, N.Y.: State U. New York, Psychology Dept., 1971.—This report of Wertheimer's interdisciplinary seminars attempts to capture the spirit of class and out-of-class discussions at New School's University in Exile. After an opening session on the role of value in science, the role of the social scientist in shaping society and the pros and cons concerning the scientist's obligation to participate in social action, the following topics are discussed in the context of the national and international, political, social, economic, and moral problems of the 1930s: place of value in science; economics and value; social norms and laws;

philosophical speculations about value; absolute vs. relative ethics; values of youth; the meaning of value terms; studies on value; other discussions on value and evaluation; motives, needs, and values; justice; kindness; moral judgment; studies on fit; conflicts over what fits; doing what is required; and the arbitrariness of laws and roles. Each topic contains reports of experimental outgrowths of the discussion.—*Author abstract.*

4734. Nagy, Lajos. (Hungarian Academy of Sciences, Inst. of Public Law Science, Budapest) *A pszichológus-szakértő közreműködésének lehetőségei a büntető perbell tanúbizonyításnál.* [What the psychologist expert can do with regard to the evidence given by witnesses during criminal trials.] *Pszichológiai Tanulmányok*, 1968, No. 11, 585-605.—Examined possibilities of assessing psychic phenomena bearing on the veracity of a witness on the basis of legislation both in Hungary and other countries, and with reference to applied psychology. In the 1st part of the study, the expert examination in question is in keeping with the explicit legislation of several socialist countries, and it can also be performed on the basis of positive legislation. The 2nd part of the study deals with phenomena to be observed and evaluated in the course of the expert examination. As a psychic process, the process of developing evidence begins the moment the witness learns about the criminally relevant fact and continues to the act of giving evidence in a criminal trial. In this process psychic factors may contribute with objective ones to influence the evidence given. The object of the expert is to reveal these psychic factors and assess their influence on the actual evidence. The expert, however, may not decide on the veracity of the witness. (Russian summary) (26 ref.)—*English summary.*

4735. Pataki, Ferenc. (Hungarian Academy of Sciences, Psychology Inst., Budapest) *A pszichológiában alkalmazott módszerek egyes elvi kérdései és a szociálpszichológiai kutatás.* [Social psychological research and some theoretical problems on methods employed in psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 119-133. Discusses the drawbacks of keeping fundamental scientific and methodic theory strictly apart since methodics may easily lose its connection with the fundamental theoretical-methodological problems of science, and may encourage empiricism. The methodological orientation of psychological trends is closely connected with how these trends interpret the essence and function of the psyche. New data resulting from the rapid expansion of new apparatus in methodics are rendering earlier interpretations in psychological research questionable. Psychology has to make a great effort to meet the requirements of accumulated scientific facts. New possibilities for instrumental examinations, novel apparatus in formalization and model-construction following advances of cybernetics and information theory and the application of experimental method in the study of social behavior mark the main tendencies in a reorganization of psychology. Still the chief problems of development lie on the level of making psychological theories and not on that of methodics. The complicated interaction between theories and methodics can be resolved only if the priority of hypothesis, scientific theory, is kept in the foreground. Research by Hungarian social psychologists is also reviewed and some of the weak points of making hypotheses that concentrate on methodics are disclosed. It is stressed that the phenomena of social psychology

are less tolerant to experimental conditions in the laboratory and that field research is of outstanding importance here. It is suggested that a sharp distinction should be made between the concepts of research method and research technique. (Russian summary)—*English abstract.*

CULTURE & SOCIAL PROCESSES

4736. Atkeson, Paula. *Building communication in intercultural marriage.* *Psychiatry, Washington D.C.*, 1970(Aug), Vol. 33(3), 396-408.—Describes the differences between Filipino and American "child-rearing methods, the cultural definition of childhood, interpersonal relationships, parental and societal expectations, values and goals, self-concepts, and modes of expressing thought and feeling." The counseling of a young Filipino doctor and his wife, an American nurse, is presented as indicative of the types of conflict which may occur in an intercultural marriage and methods of solving the problems. Counseling focused on (a) strengthening and clarifying each partner's identity, (b) development of empathy by an understanding and acceptance of each other's behaviors, and (c) establishment of communication by teaching each to perceive its emotional meaning and intent, without being confused by its form or style. The result was not a compromise or the assimilation of a partner; rather each was able to behave in a manner appropriate to his own culture and still communicate to the other in a need-fulfilling and effective manner (24 ref.)—S. Knapp.

4737. Beattie, John & Middleton, John (Eds.). *Spirit mediumship and society in Africa.* New York, N.Y.: Africana, 1969. xxx, 410 p. \$8.50.

4738. Buck, Robert E. (U. Texas) *Power, ideology, and decision-making: An investigation in the social psychology of community politics.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3651.

4739. Buttram, Henry J. (U. Tennessee) *An empirical study of factors effecting tradition perpetuation in laboratory microcultures.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3636.

4740. Constantini, Edmond & Craft, Kenneth H. (U. California, Davis) *Competing elites within a political party: A study of Republican leadership.* *Western Political Quarterly*, 1969(Dec), Vol. 22(4), 879-903.

Studied the nature of intraparty cleavage at the leadership level in the 1964 Republican presidential primary clash in California. Data were obtained from a sample of 430 Goldwater, Rockefeller, Nixon and Democratic delegates. On a 14-item questionnaire, Goldwater delegates were consistently more conservative on a broad range of public issues than the Rockefeller delegates. The magnitude of the cleavage on issues was approximately as great as that between the Rockefeller and Democratic groups. The Nixon elite tended to bridge the gap between the 2 Republican groups. The Goldwater elite appeared to be committed and devoted to the Republican party more deeply and over a longer period of time than the Rockefeller elite. The Goldwater elite were more likely to have entered politics as a result of public serving rather than personal serving motives. However, the 2 groups were quite similar in the relative importance ascribed to the various motives underlying political activation. The 2 groups were quite similar in their personality profiles as assessed by scales of the

Gough Adjective Check List and in the way in which these profiles differed from those of the general public. The Goldwater group, however, most clearly expressed these differences.—*Journal summary*.

4741. Distler, Luther S. (U. California, Berkeley) **The adolescent "hippie" and the emergence of a matristic culture.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 362-371.—Theorizes that there is more than the usual developmental-generational conflict between parents and their adolescent children, that the conflict is exacerbated by a clash between cultural patterns. From observations of "hippies" and their parents, it was noted that the older generation seemed to be operating on instrumental orientations, while the adolescents were operating on expressive ones. This was further characterized as a change from a patristic culture which values achievement, individual responsibility, goal-directedness, and rationality to a matristic culture which values feelings, intimacy, sensory experiences, and self-exploration. The role of industrialization, technology, women's suffrage, and education in this change is discussed. Implications for working with hippies in a therapeutic setting are noted. An innovative program involving 150-300 high-school-age adolescents in a youth center is described.—*S. Knapp*.

4742. Fabrega, Horacio & Silver, Daniel. (Michigan State U.) **Some social and psychological properties of Zinacanteco shamans.** *Behavioral Science*, 1970(Nov), Vol. 15(6), 471-486.—Compared 20 Zinacanteco shamans to 23 nonshaman members on various social parameters and by means of a projective test. The 2 groups were alike in most respects. Shamans tended to receive lower scores on measures reflecting participation in Ladino culture and higher scores on several psychological dimensions. Findings are evaluated clinically and from a standpoint that accounts for the learning experiences that associate with the shamanistic role. The pertinent literature is reviewed and findings discussed. (31 ref.)—*Journal abstract*.

4743. Graves, Clare W. (Union Coll., Schenectady, N.Y.) **Levels of existence: An open system theory of values.** *Journal of Humanistic Psychology*, 1970(Fal), Vol. 10(2), 131-155.—8 emergent levels of human existence are distinguished: automatic, tribalistic, ego-centric, saintly, materialistic, sociocentric, cognitive, and experientialistic. These arise "as man solves certain hierarchically ordered existential problems crucial to him in his existence." To each state is associated a particular value system, respectively: reactive, traditionalistic, exploitive, sacrificial, materialistic, sociocratic, existential, and experiential. The problem of moral and ethical decline rests "not so much in the breakdown and discard of 'the old' as in the retention of existentially inappropriate values during a period of profound transformation in human existence."—*P. Swartz*.

4744. Intermaggio, Jean B. (George Washington U.) **Some factors determining visitors' perceptions of the United States.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3638-3639.

4745. Kuttner, Robert E., Lorincz, Albert B., & Hickey, Robert E. (U. Chicago, Pritzker Medical School) **Constellations of the zodiac: A cultural Rorschach test? Perceptual & Motor Skills**, 1969(Dec), Vol. 29(3), 919-921.—It is suggested that the identification of constellations with primitive and classical myths provides clues to culturally important psychological themes. Traces of fertility cults and theological conflicts in the

surviving nomenclature are noted. Detailed analysis by the methods of projective psychology are recommended as a means of uncovering characteristic cultural patterns.—*Journal abstract*.

4746. Kwochka, Vera F. (Columbia U.) **A survey of United States students regarding the effects of their residence in the International House of New York.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3639-3640.

4747. Meissner, W. W. (Massachusetts Mental Health Center, Boston) **Notes toward a theory of values: Values as cultural.** *Journal of Religion & Health*, 1971(Jan), Vol. 10(1), 77-97.—Emerging from this conceptual and exploratory study is the fact that values are a form of symbolic activity that requires the emergence of self-objectivation and identification and the capacity for participating in shared meaning with others. These capacities underlie the development of human personality and establish the possibility of culture. The organization and control of social living in groups depend on man's capacity to form in himself by selection, adaptation, and other formative processes a set of directive and normative principles that constitute standards for his participation in the community. The principles are formed by symbolic processes, based on the integration of instinctual needs, capacities, constitutional givens, defenses, sublimations, repressions, and roles, and assimilate in varying degrees the normative orientation of surrounding value standards that define the limits of acceptable variation. Values are thus integrative forces within the social structure that organize, direct, and control the lines of individual action. (47 ref.)—*Journal summary*.

4748. Powell, Elwin H. (State U. New York, Buffalo) **The design of discord: Studies of anomie: Suicide, urban society, war.** New York, N.Y.: Oxford U. Press, 1970. xvi, 247 p. \$7.50.

4749. Spillerman, Seymour. (U. Wisconsin) **The causes of racial disturbances: A comparison of alternative explanations.** *American Sociological Review*, 1970(Aug), Vol. 35(4), 627-649.—Examines a range of hypotheses of varying specificity in an attempt to account for the location of racial disorders during the 1960s. The general assumptions which must be met by any satisfactory explanation of the distribution of the disorders are considered. Mathematical models are constructed which embody the most prevalent assumptions as to the determinants of community disorder-proneness, and their predictions are compared with empirical data. The specific assumptions considered are: (a) all cities have an identical probability of experiencing a disorder; (b) communities are heterogeneous in their underlying disorder propensities; (c) a process of reinforcement characterizes the occurrence of disorders; and (d) contagion among communities contributes to the distribution of racial disturbances. Only the heterogeneity assumption is supported by the data. The explanatory abilities of several additional theories, each of which assumes the importance of particular community characteristics, are also considered. All are rejected in favor of an explanation which argues that the racial disorders of the 1960s were responses to frustrations which are uniformly felt by Negroes, irrespective of their community situations.—*Journal abstract*.

4750. Tenzel, James H. **Shamanism and concepts of disease in a Mayan Indian community.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 372-380.

—Presents “an attempt to review some of the beliefs concerning disease and treatment in a Mayan Indian community in Guatemala. It was initially believed that concepts of disease such as *susto* belonged in the category of mental illness and that therefore shamanistic treatment of this malady represented an indigenous form of psychotherapy. These initial assumptions both proved to be false.” The medical diagnosis of several villagers under treatment by the shaman for forms of *susto* (soul-loss due to fright) revealed serious physical diseases. Anxiety, if present at all, was a consequence of the disease. An analysis of the shaman's curing ceremonies and the cultural importance of his role is presented. Interviews with 4 out of 6 of the village shamans did not support the theory that shamanism is a culturally sanctioned role for psychotics. It is concluded that the shaman's greatest function is the validation and reinforcement of the belief system of the society.—S. Knapp.

4751. Torrance, E. Paul. (U. Georgia) **Human intelligence: The culture-related view.** *Science Teacher*, 1968(Sep), Vol. 35(6), 21-23.—Provides a global summary and several illustrative studies from the literature dealing with cultural influences on intelligence. The impact on the intellectual functioning of children who are reared in disadvantaged environments is highlighted. Studies are cited which show that intellectual level can be positively influenced by placement of children in more stimulating environments during the developmental years. Cross- and subcultural comparisons on intellectual functioning and development, using tests of creative thinking, are presented. (17 ref.)—P. McMillan.

Ethnology

4752. Baron, Rueben M., Heckenmueller, Jerome, & Schultz, Samuel. (Wayne State U.) **Differences in conditionability as a function of race of subject and prior availability of social reinforcer.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 94-111.—A partial replication and extension of Gewirtz' inverse availability paradigm involving both Negro and white college students yielded a number of unexpected effects. The strongest finding was a significant main effect for race, indicating that Negro Ss were more responsive than white Ss to a white examiner's verbal reinforcements. For Negro but not for white Ss there was limited support for Gewirtz' inverse availability hypothesis; Negro Ss in the 12-PA group conditioned more than Negro Ss in the 30-PA group, but this difference was pronounced only for the initial reinforced trials. (27 ref.)—*Journal summary*.

4753. Darnauer, Lyle R. (U. Minnesota) **Social psychology and ethnography: A study of Perindesam.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3636.

4754. Edgerton, Robert B. & Karno, Marvin. (Neuropsychiatric Inst., Los Angeles, Calif.) **Mexican-American bilingualism and the perception of mental illness.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 286-290.—Presented a household survey interview to 444 Mexican-Americans and 224 Anglo-Americans on beliefs and perceptions of mental illness. The 2 groups did not differ significantly, but there were significant differences within the Mexican-American group. Ss who completed the interview in Spanish differed from those

who took it in English in beliefs on (a) depression, (b) juvenile delinquency, (c) the inheritance of mental illness, (d) the effectiveness of prayer, and (e) the value of familistic orientation. Results suggest that the more commonly described cultural traits of the Mexican-American are most applicable to those who speak only or mostly Spanish. Findings indicate “the need for mental health professionals who possess both fluency in Spanish and sensitive understanding of the culture of the Mexican-American poor.” (15 ref.)—S. Knapp.

4755. Gruber, Murray L. (Case Western Reserve U.) **Status frustration and social protest among Negro youth.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3648.

4756. Klineberg, Otto. (International Center for Intergroup Relations, Paris, France) **Black and white in international perspective.** *American Psychologist*, 1971(Feb), Vol. 26(2), 119-128.—Surveys areas of conflict on the international scene and concludes that the role of racial differences in most is minor or nonexistent. Recent developments in the United States, e.g., black studies programs, black power, and black nationalism, are outlined. Some research findings which add perspective to approaches to racism are noted: (a) effects of poverty and overcrowding on learning ability; (b) influence of training and exercise on the development of the brain; (c) consequences of teachers' expectations; (d) value of compensatory learning; (e) changes in performance that accompany changes in environment; (f) importance of motivational and other personality factors in determining test performance and educational achievement; (g) the lack of true correspondence between skin color and measure of social disorganization; and (h) the extent to which perception, cognition and thinking are related to social and cultural factors. The responsibilities and tasks of psychologists in combating racism are briefly discussed. (26 ref.)—S. Knapp.

4757. Mack, Delores E. (Howard U.) **Where the black-matriarchy theorists went wrong.** *Psychology Today*, 1971(Jan), Vol. 4(8), 24, 86-87, 80 married couples were selected who were either white or black and low or middle social class. The couples were matched on other variables also. Separately and together the couples completed several questionnaires and behavioral tests designed to tap the distribution of power within the relationship. While there were some social class and task differences, there were no significant differences in the distribution of power attributable to race. The social scientists who refer to Negro matriarchy have not understood that while the sources of power may differ across races, the distribution between the sexes does not.—E. J. Posavac.

Social Structure & Social Role

4758. Gable, Myron. (New York U.) **The value orientations and actual and perceived level of economic understanding of New York businessmen.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3411.

4759. Gibson, John B. (U. Cambridge, England) **Biological aspects of a high socio-economic group: I. IQ, education and social mobility.** *Journal of Biosocial Science*, 1970(Jan), Vol. 2(1), 1-16.—Presents data on the social backgrounds and IQs of a sample of 185 scientists, their male sibs (N = 102), and their

fathers ($N = 116$). The range of IQ in the scientists is similar to the range of scores expected of the higher 25% of a representative general population sample. Scientists' IQs showed a positive correlation with social class. Differences in IQ between the scientists and their fathers in each social class are related to the distance the scientists have moved up the social scale. In the 22 families in which the IQs of the father and 2 male sibs are known, the upwardly mobile sibs tend to have higher IQs than the nonmobile or downwardly mobile sibs. In Class II there is evidence that stabilizing selection operates on IQ to maintain the mean IQ level. The effect on social stratification of such selection, together with increased educational opportunity, is discussed. (22 ref.)—*Journal abstract.*

4760. Jackson, Elton F., Fox, William S., & Crockett, Harry J. (Indiana U.) **Religion and occupational achievement.** *American Sociological Review*, 1970(Feb), Vol. 35(1), 48-63.—Analysis of 1957 national sample data from 766 white male respondents, born in the United States, indicates several religious differences in occupational achievement: (a) Protestants are more likely than Catholics of the same occupational origin to enter high-status nonmanual occupations; (b) Catholics are more likely than Protestants of the same origin to enter low-status nonmanual occupations; and (c) Protestants are more often sharply up-mobile, and Catholics more often down-mobile. These differences are small but are not diminished by controls for ethnicity, region in which reared, age, generation, and size of community in which reared. (41 ref.)—*Journal abstract.*

4761. Robb, J. H. & Cloud, Jonathan. (Victoria U., Wellington, New Zealand) **Occupational mobility in a New Zealand provincial borough.** *Australian & New Zealand Journal of Sociology*, 1970(Apr), Vol. 6(1), 49-51.—To test the mobility vs. inheritance of occupational patterns from father to son, interview data were gathered from a randomly selected sample of 293 fathers in Rotorua, New Zealand. Results showed a downward mobility and little inheritance. It is recommended that such results should be compared with internal migration figures, demographic structure, and occupational opportunities of different types of localities.—*R. W. Brislin.*

4762. Toppen, J. T. (U. Cincinnati) **Underemployment: Economic or psychological?** *Psychological Reports*, 1971(Feb), Vol. 28(1), 111-122.—Briefly reviews economic theories on causes of chronic or recurrent "involuntary" unemployment of the able-bodied. An attempt to systematically test individual psychological characteristics of chronically underemployed persons to assess possible causes is reported. The WAIS and 4 other tests selected for measuring psychopathic tendencies, rather than clinical psychological illness, were given 50 able-bodied chronically underemployed men. Tests were given orally to avoid illiteracy problems. All tests, except 1 which was inconclusive, showed statistically significant differences between the underemployed group and a control group of 50 steadily employed men of similar age, with limited, though somewhat higher educational levels. Greater incidence of aberrant test scores among the underemployed persisted after interaction of uncontrolled variables of race and education were statistically excluded. Underemployed Ss showed lower IQs and more socially maladaptive personality characteristics, suggesting early developing, if not a lifelong psychological handicap. Findings indicate need of consideration of factors, e.g., sources of underemployment in

theoretical and practical approaches to the problem of ref.)—*Journal abstract.*

Religion

4763. Belt-Hallahmi, Benjamin. (U. Michigan) **The rise and fall of the psychology of religion movement.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 722-728.—Briefly reviews the history of the psychology of religion in the United States between 1890 and 1960. Reasons for the growth of interest in the area and the sharp decline that followed, are presented. Reasons for the decline are discussed and it is concluded that inherent theoretical weaknesses made the movement vulnerable both within and without academic psychology, and caused the final decline.—*Author abstract.*

4764. Bloom, Jack H. (Teachers Coll. Columbia U.) **Who become clergymen?** *Journal of Religion & Health*, 1971(Jan), Vol. 10(1), 50-76.—Reviews the literature on the personality dimensions of pulpit clergy and parson seminarians. "With Booth, we are interested in finding out more about the psychological dynamics that allow an individual to maintain mental health in spite of being a cultural deviant." Conflicts of the clergy stressed are 4 factors of emotional distance, love, and sanctuary. It is concluded that "The minister may have learned through his life experience that he cannot be accepted for what he is but for what he does, not what he does for himself but only insofar as he does for others. The anger that results may so endanger his being accepted and his dependence on others that it must be sublimated in some way. What better way to express the anger so that it cannot hurt love and yet at a distance, than by setting oneself apart becoming an exception, a projection and a paradigm of what man should be, and by so doing to serve both God and man well?" It is hypothesized that there is a relationship between personality and vocational choice. "The pulpit is a paradox . . . For some it is a sanctuary in which they can live and be useful. Others find that they have fled into a trap." (70 ref.)—*I. Lamm.*

4765. Brannon, Robert C. (U. Michigan) **Glimpses of old-time racism.** *Psychology Today*, 1970(Apr), Vol. 3(11), 42-44.—Tested the hypothesis that an individual's mental involvement with religion would be more related to racial prejudice than a devotional involvement. A study of 81 members of a congregation that practiced integration and interviews of 43 white residents of a small Southern town supported the hypothesis.—*J. Posavac.*

4766. Glass, Kenneth D. (U. Tennessee) **A study of religious belief and practice as related to anxiety and dogmatism in college women.** *Psychological Abstracts International*, 1971(Jan), Vol. 31(2A), 300-301.

4767. Harris, T. George. **Religion in the age of Aquarius: A conversation with theologian Harvey Cox.** *Psychology Today*, 1970(Apr), Vol. 3(11), 62-67.—Discusses the loss of play and festivity of Western overconcern with objectivity. Strategies to regain this loss are seen in current interest in yoga, drugs, mysticism, Eastern religions, and even voodoo. Religion of the future will emphasize the use of rituals and rituals to aid the expression of the nonrational aspects of the human mind, deemphasizing organization and rational aspects of doctrine.—*E. J. Posavac.*

4768. Houts, Donald C. (Northwestern U.) **The use of ego identity measures in evaluating a seminary**

curriculum. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3356.

4769. **Roback, Milton.** (Michigan State U.) Faith, hope and bigotry. *Psychology Today*, 1970(Apr), Vol. 3(11), 33-37, 58.—A national sample of over 1000 adult Americans was surveyed concerning values, religious practices, and views about race relations. The more frequent the respondent went to church, the less social compassion he expressed. "Considered all together the data suggest a portrait of the religious-minded church goer who has a self-centered preoccupation with saving his own soul and is alienated, rather worldly, and uncoupled with indifference toward—a tacit endorsement of—a social system that would perpetuate social inequality and injustice."—*E. J. Posavac*

4770. **Springstead, Marie T.** (Fordham U.) Problems of postulants and novices in selected communities of religious women. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3356.

4771. **Stark, Rodney, Foster, Bruce D., Gluck, Charles Y., & Quinley, Harold.** Sounds of silence. *Psychology Today*, 1970(Apr), Vol. 3(11), 38-41, 60-61.—A survey of 1580 California clergymen indicated that more than 1/3 have never preached on a pastoral issue. The more traditional the preacher, the less likely it is that he has dealt with social or political issues. Because younger and more liberal clergymen were more heavily represented in the sample, it is likely that the survey overestimates the amount of socially relevant issues mentioned in the pulpit. These data suggest that the church will not become a force for social justice in the foreseeable future.—*E. J. Posavac*

4772. **White, Mary R.** (Fordham U.) A follow-up study of candidates in a religious community of women. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3359.

Cross Cultural Comparison

4773. **Henderson, Edmund H., Tang, Barbara H., & Gentsch, Helen.** (U. of Virginia) Self-other orientations of French- and English-Canadian adolescents. *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(1), 142-152.—Compared self-other orientations of 100 French-Canadian and 100 English-Canadian adolescents (ages 12-15) from working class backgrounds. The French-Canadian subjects tended to differ from the English-Canadian subjects on 8 of the 12 measures. French-Canadians were higher in power, low self-esteem, social interest, complexity, and 4 measures of similarity with others. French-Canadians (44 ref.) *Journal abstracts*

4774. **Kikuchi, Akio & Gordon, Leonard V.** (Fukushima U., Japan) Japanese and American personal values: Some cross-cultural findings. *International Journal of Psychology*, 1970, Vol. 5, 181-187.—500 Japanese college students and 467 American college students, from different socioeconomic levels, revealed Japanese to be significantly lower than their American counterparts on Personal Modesty, Achievement and Power, and on the Japanese higher on Obedience and Tradition. However, despite the Nationalism of Japanese Values, significant differences in Nationalism were not found. Japanese and American students from the same socioeconomic levels revealed no significant differences in Nationalism. Orientation is similar for Japanese and Americans

Japanese and Americans. Japanese students are more likely to be obedient and traditional, but Americans are more likely to be achievement oriented and power oriented. Japanese students are more likely to be modest and traditional, but Americans are more likely to be achievement oriented and power oriented. Japanese students are more likely to be obedient and traditional, but Americans are more likely to be achievement oriented and power oriented.

4775. **Shanon, John W.** (University of New York) A comparative study of the satisfaction of American and Mexican operatives. *Journal of Management*, 1970, Vol. 6, 1-10.—A comparative study of the satisfaction of American and Mexican operatives. The study was conducted in a factory in Mexico. The results showed that Mexican operatives were more satisfied than American operatives. The study also found that Mexican operatives were more likely to be obedient and traditional, but Americans are more likely to be achievement oriented and power oriented.

Family

4776. **Holderness, David C.** (University of Illinois) The development of family size desires before marriage: A theory-building study. *Journal of Marriage and the Family*, 1970, Vol. 32, 1-10.

4777. **Berge, Miriam L.** (University of California) Health Jan. 1971. Trial marriage: Harboring the trend constructively. *Archives of General Psychiatry*, Vol. 20(1), 1-10.—A study of the differential variables of the trial marriage concept. The study found that trial marriage would distinguish between committed and non-committed cohabitation in terms of the variables of commitment, stability, and satisfaction. (17 ref.) *Journal abstracts*

4778. **Holderness, Vladimir J.** (University of Missouri) Family femininity and conjugal love. *Journal of Marriage and the Family*, 1970, Vol. 32, 1-10.—A study of the relationship between family femininity and conjugal love. The study found that family femininity was positively related to conjugal love. The study also found that family femininity was related to the variables of commitment, stability, and satisfaction. (17 ref.) *Journal abstracts*

4779. **Kikuchi, Akio & Gordon, Leonard V.** (Fukushima U., Japan) Japanese and American personal values: Some cross-cultural findings. *International Journal of Psychology*, 1970, Vol. 5, 181-187.—500 Japanese college students and 467 American college students, from different socioeconomic levels, revealed Japanese to be significantly lower than their American counterparts on Personal Modesty, Achievement and Power, and on the Japanese higher on Obedience and Tradition. However, despite the Nationalism of Japanese Values, significant differences in Nationalism were not found. Japanese and American students from the same socioeconomic levels revealed no significant differences in Nationalism. Orientation is similar for Japanese and Americans

4779. Karp, Ellen S., Jackson, Julie H., & Lester, David. (Wellesley Coll.) **Ideal-self fulfillment in mate selection: A corollary to the complementary need theory of mate selection.** *Journal of Marriage & the Family*, 1970(May), Vol. 32(2), 269-272.—Proposed that 2 factors operate in mate selection: (a) homogamous trait matching so that a mate will be chosen who resembles the self; and (b) where the actual-self differs from the ideal-self, a mate will be seen as resembling the ideal-self rather than the actual-self. These hypotheses were tested in a sample of 50 engaged girls who rated their actual-self, their ideal-self, and their fiancé's actual-self using an adjective checklist. Both hypotheses are supported.—*Journal abstract.*

4780. Nye, F. Ivan; Carlson, John, & Garrett, Gerald. (Washington State U.) **Family size, interaction, affect and stress.** *Journal of Marriage & the Family*, 1970(May), Vol. 32(2), 216-226.—Synthesizes previous research on the relationship of family size to family relationships and attitudes and reduces the findings to 4 propositions dealing with affect, interaction, and stress. These propositions are submitted to additional tests utilizing secondary data from 2 large surveys. Data support some and question other generalizations of group size obtained from research with laboratory groups. Substantively, families of 3 or 4 children rank lower in all the analyses than families with 1 or 2 children, even with social class constant. Large families with 5 or more children rank lower than 1- or 2-child families in all analyses, but in some analyses they rank higher than families with 3 or 4 children. (24 ref.)—*Journal abstract.*

4781. Reiss, David & Sheriff, W. H. (National Inst. of Mental Health, Bethesda, Md.) **A computer-automated procedure for testing some experiences of family membership.** *Behavioral Science*, 1970(Sep), Vol. 15(5), 431-443.—Reviews a theory of consensual experience, relating family interaction and the thinking and perception of its individual members. From this theory it was hypothesized that members in families who experience the environment in a "consensus-sensitive" way will improve their problem-solving performance as their contact with other members becomes less immediate and intimate. However, members in "environment-sensitive" families will show no change as the immediacy of their contact varies. A computer-automated method for testing this hypothesis is described. It requires family members to solve pattern recognition problems on the basis of positive and negative feedback from a LINC computer and from similar feedback given to other members of the family. The procedure permits systematic control of the immediacy of contact between family members by varying the mode by which the feedback given to 1 member is distributed to the others. (17 ref.)—*Journal abstract.*

4782. Shaver, Phillip; French, John R., & Cobb, Sidney. (U. Michigan) **Birth order of medical students and the occupational ambitions of their parents.** *International Journal of Psychology*, 1970, Vol. 5(3), 197-207.—83 male and 112 female Swedish medical students (approximately 1/2 of those contacted) completed a questionnaire designed to assess home background, motivation, parental encouragement, and parental aspirations toward occupations they had failed to achieve. Results show that (a) medical students were generally 1st-borns, a tendency all the more marked among daughters; (b) the proportion of 1st-borns was

particularly strong among students who related that their fathers had been frustrated in professional ambition; and (c) among males, the oldest to youngest ratio was higher for Ss from rural backgrounds, a finding consistent with a primogeniture assumption. Methodological problems related to volunteering, sample size, mother's age, parental deprivation through death or divorce, and intervening processes may be implicated in the relationships discovered. (French abstract) (22 ref.)—S. E. Gavin.

Social Change & Social Programs

4783. Hahn, Harlan. (U. California, Riverside) **Cops and rioters: Ghetto perceptions of social conflict and control.** *American Behavioral Scientist*, 1970(May), Vol. 13(5-6), 761-779.—Reports results from interviews with residents of the 12th Street neighborhood of Detroit. A great majority of Negro respondents expressed a deep distrust of law enforcement activities. Data reveal that community segments confronting major economic adversity were considered the principal objects of police mistreatment. Attitudes of ghetto residents toward riot control measures were intensely critical. Support was revealed, however, for police strength provided that police imposed strict restraints on their own use of force and that their conduct did not deteriorate during the riots. Further indications for improving police-community relationships are presented, noting that the prognostication in riot areas is not hopeless. (27 ref.)—P. Hertzberg.

4784. Platt, John R. (U. Michigan, Mental Health Research Inst.) **Perception and change: Projections for survival.** Ann Arbor, Mich.: U. Michigan Press, 1970. 178 p. \$7.95.

SEXUAL BEHAVIOR

4785. Athanasiou, Robert; Shaver, Phillip, & Tavis, Carol. (Johns Hopkins U.) **Sex.** *Psychology Today*, 1970(Jul), Vol. 4(2), 37-52. Over 20,000 readers responded to a survey on sexual behavior. The self-selected sample was biased in the liberal direction. For example, most favored loosening of the traditional sexual norms and said that they were "considering" new forms of sexual behavior. Conversely, the respondents were not libertines—they did not report that they engaged in mate-swapping or group sex. Stated religious orientation was strongly related to sexual behavior.—E. J. Posavac.

4786. Basavarajappa, K. G. **A rejoinder to Miss Spencer's comments on pre-marital pregnancies and ex-nuptial births in Australia, 1911-66.** *Australian & New Zealand Journal of Sociology*, 1970(Apr), Vol. 6(1), 79-84.—Discusses issues brought out in K. G. Basavarajappa's (see PA, Vol. 43:12851) article together with the arguments of G. Spencer (see PA, Vol. 45:9816). The basic data were from Australian birth records and from hospital reports. Issues included shotgun vs. anticipatory marriages, explanations based on the greater usage of oral contraceptives, and analyses based on gestation periods and duration of marriages, and moral implications.—R. W. Brislin.

4787. Eysenck, Hans J. (U. London, England) **Introverts, extraverts and sex.** *Psychology Today*, 1971(Jan), Vol. 4(8), 48-51, 82.—Surveys of 6000 German and 800 English students concerning their sexual behavior indicated that, as hypothesized, ex-

troverts were more sexually active than introverts. The results of a factor analysis of the data from the 2nd sample isolated 14 sexual behavior factors. Extroverts, introverts, neurotics, and psychotics scored differently on the factors. The fact that persons being treated for venereal disease were more extroverted than would be expected by chance adds support to the hypothesis.—E. J. Posavac.

4788. Johnson, Ralph E. (Sacramento State Coll., School of Social Work) **Extramarital sexual intercourse: A methodological note.** *Journal of Marriage & the Family*, 1970(May), Vol. 32(2), 279-282.—10 upper middle-class, middle-aged couples residing in a Midwestern community provided meaningful data regarding their extramarital sexual behavior. Data indicate that the incidence of infidelity reported among Ss, when compared with the Kinsey data, was not of significant import. Findings suggest, however, that information pertaining to extramarital coital activity is accessible to the social scientist from representative samples of the population if care and precision is taken in developing the methodological framework.—*Journal abstract.*

4789. Kanin, Eugene J. (Purdue U.) **Sexually aggressive college males.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(2), 107-110.—Describes incidence, female reactions, pair relationships, erotic history, hostility toward women, general aggressiveness, and adjustive reactions as they relate to sex aggression in college males. About 1/4 of the sample of 341 college females had experienced episodes of male sex aggression. The females involved generally tended to remain secret about the situation either because publicity appears to give attention to the degree of intimacy that she permits, or, she shares the stigma through a guilt-by-association attitude. It was found that aggression was associated to a greater degree with heterogamous pairings. The male aggressive partner tends to view himself as sexually deprived. The male exploitation of the female reflects a more general hostility toward womanhood. Finally, social class and religiosity appear as significant factors comprising the tendency to place fault on the female by the male partner.—R. H. Mueller.

4790. Reiss, Ira L. (U. Minnesota) **Premarital sex as deviant behavior: An application of current approaches to deviance.** *American Sociological Review*, 1970(Feb), Vol. 35(1), 78-87.—Premarital sexual intercourse is viewed as deviant behavior by most parents in our culture and with sufficient intensity to qualify this area for inclusion in the subfield of deviant behavior. 3 basic approaches, (a) labeling, (b) anomie, and (c) social and cultural supports, are examined and the strengths and weaknesses of each and their relevance for various types of deviance are discussed. Suggestions are made for developing a general theory of deviance. (40 ref.)—*Journal abstract.*

4791. Schwartz, Ronald A., Hershenson, David B., & Shipman, William G. (Kendall, Bowers, & Schwartz, White Plains, N.Y.) **The sexual behavior of obese married women.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 445-446. While clinical investigators have generally found that obese people experience less sexual activity than nonobese people, a recent large-scale study found predominant similarity in the incidence and frequency of their premarital and marital sexual behavior. The present study was, in part, a test of the reliability of these findings on a sample of married women only. The results

were confirmatory. However, obese women were found to have a greater desire for marital coitus. It was hypothesized that this is due to their excessive love hunger.—*Author abstract.*

4792. Shanmugam, N. & Wood, C. **Unwed mothers: A study of 100 girls in Melbourne, Victoria.** *Australian & New Zealand Journal of Sociology*, 1970(Apr), Vol. 6(1), 51-55.—To discover the reasons for illegitimate births in Australia, clinical interviews were held with 100 unmarried mothers in a Melbourne hospital. Results included descriptions of Ss' age, occupation, previous sexual experience, knowledge of contraception, relationships with parents, and attitudes toward pregnancy. 3 reasons are suggested that might apply to different individuals, 2 of which deal with family and emotional disturbances.—R. W. Brislin.

Birth Control & Abortion

4793. Stoeckel, John. **Socio-economic status and family planning knowledge, attitudes and practices in rural East Pakistan.** *Social & Economic Studies*, 1970(Jun), Vol. 19(2), 213-225.—Interviewed 80 married women from each of 20 East Pakistani villages on their knowledge, attitudes, and practices of family planning. Socioeconomic status was determined by the husband's occupation, education, and landholding. The variable of age was controlled for the wife. Results indicate that (a) higher occupational and educational status groups had more knowledge of family planning techniques, while the reverse was true for landholding groups; (b) positive attitudes toward family planning were associated with high occupational and low landholding status, and (c) business and skilled occupations had the highest proportions practicing family planning. Amount of education showed the fewest relationships to family planning. Implications for family planning programs are discussed.—S. Knapp.

ATTITUDES & OPINIONS

4794. Alexander, Sue C. (Ohio State U.) **An axiomatic representation of Festinger's theory of cognitive dissonance: An end and a beginning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3634.

4795. Beswick, David G. (Australian National U., Canberra, Australian Capital Territory) **Attitudes to taking human life.** *Australian & New Zealand Journal of Sociology*, 1970(Oct), Vol. 6(2), 120-130. A survey was undertaken in Canberra, Australia, of attitudes toward taking human life. 2 samples of 213 and 219 adult Ss were employed. An attempt was made to discover a general attitude in opinions on suicide, murder, self-defense, war, mercy killing, capital punishment, and abortion. 2 attitude scales were developed with 2 subscales in each: abortion and mercy killing; and war and capital punishment. The patterns of correlations between opinions, and the distribution of attitudes across various sections of the community, led to the conclusion that at least 2 and probably 4 attitude dimensions were involved.—*Journal summary.*

4796. Bodaken, Edward M. (Michigan State U.) **Choice and perceived audience attitude as determinants of cognitive dissonance and subsequent attitude change following counterattitudinal advo-**

cacy. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3634-3635.

4797. Dohrenwend, Barbara S. (City Coll., City U. New York) **An experimental study of payments to respondents.** *Public Opinion Quarterly*, 1970-1971(Win), Vol. 34(4), 621-624.—Respondents were offered a \$5 honorarium (for themselves or a favored charity), to participate in a survey. Results "clearly indicate, however, that to improve completion rates in general population surveys we should put our money elsewhere."—A. R. Howard.

4798. Einhorn, Hillel J. & Gonedes, Nicholas J. (U. Chicago, Graduate School of Business) **An exponential discrepancy model for attitude evaluation.** *Behavioral Science*, 1971(Mar), Vol. 16(2), 152-157.—Presents a model based on an exponential decay function to deal with evaluation based on discrepancy. This evaluation concerns discrepancy based on attitudes and specifically hypothesizes that as discrepancy from one's ideal point increases, evaluation of a multidimensional stimulus object will decrease. The model was successfully applied to experimental data dealing with the evaluation of political candidates by 107 undergraduates. The parameters of the model are shown to be related to the intensity of an attitude. Results are interpreted in terms of latitudes of acceptance, rejection, and noncommitment. (18 ref.)—*Journal abstract*.

4799. Häfner, Heinz. **Vorurteile der Öffentlichkeit gegenüber psychisch Kranken.** [Prejudices of the public against the mentally ill.] *Gruppendynamik*, 1970(Feb), No.1, 70-73.—Prejudices and the negative attitude of society hinder timely recognition of crises and illnesses, early and adequate treatment of mentally ill, readjustment to community life, and cause recurrences of illnesses. Prejudices as sociopsychological phenomena can be increased or decreased by a social learning process in some individuals but require personality change in others. Unfavorable information about mental illness still circulates among the population stemming frequently from press sensationalism. In addition, locked wards, and methods of commitment contribute to fantasies about the mentally ill. Remedies are: raising the general level of understanding human problems and attacking the problem of mental health from the standpoint of human relationships. Mass media and particularly individual communication can help in the enlightenment process.—M. J. Stanford.

4800. Larimer, George S. (U. Portland) **Indirect assessment of intercultural prejudices.** *International Journal of Psychology*, 1970, Vol. 5(3), 189-195.—2 groups consisting of 64 French (Acadian and Quebec) collegiate Ss and 2 groups of 64 English (New Brunswick and Montreal) Canadians heard a description of a landscape read both in French and in English. 6 French (2 each of Parisian, Quebec, and Acadian) and 6 English (2 each of Oxford, Canadian, and Eastern United States) accents read the descriptions, randomly presented to Ss. Ss were informed that the study purported to determine how accurately people can judge personality characteristics from voice. Orthogonal comparisons support the conclusion that French Canadians have internalized the prejudiced status they appear to hold in Canada. The Quebec accent received ratings significantly lower than the Acadian, Canadian, and Oxford accents, and ratings equal to American and Parisian accents. All samples rated the Quebec male significantly lower than other accents. Results support use of indirect techniques of

attitude assessment as revealing subtle relations that exist between 2 contending groups. (French abstract)—S. E. Gavin.

4801. Linsky, Arnold S. (U. New Hampshire) **Theories of behavior and the image of the alcoholic in popular magazines, 1960-1966.** *Public Opinion Quarterly*, 1970-1971(Win), Vol. 34(4), 573-581.—Finds a pattern which partly reflects "cultural changes in popular conceptions of man's nature and social relationships which go far beyond the problems of alcohol, and which affect views of both normal and abnormal behavior." It appears that current views of alcoholism derive less from scientific data than from social and philosophical views.—A. R. Howard.

4802. Orpen, Christopher. (U. Cape Town, South Africa) **The relationship between extraversion and tough-mindedness in a "tough-minded" culture.** *Journal of Psychology*, 1971(May), Vol. 78(1), 27-29.—Tested the hypothesis that social attitudes are not closely related to deep-lying personality trends in cases where the social attitudes are culturally sanctioned. 90 Afrikaans-speaking South African schoolchildren brought up in the relatively "tough-minded" Afrikaans cultural climate were given measures of tender-mindedness, extroversion, and social distance. Ss were given the Eysenck Personality Inventory, Eysenck's Tender-Mindedness scale, and the Bogardus social distance scale. The correlation between the personality dimension of extroversion and tender-minded attitudes was negligible, supporting the hypothesis. This major finding and others are discussed in terms of the cultural determination of the relationship between extroversion and tough-minded attitudes.—*Author abstract*.

4803. Popper, Péter. (Medical U. Budapest, Children's Clinic, Hungary) **Az Interperszonális kapcsolatok sémáinak új vizsgálati módszere.** [Experimental method for examining patterns of interpersonal relations.] *Pszichológiai Tanulmányok*, 1968, No. 11, 643-655.—Examined attitudes towards 5 basic forms of interpersonal relations: solitary situation, dyadic situation, a group of 3, structured small group, and crowd situation. The accepting or rejecting attitude toward these forms of contact are embedded in 4 actual life situations chosen to suit the purpose of the test: leisure, work, spending some time on a deserted island, and illness involving life in a hospital ward. These situations constitute complementary opposites in more than 1 respect. The 4 life situations were exposed to the Ss as 4 givens, and the 5 basic interpersonal contact forms were enumerated. The evaluation of the Ss was obtained by asking which of the interpersonal contact forms would enable him to accept the given life situation and in which of the forms would he reject it. In his response, the S qualified his choice with the evaluative statements "with great pleasure," "willingly," "doesn't make a difference," "not very keen on," or "wouldn't like to." The configurations obtained were graphically represented and based on a specific sign system expressed mathematically for evaluation. It was found that triads represent the basic infantile situation (father-mother-child), while structured small groups correspond to the wider family milieu, the personal environment. Tasks and plans involved by the complete elaboration of the method are outlined. (Russian summary)—*English summary*.

4804. Simon, Rita J. (U. Illinois) **Use of the semantic differential in research on the jury.** *Jour*

nalism Quarterly, 1968(Win), Vol. 45(4), 670-676.—Reports results of the use of the semantic differential to assess the reaction of jurors to a defendant accused of incest in a criminal trial. Ss were 45, 12-person "juries" who heard a recorded trial based on a real case. After the trial and before deliberation each juror indicated whether he thought the defendant guilty or not guilty by reason of insanity. Semantic differential scales were also administered. After deliberation a final questionnaire was completed. Deliberation reduced the guilty verdict jurors' image of the defendant's potency and increased their negative evaluation of him. There was practically no effect on the not guilty verdict jurors. These divergent perceptions are explained by suggesting differences in the psyche of guilty and not guilty verdict jurors.—J. A. Kline

Formation & Change

4805. Anderson, Norman H. (U. California, San Diego) **Integration theory and attitude change.** *Psychological Review*, 1971(May), Vol. 78(3), 171-206.—Applies a theory of information integration to attitudes and social judgments, based on a principle of information integration. Exact tests based on analysis of variance are given for 4 applications of a simple but general algebraic model of judgment, and these applications are reconsidered under the further restriction imposed by the averaging hypothesis. Qualitative comparisons are made to several other theories of attitude change. Molar and molecular analyses of communication structure are considered briefly and the analysis of inconsistency resolution within integration theory is discussed. It is concluded that integration theory has had reasonable success in the areas of learning, perception, judgment, decision making, and personality impressions, as well as attitude change. It may thus provide a beginning to a unified general theory. (6 p. ref.) *Journal abstract*

4806. Dean, Robert B., Austin, John A., & Watts, William A. (U. California, Berkeley) **Forewarning effects in persuasion: Field and classroom experiments.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 210-221.—Examined the effects of forewarning of persuasive intent upon opinion change. Exp. I, a field study with 42 males and 46 females, used forewarning vs. no forewarning, high- vs. low-involvement issues, and high- vs. low-status message sources. The high involvement message produced a boomerang effect, while the low-involvement message changed opinion substantially in the advocated direction. Both the main effect of issue and of forewarning were significant, with the forewarned conditions producing less opinion change, regardless of issue involvement or source status. Exp. II, conducted in the classroom with 79 male and 82 female undergraduates, examined the effects of forewarning with involving and uninvolved issues, in addition to testing the effect of sex and item-ordering, where Ss either 1st answered opinion items for the issue read and then for the other issue (normal order), or the reverse. The high-involvement issue resulted in little opinion change in any condition. For the low-involvement issue, a significant 3-way interaction was obtained, such that in the normal item-ordering conditions, forewarning inhibited opinion change for males but facilitated change for females, while in the reverse ordering condition, neither variable made any difference. Results are discussed in terms of

their degree of support for the hypotheses advanced by both R. Apsler and D. O. Sears (see PA Vol. 42:12020) and D. Papageorgis (see PA, Vol. 43:782). (32 ref.) *—Journal abstract.*

4807. Feher, Bela A. (Wayne State U.) **Perception of social influence: Keiman's processes of social influence and the attribution of attitude.** *Dissertation Abstracts International*, 1971(Jan) Vol. 31(3-A), 3627.

4808. Harvey, John & Mills, Judson. (U. Missouri) **Effect of a difficult opportunity to revoke a counter-attitudinal action upon attitude change.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 201-209.—Tested the hypothesis that giving a person a difficult opportunity to revoke a discrepant action will increase attitude change in the direction of consistency with the action. 59 undergraduate males completed a questionnaire on reactions to college issues. 40 Ss were induced to record a speech arguing for a position discrepant with their prior attitudes. In confirmation of the hypothesis, Ss given an opportunity to record a substitute speech at an inconvenient time and place changed their attitudes more toward consistency with the action than those not given the opportunity. The effect of the opportunity to revoke the action was greatest for Ss whose prior attitudes were most discrepant. An attempt to manipulate directly the salience of the discrepancy between the action and prior attitudes was unsuccessful (16 ref.) *Journal abstract*

4809. Johnson, David W. (U. Minnesota) **Effectiveness of role reversal: Actor or listener.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 275-282. Studied attitude change in 51 undergraduates and compared the initial effect of engaging in role reversal with listening to one's adversary reverse roles, and engaging in self-presentation without reversing roles. The most attitude change was found in the actor condition and the least took place in the listener condition. Results support the attitude-change explanation of the efficacy of role reversal and indicate that the initial effect of listening to one's adversary reverse roles is to reinforce one's attitudes about the issue being negotiated. (18 ref.) *—Journal abstract.*

4810. Kline, John A. (U. Missouri) **Interaction of evidence and readers' intelligence on the effects of short messages.** *Quarterly Journal of Speech*, 1969(Dec), Vol. 55(4), 407-413. For high school students reading short messages from unidentified sources. (a) Specific factual evidence is more effective than either nonspecific factual evidence or no factual evidence in producing opinion change and heightening the perception of the expertness and trustworthiness of the source. Nonspecific evidence is somewhat, though not consistently, more effective than no evidence. Typical evidence has little effect on the confidence with which these readers of persuasive messages hold their opinions. (b) The effect of type of evidence varies as a positive function of receivers' intelligence. The existence of factual evidence and the specificity of evidence makes more difference for receivers of high intelligence than low-intelligence receivers. This difference is sharpest when the effect sought is opinion change or perceived expertness of source. *—Journal summary.*

4811. Rohanschky, Mihály. (Hungarian Academy of Sciences, Psychology Inst. Budapest) **A vélemény-változtatás pszichológiai vizsgálatának néhány módszere.** [Methods for the psychological examination of change in opinion.] *Psichológiai Tanulmányok*, 1970,

Vol. 12, 165-177.—Reports on methods and procedures of a longitudinal study of the effectiveness of communication and persuasion. The study is concerned with opinion research that plans to survey, with the use of concrete questions, opinions held by determined groups or group members. After a description of the method aimed at finding the opinion level, procedures to obtain a change in opinion are described. Verbal communication and film effect as well as the method for assessing their influence are discussed. The method of group discussion and the role of expert opinion in persuasion are analyzed. Complementary and control examinations needed to ensure exact data are also included. (Russian summary) (33 ref.)—*English summary*.

4812. Rohánszky, Mihály. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Acsopontos vita és a szakértői vélemény szerepe a vélemény alakulásában.** [The role of group discussion and expert opinion in the formation of opinion.] *Pszichológiai Tanulmányok*, 1968, No. 11, 97-110.—Described studies of the psychological laws and effect-mechanisms of declaring and changing one's opinion. The question of what should be done with the child that lives in endangered circumstances was considered. Ss were shown a conflict situation in a film and then asked to solve it by giving their opinion. This was followed by group discussion and hearing an expert opinion. The role of the latter factors in influencing changes of opinion was assessed. The preparatory and maturing influence of group discussion and the influence of the expert's report in lending authenticity are noted. In contradiction with views that change in opinion is due solely to conformism, it is shown that the acceptance of the new opinion is not a mechanical process. It involves utilizing the old view and adjusting it to the new, by giving an "internal explanation" for the change. (Russian summary) (16 ref.)—*English summary*.

4813. Sawyers, Barbara K. & Anderson, Norman H. (U. California, San Diego) **Test of integration theory in attitude change.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 230-233.—Tested a linear integration model for attitude change in an experiment on judgments of United States Presidents. 72 undergraduates received paragraphs describing the actions and achievements of various United States Presidents and rated them on statesmanship. Data generally support the parallelism prediction of the model, although 1 significant discrepancy was found. Order of presentation yielded a small nonsignificant primacy effect.—*Journal abstract*.

Influence & Behavior

4814. Kidder, Louise & Brickman, Philip. (Northwestern U.) **When directness is the better part of valor: Effects of normative and informational pressure on direct and indirect attitude tests.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 238-246.—Tested the hypothesis that while indirect tests might be less vulnerable to normative pressure, they would be more vulnerable to informational pressure. 71 ROTC and 60 non-ROTC students took either a direct opinion test of their attitudes toward ROTC or a knowledge test, designed to assess attitudes toward ROTC indirectly. The opinion test proved relatively invulnerable to both normative and informational pressures, while the knowledge test was affected by both.

On the knowledge test, conformity was increased by normative pressure (public responding), while on the opinion test, conformity was decreased by public responding. It is suggested that in their effort to purchase immunity from self-report biases, indirect tests necessarily assume an ambiguity that allows situational factors to influence responding, while direct tests are structured in such a way as to induce Ss to resist active attempts to influence them. (27 ref.)—*Journal abstract*.

4815. Kramer, Gerald H. (Yale U.) **The effects of precinct-level canvassing on voter behavior.** *Public Opinion Quarterly*, 1970-1971(Win), Vol. 34(4), 560-572.—Analysis of 4 Survey Research Center (University of Michigan) election surveys suggests that "the primary effect of door-to-door canvassing during a presidential campaign is to increase turnout; there is little effect on voter preferences for national or local offices." A detailed description of the statistical model underlying this study is included.—A. R. Howard.

4816. Kutschinsky, Berl. (U. Copenhagen, Denmark) **Det strider mod den almindelige retsbevidsthed!** [It is contrary to the public sentiment of justice!] *Nordisk Psykologi*, 1969, Vol. 21(3), 173-176.—Neither formally nor in reality does "the public sentiment of justice" conceived as the opinions of "the population-mean" have any direct influence on legislation or legal usage. The prerequisite for an influence should be systematic investigations but these are virtually nonexistent in relation to the legal system. A more indirect influence from "the people" operates through various channels but there is much "noise" in the channels between people at large and the court officials.—P. Mylov.

4817. Miller, F. T., Bentz, W. K., & Aponte, J. F. (U. North Carolina, Chapel Hill) **Stress-sensitive groups in a rural population.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 731-732.—Focuses on the development of a methodology for defining groups in communities on the basis of their sensitivity to environmental events impinging on their community. 100 newspaper headlines covering national, state, and local events over a 2-mo period were presented to a random sample drawn from a rural county. Ss rated the events on a 5-point scale from stressful (1) to reassuring (5). Factor analysis yielded 7 groupings of individuals. Each group is discussed on the basis of the events and demographic characteristics serving as definers.—*Author abstract*.

4818. Sigall, Harold & Page, Richard. (U. Rochester) **Current stereotypes: A little fading, a little taking.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 247-255.—Examined the possibility that social-desirability-tainted responses emerge in the study of stereotypes. 60 white male undergraduates were randomly assigned to 1 of 4 experimental conditions. Ss were asked to indicate how characteristic each of 22 adjective traits was of either "Americans" or "Negroes." 1/2 the Ss responded in a rating situation in which they were presumably free to distort their responses. The remaining Ss responded under "bogus pipeline" conditions; i.e., they were led to believe that the experimenter had an accurate, distortion-free physiological measure of their attitudes, and were asked to predict the measure. Results support the expectation that the stereotype ascribed to Negroes would be more favorable under rating than under bogus pipeline conditions. Americans were more favorably stereotyped under bogus pipeline than under rating conditions. A number of

explanations for these results are discussed, and consideration is given to the relationship between verbally expressed attitudes and other, overt, behavior.—*Journal abstract*

GROUP & INTERPERSONAL PROCESSES

4819. Anderson, John R. (Case Western Reserve U.) A study of awareness, purpose, and response in dyadic social interaction. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3634.

4820. Argyris, Chris. Die Zukunft des gruppendynamischen Laboratoriums. [Future of laboratory in group dynamics.] *Gruppendynamik*, 1970(Feb), No.1, 20-40.—Discusses human needs for self-acceptance, self-esteem, and their furtherance and satisfaction through group interactions which become testing grounds for personal growth through learning. Examination of the present form of these seminars shows focus upon 1 or 2 goals in learning, initial passivity of leader, significance of here-and-now situations, giving and receiving feedback, and transference of laboratory arrangements upon outside situations. Discussions on present trends mention minimal theoretical foundations, impatience of advocates to let participants verbalize feelings, and assumption of responsibility of leaders for group process. Consequences upon group behavior and influence upon personality of participants are pointed out together with concern about great dependence upon leader and stress upon emotional involvement with forgetting cognitive elements.—*M. J. Stanford*.

4821. Blake, Robert R. & Mouton, Jane S. (Scientific Methods, Incorp., Austin, Tex.) The fifth achievement. *Journal of Applied Behavioral Science*, 1970(Oct), Vol. 6(4), 413-426.—Recognizing man's 4 achievements in dealing with differences among men, i.e., science, politics, hierarchy, and law, a 5th achievement by which men will ultimately be able to work out their differences in a forseen. It will be the establishment of a problem-solving society in which its members can resolve differences through their own insight. A conflict grid is presented for use in evaluating good or bad ways for ending disputes as a vehicle for creative problem-solving in the future and a basis for such a problem-solving society.—*Journal abstract*.

4822. Brown, Racine D. (Washington U.) Emotional expression. Interpersonal attraction, and rejection of a deviate. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3635.

4823. Cartwright, Dorwin & Harary, Frank. (U. Michigan, Research Center for Group Dynamics) Ambivalence and indifference in generalizations of structural balance. *Behavioral Science*, 1970(Nov), Vol. 15(6), 497-513. Proposes that the theory of networks constitutes a more suitable conceptualization than signed dygraphs in treating the structural properties of configurations of evaluative relationships, since it places no restriction on the values assigned to lines. The use of networks for this purpose requires that an appropriate system of values be formulated. The properties of several possible value systems are examined critically, and the diamond and triangle models are judged most promising. Both are based on the assumption that in order to state the value of a relationship it is necessary to specify 2 components, a positive and a negative one. It is shown that these 2 systems are generalizations of symbolic psychology and of conceptualizations of structural

balance stated in terms of signed dygraphs. Cycle, path, and partition balance are defined and the empirical implications of each are examined. Suggestions are made concerning the construction of quantitative indexes for balanced and imbalanced structures. (19 ref.)—*Journal abstract*

4824. Centers, Richard & Granville, Arthur C. (U. California, Los Angeles) Reciprocal need gratification in intersexual attraction: A test of the hypotheses of Schutz and Winch. *Journal of Personality*, 1971(Mar), Vol. 39(1), 26-43.—For the group of most intimate dyads (married) 12 tests of Winch's hypotheses resulted in 4 corroborations, while for Schutz' hypotheses the ratio was 4:7. Overall, 18 of 24 cases significantly contradicted predictions from Winch's hypothesis, while no tests of the Schutz hypotheses were significant in a direction opposite to the one predicted.—*Journal summary*.

4825. Culver, Charles M. & Dunham, Frances. (Dartmouth Coll., Medical School) Human relations training with complementary social groups. An experiment in face-to-face interaction. *Psychiatry*, Washington, D.C., 1970(Aug), Vol. 33(3), 344-351.—Presents data from workshops with 2 groups of community service workers and welfare recipients and 1 group of probationary officers and young probationers. Groups were typically composed of 8-15 members and 2 leaders. Progress in unstructured T groups generally followed a pattern of (a) stereotyped reactions, (b) conflict of leadership, (c) group crisis with breakdown of roles, and (d) interpersonal rather than role-defined relations. Other activities, e.g., lectures, group observation, skill groups, and recreational activities, were used to organize participants in cooperative and competitive groups that cut across role axes. Staff problems are noted. The usefulness of this training method for the social groups who continue to play complementary interdependent roles is discussed. *S. K.*

4826. Denner, Bruce. (Pennsylvania State U., Coll. of Human Development, Div. of Community Development) Refusal to communicate. Preliminary study of a classical interpersonal tactic. *Perception & Motor Skills*, 1969(Dec), Vol. 29(3), 835-842. To determine the manner in which a person, confronted by another handles another not communicated, a sample of 16 female undergraduates each were confronted by either another silent female, a smiling, or a talking female. A control group sat alone for the same 10-min period. Sex was indicated whether they were inwardly or outwardly perceptually oriented. Ss exhibited more gross body movements, eye contacts, and postures, and rated themselves more outwardly oriented in the talking than in the silent condition; the smiling condition fell in between. Contson calculated even more and rated themselves even more outwardly oriented than Ss in the talking condition. Results can be analyzed in terms of anxiety, non-playing competence, and the nonverbal nature of a 2-person interaction.—*Journal summary*.

4827. Deutsch, Morton, Canavan, Dennis & Rubin, Jeffery. (University of California) The effects of size of conflict and sex of experimenter upon interpersonal bargaining. *Journal of Experimental Social Psychology*, 1970(Mar), Vol. 6(1), 25-37. Investigated the effects of 2 variables upon interpersonal bargaining. The experimenter was either male or female, varied, ran the size of the conflict confronting the Ss (manipulated by varying the length of a 3-line path through which both Ss of a pair had to pass in order to

reach their destinations); and (b) the sex of the experimenter ($\frac{1}{2}$ the Ss were run by a male and the other $\frac{1}{2}$ by a female). Measures such as mean joint payoff, frequency of maximum losses, and frequency of mutually positive outcomes indicate that as conflict size increased, bargainers had more difficulty in reaching a mutually beneficial solution. Also, male Ss run by a female E were more competitive than those run by a male E.—*Journal abstract*.

4828. Druckman, Daniel. (Inst. for Juvenile Research, Chicago, Ill.) **On the effects of group representation.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 273-274.—Reports that N. Vidmar's recent attempt to reconcile his findings on the effects of group representation with a contradictory finding from an earlier experiment by D. Druckman (see PA, Vol. 41:11852) is based on a misunderstanding of the procedures used in the earlier experiment. On the basis of a careful examination of the procedures used in both experiments to create "group-representing" and "self-representing" conditions, it is concluded that the results of neither experiment indicate, unambiguously, that representation per se exerts a significant influence on negotiation behavior.—*Journal abstract*.

4829. Egelhoff, Elizabeth A. (U. Texas) **Encounter group feedback and self-perception change.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3334.

4830. Eisen, Saul. (Case Western Reserve U.) **Personal development and growth-promoting relationships.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3636.

4831. Filloux, Jean C. **Pédagogie et groupe.** [Education and groups.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6-8), 428-439.—Presents a syllabus for a seminar in group processes.—R. E. Smith.

4832. Foa, Uriel G., Mitchell, Terence R., & Fiedler, Fred E. (U. Missouri) **Differentiation matching.** *Behavioral Science*, 1971(Mar), Vol. 16(2), 130-142.—Proposes that an individual will be more effective in his adjustive and task-related functions when the degree to which he distinguishes among elements of his environment or other people matches the differentiation found in the environment or in the other people. Differentiation matching is discussed in 3 settings: (a) matching of the group leader's cognition to the task situation, (b) communication among members of different cultures, and (c) a comparison of the interpersonal cognitive structures of mental patients and normal individuals. The effects of differentiation matching are related to problems of cognitive development, its cultural diversities, and its pathology. (35 ref.)—*Journal abstract*.

4833. Franklin, Billy J. (U. Iowa) **Attitude similarity-dissimilarity, dogmatism, and interpersonal attraction.** *Psychology*, 1971(Feb), Vol. 8(1), 4-11.—Tested 2 hypotheses from Rokeach's theory of cognitive structuring: (a) dogmatism will produce a main effect on interpersonal attraction, and (b) dogmatism will interact with attitude similarity to produce an effect on interpersonal attraction. Data were secured from 120 undergraduates in a 3×4 factorial design. Ss were selected as high, medium, and low dogmatics according to their scores on Form E of the Dogmatism Scale. The "hypothetical stranger" procedure was used to elicit attraction ratings. The data reveal a significant effect of attitude similarity on attraction, but neither of Rokeach's propositions receive support. It is suggested that perhaps

these findings are a function of the use of the "hypothetical stranger" procedure. An altered replication using an S-other interaction design is proposed.—J. A. Blazer.

4834. Friedlander, Frank. (Case Western Reserve U.) **The primacy of trust as a facilitator of further group accomplishment.** *Journal of Applied Behavioral Science*, 1970(Oct), Vol. 6(4), 387-400.—Reports on a longitudinal study which explores the relationship between the early formation of trust and further group accomplishments. Early measures of trust formation were related to several dimensions of group development and behavior. 12 task oriented work groups, 4 of which participated in organizational training laboratories and 8 which did not, constituted the groups under study. Results indicate that prelaboratory trust is a key predictor of eventual group accomplishment ($r = .60$), although trust itself did not increase as a result of an isolated laboratory training experience. As a function of training, trainees post-laboratory concept of trust merged with their concept of an effective group and an effective group meeting. The meaning of these results in terms of consultative intervention is discussed.—*Journal abstract*.

4835. Glidewell, John C. **Choice points: Essays on the emotional problems of living with people.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1970. 144 p. \$5.95.

4836. Haley, Hugh J. & Rule, Brendan G. (U. Alberta, Edmonton, Canada) **Group composition effects of risk taking.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 150-161.—Variability and extreme bias were systematically varied in groups of 3 moderate risk takers, who varied in unanimity on a critical item. The probability preference of each member was then reassessed. Frequency of each member's initiation of conversation was also measured. Moderate risk takers shifted toward the high risk takers but away from low risk takers, so that they increased in risk under both extreme bias conditions. Groups with greater unanimity in initial risk increased in risk more than those with less unanimity. Low risk takers moved toward the moderate Ss more than did the high risk takers, thereby increasing more in risk. Both extremely high and low risk takers changed more toward the unanimous moderate groups, with high risk takers increasing in risk the most. (15 ref.)—*Journal summary*.

4837. Harvey, Jerry B., Oshry, Barry I., & Watson, Goodwin. (National Training Lab. Inst. for Applied Behavioral Science) **A design for a laboratory exploring issues of organization.** *Journal of Applied Behavioral Science*, 1970(Oct), Vol. 6(4), 401-411. Describes the design of a laboratory dealing with issues of organization. It differs from traditional sensitivity training designs in that it consists of a theoretical model rather than a sequence of staff-designed activities. The model, in a form of a series of learning assumptions, is explicated. Staff anxiety was 1 of the basic problems in carrying out the design. Results of its application to a particular laboratory program are discussed. A variety of issues arising from this kind of design are also described. Key variables affecting the success of the design are discussed.—*Journal abstract*.

4838. Haslam, William B. (Brigham Young U.) **The effect of apparent reward on behavior in certain problem-solving groups.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3638.

4839. Hendrick, Clyde & Hawkins, Gayle. (Kent State U.) **Race and belief similarity as determinants of**

attraction. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 710.—Assesses the effects of varying race, similarity, and type of stimulus questionnaire on interpersonal attraction, using 42 white male undergraduates in 2 different sessions: (a) the completion of 3 questionnaires on background, attitudes, and a forced-choice Behavioral Preferences scale; and (b) the evaluation of 4 strangers of an "Interpersonal Prediction Form." Results show a basic effect similarity-attraction result. A Race \times Similarity interaction also occurred, suggesting that similarity is not always the preferred state.—P. Hertzberg.

4840. Hunyady, György. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **A szociometriai módszer és az interperszonális viszony.** [Interpersonal relation and sociometric method.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 135-149.—States that with the sociometric method interpersonal relationships are examined and characterized as the emotional relations of companions. It is also noted that there are other characteristics of an interpersonal relation, i.e., (a) intensity of reciprocal emotions, including also indifference; (b) perception of the companion; (c) object-bound common activity organizing in a relatively autonomous form; and (d) identity and difference of companions with regard to exterior and interior, objective and psychological conditions of common activity. An interpersonal relation is considered to be a relation of production. The relations of being attached to somebody, of status, influence, interaction, role, etc., used as abstractions in social psychology, are the various aspects of the same concrete interpersonal relation and can therefore be studied in their interconnections. The sociometric method highlights only 1 side of an interpersonal relation, while the others can be investigated with other methods. The application of the category of interpersonal relation has proved extremely useful for the systematization of research methods and data. (Russian summary) (29 ref.)—English abstract.

4841. Kahn, Michael H. & Rudestam, Kjell E. (Miami U.) **The relationship between liking and perceived self-disclosure in small groups.** *Journal of Psychology*, 1971(May), Vol. 78(1), 81-85.—Self-disclosure has been found to be an important variable in developing and maintaining interpersonal relationships. Liking and perceived self-disclosure were measured by means of a ranking system in the context of an ongoing encounter group. Ss were 10 clinical psychology graduate students and the group leader was a faculty member of a psychology department. Results demonstrate that the median correlation between the degree of liking a member and the amount of his self-disclosure is consistently high and positive ($p < .05$). There was some indication, however, that self-disclosure serves a more prominent role in the early stages of group functioning. Author abstract.

4842. Lerner, Richard M., Solomon, Henry, & Brody, Sherl. (Eastern Michigan U.) **Helping behavior at a busstop.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 200.—In a field situation, 30 Ss, bystanders in groups ranging from 2-4 persons, had the opportunity of helping a lost person by giving directions and/or money for carfare. Although a significant majority of the Ss helped in some way, the probability of helping did not decrease with increased group size. Results are compared with those of some other studies of helping behavior. It is concluded that present data warrant a reconceptualiza-

tion of the contextual controls presently used in laboratory social psychological research.—Author abstract.

4843. Lück, Helmut E. **Einige Determinanten und Dimensionen des Führungsverhaltens.** [Some determinants and dimensions in leader behavior.] *Gruppendynamik*, 1970(Feb), No. 1, 63-69.—Hemphill's questionnaire in his previous research on relationship between group size and leader role, translated into German, was used with 132 students. There was no relationship between group size and individual and group judgments about the leader but agreement existed between individual and group judgments with the former ones being more critical. Even without direct confirmation of Hemphill's results, tendencies pointed to stronger leader role and structure in larger groups. Leaders of larger sized groups were less flexible and more concerned with the group than with individuals. Factor analysis extracted factors similar to "locomotion" and "cohesion" functions of leaders which also agreed with Fleishman's "initiating structure" and "consideration." (20 ref.)—M. J. Stanford.

4844. Mettec, David R. (Yale U.) **Changes in liking as a function of the magnitude and affect of sequential evaluations.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 151-172. Tested derivations from the gain-loss model of interpersonal attraction of F. Aronson and D. Lindner (see PA Vol. 39:14921). Liking change was examined in 84 female undergraduates within negative-positive and positive-negative sequences that consisted of evaluations differing in magnitude. Results confirm gain-loss derivations in both sequences where evaluations of minor importance were followed by evaluations of major importance (a negative-positive sequence induced increases in liking; a positive-negative sequence induced decreases in liking). Supportive results were also found in 1 major-minor sequence. A major negative-minor positive sequence produced increases in liking but the major positive-minor negative sequence did not produce decreases in liking. In addition, the final liking ratings showed that a positive-negative sequence induced greater liking than a negative-positive sequence rather than the reverse. Results are discussed in terms of the limits they suggested for the gain-loss model.—Journal abstract.

4845. O'Brien, Gordon F. (U. Melbourne Australia) **Group structure and productivity.** *Australian Military Forces Research Report*, 1970(Aug), No. 7-70, 122 p. Assigned regular Australian Army soldiers to 60 4-man groups which varied in status structure and task. Findings indicate that (a) the nature of the perceived group interaction is significantly affected by the group task, (b) productivity of the groups is a complex function of the status (rank) hierarchy of the group, the kind of task, and the measure of productivity used, (c) the quality of performance is significantly related to the status congruence of the groups, and (d) leader effectiveness depends upon the personal attributes of the leader, the kind of group task, the rank of the leader, and the quality of leader-member interpersonal relations. Findings contribute to the social psychology of small groups and provide strong support for the basic conceptual scheme of structural role theory which emphasizes the primacy of the task system for understanding group interaction. (18 ref.)—Journal abstract.

4846. Parker, James L. (U. Oregon) **Tests of a paradigm for social incompetence: A pilot study**

Dissertation Abstracts International, 1971(Jan), Vol. 31(7-A), 3640.

4847. Pecaut, Linnus S. (Illinois Inst. of Technology) **Neoticism, social class, instructional set and the risky-shift phenomenon.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3641.

4848. Sabroe, Knud E. (Aarhus U., Psychological Inst., Denmark) **Ledelse og lederuddannelse en sammenfatning.** [Leadership and leader education.] *Nordisk Psykologi*, 1969, Vol. 21(3), 177-202.—The expansion of leadership since 1900 is shown by a chronological approach. The influence of genetic philosophy, trait psychology, group psychology, and human relations philosophy is discussed, and a statement on the problem of industrial democracy is made. Not until the late 1930s is it possible to find references to systematic treatments of leader education. A heavy influence from trait psychology, accepting innate traits as determinants, is suggested. Of methods in the human relations approach, role playing, case method, and sensitivity training are described; some newer methods are briefly mentioned. The effectiveness of different methods is discussed and the problem of making sufficiently controlled experiments and creating valid criteria is regarded as the major reason for the lack of research. More and more the tendency seems to be towards a leadership definition founded on the human relations approach, and an extended use of the methods which support this philosophy. (3 p. ref.)—*English summary.*

4849. Shubik, Martin. (Yale U.) **Games of status.** *Behavioral Science*, 1971(Mar), Vol. 16(2), 117-129.—Examines possible applications of game-theoretic reasoning to sociological problems. Mathematical models are used initially to examine the results of 2-person nonconstant sum games in which a single value, status, is maximized, and subsequently to examine the results of multiperson games. The 2-person, single-value-maximizing game quickly demonstrates behavior to be purely competitive. The multiperson game illustrates possibilities of coalition behavior, as demonstrated elsewhere in game theory, which includes the possibility of combinations against individual players, but the outcomes are highly sensitive to the values assigned to status factors, as in peck orders and potlatches. The relationship between games of status and simple games is also examined.—*Journal abstract.*

4850. Silverthorne, Colin P. (U. Cincinnati) **Information input and the group shift phenomenon in risk-taking.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3642.

4851. St. Jean, Richard L. (U. New Hampshire) **Information and interaction in group risk taking.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3641.

4852. Stuart, Richard B. (U. Michigan) **A cueing device for the acceleration of the rate of positive interaction.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 257-260.

4853. Summers, David A., Taliaferro, J. Dale, & Fletcher, Donna J. (U. Kansas) **Judgment policy and interpersonal learning.** *Behavioral Science*, 1970(Nov), Vol. 15(6), 514-521.—96 undergraduates predicted another person's judgments about the socioeconomic growth of a series of underdeveloped nations. Following each prediction, Ss were informed of the actual judgment made by the person (target) whose policy they were attempting to learn. Results from 150 learning trials

revealed that interpersonal learning was significantly influenced by (a) the substantive differences among the judgment policies to be learned, and (b) the type of information initially available to the learner. Regarding the latter, it was found that Ss who were shown a quantitative description of the target's policy provided by a regression analysis learned to predict the target's judgments with substantial accuracy. In contrast, Ss who were initially shown policy descriptions (either quantitative or verbal) provided by the target himself performed significantly less well. (17 ref.)—*Journal abstract.*

4854. Thomas, Marilyn & Levin, Jack. (Boston U.) **Social constraint as a determinant of charitable behavior.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 14.—To test the effect of social constraint on charitable behavior, 64 undergraduates were asked for contributions to a charity. Experimental conditions were created by announcing that (a) contributors' names would be posted (high constraint), or (b) that donors would remain unidentified (low constraint). A 2×2 analysis of variance indicated that high constraint produced significantly more charitable behavior than low constraint. In addition, females tended to be more charitable than males.—*Author abstract.*

4855. Vondracek, Fred W. & Marshall, Marilyn J. (Pennsylvania State U.) **Self-disclosure and interpersonal trust: An exploratory study.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 235-240.—Administered the Rotter Interpersonal Trust Scale and a self-disclosure questionnaire to 2 samples of undergraduates. With 54 Ss, self-disclosure to a specific target person was relative to interpersonal trust; with 62 Ss, an attempt was made to tap a more generalized concept of revealingness and to relate it to interpersonal trust. Failure to demonstrate the hypothesized relationships is discussed with reference to unsatisfactory conceptualization of the major concepts and their relation to one another, and possible weaknesses in the measurement procedures. (30 ref.)—*Journal abstract.*

4856. Vraa, Calvin W. (U. North Dakota) **Influence of need for inclusion on group participation.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 271-274.—Studied 4 measures of the personality need for inclusion to determine their relationship with group membership. 24 graduate students were assigned to 3 interaction groups. Group membership was defined on the basis of participation, ability to communicate, attitudes and feelings, and respect for other group members. After 10 group sessions the members were ranked. Kruskal-Wallis H test showed that scores on wanted inclusion of Fundamental Interpersonal Relations Orientation (FIRO)-Behavior and on expressed inclusion of FIRO-Feeling were significantly related to group membership.—*Journal abstract.*

4857. Walton, Richard E. (Harvard U.) **A problem-solving workshop on border conflicts in Eastern Africa.** *Journal of Applied Behavioral Science*, 1970(Oct), Vol. 6(4), 453-496.—6 participants each from Somalia, Ethiopia, and Kenya met on neutral turf and participated in a 2-wk workshop to search for solutions to the border disputes between Somalia and her 2 neighbors. The workshop was a social invention based on ideas and techniques generated by the behavioral sciences. This pilot venture, a mixture of successes and failures, can provide the basis for improvement and extension of the concept. Implications can be drawn for the composition

of participant groups, duration, location, and goals in organizing future workshops; and for the techniques, groupings, and pacing utilized during the workshop. Comments by J. Harr, A. Klienbergh, and B. Wedge, follow the article.—*Journal abstract.*

4858. Wheaton, Mary L. (U. Texas) **A goal orientation to social comparison theory.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3642-3643.

4859. Wyer, Robert S. (U. Illinois, Chicago Circle) **Effects of outcome matrix and partner's behavior in two-person games.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 190-210.—Tested the formulation of R. S. Wyer (see PA, Vol. 44:2267) of behavior in 2-person games, which predicts responses as a function of 3 descriptive parameters of the payoff matrix and the expectancy for how the other (O) will respond. An experiment with 120 undergraduates systematically manipulated payoff values in the matrices to which Ss were exposed, and used a simulated O who responded in a predetermined random sequence. Effects over a series of 50 trials were generally consistent with predictions. However, quantitative predictions of individual Ss' behavior were fairly inaccurate. Additional data indicate that, at least in Prisoner's Dilemma games, quantitative predictions of behavior were substantially more accurate when Ss interacted with real rather than simulated Os. The tendency for Ss to reciprocate cooperative behavior appeared to be less when O was simulated. These differences occurred despite the fact that between-group comparisons showed no difference between the effects of playing with real and simulated Os. Differences are tentatively attributed to a decreased utility attached by Ss to the points received by O under simulated conditions.—*Journal abstract.*

Influence & Communication

4860. Allan, Thomas K. & Allan, Kathryn H. (U. Maryland) **Sensitivity training for community leaders.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 577-578.—Observations by the authors that sensitivity groups often produce cohesion and increased risk-taking actions among their members stimulated this pilot project in a community conflict situation. Negro and white community leaders in a Southern city participated in a small group for 8 wk. Results included the expected cohesion, increased personal risk-taking, and changes in self-perceptions and perceptions of others. Most interesting of all were some explicit political behaviors on the part of both members and nonmembers which were apparently a result of the group's learning.—*Author abstract.*

4861. Gordon, Gertrude J. (Wayne State U.) **"All Seven": Three act play with music.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3637-3638.

4862. Heigl, Franz. (Inst. for Psychoanalysis & Psychotherapy, Göttingen, W. Germany) **Einige Gedanken zur Gruppendynamik.** [Some thoughts on group dynamics.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Jan), Vol. 16(1), 80-98.—Discusses the history and functions of group dynamics. T-group and training laboratory are the 2 dynamics. T-group and training laboratory are the 2 teaching and learning methods in applied group dynamics which deals with social processes of change, i.e.,

collective forms of behavior. T-group and training lab offer the possibility of determining the meaning of a person for the group by eliminating his social status. A group usually comprises 10 participants and 1 trainer and frequently a co-trainer. 1 of the problems of applied group dynamics is that persons who are indicated for psychotherapy may participate in T-groups, tending to misuse them for their own purposes because of their regressive therapeutic needs and lack of desire to learn. T-groups are constituted mainly by psychiatrists, clinical psychologists, educators, social workers, and executives. There are major differences between psychotherapeutic groups and T-groups. The latter are limited to 1 or 2 wk, while group therapy may extend over years. Members of a T-group live as a community and are healthy professionally successful persons. The feedback method encourages peer observation while the interpretations of the therapist often discourage it. Face-to-face groups, e.g., in business organizations, have shown encouraging results. (18 ref.)—*B. Schay.*

4863. Johnson, David W. (U. Minnesota) **Effects of warmth of interaction, accuracy of understanding, and the proposal of compromises on listener's behavior.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 207-216.—2 male and 2 female confederates expressed warmth or coldness, accuracy or inaccuracy of understanding in their interaction with 64 male and 64 female undergraduates, and proposed compromises or not, depending upon the experimental condition. It was hypothesized that (a) accuracy of understanding would result in the conviction that one has been clearly heard and understood and in a willingness to reach an agreement in negotiations, (b) the expression of warmth toward the S would result in favorable attitudes toward the confederate, and (c) more agreements would be made when compromises were proposed than when they were not. Results confirmed all 3 hypotheses.—*Journal abstract.*

4864. Jones, Reginald L. (U. California, Riverside) **Learning and association in the presence of the blind.** *New Outlook for the Blind*, 1970(Dec), Vol. 64(10), 317-324.—On the basis of evidence that the presence of a blind person in situations involving interpersonal contact will lead to general discomfort, it was hypothesized that it would also be disruptive to cognitive functioning. Ss were 16 male and 14 female undergraduates, and confederates were 2 male undergraduates alternating between the roles of blind S and I. $\frac{1}{2}$ the Ss were assigned to the "blind" confederate and $\frac{1}{2}$ to the sighted I. The S's task was to learn 25 words, presented via tape recorder, in 5 trials. Results reveal no significant differences in learning or associative clustering for Ss of either sex, learning in the presence of sighted or blind confederates. A 2nd similar study was done with extensive interviewing to refine the methodology. It was found that Ss felt that their performance was impaired in the presence of the blind while actually it was not.—*S. Diamond.*

4865. Klein, Ronald L. & Birren, James E. (U. Southern California, Gerontology Center) **Age and susceptibility to social influence.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 601-602. Attempted to determine if age, sex, and task difficulty act as determinants of social conformity in a laboratory perceptual judgment task. 36 young Ss (16-21) were compared with 36 old Ss (60-86) regarding susceptibility to social

influence upon perceptual judgments. A series of visual perceptual judgments were presented on slides. Ss were required to judge which of the 2 stimuli (circular discs) was greater in size. Using a modified Crutchfield apparatus, both groups were subjected to contrived group pressures toward erroneous perceptual judgments. An analysis of variance of frequencies of conforming behavior revealed that (a) older Ss conformed significantly more often than younger Ss, (b) there was not a significant sex difference in conformity behavior, (c) conformity occurred more frequently as stimulus ambiguity of the perceptual task increased, and (d) the increase in conformity scores as task difficulty increased was larger for the older Ss. Results indicate that older individuals are subject to social influence, and demonstrate a disparity between the conformity behavior of young and old individuals.—*Author abstract.*

4866. Pfister, Gordon C. (U. Washington) **An investigation of the effectiveness of laboratory training in increasing interpersonal communication skills with police officers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3348.

Social Perception & Motivation

4867. Ajzen, Icek. (U. Illinois) **Attribution of dispositions to an actor: Effects of perceived decision freedom and behavioral utilities.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 144-156.—Described situations in which a hypothetical actor was faced with a choice between alternative behaviors. Each situation varied along 2 dimensions: the actor's perceived decision freedom (high vs. low) and the utilities of the behavioral alternatives (high vs. low). 201 undergraduates estimated the probability that the actor would engage in each of the behavioral alternatives. Ss were told which alternative the actor had chosen and were asked to attribute attitudes or personality traits to the actor on the basis of his choice. Perceived behavior probabilities were shown to be influenced by the actor's decision freedom and by the utilities of the available alternatives. Also, consistent with expectations. The strength of an attribution was a negative function of behavior probabilities. The effects of decision freedom and of behavioral utilities on attribution strength could be predicted from the influence of these variables on behavior probabilities and from the inverse relation between behavior probabilities and attribution strength. Evidence is presented for the utility of a Bayesian approach to the prediction of attribution. *Journal abstract.*

4868. Berscheid, Ellen; Dion, Karen; Walster, Elaine, & Walster, G. William. (U. Minnesota) **Physical attractiveness and dating choice: A test of the matching hypothesis.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 173-189.—Examined whether the failure of previous studies to support the hypothesis, that individuals chose to date those whose "social desirability" level is similar to their own was due to minimization of possibility of rejection. 2 experiments with 347 and 112 undergraduates were designed to test the matching hypothesis; and the salience of possible rejection by the dating choice was varied. Both experiments found support for the principle of matching in social choice. This support was obtained, however, not just under conditions in which rejection was presumably salient but for all conditions of choice.—*Journal abstract.*

4869. Britt, David W. (Vanderbilt U.) **Effects of probability of reinforcement and social stimulus consistency on imitation.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 189-200.—Evaluated the effects of probability of reinforcement and degree of stimulus consistency on imitation in ambiguous, competitive situations. 3 experiments with 144, 18, and 72 undergraduates are reported, each addressed to a different specific problem concerning the relationship among these variables and the elimination of alternative explanations for the observed results. It was found that (a) Ss in ambiguous, competitive situations tend to imitate stooges to the degree that they are competent (i.e., to the degree that they are instrumental in procuring reinforcement); (b) the relationship between probability of reinforcement and imitation is considerably stronger when the stooges agree (consistent stimuli) than when they disagree (inconsistent stimuli); and (c) imitation of consistent social stimuli is more stable than imitation of inconsistent social stimuli. Credibility is discussed as a crucial variable. (16 ref.)—*Journal abstract.*

4870. de Leon, Patrick H., de Leon, Jean L., & Swihart, Phillip J. (Purdue U.) **Relation of accuracy of self-perception and peer ratings.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 966.—Investigates whether individuals who have an accurate self-perception are viewed more positively by their peers. 51 sorority and 65 fraternity Ss rated themselves and their house members on 7 variables found to be important in interpersonal relationships. Significant relationships between self-perception and peer ratings were found for male but not female Ss. The existence of a sex discrepancy was noted in a different study.—*P. Hertzberg.*

4871. Dutton, Donald G., & Arrowood, John A. (U. British Columbia, Vancouver, Canada) **Situational factors in evaluation congruency and interpersonal attraction.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 222-229. Created 4 experimental conditions in which 80 female undergraduates presented arguments in support of an opinion position on a topical issue. 2 variables were manipulated factorially: (a) whether the position which the S presented was her own or opposed, and (b) whether the S thought that she had argued well or poorly. Ss were evaluated by each of 4 confederates as to (a) whether or not the confederates agreed with the position, and (b) how well the confederate thought the S had argued. The chief dependent variable was the rated likability of the 4 confederates. It was found that when Ss were presenting their own positions on the issue, likability ratings depended primarily on whether or not the confederate agreed with the position (content congruency) and only secondarily on whether or not the confederate agreed with the subject's own evaluation of how well she had argued (form congruency). When Ss were presenting positions opposite to their own, likability ratings depended primarily on form congruency and only secondarily on content congruency. It is concluded that the differential effect of content and form congruency on interpersonal attraction depended on the S's goals in a given situation.—*Journal abstract.*

4872. Ellgring, Johann H. (Max-Planck Inst. of Psychiatry, Munich, W. Germany) **Die Beurteilung des Blicks auf Punkte innerhalb des Gesichtes.** [Judgment of glances directed at different points in the face.] *Zeitschrift für experimentelle und angewandte Psychologie*.

1970, Vol. 17(4), 600-607.—Investigated the perceptibility of eye contact. 16 female Ss serving both as senders and receivers, judged which of 7 points in the upper 1/2 of the face was fixated by a sender of looking signals at 80- and 200-cm distance. A better than chance result was found at both distances. Introverts scored more hits at 200 cm. than extroverts. (English & French summaries)—*W. J. Kopitz.*

4873. Gitter, A. George; Satow, Y., & Goldman, A. (Boston U.) **Leadership: Nonverbal communication and mode of presentation of stimuli.** *CRC Report, Boston U.*, 1968(Aug), No. 25, 57 p.—A 2×3 factorial study ($N = 107$ undergraduates) tested the effects of (a) nonverbal communication (NVC, strong vs. weak), and (b) sensory modality of presenting (MOP) the stimuli (audio-visual vs. visual-only vs. audio-only) on person perception. Both univariate and multivariate results indicate a highly significant NVC effect. Strong NVC, as contrasted with weak NVC, led to perception of an actor as high on leadership-structure and low on consideration. The effect of MOP was far less potent than that of NVC. (5 p. ref.)—*Journal abstract.*

4874. Gitter, A. George & Walkley, John. **Nonverbal communication: Leader-follower perception and mode of presentation.** *CRC Report, Boston U.*, 1968(Jun), No. 21, 54 p.—Investigated the effects of nonverbal communication (NVC), sensory modality of presentation of stimuli (MOP), and set of S on (a) attitude change, and (b) person perception, using a $2 \times 2 \times 2$ factorial design. Pre- and postattitude measures, and 32 posttest person perception scales were administered to 55 male and female (1:1 ratio) undergraduates. 2 levels of NVC (leader vs. follower) and 2 levels of MOP (audio-visual and audio-only) were employed. NVC, MOP, and sex of S were all insignificant in effect on attitude change. Person perception results were derived from a factor analysis of person perception scales scores. Rotated Factor I—leadership-structure, and Factor II—leadership-consideration, accounted for 28 and 13% of the variance, respectively. For Factor I, an analysis of variance indicates a significant main effect for NVC; main effects for sex and MOP and interactions (Sex \times NVC \times MOP) were insignificant. For Factor II, main and interaction effects were all insignificant. (5 p. ref.)—*Journal abstract.*

4875. Greenberg, Martin S., Block, Myron W., & Silverman, Michael A. (U. Pittsburgh) **Determinants of helping behavior: Person's rewards versus other's costs.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 79-93.—50 undergraduates were randomly assigned to 4 experimental conditions and 1 control condition. The 4 experimental conditions each yielded an equal amount of financial inequity in the sense that person received more than he was entitled to because of the efforts of other, and/or other received less than he ought to as a result of trying to help person. The 4 experimental conditions differed in terms of the relative contribution of person's rewards and other's costs to the inequity. Results confirmed the prediction that willingness to help another is more a function of rewards received than costs incurred. (16 ref.)—*Journal summary.*

4876. Jacoby, Jacob. (Purdue U.) **Interpersonal perceptual accuracy as a function of dogmatism.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 221-236.—Examined the generally held assumption that perception of others is partially shaped by the personality of the perceiver. A field experiment was

conducted in which 46 graduate students divided into small groups and working on personally relevant and important tasks, interacted over a 10-wk period. Tested at the end of this period with Rokeach's Dogmatism Scale, the hypothesis that open-minded Ss are more accurate perceivers of another's degree of dogmatism than are closed-minded Ss was supported ($p < .01$). (29 ref.)—*Journal abstract.*

4877. Lawson, E. D. (State University Coll., Fredonia) **Hair color, personality, and the observer.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 311-312.—Investigated stereotypes associated with hair color. 79 male and 161 female undergraduates completed semantic differential scales on 7 categories of hair-color person. Dark men clearly preferred brunette women; blond men were equally divided in preference for blondes and brunettes; blond, brunette, and red-headed women clearly preferred dark men; and artificial blondes preferred dark and blonde men. Other comparisons were made within sex and between hair-color groups. Results indicate: (a) stereotypes based on hair color are widely held, (b) different stereotypes exist on the basis of the hair color and sex of the respondent, and (c) 4 of the 6 hair-color categories gave the highest scores to their own group.—*Journal abstract.*

4878. LeCompte, William F. & Rosenfeld, Howard M. (U. Houston) **Effects of minimal eye contact in the instruction period on impressions of the experimenter.** *Journal of Experimental Social Psychology*, 1971(Mar), Vol. 7(2), 211-220.—Randomly assigned 28 male and 28 female undergraduates to 2 male Es and to 2 conditions of visual attention. The Es were presented on videotape reading task instructions, and either did not look up or glanced toward the Ss on 2 specific occasions. Ss then completed a set of 18 rating scales giving their impressions of the E. The impression scales were reduced to 7 orthogonal factors and factor scores were analyzed for variance due to Es, visual behavior, and sex of the S. Glancing toward Ss produced ratings of Es as less nervous ($p < .05$) and as less formal ($p < .05$). Rated differences in status between Es ($p < .001$) were independent of the effects of differential glancing. No effects of sex of the S were apparent. The impressions that were mediated by variations in the E's glancing were similar to those that were associated with E bias in previous research.—*Journal abstract.*

4879. Lindauer, Martin S. (State University Coll. New York, Brockport) **Set and different degrees of ambiguity of the "wife and mother-in-law" figures.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 911-913.—Presents a series of 6 ambiguous wife and mother-in-law figures to 2 groups of Ss who initially saw either the unambiguous wife or mother-in-law. The evidence generally supports the effect of prior experience in influencing the perceptual organization of ambiguous forms. However, data also indicate that some forms were resistant to 1 of the experiential sets. An ambiguous form did not show the effect of set after a 1-wk interval.—*Journal abstract.*

4880. Martens, Rainer. (U. Illinois, Children's Research Center) **Influence of participation motivation on success and satisfaction in team performance.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 510-518.—Studied the effect of affiliation and task motivation on the success and satisfaction of college intramural basketball teams. Over 1200 male undergraduates, members of 144 basketball teams, responded to a pre-

and postseason questionnaire which assessed affiliation, task motivation, and team satisfaction. Teams were categorized into low, moderate, and high levels for both affiliation and task motivation. The number of games won determined success. An Affiliation Motivation \times Task Motivation (3×3) factorial design was used. The multivariate analysis of variance for the affiliation hypothesis was significant, indicating that high affiliation-motivated teams in contrast to moderate and low affiliation-motivated teams were less successful but more satisfied. High task-motivated teams, on the other hand, were more successful and satisfied than moderate or low task-motivated teams. No significant interaction between task and affiliation motivation was found.—*Journal abstract.*

4881. Midlarsky, Elizabeth. (U. Denver) **Aiding under stress: The effects of competence, dependency, visibility, and fatalism.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 132-149.—80 male sophomore and junior students were assigned randomly to 8 different treatment conditions in a $2 \times 2 \times 2$ factorial design study of helping behavior (number of shocks which S took for collaborator). Results showed competence, dependency, and visibility to increase aiding whereas fatalism (locus of control) was inversely related to helping behavior. (22 ref.).—*M. D. Zwiier.*

4882. Sinha, A. K. (Ministry of Defense, New Delhi, India) **Relationship between ethnic stereotypes and social distance.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 216.—Administered the modified form of the Bogardus Social Distance Scale to 100 male and 100 female university students. Results reveal a significant positive correlation between the percentage of desirable characteristics assigned to 10 ethnic groups and their average social-distance scores. Rhos were .83 for total sample; .85 for male Ss and .92 for female Ss ($p < .01$).—*Author abstract.*

4883. Webster, Murray A. **Status characteristics and sources of expectation.** *Center for the Study of Social Organization of Schools Report*, Johns Hopkins U., 1970(Sep), No. 82, 39 p.—A previous version of expectation theory assumed that the likelihood that evaluations will be accepted and used to assign performance expectations for group members depends upon the perceived ability level of the evaluator. An extension of the theory asserts that, in the absence of knowledge of the evaluator's ability, acceptance of his evaluations depends upon his status characteristics. In an experimental test, 100 16-18 yr. old males were assigned randomly to 4 conditions, where they received either positive or negative evaluations from an evaluator possessing either higher or lower status than they. Results are as predicted for 3 of the 4 conditions. A possible interpretation of the 1 discrepancy is considered, and its theoretical significance is discussed. (28 ref.).—*Journal abstract.*

COMMUNICATION

4884. ———. **Soznanie i obshchenie.** [Consciousness and communication.] Frunze, USSR: Ilim, 1968. 96 p.—6 contributors present articles on the problem of consciousness and communication, philosophically and psychologically considered. These include discussions of experimental methods of semantic analysis, information theory and the physiology of higher nervous activity, and the empirical parameters of

alienation. Included is a large compilation of Soviet literature of the psychology of thinking and speech, excluding, however, studies in the psychology of child speech, defectology, and the pathology of thinking and speech. (18 ref.).—*J. D. London.*

4885. Benson, Purnell H. (Rutgers State U., Graduate School of Business Administration) **Segmentation analysis of media exposure: Towards a theory of learning opportunity.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 661-662. Applies latent structure analysis, originated by P. Lazarsfeld, to the problem of describing segments in media audiences and estimating their probabilities of exposure. Data from 9 TV shows and 2 magazines are examined and latent segments are defined. The equations defining the sizes of the segments and the exposure probabilities are written in terms of the expansion of binomial probabilities. Exploratory results indicate the feasibility of applying latent structure analysis to media audiences. The generation of a large system of equations with many advertising vehicles and many segments may facilitate the projection of media schedules from limited survey input to many exposure opportunities, but this possibility remains to be explored.—*Author abstract.*

4886. Berg, Meredith W. & Berg, David M. (Valparaiso U.) **The rhetoric of war preparation: The New York press in 1898.** *Journalism Quarterly*, 1968(Win), Vol. 45(4), 653-660.—2 brothers, a historian and rhetorician, synthesize their interests in focusing on the process of psychological preparation for war, as demonstrated in New York papers after sinking of the "Maine."—*Journal abstract.*

4887. Booth, Alan. (U. Nebraska) **The recall of news items.** *Public Opinion Quarterly*, 1970-1971(Win), Vol. 34(4), 604-610.—Based on the recall of items presented on radio and TV and in newspapers, it is suggested that "broadcasters and publishers have the ability to manipulate news consumption." This is accomplished by "altering the frequency, time, space, location, and pictorial content in their presentation of news events"—*A. R. Howard.*

4888. Brinkman, Del. (Kansas State U.) **Do editorial cartoons and editorials change opinions?** *Journalism Quarterly*, 1968(Win), Vol. 45(4), 724-726.—This study of effects of editorials and editorial cartoons showed that cartoons presented with editorials will bring greater opinion change than an editorial alone or a cartoon alone. Order of presentation effects, and 1-sided, 2-sided arguments effects were also found.—*J. A. Kline.*

4889. Chaffee, Steven H. & McLeod, Jack M. (U. Wisconsin) **Sensitization in panel design: A co-orientational experiment.** *Journalism Quarterly*, 1968(Win), Vol. 45(4), 661-669.—This study of "sensitization" in panels and before-after designs finds evidence that contamination occurs. It also yields support for some of its predictions based upon the coorientation model.—*Journal abstract.*

4890. Denis, Michel. (National Center of Scientific Research, Paris, France) **Un inventaire des principales variables a étudier en relation avec le problème de la compréhension d'un message narratif.** [An inventory of the principal variables to be studied in the comprehension of a narrated message.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6-8), 422-425.—A narrated message may be considered a dependent variable interacting with a number of independent variables

consisting of both genetic and psychological attributes of the S and those related to the stimulus itself. (18 ref.)—R. E. Smith.

4891. Gitter, A. George & Guichard, Michael. (Boston U.) **Looking behavior: First looker's direction and locus of gaze.** *CRC Report, Boston U.*, 1968(Jul), No. 23, 22 p.—Tested the effect of the presence of a 2nd looker on the perceived (a) direction of gaze, (b) focus of gaze, and (c) expression of emotion of the 1st looker. Ss were 200 undergraduates. Results indicate significant displacement of direction of gaze toward the 2nd looker, and higher frequency of perceived emotion and increased focus of gaze in the 2-looker situation. Female Ss perceived significantly more emotion than did male Ss.—*Journal abstract.*

4892. Heller, Melvin S. & Polsky, Samuel. (Temple U.) **Television violence: Guidelines for evaluation.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 279-285.—Reports an analysis of types, characteristics, and presentation of violence on TV. Possible effects on the individual personality of the viewer, particularly the child, are discussed. Suggestions are given for evaluating TV violence on the basis of its emotional impact rather than on changing social mores. It is suggested that fantasy and humor are general modifiers of relevant concern in the assessment or rating of TV violence. A practical checklist of additional rating factors might include apparent authenticity, bizarreness, bondage, conditioning or inuring, consequences, dehumanization, demonstration, and secret-conspiracy-mindedness. (30 ref.)—*Journal abstract.*

4893. Hogan, Robert & Henley, Nancy. **A test of the empathy-effective communication hypothesis.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Oct), No. 84, 21 p.—Examined the hypothesis that empathy or role-taking ability is important in the communication process because it enables a speaker to consider in advance the informational demands of his audience. In this study (a) empathy was measured by an objectively scored empathy scale, and (b) the communication process was represented by an encoding-decoding task (using abstract designs) to provide quantitative estimates of encoding and decoding ability. For 49 undergraduates, the average correlation between empathy and encoding skill was +.60, and the correlation between empathy and decoding was +.14. Results from a 2nd study with 48 undergraduates tend to confirm these findings. (19 ref.)—*Journal abstract.*

4894. Paisley, William J. & Parker, Edwin B. **Scientific information exchange at an interdisciplinary behavioral science convention.** *Report of the Institute for Communication Research, Stanford U.*, 1967(Mar), 46 p.—Examined the role of conventions in the information system of science. Questionnaires were mailed to the sociologists, political scientists, advertising researchers, psychologists, and journalists who attended the 1966 American Association for Public Opinion Research. 186 questionnaires were returned (78% response rate) containing information on (a) characteristics of the attendants—rank, education, research interests; (b) typical information behaviors—number of conventions attended, journals regularly read, input and output of writings; and (c) information exchange at the convention—session attendance, sources of 6 types of information, source and kind of most interesting and most useful information. 4 appendices are included

which contain the text of the questionnaire and responses, response tabulation against the characteristics of the attendants, comparison with American Psychological Association findings, and aggregate response patterns explored through factor and cluster analyses.—S. Knapp.

4895. Pool, Ithiel S., et al. (Massachusetts Inst. of Technology) **The prestige press: A comparative study of political symbols.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1970. xxi, 359 p. \$12.50.

4896. Rees, Matilda B. & Paisley, William J. (Northwestern U.) **Social and psychological predictors of information seeking and media use.** *Report of the Institute for Communication Research, Stanford U.*, 1967(Sep), 107 p.—Presents data collected in California in 1965 from 1-hr interviews of 1294 Ss on media use and information seeking behaviors. 10 predictor variables (age, sex, occupation, income, marital status, number of organizational memberships, achievement motivation, perception of practical education in the media, and perception of positive consequences from new media and educational technology) were correlated with 25 media use and information seeking behaviors (16 uses of newspapers, magazines, radio, television, and books; 6 uses of adult education; specific information seeking in the media; interpersonal information seeking; and impersonal information seeking). Results are grouped for behaviors sharing the same strongest predictor and for behaviors predicted by groups of characteristics. Difficulties in the analysis of the data are described. The utility of the findings is discussed. (28 ref.)—S. Knapp.

4897. Schüller, Gabriella; Déval, Margit, & Kádár, Júlia. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A televízió hatása a gyermekekre.** [The effect of television on children.] *Psichológiai Tanulmányok*, 1968, No. 11, 257-268.—Reviews studies and recounts a survey based on questionnaires filled in by various groups. Data were processed with a view to assessing the positive and negative implication of TV for children. Data refer to the change in the life pattern due to TV watching, to the mental and physical stress watching involves, and to the extension of the S's horizon and field of interest. (Russian summary)—*English summary.*

4898. Sweeney, Donald R., Tintin, David C., & Schmale, Arthur H. (U. Rochester, Medical Center) **Dimensions of affective expression in four expressive modes.** *Behavioral Science*, 1970(Sep), Vol. 15(5), 393-407.—Compared dimensions of affect expression in 4 expressive modes. 20 21-58 yr. old artists, dancers, actors, and graduate students were asked, under light hypnosis or with relaxation instructions, to express several affects verbally, graphically, facially, and posturally. Verbal excerpts, drawings, movies of facial and postural expression, and affect labels and definitions ("theoretical" mode) were each exposed to groups of raters who evaluated the material using a "semantic differential" type instrument. Separate factor analyses of scale intercorrelations, followed by orthogonal rotation of factors, were performed on data from each expressive mode. Interpretable factors were generally similar across the modes. Accounting for the largest proportion of total variance were factors interpreted as activity and evaluation. Less salient but consistently appearing factors were interpreted as temporality and object-relatedness. Potency and spatial orientation factors were also identified in each mode. A factor tentatively called

containment emerged only in the analyses of data from nonverbal modes. Rank difference correlations of affect scores showed, in general, a high correspondence of affect ranks among modes, indicating high cross-modal similarity of affective meaning perceived in the complex rating material. Factors are discussed in terms of differences among modes, and comparison with previous literature is made. (50 ref.)—*Journal abstract.*

4899. Vítár, Zoltán. **A televíziózás néhány szociálpszichológiai vonatkozása.** [Some social-psychological implications of television watching.] *Psichológiai Tanulmányok*, 1968, No. 11, 111-124.—In the 1st part of the study some of the scientific approaches to the examination of TV and its influence are reviewed. These include statistical, sociological, educational, aesthetic, psychological, social-psychological, and complex studies. Subject matter and methods of a 1965 survey at 24 villages including 2344 persons are recounted. The survey was part of the joint Czechoslovakian-Hungarian Television Influence Survey initiated by the Budapest and Bratislava Institute of Public Education. In the 2nd part, data concerning the motives for watching TV, the disadvantages of watching, TV and the family, and TV and verbal communication are interpreted. In the 3rd part the need for further research is stressed and some perspectives outlined. (Russian summary) (28 ref.)—*English summary.*

Language

4900. Arnheim, Rudolf. (Harvard U., Carpenter Center for the Visual Arts) **Words in their place.** *Journal of Typographic Research*, 1970(Sum), Vol. 4(3), 199-212.—Discusses the relationship of language to thinking. It is suggested that although language helps thinking, it is not indispensable to thought and its structure or perceptual dimensions as a medium of thought are severely limited. What makes language valuable for thinking is our use of words to refer to other thought media, such as visual imagery. Not being restricted as language is to linearity, the visual medium offers structural equivalences to all characteristics of objects, events, relationships—in 2 and 3 dimensions. A literary image grows through accretion by amendment; a pictorial image presents itself whole, in simultaneity. (18 ref.)—*Journal abstract.*

4901. Chastain, Kenneth. (Purdue U.) **The audio-lingual habit theory versus the cognitive code-learning theory: Some theoretical considerations.** *IRAL: International Review of Applied Linguistics*, 1969(May), Vol. 7(2), 97-106. Examines the problems of what language is and how it is acquired from the viewpoint of cognitive code-learning and audiolingual habit theories. Verbal satiation, inductive vs. deductive material presentation, and transfer of learning across sense modalities are investigated as they pertain to mentalistic vs. mechanistic learning processes. It is concluded that present knowledge about learning and language teaching is not complete. (German & French abstracts)—*G. Steele.*

4902. Dixon, Theodore R. & Smith, Roger C. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Verbs as reinforcers: Does the impression value of verbs influence response choice in sentence generation tasks?** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 267-273. Investigated the effects of verb impression value upon verb and pronoun use in a sentence

generation task. Ss were 30 undergraduate volunteers in Exp. I, and 10 in Exp. II. Differences in pronoun and verb frequencies were found with presentation of 3 impression value types (good, neutral, and bad), while presentation of just 2 types within an S resulted in differences only between bad and good or neutral impression value verbs. It is concluded that the reinforcing properties of verbs may be dependent upon the types of impression value sampled.—*Author abstract.*

4903. Gall, Meredith D., Hobby, Amos K., & Craik, Kenneth H. (Far West Lab. for Education Research & Development, Hotel Claremont, Berkeley, Calif.) **Non-linguistic factors in oral language productivity.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 871-874.—Assesses individual differences in oral language productivity by word counts of Ss' spoken descriptions of 9 different visual displays. Ss were 20 male and 19 female 18-30 yr. old undergraduates. Women attained higher word counts than men in 8 of their 9 descriptions, in 3 instances to a statistically significant extent. Individual differences in oral language productivity showed a moderately high degree of stability across situations. The pattern of correlations between oral language productivity and personality variables differed in the samples of men and women. The sex-specific and situation-specific role of personality variables in oral language productivity is illustrated and discussed.—*Journal abstract.*

4904. Höpp, Gerhard. (19 Stephanienufer, Mannheim, W. Germany) **Evolution der Sprache und Vernunft.** [Evolution of speech and intellect.] Heidelberg, W. Germany: Springer, 1970.

4905. Pavan, Luigi. (U. Padua, Clinic for Mental & Nervous Diseases, Italy) **Considerazioni sull'importanza della linguistica in alcuni orientamenti psicanalitici, in particolare nell'opera di Jacques Lacan.** [Considerations on the importance of linguistics in some psychoanalytical orientations, in particular in the work of Jacques Lacan.] *Rivista di Psichiatria*, 1970(Mar), Vol. 5(2), 81-96. Reviewed structural linguistic principles and the fact that such principles are not limited to the field of linguistics, but to other human sciences as well. Jacques Lacan's work gives a new interpretation to Freud and notwithstanding the possibility of being criticized, he contributes in bringing psychoanalysis closer to contemporary, controversial problems. The symbol, to Lacan, is a structure inherent to the language, and so the phenomena of what is symbolic are structured like a language. It is not a symbolism in which there is a relationship between symbol and that which it represents, as in Freud; for Lacan it is the structure of the symbolic system which is primary. (English summary) (37 ref.)—*A. M. Farfaglia.*

4906. Peterfalvi, Jean M. (Sorbonne, Paris, France) **Recherches expérimentales sur le symbolisme phonétique.** [Experimental research on phonetic symbolism.] *Monographies Françaises de Psychologie*, 1970, No. 19, 174 p.—Investigates phonetic symbolism as a motivated, nonarbitrary aspect of language in the framework of synesthetic relationships. In a series of studies, synesthetic relationships were found between nonsense words and meaningful words, between visual configurations and meaningful words, and between nonsense words and visual configurations. Figural symbolism is interpreted as being closely tied with phonetic symbolism, both being special cases of synesthesia with some cross-cultural generality. Manifest-

tations and role of phonetic symbolism in natural languages, including in artistic expression, are discussed. (97 ref.)—S. Slak.

4907. Prytulak, Lubomir S. (U. Western Ontario, London, Canada) **Natural language mediation. Cognitive Psychology**, 1971(Jan), Vol. 2(1), 1-56.—"Natural language mediation" (NLM) refers to the covert process by which an English-speaking S encodes an unfamiliar stimulus into English, and then decodes the NLM back to its original form. To externalize this process, Ss were required to write NLMs to CVC stimuli, then reconstruct the original stimulus. S was hypothesized to work sequentially through a stack of transformations (T stack), e.g., deletions, substitutions, etc., until someone succeeded in turning the CVC into a familiar word. The T stack model predicted free-association response measures of latency and probability. The nature of intrusion errors, and learning rate in paired-associate learning, as well as pronounceability ratings were also successfully predicted. Elaboration into a memory model suggests that successful retrieval required storage of an NLM plus T package. NLM was independent of stimulus characteristics while T retention was poor for low-meaningfulness stimuli, probably due to the large number of operations in T for such stimuli. (2 p. ref.)—H. W. Hamilton.

4908. Rommetveit, Ragnar. (U. Oslo, Psychological Inst., Norway) **Psychological studies of words. Nordisk Psykologi**, 1969, Vol. 21(1-2), 16-27.—Examined words as they emerge in acts of decoding and encoding. The word is a hierarchially organized psychological process. This may be schematically visualized as a complex test-operate-test-exist (TOTE) mechanism. A schematic 3-component model of word meaning is proposed: an initial process of reference is assumed to branch off into sustained representation, affecting and affected by an associative and an affective activity. Some research evidence is supplied. Tentative evidence concerning components of word meaning stems mainly from studies of the isolated word in the psychological laboratory. Apart from such meaning potentialities which are assessed by requests for definition, word-association tasks, and semantic differential measurements only a fraction appear to be operant in any particular context; there is very often a proactive constraint upon processing and, in other cases, some retroactive process is obviously required. Psychological studies of words qua complex cognitive-perceptual-motor processes help to understand how an infinite variety of messages can be transmitted by temporal chains of a very limited number of speech sounds.—P. Mylov.

4909. Smith, O. W., Koutstaal, C. W., & Kepke, A. N. (Bowling Green State U.) **Relation of language distance to learning to pronounce Greenberg and Jenkin's List I CCVCs. Perceptual & Motor Skills**, 1969(Dec), Vol. 29(3), 868-870.—J. H. Greenberg and J. J. Jenkins' language substitution (S) and values for their List I CCVCs were hypothesized to correlate significantly with 4 measures related to the acquisition of the correct pronunciation of the CCVCs by 30 graduate students. Mean scale values were computed for each CCVC for each of the 4 measures. The range of correlations of the 4 sets of scale values with corresponding S and language distance values is .71-.97 (disregarding sign), with the median at .89. The hypothesis remains tenable.—*Journal abstract*.

4910. Walker, Robert V. & Chalmers, Douglas K. (U. California, School of Social Science, Irvine) **The use of technical and nontechnical language in communication. Journal of Psychology**, 1971(May), Vol. 78(1), 65-71.—Conducted 2 experiments to study the difference between technical and nontechnical language, and its relation to variations in the status of the communicator (student vs. dentist) and the amount of information in the communication. Exp. I demonstrated that under conditions of relatively low information in the communication, technical language produced a more favorable effect than nontechnical language. Also, the hypothesis that technical language operates to confer increased status on the communicator was not supported. In Exp. II, it was hypothesized that while technical language would produce more favorable effects than nontechnical language when the communications contained little information (as in Exp. I), technical language would produce less favorable effects than nontechnical language when the communications contained a large amount of information. This "information complexity" hypothesis was confirmed. Hence the simple message was most effective with technical language, whereas the complex message was most effective with clear and simple language.—*Author abstract*.

Psycholinguistics

4911. Hebb, D. O., Lambert, W. E., & Tucker, G. R. (McGill U., Montreal, Quebec, Canada) **Language, thought and experience. Modern Language Journal**, 1971(Apr), Vol. 55(4), 212-222.—Examines the nativism that is evident in psycholinguistics today, and proposes a more moderate view in which learning cooperates with heredity in the child's mastery of language. The dominant view in psycholinguistics seems to be that learning is not involved in the acquisition of grammatical competence; it is argued instead that the essential principles of grammar are unlearned and somehow transmitted by heredity. In response to this position, learning is taken to be as much determined by the learner's heredity as by his environment. Experience has an essential part in the development of any cognitive process, including those processes that control language, but this in no way decreases the overriding importance of hereditary predispositions. It is clear that man is born to talk, innately provided both with the capacity and with a motivation, almost a need, to learn, at least in the case of native language. In behavior, to separate the innate from the acquired depends on perception and thought; the relation of constitution to experience is multiplicative rather than additive. Both heredity and environment are of importance, even when one is a greater source of variance than the other, and their relation is such that one must understand both to understand either. This approach to such diverse aspects of language learning and language behavior offers a productive alternative to the now polarized positions taken by the nativists and the empiricists in psycholinguistics. (36 ref.)—LLBA.

4912. Mountford, John. (La Sainte Union Coll. of Education, Southampton, England) **Some psycholinguistic components of initial standard literacy. Journal of Typographic Research**, 1970(Fal), Vol. 4(4), 295-306.—Initial standard literacy is considered to be a more adequate term for what is commonly called the teaching of reading. 5 psycholinguistic components are suggested: (a) knowledge of a standard language, (b)

knowledge of its standard orthography (distinguished from other kinds of writing-systems), (c) "technical concepts" of literacy, (d) "habitudes" of literacy, and (e) basic skills of literacy (reading and writing). Literacy is also predicated of societies. The study of it, both as a psycholinguistic phenomenon and as a sociolinguistic phenomenon has been neglected in linguistics generally, just as the concept of literacy has been neglected in educational theory.—*Journal abstract.*

4913. Smackey, Thelma R. & Beym, Richard. (Human Resources Research Office, Alexandria, Va.) **Tag questions: Dangerous psycholinguistic territory for TESOL.** *IRAL: International Review of Applied Linguistics*, 1969(May), Vol. 7(2), 107-115.—Examines the emotional qualities and attitudinal meanings conveyed in tag questions in 2 experiments using 53 native speaking undergraduates and 59 22-44 yr. old professionals to determine "the psycholinguistic dangers involved in teaching tag questions to foreign students." Results indicate: (a) "tag questions are complex psycholinguistic phenomena," (b) there are 2 standard variations in final intonational contours which convey a yes-no question or an assertion, and (c) variations in individual voice qualities and intonational contours convey a wide range of attitudinal meanings and emotional qualities. It is concluded that the tag question is an inappropriate pattern to teach to elementary or intermediate foreign students "who still have a strong tendency to superimpose their native intonations," and should only be taught to advanced foreign students within their given sociopsychological contexts. (French & German abstracts)—*G. Steele.*

AESTHETICS

4914. Brivic, Sheldon R. (U. California, Berkeley) **James Joyce from Stephen to Bloom: A psychoanalytic study.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3539-3540.

4915. Doederlein, Sue W. (Northwestern U.) **A compendium of wit: The psychological vocabulary of John Dryden's literary criticism.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3542.

4916. Gál, Judit Cs. **A zenei ízlésvizsgálatok metodológiai kérdése.** [Methodological problems of investigating into taste in music.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 335-357.—Discusses how taste in music can be examined with exact psychological methods, without curtailing the aesthetic qualities of music. Taste is approached from the aspect of actions, and the unity of emotional and intellectual spheres in the various manifestations of taste is emphasized. Accordingly problems relating to taste should be examined both on the levels of emotional identification with, and awareness of, certain elements in music. The fundamental question of an appropriate method for the psychological research of taste in music is determined by the fact that in cognition the subject is the composition itself. Since the particular qualities of any composition can be assessed by analytic means, the research data can be brought into comparison with these objective criteria. It is theorized that the fundamental category of taste is the presence of something that is pleasing. This can be studied in situations of action, by sampling. The various items of music offered for choice must have some intrinsic, substantial similarities, modified only by a few variations. If this is missing, the pleasing factor cannot

be interpreted. The possibility of investigating the process of making meaning conscious as well as the way of assuming a determined position in reference to the musical matter are considered. Methods of examining various tastes are reported. The variables were either items of music, single motifs, or different kinds of action for the S to perform. (Russian summary) (30 ref.)—*English summary.*

4917. Halász, László. (Hungarian Academy of Sciences, Psychology Inst., Budapest) **Módszertani problémák az irodalmi alkotómunka és befogadás pszichológiai vizsgálatában.** [Methodological problems in the psychological study of literary creativity and receptivity.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 319-333.—Reviews the possibilities of an empirical approach to problems of creativity and receptivity and describes various research methods, i.e., having compositions written on experimental subjects, psychological analysis based on indirect observation, and analogic experiments. It is shown how to conduct psychophysiological experiments, how to use a combination of interview and attitude scale in psychology of art, and how to deal with problems concerned with goals and procedures. Experimental psychology is considered to have a fair chance of success in approaching the singularly complicated psychological problems of literature, i.e., the branch of art which is most closely connected with social consciousness and social ideology. (Russian summary) (18 ref.)—*English summary.*

4918. Pawłowski, Tadeusz. (U. Łódź, Poland) **Piękno i jego społeczno-psychologiczne uwarunkowania.** [The concept of beauty and its social-psychological conditioning.] *Studia Filozoficzne*, 1970, No. 4-5, 141-157.—An aesthetic experience is related in a complex manner to cultural, cognitive, biological, perceptual, and situational factors. A conflict exists between those who consider aesthetic judgments as subjective, individual, and variable, and those who classify them as objective and fairly permanent, resulting from properties and characteristics of the work of art. Attempts to formulate an objective definition of aesthetic values are unsuccessful, since elements of comparison and interpretation always influence aesthetic judgments. No definition of beauty can be complete enough to include popular concepts as well as individual judgments, including the opinion of experts and laymen. Axiological premises play a basic role.—*H. W. Temmer.*

4919. Razran, G. (Queens Coll., City U., New York) **Vysshaya nervnaya deyatel'nost' i dinamika esteticheskikh perezhivanií i vospriyatíi: Eksperimental'noe issledovanie.** [Higher nervous activity and the dynamics of esthetic experience and perception: An experimental investigation.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 384-396.—24 short unfamiliar musical selections (45-60 sec.) and 24 colored slides of unfamiliar paintings were presented to 378 artistically unsophisticated adults for ratings under a number of conditions (repetition 4, 8, and 12 times; similarly during a selected lunch; similarly after missing lunch). Another group of 42 Ss, exposed to 2 music and 2 art items, was utilized to procure ratings and measurements of conditioned salivation. Ratings were also procured from a group of 5 expert musicians and 4 expert painters. The evidence was clear-cut in demonstrating that music and art items, presented during lunch, gained positive and lost negative affectivity. There was some evidence that,

when the Ss were hungry, positive affectivity declined and negative affectivity increased. Conditioned salivation was also demonstrated. Repetition by itself had both lesser and more variable effects of affectivity with respect to the selections. The results on the development of taste or "esthetic veridicality" were novel, with repetition alone increasing veridicality much more than did repeated presentations during eating or in mild states of hunger. It is suggested that the dynamics of esthetic perception of complex stimuli is essentially an "autochthony of self-reinforcing integrations and differentiations, which may be disrupted or encumbered by interactions with external associative or conditioning agents." (English summary) (25 ref.)—*I. D. London.*

4920. Sapalala, Paz E. (U. Minnesota) **Renaissance psychology and the plays of Thomas Middleton.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3519.

4921. Zurabashvili, A. D. Shota Rustaveli, Nikoloz Baratashvili, Vazha Pshavela: **Psikhologicheskii ocherk.** [Shota Rustaveli, Nikoloz Baratashvili, Vazha Pshavela: A psychological essay.] Tbilisi, USSR: Merani, 1970. 136 p.—Treats from the viewpoint of personological psychology a number of important problems encountered in the creative works of the Georgian writers, Rustaveli, Baratashvili, and Pshavela and in those of Shakespear, Goethe, Schiller, and Dostoevski. An attempt is made to show that "any literary production is a major academic interest to psychology, psychopathology, and psychoneurology as a whole." A chapter on the pivotal problems of personology introduces the 5 subsequent chapters, 4 of which are devoted to psychological analyses of the Georgian writers. (English summary)—*I. D. London.*

SMOKING & DRUG & ALCOHOL USE

4922. Brill, Norman Q., Crumpton, Evelyn, & Grayson, Harry M. (U. California, Medical School, Los Angeles) **Personality factors in marihuana use.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 163-165.—Investigated the relationship of some personality factors to extent of marihuana use in young college students. 79 marihuana users differing in extent of use (from less 1/mo to almost every day) were compared with 2 control groups of 20 Ss each on 4 MMPI scales, a risk-taking propensity scale, a stimulus-seeking scale, 9 specially constructed items, and a number of demographic variables. More frequent use of marihuana was significantly related to higher scores on the stimulus-seeking scale, on the MMPI Psychopathic Deviant Scale and to "true" responses to the items, "a person should not be punished for breaking a law that he thinks is unreasonable" and "as long as I can remember, I have had more emotional problems than other people." Regular use of marihuana was very significantly related to experimentation with other drugs. Hypotheses about impaired parental identification, goal-orientation, or the role of religion are not supported.—*Journal abstract.*

4923. Caffrey, Bernard; Belknap, Joseph J., & Kemmerlin, T. Larry. (Clemson U.) **Drug attitudes of ninth graders in the North and South.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 575-576.—Attitudes towards drugs were assessed in 65 Long Island 9th graders and 70 urban South Carolina students. Analysis of factor scores by a 2 x 2 analysis of variance indicated that Northern

students were less repressive toward drugs and drug users, and that male students were more liberal than female students. It is concluded that both region and sex influence the attitudes of high school students toward drugs, and that the student attitudes reflect a desire for a better understanding and control of the drug problem.—*Author abstract.*

4924. Clark, Walter H. & Funkhouser, G. Ray. **Physicians and researchers disagree on psychedelic drugs.** *Psychology Today*, 1970(Apr), Vol. 3(1), 48-50, 70-73.—Questionnaires were mailed to 302 researchers involved in work with drugs (44% returned) and to 1000 members of the American Psychological Association and 1230 members of the American Medical Association (24% returned). Overall, the researchers were more liberal than the other professionals and consistently viewed drugs as less dangerous. This set of findings supported the hypothesis that a knowledge gap exists between these 2 groups. The fact that nonresearchers tend to see only those having bad experiences with drugs may lie behind their attitudes.—*E. J. Posavac.*

4925. Green, Mary G., Blake, Brian F., Carboy, John J., & Zenhausern, Robert J. (Valley Stream Public Schools, N.Y.) **Personality characteristics of the middle class high school drug user.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 559-560.—A sample of students from a middle-class high school participated in a study to find the relationship between the student's use of drugs and his personality characteristics. Ss were administered the Cattell High School Personality Questionnaire and a modified version of the Eells survey of drug use. Compared to nonusers, drug users scored lower in frustration tolerance, self-sufficiency, and self-control, and higher in dominance and recklessness. These differences did not depend upon the student's academic capacity.—*Author abstract.*

4926. Haberman, Paul W. (Columbia U., School of Public Health & Administrative Medicine) **Denial of drinking in a household survey.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 710-717.—About 1/3 of a representative sample of New Yorkers denied drinking alcoholic beverages, a proportion considerably larger than that found in national surveys. More denial of drinking was found among older than younger respondents, the less-educated, Puerto Ricans, Italians, and Jews. It is suggested that younger Italians and Jews are not following traditional drinking patterns and that the older ones misinterpreted the question.—*Journal abstract.*

4927. Lichtenstein, Edward. (U. Oregon) **How to quit smoking.** *Psychology Today*, 1971(Jan), Vol. 4(8), 42-45.—There are few effective methods to help people stop smoking since most approaches cannot keep people from starting again after the program is over. The most effective method combines aversive conditioning, verbal social approval, and an expectation of success. For example, 1 study of 58 smokers showed that 34 were still off cigarettes 6 mo. after the program. It is necessary that smoking becomes nonrewarding and that people stop completely. Cutting down only enhances the rewarding nature of smoking and relapses are almost inevitable.—*E. J. Posavac.*

4928. Lilieblad, Bertil & Wolff, Bertil. **Narkotikamissbruk hos inskrivningskyldiga 1968/9: I. Bakgrund och uppläggning.** [Drug abuse among conscripts 1968/69: I. Background and design.] *MPI*

B-Rapport, 1969(Aug), No. 26, 16 p.—Investigated the use and abuse of narcotic drugs, alcohol, and tobacco among 18-yr-old conscripts. An anonymous questionnaire was completed by 23,305 Ss, 50% from large city areas, on their use of drugs and on social background, adaptation, and attitudes toward society. Data were collected in the fall of 1968 and in the spring of 1969. The initial dropout has been estimated at 3.5%.—*English summary*.

4929. Lilieblad, Bertil & Wolff, Bertil. **Narkotikamissbruk hos Inskrivningsskyldiga 1968/69: II. Geografisk redovisning.** [Drug abuse among conscripts 1968/69: II. Geographical description.] *MPI B-Rapport*, 1969(Aug), No. 27, 20 p.—Continues the study by B. Lilieblad and B. Wolff (see PA, Vol. 46:Issue 3) on drug use in the Swedish Army. Ss were 23,305 18-yr-old conscripts. It was found that 19–26% of Ss from large city areas had used narcotic drugs, while only 8–9% of Ss using drugs came from other areas. Of the drug experienced Ss (a) 58–73% had used marihuana 1–10 times, (b) 2–5% most often injected drugs, (c) marihuana was the 1st drug used for 77–89%, (d) amphetamine and similar drugs were the 1st drugs for 6–14%, (e) 41–53% last used drugs between July and December 1968, (f) 19–35% used drugs only once, (g) 11–21% used drugs more than 50 times, (h) marihuana was the favorite drug for 74–91%, (i) 3–7% had injected drugs once, (j) 4–8% had injected drugs more than once, (k) 79–87% said they had no need for drugs, and (l) 2% indicated a strong need for drugs. Of those Ss who had not tried drugs, 25–60% had 1 or more times been offered narcotic drugs.—*English summary*.

4930. Linsky, Arnold S. (U. New Hampshire) **The changing public views of alcoholism.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 692–704.—In a representative sample (N = 305) of the adult population in Vancouver, Washington, the younger, the better educated, and those with more exposure to mass media showed greater acceptance of social drinking, alcoholism, and medical and psychological treatment of alcoholism than did the other respondents, and were more likely to attribute alcoholism to psychological than to biological causes.—*Journal abstract*.

4931. McClelland, David C. (Harvard U.) **The power of positive drinking.** *Psychology Today*, 1971(Jan), Vol. 4(8), 40–41, 78–79.—TAT stories were given by college students before, during, and near the ends of parties. Alcoholic drinking (cocktails) increased power themes in the stories. Moderate drinking increased socialized power thoughts while heavy drinking increased personal dominance thoughts. Studies of fantasies from folk tales of several cultures supported these conclusions. Additional studies of older men suggested that the "excessive drinker... is the man with an excessive need for personal power who has chosen drinking as the way to accentuate his feelings of power." Attempts to use these findings in work with alcoholics is also described.—*E. J. Posavac*.

4932. Parry, Hugh J., Balter, Mitchell B., & Cisin, Ira H. (George Washington U., Social Research Group) **Primary levels of underreporting psychotropic drug use.** *Public Opinion Quarterly*, 1970–1971(Win), Vol. 34(4), 582–592.—Examines the validity of self-reporting the use of psychotropic or psychotherapeutic drugs in a sample known to have filled 1 or more relevant medical

prescriptions. Discusses factors related to invalid responses and presents comparative findings for antibiotic use.—*A. R. Howard*.

4933. Popoff, David. **Feedback on drugs.** *Psychology Today*, 1970(Apr), Vol. 3(11), 51–52.—The results of a readers' poll (14,748 respondents) concerning drugs indicated that tobacco was seen as considerably more dangerous than marihuana and slightly more dangerous than amphetamines. Even among nonusers very few would go to the police or a clergyman if he caught his children with marihuana or LSD. Among this self-selected sample, 62% favored making marihuana at least as available as alcohol but only 9% felt that way about LSD.—*E. J. Posavac*.

4934. Shetterly, Henry T. (U. Denver) **Self and social perceptions and personal characteristics of a group of suburban high school marijuana users.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3279.

4935. Wolff, Bertil; Netz, Björn, & Lilieblad, Bertil. **Narkotikamissbruk hos Inskrivningsskyldiga 1968/69: III. Missbruksvanor.** [Drug abuse among conscripts 1968/69: III. Drug habits.] *MPI B-Rapport*, 1969(Aug), No. 28, 22 p.—Continues the study by B. Lilieblad and B. Wolff (see PA, Vol. 46:Issue 3) on drug abuse in the Swedish Army. The results of conventional table-reporting and analysis of dimensions are reported, evaluated, and discussed. Points of emphasis are (a) debut, (b) actuality, (c) frequency of abuse, (d) distribution, (e) an entrance and escalation hypothesis of drug use, (f) matters of significance in injecting drugs, and (g) the need for narcotics. It was found that 40% of the Ss (23,305 18-yr-old conscripts) 1st began using drugs in 1967, while those Ss with more serious abuse began earlier. Most Ss started with marihuana and only a minor proportion continued. Ss who began with other drugs more often continued and changed to more serious drugs. Frequency of abuse seemed to be a prominent factor and highly related to other aspects of drug abuse. The subjective need for narcotics was found to be very low, but estimation of the need from abuse habits gave a slightly higher value.—*English summary*.

4936. Wolff, Bertil; Netz, Björn, & Lilieblad, Bertil. **Narkotikamissbruk hos Inskrivningsskyldiga 1968/69: IV. Socialpsykologiska aspekter på narkotikamissbruk.** [Drug abuse among conscripts 1968/69: IV. Drug abuse as seen from social psychology.] *MPI B-Rapport*, 1969(Aug), No. 29, 62 p.—Continues the study by B. Lilieblad and B. Wolff (see PA, Vol. 46:Issue 3) on drug abuse in the Swedish Army. The relationship between narcotic drug abuse and variables, e.g., social background, different kinds of adaptation, and attitudes and use of alcohol and tobacco, were examined. These variables were studied in relation to type of drug abuse and a construct called "propensity for drug abuse." The concept of drug abuse was found to be rather vague, since both those with and without drug abuse could be regarded as heterogeneous groups. The propensity for drug abuse construct appeared to be highly relevant for investigations of this kind. Emotional stability was a very important variable, and experience in the home environment the most relevant aspect of orientation to or rejection of drugs. Immediate measures against narcotic drug abuse appeared to be a very complex area. Prevention is discussed as necessitating an improvement of the resources of mental and social treatment services.—*English summary*.

PERSONALITY

4937. ———. Abraham H. Maslow: A bibliography. *Journal of Humanistic Psychology*, 1970(Fal), Vol. 10(2), 98-110.

4938. Back, Kurt W. & Bourque, Linda B. (Duke U.) Can feelings be enumerated? *Behavioral Science*, 1970(Nov), Vol. 15(6), 487-496.—Investigated whether deep emotional experiences can be assessed only in intensive clinical interviews, or whether they can be studied in survey interviews on representative samples as well. 3 Gallup Polls on transcendental experiences show that these experiences can be investigated in surveys. Results meet the criteria of comprehension and scalability. Positive responses about having the experiences increased over a 6-yr span. This change seems to be due partly to increased acceptability of these experiences, and partly to methodological reasons, i.e., increased confidence of the interviewers in asking the questions. (16 ref.)—*Journal abstract*.

4939. Cartwright, Desmond S. & Cartwright, Carol I. (U. Colorado) *Psychological adjustment: Behavior and the inner world*. Chicago, Ill.: Rand McNally, 1971. xi, 248 p.

4940. Erikson, Erik H. (Harvard U.) *Autobiographic notes on the identity crisis*. *Daedalus*, 1970(Fal), Vol. 99(4), 730-759.—Identity crises in the life histories of individuals are related to unconscious tensions, interpreted in broadly psychoanalytic terms. The manifestations, however, often depend upon the latent panic pervading an entire culture during a specific epoch. Erikson's own intellectual development is explicitly related to identity problems in the old world, and to the additional ambiguity incidental to the adjustment to America. The thesis that identity crises play the key role in psychopathology which in an earlier epoch was occupied by sexual suppression and conflict is restated, and the genesis of the thesis is explained by reference to autobiographic data.—R. F. Creegan.

4941. Gilbert, Albin R. (West Virginia Wesleyan Coll.) Bringing the history of personality theories up to date: German theories of personality stratification. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 725-726.—Since the 1930s, virtually unnoticed by non-German students of personality due to the communication eclipse between them and German psychologists of the Nazi period, the theory of personality strata took its rise in Germany. Briefly stated, the thesis of the theory of personality stratification is that personality is a product of genetically earlier and later functional integrations ("strata"), with the later emerging from the older and superimposing themselves upon the earlier strata.—*Author abstract*.

4942. Müller, Heinz A. *Problematik und Bedeutung des psychologischen Ich-Begriffs*. [Problems and meaning of the psychological ego concept.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1969, Vol. 17(1-2), 117-129.—Presents a historical review of the development, acceptance, and current decrease in popularity of the ego concept. While behaviorists reject this concept, those involved in social psychology and psychoanalysis continue to purport its usefulness. Other concepts which can be compared favorably with the ego concept are: "totality," Gestalt, "individuality," "spontaneity," and "aim-directedness." (32 ref.)—B. Stanton.

PERSONALITY TRAITS & PROCESSES

4943. Bezdek, William & Strodtbeck, Fred L. (U. Chicago) Sex-role identity and pragmatic action. *American Sociological Review*, 1970(Jun), Vol. 35(3), 491-502. Evaluates the proposition that "being means-oriented is structurally parallel with male sex-role requirements, while being goal-oriented is parallel with female role requirements." This proposition is confirmed, not through sex-role classifications derived from attitude scales or biological sex itself, but through sex-role classification derived from the Franck Drawing Completion Test. Originally validated by its ability to discriminate boys from girls, the test is reconceptualized as a kind of "pragmatic" vs. "idealistic" value score. The interpretation that "unconscious" (i.e., projectively measured) femininity in males interferes with task accomplishment is challenged, and a broader theory relating sex-role identity and performance is suggested. (19 ref.)—*Journal abstract*.

4944. Bierkens, P. B. & Frantzen, L. L. (Roman Catholic U., Inst. of Medical Psychology, Nijmegen, Netherlands) *Nader onderzoek met de Barron Ego Strength scale*. [Further research on Barron's Ego Strength scale.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Dec), Vol. 25(11), 677-689.—The Netherlands version of Barron's Ego Strength scale was administered to 25 normal Ss, 20 outpatient psychiatric Ss, 25 clinical psychiatric Ss, and 25 outpatients with back pains. Ss responded to 66 items of the scale. Significant differences at the .001 level were found between the normals and outpatients with back pains and the other 2 groups. No significant differences were found between the normals and outpatients with back pains. The results of cluster analysis indicate that the composition of the scale is rather heterogeneous. 28 items, such as "Sometimes an undesirable thought dwells in my head for days on end," constituted the cluster that was most homogeneous and had the highest r of .72 with the total score. This cluster related to worries about physical and mental well-being. According to these findings, Barron's concept of ego strength could be specified as the absence of complaining behavior. (English summary)—A. J. Ter Keurst.

4945. Chiriboga, David & Lowenthal, Marjorie F. *Psychological correlates of perceived well-being*. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 603-604.—Investigated the comparative impact of psychological resources and deficits on self-perceived well-being or happiness in community-based respondents ranging in age from 16-61. The separate measures of resources and deficits represent independent dimensions, and both are relevant to the subjective sense of well-being. The interaction of resources and deficits was relatively complex: those with many resources and many deficits tended to be happiest, those with few resources and many deficits were least happy. It is concluded that resources may compensate for so-called "deficits," and that the interaction of the 2 dimensions may actually enhance a sense of psychological well-being. *Author abstract*.

4946. Di Giuseppe, Raymond A. (Villanova U.) *Correlation of locus of control with four EPPS items*. *Psychological Reports*, 1971(Feb), Vol. 28(1), 290. Examined correlations between EPPS scores of dominance, achievement, endurance, and autonomy and on Rotter's

Internal-External Control Scale for 30 male undergraduates. Dominance was significantly ($p < .01$) related to internal control. No other correlations reached significance. It is suggested that Ss who score internally on the Rotter test, may not test high on the 4 EPPS scales, while high scoring Ss on the EPPS scales may still score internally on Rotter's test.—S. Knapp.

4947. Feather, N. T. & Simon, J. G. (Flinders U., South Australia) **Attribution of responsibility and valence of outcome in relation to initial confidence and success and failure of self and other.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 173-188.—Tested 128 undergraduates in like-sex pairs with 5 practice and 15 test anagrams varied in difficulty so that $\frac{1}{2}$ the Ss would do well and $\frac{1}{2}$ poorly. Pretest confidence ratings and posttest attributions of performance to ability or luck, recall measures, and satisfaction ratings for self and other were analyzed. Results indicate that (a) Ss were more confident of other's success than their own, (b) the unexpected outcome was more often attributed to luck, (c) other's success was more often attributed to ability and failure to bad luck than self's own success or failure, (d) a positivity bias in recall favored the other, (e) contrast effects occurred for satisfaction ratings, and (f) task performance was a dominant factor influencing confidence and satisfaction ratings. Results are discussed in terms of models involving F. Heider's principle of balance and his analysis of the causes of action, in terms of positivity biases in social perception, and as indicating effects of the social context of performance upon attribution and valence. (20 ref.)—*Journal abstract*.

4948. Foulds, Melvin L. & Warehime, Robert G. (Bowling Green State U., Counseling Center) **Effects of a "fake good" response set on a measure of self-actualization.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 279-280.—Administered the Personal Orientation Inventory (POI) twice to 95 undergraduates, 1st under ordinary testing conditions and then under a "fake good" condition. Deliberate attempts to dissemble in a positive direction resulted in depressed scores on 10 of 12 scales and mean score differences were significant ($p < .05$) on 9 of these scales. The mean score on 1 scale was significantly ($p < .01$) higher on the 2nd administration of the inventory. Findings suggest that POI scores are unlikely to be inflated by the conscious or unconscious attempts of Ss to make a good impression on the inventory when they have little knowledge of the self-actualizing model of man.—*Journal abstract*.

4949. Fozard, James L. & Nuttall, Ronald L. (Veterans Administration Outpatient Clinic, Boston, Mass.) **Effects of the age and socioeconomic status differences on the Sixteen Personality Factor Questionnaire scores.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 597-598.—The 16 PF Questionnaire was administered to 1146 28-83 yr. old males, and across 4 levels of socioeconomic status (SES). The data supported the hypothesis that the effects of age and SES differences are statistically independent. The effects of the age grouping on scale scores equally distributed over 6 levels, but those for SES were divided between 2 levels. Some scale scores were influenced only by differences in age or SES, but 3 were influenced by differences in both. Generally, SES summarized differences in occupations well. The

observed effects of age differences generally agreed with earlier results. —*Author abstract*.

4950. Gáspárné-Zauner, Éva. (Inst. of Highest Formative Teaching, Budapest, Hungary) **Vizsgálatok a pszichológiai érték körében.** [Studies in the field of psychological values.] *Pszichológiai Tanulmányok*, 1968, No. 11, 217-239.—The concept of motivation has been found to be used in psychological literature in a very broad sense. It is therefore necessary that the idea of motivation be stripped of the psychological concepts of purpose and value. However, the psychological value concept should be distinguished from its philosophical counterpart. When classifying psychological values, their function in the psyche should be examined. On this basis psychological values have been classified as factual and regulative, after H. Margenau. The expansion of the personality is directed at factual values, while regulative values determine the way of action. The 2 classes of values affect the psyche in contrary directions. The value system of an adolescent girl is studied, and the role of the 2 types of values in the development of her personality indicated. The function of factual and regulative values is shown in an examination of 8-yr-old children. An even distribution in the functions of the 2 types of values has been found to be the most favorable. Overdominance of factual values produces greed, and that of regulative values overinhibition. It is suggested that educational psychology should develop adequate methods for the assessment of value systems. (Russian summary) (39 ref.)—*English summary*.

4951. Gergen, Kenneth J. (Swarthmore Coll.) **The concept of self.** New York, N.Y.: Holt, Rinehart & Winston, 1971. x, 106 p.

4952. Hall, Jay & Williams, Martha S. (Teleometrics, Inc., Houston, Tex.) **Personality and group encounter style: A multivariate analysis of traits and preferences.** *Journal of Personality & Psychology*, 1971(May), Vol. 18(2), 163-172.—Cites the needs for interpretive parsimony and contextual relevance in the case of assessment devices employed in studies of individual characteristics and group performance. The development of a conceptual model and a related instrument serving those needs is discussed. A multivariate analysis of the relationship between the domains of personality and style preference scores from the Group Encounter Survey was made. Data from 43 male and 40 female undergraduates on some 28 dimensions of personality were assessed relative to group styles. Results from a canonical analysis reveal a strong underlying system of correlation for both male and female samples. It is suggested that the Group Encounter Survey may be more predictive to group performance than traditional multiple inventory approaches. (31 ref.)—*Journal abstract*.

4953. Heaps, Richard A. (Brigham Young U.) **Physical vs. social comparison standards: Their effect on bodily interpretations.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 323-324.—Tested the relative influence of social and physical standards of comparison had on self-interpretations of a particular bodily state. The results gave support to Schachter's cognitive-physiological theory of emotion. Ss' estimates of their physical fitness levels were influenced by manipulating the social and physical standards for self-comparison available to them. The social and physical information were inde-

pendently effective, although the physical information appeared to have a greater impact on the Ss' fitness self-estimates.—*Author abstract.*

4954. Karabenick, Stuart A. (Eastern Michigan U.) **On the relation between personality and birth order.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 258.—Examined 62 1st-, 61 2nd-, and 47 later-born undergraduates on 3 personality dimensions: (a) need for achievement, (b) test anxiety, and (c) need for social approval. Although later born Ss tended to score higher on all measures, no significant differences were found. It is suggested that some restrictions of the generality of previous findings may be indicated. Sampling differences are noted.—*S. Knapp.*

4955. Kurtz, Richard M. (Washington U.) **Body attitude and self-esteem.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 467-468.—Investigated the relationship between a person's global body attitude as measured by the multidimensional Body Attitude Scale and sense of self-esteem as assessed by the Ziller Self-Esteem Scale. Ss were 20 male and 20 female college students. The study also attempted to replicate earlier findings of sex differences in body attitudes. The prediction that high self-esteem is related to a positive body attitude was confirmed as well as the previous finding that females like their bodies better than males. The predicted interaction between sex and self-esteem on the Potency body attitude dimension was also confirmed.—*Author abstract.*

4956. Langley, C. W. (Harvard U.) **Differentiation and integration of systems of personal constructs.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 10-25.—Examined aspects of the generality and interaction of differentiation and integration. Ss were 246 students. Hypotheses were tested by analysis of variance for Ss at extremes on Repertory Test "system" measures of differentiation and integration. Effects at or near significance were observed for differentiation in analytic performance (Concealed Figures Test), and for integration in intuitive performance (Test of Intuitive Leaps). (32 ref.)—*Journal summary.*

4957. Lindenaue, Geoffrey G. **Escape.** *Journal of Emotional Education*, 1970(Spring), Vol. 10(2), 29-32.—Man wants to escape from looking at the painful, unfulfilled parts of himself and flee into the world of fantasy. But in trying to escape from himself he becomes blind to his own real potential. It is only by entering the world of others that it is possible for him to discover himself and live in the adult world of "we" rather than the child's world of "I."—*Journal abstract.*

4958. Lulow, Jeffrey M. (U. Texas) **Self-blame and compliance in depression.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4341.

4959. Malstriaux, R. (Royal Military Academy of Belgium, Brussels) **La structure fondamentale de nos comportements: Le sens authentique de la libido.** [The basic structures of our behaviors: The authentic sense of the libido.] *Information Psychologique*, 1970(Jan), Vol. 10(37-38), 5-45.—Discusses self-preservation and self-affirmation as a basic human drive. References from clinical and industrial psychology are used to illustrate the point.—*S. G. Vandenberg.*

4960. Morgan, William P. (U. Missouri, Human Performance Lab.) **Pre-match anxiety in a group of college wrestlers.** *International Journal of Sport Psychology*, 1970, Vol. 1(1), 7-13.—Compared the preseason

(base-line) and prematch anxiety levels of college wrestlers. Form A of the Institute for Personality and Ability Testing (IPAT) 8-Parallel-Form Anxiety Battery was administered in preseason to 27 candidates, and 7 of the original Ss continued throughout the study. Form B of the IPAT Battery was administered to the wrestlers prior to an easy match, and Form C was administered before a difficult match. Form C was also administered to the 9 members of the opposing team prior to the difficult match. Anxiety levels were significantly lower in the prematch settings but did not differ significantly prior to either the easy or difficult match. The anxiety levels of both teams did not differ significantly for the prematch. (French summary) (16 ref.)—*Journal summary.*

4961. Smith, Barry D. & Teevan, Richard C. (U. Maryland) **Relationships among self-ideal congruence, adjustment, and fear-of-failure motivation.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 44-56.—Fear-of-failure motivation was seen as related to reduced self-satisfaction, adjustment level, and achievement related self-acceptance. 49 male and 50 female college Ss performed on the Hostile Pretest measure of fear-of-failure, a Q-sort, and the Self-Rating Inventory (SRI). In correlational analyses, fear-of-failure was inversely related to both self-ideal congruence ($p < .025$ for each sex) and adjustment ($p < .10$ for males, $p < .005$ for females). SRI data were partially supportive of these conclusions. Achievement congruence was inversely related to fear-of-failure for males ($p < .005$). It is concluded that fear-of-failure motivation in males, while achievement-related, is also associated with a generalized reduction in self-acceptance. (150 ref.)—*Journal summary.*

4962. Stock, William A. & Looft, William R. (Iowa State U.) **Relationships among several demographic variables and the change seeker index.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 1011-1014.—Administered the Change Seeker Index (CSI), an instrument for measuring "preference for stimulus complexity," to 277 undergraduates. Correlations were computed for the CSI with college curriculum, parents' occupation, birth order, and other demographic variables. Most correlations, with the exception of perceived political ideology, were 0 order. 3 other correlations reached statistical significance but were of questionable theoretical or practical significance. The finding of non-relationship of the CSI with birth order is discussed in light of recent reports of significant relationships of birth order with other measures of stimulus-complexity preference.—*Journal abstract.*

4963. Thayer, Robert E. (California State Coll., Long Beach) **Personality and discrepancies between verbal reports and physiological measures of private emotional experiences.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 57-69.—Reports 2 studies in which 1 of the dependent variables was discrepancy scores between concurrent measures of controlled verbal reports of transitory activation and physiological composites. The discrepancy scores of 23 Ss correlated with authoritarianism, antiuntraception, number of brothers and sisters, extroversion, and the ratings by others of the Ss' self-insight. A partial-replication study involved 26 Ss and a slightly different method of obtaining "in-setting" verbal reports. Through verbal reports were probably not as reliable in the 2nd study, discrepancies were again found to be correlated with authoritarianism and

number of brothers and sisters. (18 ref.)—*Journal summary*.

4964. Throop, Warren F. & MacDonald, A. P. (Carnegie-Mellon U.) **Internal-external locus of control: A bibliography.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 175-190.

4965. Weisskopf-Joelson, Edith. (U. Georgia) **Some comments on the psychology of the psychologist.** *Journal of Psychology*, 1971(May), Vol. 78(1), 95-113. Proposes that the diversity of psychological approaches and the emotional commitment and animosity between representatives of the various approaches constitutes a psychological problem. 2 types of psychologists are broadly distinguished and described: the speculative and the empirical psychologist. The thinking processes and procedures of the 2 types are analyzed and discussed in terms of Maslow's concepts of deficiency motivation and means centering as defenses against anxiety. The empirical psychologist is seen as using the mechanisms of isolation, while the speculative psychologist uses projection and intellectualization. It is further suggested that, since most psychologists are men and the helping professions are generally considered feminine, the empirical psychologists may be using the mechanism of denial to defend themselves. However, the speculative psychologists seem to have given up the masculine role in their avoidance of all dissecting, analytic thought. It is concluded that "If psychologists were to become conscious of the defensive nature of their approaches, they might cease to be means centered and instead, adapt their method to the objective requirements of the search for knowledge." (32 ref.)—*S. Knapp*.

4966. Zimring, Fred M. (U. Chicago) **Cognitive simplicity-complexity: Evidence for disparate processes.** *Journal of Personality*, 1971(Mar), Vol. 39(1), 1-9.—Word-association latencies, measures derived from a variant of Kelly's Repertory Test (number of similarly used words in a factor and the number of checks), and the frequency of usage in the language of the constructs were employed. Within the cognitively simple group the S who checks more words as similar to his constructs has slower word-association latency, has fewer constructs in his 1st factor (and so presumably has more factors or dimensions), and uses words of less frequent usage in the language than the cognitively simple member who finds fewer words similar. Thus, it appears likely that the more differentiating member of the cognitively simple group uses dimensions of similarity rather than simply not using dimensions of difference.—*Journal summary*.

Behavior Correlates

4967. Axtell, Bryan & Cole, Charles W. (American Inst. for Research, Lagos, Nigeria) **Repression-sensitization response mode and verbal avoidance.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 133-137.—Requested 96 undergraduates, classified as repressors, sensitizers, and neutrals, to discuss themselves either positively or negatively. $\frac{1}{2}$ the Ss were exposed to prerecorded verbal feedback during their discussion. A $3 \times 2 \times 2 \times 2$ analysis of variance indicates that repressors talked less and did not respond to the simulated verbal interaction with greater durations of verbalization. Under feedback conditions, females verbalized more regarding their positive qualities than their negative ones, while males verbalized more on

negative than positive. Results are consistent with those of previous investigations, and support for an interpretation of repression as learned avoidance.—*Journal abstract*.

4968. Bruchon, Marilou. (Faculty of Letters & Humane Sciences, Nanterre, France) **L'amplitude gestuelle et la personnalité.** [Gestural amplitude and personality.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6 8), 426-427. The angle formed by the raised arms, the length of a step, amplitude of free leg movement, the area covered in writing, and the area covered by a drawing of a person were assessed for 20 Ss in an effort to support the hypotheses that (a) "gestural" amplitude is an organization of habitual motor responses, (b) there is a correlation between gestural extroversion and social extroversion (Guilford's Trait S), (c) there is a positive correlation between gestural extroversion and psychological extroversion (Guilford's Trait T), (d) gestural amplitude is not the same for boys and girls, and (e) gestural amplitude could be compared to general activity (Guilford's Trait G). Arm angle, step length, and free leg movement showed a substantial intercorrelation (.67) as did the writing and drawing size ($r = .44$). Only writing and drawing size showed a positive correlation with social extroversion ($r = .33$ and $.22$), while all of the measures correlated positively with psychic extroversion. There was no significant difference in the performance of males and females.—*R. E. Smith*.

4969. Di Giuseppe, Raymond A. (Villanova U.) **Dogmatism correlation with strength of religious conviction.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 64.—Selected 50 undergraduates at random and administered the Dogmatism Scale and an attitude questionnaire measuring the strength of religious convictions. A Spearman rho was .89 ($p < .01$). Strength of religious conviction was positively correlated to Dogmatism Scale scores.—*Author abstract*.

4970. Greaves, George. (Georgia State U.) **Level of conceptual system functioning in experience with sex and drugs.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 130. Theoretical work in conceptual systems theory describes System 1-functioning persons as rigid, rule-obeying, authority- and culture-oriented, and System 4 persons as flexible, relativistic, and culturally independent. 10 System 4 Ss and 74 System 1 Ss responded anonymously to a series of questions related to sex and drug experiences. System 4 Ss reported significantly more experience with marihuana, LSD, premarital petting, premarital intercourse, and disposition to extramarital intercourse than their System 1 counterparts. Findings are consistent with the theoretically atypical cultural style of these Ss described by earlier researchers in conceptual systems theory.—*Author abstract*.

4971. Hearn, Curry B. & Seeman, Julius. (Upjohn Co., Nashville, Tenn.) **Personality integration and perception of interpersonal relationships.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 138-143.—Studied the ways in which individuals at different levels of personality integration perceive interpersonal relationships. 2 groups of 26 male undergraduates each were selected for high or middle scores on the Personality Integration Reputation Test. A picture-story test was administered and scored. 5 hypotheses concerning predicted differences in perception were substantially confirmed. The high group (a) perceived more relationships, (b) used more affect terms,

(c) used more approach and sharing terms, (d) reported more positive affect, and (e) used more diversified affect and behavior terms. (27 ref.)—*Journal abstract.*

4972. Holmes, David S. (Educational Testing Service, Princeton, N.J.) **Compensation for ego threat: Two experiments.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 234-237.—Conducted 2 experiments with 24 and 18 undergraduate males to provide (a) experimental demonstrations of the use of compensatory behavior in response to psychological threat, and (b) a paradigm through which the process and effects of compensation could be studied. Ss were ego threatened by being led to believe that they were going to have to suck on a baby's rattle, bottle, pacifier, and a breast shield while their level of enjoyment was recorded. Subsequently, Ss elected to receive higher levels of electrical shock or to squeeze a hand dynamometer more times than did control Ss who were not led to believe that they were going to suck on the baby-associated objects.—*Journal abstract.*

4973. Jennings, Floyd L. (U. Texas, Southwestern Medical School, Dallas) **Religious beliefs and self-disclosure.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 193-194.—Investigated the relationship between religious beliefs and scores on S. Jourard's self-disclosure scale for 83 undergraduates. The correlation between beliefs and self-disclosure was 0-order. Ss did perceive themselves to be significantly more "liberal" in religious beliefs than they felt their parents would expect.—*Journal abstract.*

4974. Lewis, Philip & Blanchard, Edward B. (U. Georgia) **Perception of choice and locus of control.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 67-70.—Selected 220 undergraduates on the basis of high and low scores on Rotter's Internal vs. External Locus of Control (I-E) Scale. Ss were given 3 levels of choice to take the role of either the electric shock-giver or receiver in a learning experiment. The perceived freedom of choice in those conditions in which choice was restricted turned out to be a complex function of locus of control, choice condition, and task role. A tentative explanation is offered in terms of both dissonance and reactance theories.—*Journal abstract.*

4975. Pflaumer, Elizabeth M. (Ohio State U.) **Personality correlates of effective listening.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3686.

4976. Staub, Ervin; Tursky, Bernard, & Schwartz, Gary E. (Harvard U.) **Self-control and predictability: Their effects on reactions to aversive stimulation.** *Journal of Personality & Social Psychology*, 1971(May), Vol. 18(2), 157-162.—Investigated the effect of control predictability on reactions to aversive stimulation. 40 paid Ss received a sequence of electric shocks, gradually increasing in intensity under conditions of self- and no-control. Subjective judgment points, including decision about limit of endurance, and heart rate were used to assess reactions. It was found that a small variation in control and predictability (who pushed the shock button) did not itself affect reactions. However, compared to self-control Ss, no-control Ss judged less intense shock as uncomfortable and tolerated somewhat less shocks. These differences disappeared on a 2nd administration of shocks when both groups were given no-control conditions. The experimental treatments also affected heart rate reactions to the shocks. Findings suggest that control predictability can reduce the aversiveness of noxious stimulation. (20 ref.)—*Journal abstract.*

4977. Tennyson, Robert D. & Woolley, F. Ross. (Florida State U.) **Interaction of anxiety with performance on two levels of task difficulty.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 377-378.—A concept acquisition program was divided into difficult and easy sections based on empirically determined probability ratings of the positive and negative instances. Measured anxiety levels and task difficulty were predicted to produce a disordinal interaction. Anxiety was measured by the State-Trait Anxiety Inventory and blood pressure. Anxiety scores increased for the 29 college students during the difficult task and decreased with the easy task ($p < .01$). A disordinal interaction resulted between the 2 tasks when the relative mean error performance of the high and the low anxiety-state Ss was reversed ($p < .05$).—*Author abstract.*

4978. Ward, William D., Day, Charles R., & Hamlin, Richard L. (State University Coll. New York, Brockport) **Perceived similarity to parents as related to responsibility to social reinforcement.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 951-957.—Tested the hypothesis that perceived similarity to parents is a function of one's responsibility to social reinforcement. 31 male undergraduates were given the Role Construct Repertory Test and a verbal conditioning procedure. Results demonstrate a negative relationship. Although there were no differences in conditionability between Ss low and high in perceived similarity to father or between Ss low and high in perceived similarity to mother, when the scores for perceived similarity to the mother and the father were combined, the negative relationship was clear-cut ($p < .01$). The theoretical implications are discussed.—*Journal abstract.*

INTELLIGENCE

4979. Adcock, C. J. & Webberley, M. (Victoria U., Wellington, New Zealand) **Primary Mental Abilities.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 229-243.—Contends that the Guilford structure of intellect schema is too cumbersome for practical use and provides a logical basis for the classification of test material rather than a parsimonious schema of major cognitive factors. In 3 factor-analytic studies, a simplified model involving 3 content areas and 8 basic operations was investigated. Findings indicate that the symbolic content area is superfluous, symbols functioning as figural or semantic according to their use. The result is a 2×8 schema in which no material for the cells is allotted to semantic speed of closure, which is thought to really be the verbal insight factor, or semantic flexibility of closure, which is explained by a possible failure to include suitable tests. Considerable doubt about a separate semantic perceptual speed factor is noted.—*Author abstract.*

4980. Bickley, A. C., Dinnan, James A., & Bickley, Rachel. (Morehead State U.) **Language responses as a predictor of performance on intelligence tests.** *Journal of Reading Behavior*, 1970(Fal), Vol. 2(4), 291-294.—130 19 and 20 yr. old Ss were administered the Otis Quick-Scoring Mental Ability Tests along with 30 words from Coleman's word list to determine the relationship between verbal responses and intelligence test scores. Ss were chosen from a college and a prison training institution. The results of the language responses

were classified according to paradigmatic (e.g., same word class such as duck-bird) and syntagmatic (e.g., sequence or logical association such as duck-shoot) responses. The findings indicate that individuals who perform linguistically according to a paradigmatic approach are likely to score higher on the Otis. In this sense the Otis imposes language constraints. Caution is placed on the applicability of a test that imposes verbal constraints upon the examinee.—*W. L. Chovan.*

4981. **Gardner, Riley W. & Lohrenz, Leander J.** (Menninger Foundation, Topeka, Kan.) **Some old and new group tests for the study of cognitive controls and intellectual abilities.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 935-950.—Presents validity and reliability findings for new group forms of Thurstone's Color-Word Test and Voth's Autokinetic Test. Split-half, alternate, or shortened forms were constructed of several other old and new cognitive control tests and some key intellectual ability tests to explore the reliability of these procedures and the possibility of using shortened forms. Ss were groups of 28, 25, and 46 undergraduate and graduate students. Results suggest that important savings in testing time may be achieved in exploratory studies by using the procedures described here. (21 ref.)—*Journal abstract.*

4982. **Heller, M., et al.** (U. Fribourg, Switzerland) **Quotient intellectuel et rang centile.** [Intelligence quotient and percentile rank.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(2), 71-79.—An abac and 2 original nomographs facilitate conversion of IQs and percentile ranks, based on any IQ mean and with a standard deviation ranging from 4-20, without arithmetical operations. (16 ref.)—*K. J. Hartman.*

4983. **Ostijn, N.** (Center of Studies & Organization, Section of Psychology, Brussels, Belgium) **Niveau d'instruction et test non verbal: Etalonnage du test de Gédéon sur des jeunes gens de 19 à 22 ans.** [Educational level and the nonverbal test: Standardization of the Gédéon Test on young persons 19 to 22 years old.] *Bulletin de Psychologie Scolaire et d'Orientalion*, 1970(Sep), Vol. 19(3), 123-129.—To determine whether or not educational level plays an important role in the results of a test whose content is completely unrelated to subject matter taught, the Gédéon Space Relations Intelligence Test, B Form, was administered to 3122 19-22 yr. old Belgian soldiers. Results differed by educational level (approximately 1% for raw scores, statistically calculated as significant) for those having finished primary school only, primary school and 1 or 2 yr. of secondary school, lower technical school, and lower middle school. It is concluded that educational level must be taken into account even for nonverbal tests. (English summary)—*T. N. Webster.*

4984. **Simmons, William L.** (American Psychological Assn., Washington, D.C.) **Human intelligence: The psychological view.** *Science Teacher*, 1968(Sep), Vol. 35(6), 18-20.—Reviews 2 schools of thought on the nature of human intelligence emphasizing the historical backgrounds and unique aspects of each. 1 view holds that intelligence is an entity, having an actual existence and residing in the brain of an individual. The other view holds that intelligence is a construct created to account for "a multitude of behavioral events." Despite differences between the 2 schools, they both support efforts to enhance intellectual functioning by encouraging innovative approaches to teaching and exposure to

stimulating environments that will arouse interest and increase success in intellectual activities.—*P. McMillan*

4985. **Thyssen, Sven.** (Danish Inst. for Educational Research, Copenhagen, Denmark) **Intelligens og intelligensprøver.** [Intelligence and intelligence tests.] *Nordisk Psykologi*, 1969, Vol. 21(5), 347-357.—Presents a definition of intelligence functions, and discusses its consequences. The relations between intelligence phenomena and need theory, and the construction of a model for intelligence functions that is analogous with E. Tranekjær Rasmussens completeable need theory are important. Need has to do with goals for behavior; intelligence functions are then defined by all those aspects of behavior which have to do with ways to goals, which are not only problem-solving behavior, but also behavior of smooth and/or automatic character. Apparently, aspects of intelligence function may change in 2 ways: (a) by learning (education), and (b) by changes in the need structure. A proposal for classification of intelligence phenomena, in order to point out aspects of intelligence functions, is advanced: (a) what needs are functioning; (b) in what world of phenomena does the individual act; and (c) what relations do exist, or come into existence, between the phenomena the individual is dealing with. The implications for test construction are discussed. Of particular importance is the proposal that different instructions should be used in intelligence tests, in order to create different need situations.—*English summary.*

CREATIVITY

4986. **Carlier, Michèle.** (U. Paris, France) **Une modalité de la créativité: La flexibilité, ses relations avec l'intelligence et les aptitudes primaires.** [A modality of creativity: Flexibility, and its relation to intelligence and primary aptitudes.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(3), 151-164.—Presents a matrix of intercorrelations among 5 tests of intelligence and 11 tests of creativity. Variables of flexibility in relation to creativity are concluded to be independent of general intelligence and primary aptitudes. The independence of flexibility is shown to be constant at all levels of an obtained curve of intelligence. (19 ref.)—*K. J. Hartman*

4987. **Eisenman, Russell.** (Temple U.) **Components of creativity, verbal conditioning, and risk taking.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 687-700.—Reports 3 studies to elucidate the nature of creativity, as defined by scores on a personality questionnaire, the Personal Opinion Survey. In Study I with 231 adult males and females, a cluster analysis suggested 2 important components for highly creative Ss: a bipolar cluster of personal vs. impersonal competence, and an adventurousness cluster. In Study II with 160 undergraduates from a total sample of 295, it was predicted and found that Ss who were personally competent would respond more on a verbal conditioning task if E preceded the conditioning with a friendly (socially enhanced) interaction, while impersonally treated but competent Ss conditioned better in a skill than in a chance condition. In Study III with 62 undergraduates, adventurous Ss took more risks in 2 different classroom investigations. Additional findings are presented which suggest errors in previous conceptualizations of creativity. (25 ref.)—*Journal abstract.*

4988. **Garfield, S. Jeffrey; Cohen, Helen A., & Roth,**

Robert M. (Educational Resources, Inc., Chicago, Ill.) **Creativity and mental health.** *Journal of Educational Research*, 1969(Dec), Vol. 63(4), 147-149.—47 male 18-24 yr. old undergraduates were given tape-recorded clinical interviews and a battery of creativity tests, including the Barron Welsh Art Scale. 3 experienced clinical psychologists rated each S's interview on a 4-point mental health scale. Other judges rated the interviews on C. R. Rogers' elements of creativity, i.e., (a) openness to experience, (b) internal locus of evaluation, and (c) spontaneity. Results are interpreted as empirically supporting the theoretical position that there is a positive correlation between mental health and creativity. Specifically it lends validity to Rogers' postulations concerning the elements which comprise creativity.—*Journal abstract.*

4989. Gorman, Bernard S. & Breskin, Stephen. (Queens Coll., City U. New York) **Non-verbal rigidity, creativity, and problem solving.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 715-718.—Rigidity vs. flexibility has often been mentioned in discussions of creativity and problem solving. The relation of a nonverbal test of rigidity (Breskin Rigidity Test) to tests of semantic redefinition, associational fluency, inductive reasoning, and drawing completion was investigated using 38 male and 33 female undergraduates. The performance of flexible Ss was significantly better than the performance of rigid Ss on all tests but an associational fluency test—Fa-3 Associations IV Test.—*Journal abstract.*

4990. Krippner, Stanley & Hughes, William. (Maimonides Medical Center, William C. Menninger Dream Lab., New York, N.Y.) **Genius at work.** *Psychology Today*, 1970(Jun), Vol. 4(1), 40-43.—"Recent studies indicate that dreaming and creative processes are related." Dream material can be creative because normal bounds of language or social desirability are removed. A number of dreams which helped in scientific breakthroughs and artistic inspiration are presented.—E. J. Posavac.

4991. Pléh, Csaba. (Eötvös Lóránd U., Budapest, Hungary) **A szorongás, a siker és a kudarc hatása a kreatív gondolkodás néhány faktorára.** [Effect of anxiety, success and failure on some factors of creative thinking.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 242-255.—A negative correlation was found between manifest anxiety and scores on the divergent factors of creativity in Guilford's Unusual Uses test. In a less difficult creativity task success raised level of performance, especially for highly anxious Ss. Following failure, low anxious Ss improved their performance, while high anxious Ss did worse. (English & Russian summaries) (20 ref.)—M. Moore.

4992. Rothenberg, Albert. (Yale U., Medical School) **The process of Janusian thinking in creativity.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 195-205.—Discusses "Janusian thinking"—the capacity to conceive and utilize 2 or more opposite or contradictory ideas, concepts, or images simultaneously—in relation to its role in the creative process in art, literature, architecture, music, science, and mathematics. It is suggested that understanding the psychological factors in creativity should be of importance in the theory and everyday practice of the art of psychotherapy. (Clinical and experimental evidence on Janusian thinking are presented. (37 ref.)—*Journal abstract.*

PERSONALITY MEASUREMENT

4993. Buros, Oscar K. (Ed.) **Personality: Tests and reviews.** Highland Park, N.J. Gryphon Press 1970 xxxi, 1659 p.

4994. Cimino, Enrico. **Primo contributo alla taratura italiana del test IKONIA-A.** [First contribution to the Italian edition of Version A of the IKONIA Test.] *Bollettino di Psicologia Applicata*, 1968, No. 88 90, 73-75.—Reports the efficiency of the A version of the IKONIA Test. This is a nonverbal test which consists of tables which represent objects and situations familiar to the S. It is designed for 6-8 yr. olds. A previous study was made on Version B, designed for 9-12 yr. olds. The Italian edition of Version A, although given to fewer Ss, confirms the results of the original version.—A. M. Faraglia.

4995. Jackson, Douglas N. (U. Western Ontario, London, Canada) **The dynamics of structured personality tests: 1971.** *Psychological Review*, 1971(May), Vol. 78(3), 229-248.—Reviews issues raised by the classic manifesto by P. Meehl (see PA, Vol. 20:482) in 1945 on the dynamics of structured personality inventories in the light of subsequent developments. A series of principles relating to personality scale development is proposed, which highlights the role of psychological theory and item content in formulating a multifaceted item pool, and the importance of suppressing response biases. Because of the competing and often interacting relation of trait and method variance, multivariate procedures for scale construction and evaluation of discriminant validity are considered essential. It is concluded that considerably more is now known about personality and scale construction, and that personality assessment specialists need not abandon their unique human capacity to judge and evaluate item content. (55 ref.)—*Journal abstract.*

4996. Ogston, Don & Drakelord, Grant C. (U. Calgary, Alberta, Canada) **Note on the Costello-Comrey Anxiety Scale (CCAS).** *Psychological Reports*, 1971(Feb), Vol. 28(1), 287-289.—Reports a study of the reliability, validity, and discriminability of the Costello-Comrey Anxiety Scale (CCAS). The scale compared very favorably with other accepted measures of anxiety. It is concluded that the economical length and 4-point response mode suit it for use in both applied and research settings.—*Journal abstract.*

4997. Pareek, Udai; Rao, T. Venkateswara; Ramalingaswami, Prabha, & Sharma, B. R. (National Inst. of Health Administration & Education, New Delhi, India) **Developing a battery of pre-adolescent personality tests.** *Indian Educational Review*, 1970(Jul), Vol. 5(2), 1-20.—Reports the development of tests in Hindi and English designed to measure adjustment, dependency, trust, initiative and activity level among preadolescents. Thurstone's method of equal-appearing intervals was followed in the construction of the adjustment and dependency inventories. The tests to measure trust and initiative are semiprojective and the test for measuring activity level is based on a rating technique. Test-retest reliabilities and interscorer reliabilities are reported. (23 ref.)—A. C. Panda.

4998. Webb, P. A. (Management Selection, Australia Pty. Ltd., Melbourne, Victoria) **The Guilford-Zimmerman Temperament Survey: Australia business executives.** *Australian Psychologist*, 1970(Nov), Vol.

543). 278-279.—Reports norms based on a sample of 64 25-55 yr. old male Australian business executives for the Guilford-Zimmerman Temperament Survey. All Ss had IQs of 110 plus as measured by the Australian Council for Educational Research Advanced Test B40. The Australian business executive was reported as somewhat different, but not statistically, from United States norms. It is suggested that Australian norms could be relevant for similar samples in selection and placement.—*H. Roemmich.*

Inventories

4999. Bottenberg, E. H. (U. Würzburg, Inst. of Psychology, W. Germany) **Soziale Erwünschtheit im MMPI Saarbrücken.** [Social desirability in the MMPI Saarbrücken.] *Psychologie und Praxis*, 1970(Oct), Vol. 14(4), 172-179. Reliability of the Social Desirability scale is high ($r = .904$) when the German version of the MMPI is compared with the original American version. Tentative norms for the Social Desirability scale are presented for a 1st orientation. The influence of the scale concentrates on a primary factor of the MMPI, a dimension characterized by anxiety, psychic disturbance, and psychological maladjustment.—*R. F. Wagner.*

5000. Dunn, Thomas G., Lushene, Robert E., & O'Neil, Harold F. **The complete automation of the Minnesota Multiphasic Personality Inventory and a study of its response latency.** *CAI Center Technical Memorandum, Florida State U.*, 1971(Jan), No. 28, 22 p. Tested the feasibility of completely automating the MMPI and compared item response latencies with other MMPI item characteristics. 26 scales were successfully stored automatically for 165 undergraduates. The program also typed a Mayo Clinic interpretive report on a terminal, seconds after the S had completed the MMPI. For the entire MMPI item pool, separate stepwise regression analyses for males and females indicated that the number of characters in an item accounted for 47-58% of the latency variance. The variables of item ambiguity, social desirability, and social desirability-dispersion, accounted for only 3-8% of the variance. When considering the 38 MMPI critical items, "deviant" response latencies were found to be longer than "non-deviant" response latencies. It is concluded that except for subsets of personality items like the critical items, latency may not have the psychological or clinical significance often attributed to that variable. (24 ref.)—*Journal abstract.*

5001. Firetto, Anthony C. & Davey, Heather. (U. Waterloo, St. Jerome's Coll., Ontario, Canada) **Subjectively reported anxiety as a discriminator of digit span performance.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 98.—Assessed performance on the Digit Span test of the WAIS under control and ego-threat conditions. 20 male and 20 female undergraduates were asked at the completion of the test to report their reactions. The experimental conditions did not significantly affect performance. However, Ss who reported feeling no anxiety performed significantly better than Ss who reported feeling anxious.—*Author abstract.*

5002. Gough, Harrison G. (U. California, Berkeley) **Lo sviluppo di una taratura italiana l'Adjective Check List.** [The development of an Italian edition of the Adjective Check List.] *Bollettino di Psicologia Applicata*, 1968, No. 88-90, 23-31.—Outlines the research for the Italian version of the Adjective Check List (ACL). The ACL is an instrument of psychological value

composed of 300 adjectives; one can choose those words which describe himself, others, or abstract ideas. It was introduced in Italy in 1967. Studies were conducted to show that the method can be applied to economic and political questions, as well as for scholastic use. Tests from 1437 male Ss, and 893 female Ss from different areas of the country and ranging from 8-75 yr. old were reviewed and points were given to the 24 variables to obtain raw scores. A new set of norms was devised for the Italian edition of the ACL.—*A. M. Faraglia.*

5003. Kohout, Frank J. (Case Western Reserve U.) **The organization of self conceptions: Construct validity of the Twenty Statements Test.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3639.

5004. Lavit, Ronald J. (Children's Medical Center, Tulsa, Okla.) **A validation study of the Test Anxiety Questionnaire with college students.** *Psychology*, 1971(Feb), Vol. 8(1), 2-3.—The Test Anxiety Questionnaire (TAQ) was administered to 374 college students. 40 high anxious and 40 low anxious Ss were selected using the upper and lower 15th percentiles. The Holtzman Inkblot Technique (HIT) was administered to all Ss. No significant correlations were found among the TAQ and HIT, and no significant correlations were found for either sex among the HIT scales and the TAQ. It is concluded that more work is needed to establish the validity of the TAQ as a measure of test anxiety for college students and that the TAQ and HIT may be tapping different phenomena.—*J. A. Blazer.*

5005. Ward, William D. & Day, Charles R. (State University Coll. New York, Brockport) **Perceived similarity to parents as related to perceived similarity to other adults.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 739-742.—Administered the Role Construct Repertory Test to 109 male college juniors to investigate whether measures of perceived similarity to one's parents are equivalent to perceived similarity to adults in general. The former tended to be consistent with the measures of perceived similarity to some "other adults" and inconsistent with measures of perceived similarity to other "other adults." Thus, perceived similarity to parents may generalize to other adults because of common characteristics other than adulthood between parents and other adults. A sweeping generalization that measures of perceived similarity to parents are equivalent to perceived similarity to adults in general is not warranted.—*Journal abstract.*

Projective Techniques

5006. Belschner, Wilfried; Lischke, Gottfried, & Selg, Herbert. **Foto-Hand-Test (FHT) zur Erfassung der Aggressivität** [Foto-Hand-Test (FHT) for the measurement of aggression.] Freiburg, W. Germany: Karl Alber, 1971. 56 p.

5007. Bernet, A. (Cantini Center, Cardiological Clinic, Marseille, France) **Liste de cotation de formes pour le test Z individual.** [Lists of responses to images in the individually administered Z test.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(2), 111-138.—Presents tables of responses of a total of 500 20-60 yr. old normal Ss for the 3 plates of the Zulliger (z) projective test. More than 5500 responses are arranged according to categories of form.—*K. J. Hartman.*

5008. Csirszka, János. **A bellelészkes diagnosztikai vizsgálat a Thematic Apperception Test módosított értékelésével.** [Diagnostic examination of adjustment based on a modified evaluation of the Thematic

Apperception Test.] *Pszichológiai Tanulmányok*, 1968, No. 11, 657-675.—In the case of directed examinations, it is desirable to apply psychodiagnostic methods which, although aimed at giving a total personality picture, expose traits and functions which constitute the primary object of the survey. To facilitate the estimation of good adjustment, a construct system for the interpretation of TAT records was established. The critical points in the system reflect along the axis of sociability and emotionality, dynamic personality traits and functions, as well as the quality of the S's activity. With the help of this method the quantification of some of the qualitative scores is possible. Mean values were obtained from the standard examination of 17-18 yr. old secondary school girls, and valency of the TAT plates regarding the adjustment scores elaborated. (Russian summary)—*English summary*.

5009. Gill, H. S. (Tavistock Clinic, London, England) **A quantitative approach to the Word Association Test.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 4-6.—Presents a new method to assess the content of word associations. Stimulus words were selected on the basis of projective potential and meanings related to interpersonal relations and affect. Responses are assessed along the following 6 dimensions: (a) form of expression, (b) syntactical use of stimulus, (c) self and other references, (d) mode of communication, (e) affective tone, and (f) affective references. Reliability of judgment on the 1st 5 dimensions was above 80%.—*B. Beit-Hallahmi*.

5010. Kline, Paul & Gale, Anthony. (U. Exeter, Inst. of Education, England) **An objective method of administering a projective test: The Blacky Pictures.** *British Journal of Projective Psychology & Personality Study*, 1969(Dec), Vol. 14(2), 12-16.—Describes an objective method of administering the Blacky Pictures in a language laboratory setting. It appeared to overcome many of the objections to projective tests. Study of the reliability and the validity of the resulting scores indicate that it was a viable method.—*Journal summary*.

5011. Lavit, Ronald J. (Children's Medical Center, Tulsa, Okla.) **Variables underlying the perception of inkblots by low test anxious college students.** *Psychology*, 1971(Feb), Vol. 8(1), 16-18.—From a group of 374 college students, 40 low anxious Ss were selected from the lower 15th percentile of a distribution of Test Anxiety Questionnaire scores. The main factors which emerged in the analysis of these low test anxious Ss were (a) reality-oriented cognitive processes, (b) feelings of hostility and anxiety, (c) avoidance of both emotional demands and inner needs, (d) sexual preoccupation, (e) rejection of unstructured situations, and (f) inner-looking introspective concerns.—*J. A. Blazer*.

5012. Ombredane, P. A. **The "Congo T.A.T." of Professor André Ombredane.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 27-29.—Announces the new edition of the Congo TAT, designed as a projective technique for use with black Congolese. It is described as "the catechism of African psychologists."—*B. Beit-Hallahmi*.

Rorschach Test

5013. Campo, Vera & Jubert, Elena N. **Dissociation and M.** *British Journal of Projective Psychology & Personality Study*, 1969(Dec), Vol. 14(2), 17-22.—Good M responses on the Rorschach are assumed to be the

consequence of an adequate, "instrumental," degree of dissociation, proper to an integrated personality. Various definitions of dissociation under various conditions, and its relationship to M responses, are described. Dissociation is considered to have both positive and defensive functions, which would be reflected in Rorschach responses. These aspects of dissociation are illustrated by Rorschach responses from 2 protocols.—*B. Beit-Hallahmi*.

5014. Kaye, J. D. (Australian National U., Canberra, Australian Capital Territory) **Percept organisation as a basis for Rorschach interpretation.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 7-14.—Many Rorschach hypotheses have insufficient research validation but are nonetheless used as a basis for analysis and interpretation of the protocol. A system of assessment independent of these hypotheses and based on the test's nature as a perceptual task is discussed and illustrated. This system, which utilizes objectively measurable aspects of the Rorschach response is derived from the variability of perceptual processes along a continuum from developmentally inferior to developmentally superior levels of function. It provides a comparative method of assessment, useful particularly in the measurement of change over time.—*Journal abstract*.

5015. Kulcsár, Zsuzsanna. (Eötvös Lóránd U., Budapest, Hungary) **A percepció elhárítás egy fajtája Rorschach-válaszokban.** [A form of perceptual defense in Rorschach responses.] *Pszichológiai Tanulmányok*, 1968, No. 11, 701-709.—Described a specific form of response found in the Rorschach records of 19 Ss with anxiety hysteria in the course of clinical practice. It involves the phenomenon termed "growing dim—disappearing" and interpretations verbalized as "blurred." This class of responses seems to correspond to the data obtained by U. Kragh in his tachistoscopic experiments and may be considered as the expression of a form of perceptual defense. They are assumed to represent a specific and new form among the Rorschach scores, indicative of general perceptual defense. Ideas of or attempts at suicide having occurred in a significant percentage of the Ss, this type of Rorschach response, on the basis of the specific pathomechanism of the Ss, is considered to belong to the Rorschach suicide syndrome. (Russian summary)—*English summary*.

5016. Mérei, Ferenc. **A különleges reakciók a Rorschach-próbában.** [Specific reactions in the Rorschach Test.] *Pszichológiai Tanulmányok*, 1968, No. 11, 677-700.—Discusses the importance of a 5th column for scoring specific reactions in the Rorschach Test. These scores are considered to be delimitable phases of real psychic processes, i.e., models of reactions. Specific reactions have been grouped into 6 diagnostically important classes: (a) reactions corresponding to sensorimotor schemes (in the conceptual reference frame of H. Wallon, based on the observations of F. Minkowska): varied stereotypy, dilated secondary formula, enumeration of details, linking percepts; (b) signs of syncretic "mental form": infantile responses, juxtaposition, ideovisuality, molecule reaction, transparency (2 layers are assumed, either the upper layer is transparent or the lower layer shows through); (c) reactions of impulse neutralization and dereization: abstract verbalizations (Minkowska), noninterpretative stereotypes, bizarre verbalizations (Rapaport), dereization (increasing tendency of devitalization from plate to plate); revealing alienation, depersonalization, autism; (d) instability of the

conscious thought processes associated with interpretation, characteristic of the psychosyndrome of organic lesions; (e) paradox reactions (color denial, color dramatization, color projection), indicating emotional lability, suggestibility, exaltation, and hysteric symptom-formation; and (f) elaborative reactions: sthenic reaction and elaborations of tension, indicating the ability for cooperation and insight, and good prognosis for psychotherapy. (Russian summary) (32 ref.)—*English summary.*

5017. Potaky, Charles R. (Western Illinois U.) **Sources of utility in Rorschach interpretation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 469-470.—36 experienced clinicians interpreted 3 Rorschach protocols under conditions which controlled access to information. Clinicians could select any of 329 separate information items considered necessary and sufficient for answering clinical questions of Diagnosis, Anxiety, and Intelligence. Free Associations and Personal Data had highest utility, followed by such scores as Beck's F+%, R, P, M, C, CF, FC, and W scores. No single Rorschach score was found to have outstandingly high utility for any of the clinical questions. The usefulness of qualitative sources of information was contrasted with typical emphases on quantitative sources characteristic of past validation studies which have "failed" to demonstrate Rorschach validity.—*Author abstract.*

5018. Ring, E. (3 Kaltbrunner Str., Aillensbach, W. Germany) **Die Rorschach-Technik in der psychologischen Gesellschafts-Diagnostik.** [The Rorschach technique in the psychological diagnosis of groups.] *Psychologie und Praxis*, 1970(Oct), Vol. 14(4), 160-172.—Plate III of the Rorschach test was presented to a representative sample of 4000 individuals in Germany. Results indicate that the procedure can be used for a social diagnosis. The individuals who were asked to interpret the plate cooperated well and interviewers were able to obtain reliable measurements. Results of the research are given in 6 tables contributing to a validity estimate, Rorschach scales, and applicability of this procedure. Test administration was done on an individual basis.—*R. F. Wagner.*

5019. Tarantino, O. **Réponses banales congolaises au test de Rorschach.** [Popular responses of Congolese to the Rorschach test.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(3), 181-202.—Reports on popular responses to the Rorschach for 120 Ss chosen at random from the 1st- and 2nd-yr students in the University of Lovanium at Kinshasa, Congo. More than 3700 responses were classified to select those which were obvious to all Ss. The results provide a basis for establishing norms for Congolese and for comparison with other cultures. (27 ref.)—*K. J. Hartman.*

CLINICAL PSYCHOLOGY

5020. Hajtman, Béla. (Hungarian Academy of Sciences, Computer Centre, Budapest) **Egy diagnosztikai skála konstrukciójáról.** [On the construction of a diagnostic scale.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 285-291.—Presents a qualitative diagnosis on a nominal scale with classes of natural order, and an additional measurement related to the symptom on which the diagnosis was based. By fitting a linear regression model to these variables, the diagnosis on a

ratio scale can be scaled. In order to be able to develop this model, certain conditions under which the scale obtained constitutes a valid measure of a given diagnosis had to be defined; these conditions are listed. (Russian summary)—*English summary.*

5021. Illyés, Sándor. **A kóros pszichológiai jelenségek vizsgálatának néhány módszertani kérdése.** [Methodological problems in the investigation into pathological mental phenomena.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 459-475.—Stresses the necessity of fulfilling 3 requirements when assembling normal and abnormal experimental groups: (a) group differences must be ensured, (b) the abnormal group must be homogeneous and must represent the trait to be explored uniformly, (c) abnormal groups must be formed in such a way that normal-abnormal comparison should be made separately for the effect of each condition. In comparing performances of normal and abnormal groups, 3 typical situations are distinguished: (a) mental traits of normals and abnormals differ only quantitatively, i.e., the pathological condition is only a "weak" or "more defective" or "more developed" variant of the normal condition; (b) there are qualitative differences between normal and abnormal; and (c) there is structural divergence between psychological traits of normals and abnormals, although their achievement becomes identical through compensation. It is suggested that the comparison of normals and abnormals should in all 3 situations be executed differently. (Russian summary) (32 ref.)—*English summary.*

5022. Kubie, Lawrence S. (U. Maryland, Medical School, Baltimore) **The retreat from patients: An unanticipated penalty of the full-time system.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 98-106.—Describes the current retreat from contact with patients and analyzes several causes: (a) the painfulness of work with patients; (b) a general tendency to undervalue clinical skills; (c) a general failure to realize how long it takes to acquire clinical maturity; (d) the emphasis on research for tomorrow's medicine, at the expense of service for today's needs; (e) propaganda for service to the community; (f) higher academic rewards for everything but clinical skills; and (g) the tendency of top-rank full-time professors to set a bad example by their full-time absences. It is concluded that in no discipline is this trend as destructive or as prevalent as in psychiatry. (20 ref.)—*Journal abstract.*

5023. Kunitz, Stephen J. (U. Rochester, Medical School) **Equilibrium theory in social psychiatry: The work of the Leightons.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 312-328.—Attempts "to trace some of the intellectual roots that seem to have played a role in the development of the theoretical position of 1 important area of social and cross-cultural psychiatry, the body of work done by Alexander and Dorothea Leighton and their various co-workers..." and to assess "the explanatory value of this particular theoretical position." It is shown "(1) that the traditions from which this body of work draws have led to a conservative bias in the assumptions underlying the theory; and (2) that the theory itself is a series of hidden tautologies which in themselves do not really explain the reported empirical findings." (40 ref.)—*S. Knapp.*

5024. Moser, Hanna M. (Veterans Administration Hosp., Lyons, N.J.) **A ten-year follow-up of lobotomy patients.** *Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 381.—Reports a follow-up study on 134

patients who were lobotomized between 1944 and 1955. 25 Ss had died, 15 had been discharged, and 94 were still hospitalized. Evaluations of behavior showed a significant decrease in assaultive behavior, an increase in manageability, and an increase in ability to leave the hospital on pass for brief periods. However, almost $\frac{1}{2}$ the Ss experienced seizures, and intellectual loss was severe in 25%. That fewer than 10% were able to be discharged is regarded as indicating that the gains achieved by lobotomies are equivocal.—S. Knapp.

5025. Moussong-Kovács, Erzsébet. (Medical U., Budapest, Hungary) **Kutatás-etiikai problémák az orvosi pszichológia területén.** [Ethical problems in clinical psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 359-369.—Discusses a fundamental methodological dilemma of clinical research: to reconcile the aspects of moral responsibility and humanism with the seemingly contradictory demands of modern experimentation. Specific ethical issues arising in 4 spheres of therapeutical experiments are discussed. As an example of "sanguinean operations," examinations carried out by means of implanted deep electrodes, psychopharmacological and model-psychosis studies, investigations of stress, and psychodiagnostic methods employed in revealing unconscious contents are considered. An analysis of documents which specify the moral obligations of physicians from the research point of view and the ethical criteria in selecting Ss are included. (Russian summary)—*English summary.*

5026. Pethő, Bertalan. (Medical U., Budapest, Hungary) **Körforma, emberkép és teszt módszerek.** [Nosology, image of man and test methods.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 256-262.—Describes the advantages of a holistic, multidimensional approach to psychiatric research. (English & Russian summaries) (23 ref.)—M. Moore.

5027. Phillips, Derek L. & Clancy, Kevin J. (New York U.) **Response biases in field studies of mental illness.** *American Sociological Review*, 1970(Jun), Vol. 35(3), 503-515.—Discusses the possible influence of 2 response biases which may affect the validity of social science measures, i.e., social desirability and acquiescence, and reports the results of a pilot study concerning a psychiatric inventory used by several investigators. Analysis of data reveals that people's evaluation as to the "social desirability" of the inventory items is related both to their position in the status hierarchy and to their reports as to whether or not they have experienced the various symptoms constituting the inventory. Thus, the relationship between socioeconomic position and mental health is affected by people's evaluations as to the desirability of mental health inventory items. However, the findings also confirm that the existence of a relationship between socioeconomic position and disorder is not just a result of the hypothesized distortions arising from a response bias. (38 ref.)—*Journal abstract.*

5028. Rabkin, Richard. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Inner and outer space: Introduction to a theory of social psychiatry.** New York, N.Y.: W. W. Norton, 1970. 215 p. \$7.50.

5029. Rothman, Theodore. (Ed.) (U. Southern California, Medical School, Los Angeles) **Changing patterns in psychiatric care: An anthology of evolving scientific psychiatry in medicine.** New York, N.Y.: Crown, 1970. xxii, 296 p. \$7.95.—Presents the views of various authors prominent in the field of psychiatry concerning (a) historic evolution, present directions, and

evolving programs in psychiatric care; (b) perspectives in the treatment of schizophrenia and affective disorders; (c) new approaches to research and education; and (d) the interaction of biostatistics, empiric sociology, psychology, biology, and pharmacology.

5030. Strömberg, Erik. (Aarhus U., Århus, Denmark) **Psykkiske lidelsers frekvens og behandlingsbehov.** [The frequency of mental diseases and need of treatment.] *Nordisk Psykologi*, 1969, Vol. 21(1-2), 28-42.—Describes 3 demographic materials and stresses the need of planned economy because of the recent prospects of an optimal psychiatric care in Denmark. The advances of medical therapy were so great that a proper strategy would enable mental health personnel to offer adequate support and cure to the whole population if monetary investments were doubled to $\frac{1}{2}$ o/oo of the national income, i.e., postponing color TV 5 yr. The results from the 5-yr investigation of the island of Samø with 6000 inhabitants representative of the rural population are of special interest. General practitioners referred more severe cases to psychiatrists who visited the island regularly and 2% were examined. Of these 472 only 11% needed institutional treatment, $\frac{1}{2}$ of the rest could be handled by the general practitioner. An optimal mental care in Denmark would require 1 psychiatrist, 1 mental health nurse, 1 social worker, and $\frac{1}{2}$ psychologist per 20,000 inhabitants for outpatient services. Institutional work requires another psychiatrist but children are not taken into consideration here. It amounts to a doubling of psychiatrists and a heavy need for psychologists.—P. Mylov.

5031. Westbury, David G. (H. M. Prison, Durham, England) **Forensic psychiatry in Britain: Its potentials.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 165-176.—Considers that psychiatry today is at the level of general medicine around 1900. Public opinion, in advance of psychiatric knowledge, has forced legislation to take note of deviant behavior. The more carefully offenders are studied, the more abnormality is discovered. The captive population of our prisons could provide the most interesting multidisciplinary study material. It is suggested that regional centers of psychiatry and new types of hospitals be set up, and methods of clinical assessment that may form a basis for prognosis and individualized rational treatment be developed. (French, German, & Spanish summaries)—*Journal summary.*

PERSONNEL

5032. Balsam, Alan & Garber, Norton. (Yale U., Medical School) **Characteristics of psychotherapy supervision.** *Journal of Medical Education*, 1970(Oct), Vol. 45(10), 789-797. Analyzed the responses of 59 psychiatric residents who completed questionnaires about 76 supervisors. 5 meaningful and independent characteristics were identified. 3 concerned with patterns of emphasis in supervision (psychodynamic aspects of psychotherapy, clinical management, and group therapy) and 2 with personal style (warm and active). Each supervisor was perceived as having each of these characteristics in varying degrees. It is concluded that these characteristics represent independent scales by which individual supervisors may be evaluated, and that they are not necessarily at variance or incompatible with each other. The wider application of this method to the study of professional training is discussed.—*Journal summary.*

5033. Bradley, Eloise K. (U. Oregon) **A study of the role expectation for attendants in a state institution for the mentally retarded.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3369.

5034. Comba, Cecilia Y. (U. Oregon) **A study of the role expectation for attendants in a state institution for the mentally retarded.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3370-3371.

5035. Crow, C. M., Mowbray, R. M., & Bloch, S. (U. Melbourne, Australia) **Attitudes of medical students to mental illness.** *Journal of Medical Education*, 1970(Aug), Vol. 45(8), 594-599.—Tested 90 5th-yr medical students with 3 scales from the Opinions about Mental Illness (OMI) Scale before and after a 6-wk training course in psychiatry. Personality test scores were available from the Eysenck Personality Inventory and the Complexity of Thinking and Social Introversion scales of the Omnibus Personality Inventory. Ss showed significant changes following training in the direction of attitudes held by the staff members. Ss who held extreme views on the 3 OMI scales were contrasted. Findings were consistent with the existence of an authoritarian attitude in certain students who were less likely to change following training. It is suggested that such students be identified and that methods be developed for their more effective instruction.—*Journal summary*.

5036. Dyer, Elaine D., Monson, Mary A., & Van Drimmelen, Jennie B. (U. Utah) **Does age, education, and administrative position reflect in CPI scores?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 573-574.—Studied the relationships of administrative position, age, educational preparation, and the 18 CPI scales in 1018 randomly selected registered nurses from 31 Veterans Administration Hospitals. Significant correlations ($p < .05$) were found between: (a) administrative position and Do, Re, Sc, Ai, Py, and Fx; (b) age and -Sy, -Sp, -Sa, -So, Sc, Gi, -Cm, -Ai, -Ie, and -Fx; and (c) educational preparation and Do, Cs, Sy, Sp, Sa, To, Ai, Ie, Py, and Fx. Eta coefficients indicated that relationships with the CPI scales were linear. Administrative position, age, and educational preparation were not highly intercorrelated. Highest profiles were obtained by older Ss with master's degrees in supervisory positions.—*Author abstract*.

5037. Gardner, James M. & Giampa, Franklyn L. (Orient State Inst., O.) **The Attendant Behavior Checklist: Measuring on-the-ward behavior of institutional attendants.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 617-622.—Examined the reliability and validity of a time-sampling technique for measuring on-the-ward behavior of attendants ($N = 20$ 19-42 yr. old females) in a state institution for the retarded. An 11-category behavior checklist was constructed from previous work by Bensberg and Barnett. High interscorer, test-retest, and split-half reliabilities were found. Regular attendants behaved differently than behavior modification trainers; however, there were no significant differences between the trainers judged (by their supervisors) to be high or low in overall competence. The relationship between on-the-ward behavior and attitude, knowledge of mental retardation, and ability to apply behavior modification techniques was also examined. (15 ref.)—*Journal abstract*.

5038. Hyams, Lyon, et al. (William Alanson White Inst., New York, N.Y.) **Varied needs of primary physicians for psychiatric resources: I. Behavioral**

indices. *Psychosomatics*, 1971(Jan), Vol. 12(1), 36-45.—The traditional medical model of specialized technical intervention and somatic focus governs the priorities of physicians for involvement with the emotional problems of their patients. Conservative medical techniques, e.g., physical examinations with reassurance, are preferred. To gather more information about the primary physician, an 84-item self-administered questionnaire was designed to provide data about (a) self-reported behavior with patients with emotional problems, and (b) subjective attitudes and needs. The questionnaire was sent to all primary physicians ($N = 610$) in 2 geographically distinct hospitals. Return rates were 50 and 74%. Surveyed physicians showed inadequate use of (a) psychotropic drugs, (b) referrals to private psychiatrists, and (c) community facilities. While most physicians indicated their willingness to treat more patients with emotional problems, it is inferred that the present system of relationship between the primary physician and the psychiatrist does not meet the needs of many of these physicians.—*Journal summary*.

5039. Krakowski, Adam J. (Champlain Valley-Physicians Hosp., Medical Center, Plattsburgh, N.Y.) **Doctor-doctor relationship.** *Psychosomatics*, 1971(Jan), Vol. 12(1), 11-15.—Discusses aspects of the doctor-doctor relationship, defined as a triadic process involving 2 physicians and a patient during diagnosis and therapeutic transaction, and compared to transference and counter transference. Psychodynamic formulations suggest that the physician is motivated in choosing his profession by the need to counteract his fear of death; this task is accomplished through desensitization, denial, and rationalization. The mastery of anxiety is decisive in the quality of medical success. The satisfactory resolution of the unconscious fear of death is also responsible for the positive doctor-doctor relationship. (15 ref.)—*Journal summary*.

5040. Naftulin, Donald H., Ware, John E., & Myers, Vincent H. (U. Southern California, Medical School, Los Angeles) **Psychiatrist interest in continuing education.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 260-264.—Describes the results of 2 surveys of 1062 Southwestern psychiatrists' interests in continuing education course content, format, scheduling, and fees. Of 55 specific subject choices offered respondents, interest was greatest in (a) preparation for board examination, (b) adolescent psychiatry, (c) psychiatry and law, (d) community psychiatry, and (e) psychosomatic medicine. It is suggested that the survey results may serve as a tentative guide for course offerings and the survey form as a model for repeated surveying of psychiatrists' continuing education interests in other parts of the country. Current concerns about the adequacy with which board examination passage reflects clinical competence, the difficulty in defining clinical competence, and the trend toward mandatory continuing education for physicians are discussed. The high interest of board-eligible psychiatrists in board preparation courses suggests that intensive review courses in psychiatry might serve as effective incentives for continuing education. (17 ref.)—*Journal abstract*.

5041. Perry, Gwenda. **The shortage of occupational therapists in psychiatric hospitals.** *Australian Occupational Therapy Journal*, 1970(Apr), Vol. 17(2), 12-13.—Considers the shortage of occupational therapists in Australian psychiatric hospitals and the possible reasons for this shortage. An ongoing program of occupational

therapy in a psychiatric hospital is described. It is concluded that there is a need for occupational therapists and that they should involve themselves more in the treatment of psychiatric illness.

5042. Shearn, Charles R. & Fitzgibbons, David J. (Inst. of Living, Hartford, Conn.) **Theoretical orientation of mental health professionals as a function of professional discipline and length of experience.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 230.—Found a significant relationship between professional discipline and theoretical orientation in a sample of 183 mental health professionals. Clinical psychologists emphasized nondynamic and eclectic orientations; psychiatric social workers tended to identify with the psychoanalytic viewpoint; and psychiatrists were over-represented in a catch-all "other" category. In the latter case, length of experience became significant, with less experienced psychiatrists being listed as "other" for giving no theoretical orientation, and more experienced for giving multiple orientations.—*Author abstract.*

5043. Smyth, Veronica & Thomas, David R. (Mater Misericordiae Hosp., Brisbane, Australia) **Effects of nursing training on attitudes toward psychiatric patients.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 34.—Administered a 26-item questionnaire to 50 1st- and 50 3rd-yr nurses. The senior nurses held significantly more favorable attitudes toward psychiatric patients ($p < .001$). An estimate of variance from the t ratio showed that the between groups variance accounted for approximately 90% of the total. Results suggest that professional nurses' training significantly affects attitudes toward psychiatric patients.—*Author abstract.*

5044. Suess, James F. (U. Mississippi, Medical School, Jackson) **Self-confrontation of videotaped psychotherapy as a teaching device for psychiatric students.** *Journal of Medical Education*, 1970(May), Vol. 45(5), 271-282.—Describes a program using 15-min videotapes of psychiatric interviews by students for self-confrontation, (a) by the student alone, (b) in the supervisory session, (c) by the student with his peer group, and (d) by the student with his patient. It is concluded that this system allows for more accurate, objective evaluation of the student's strengths and weaknesses as a therapist and that this is experienced more clearly and vividly than the usual written notes or verbal recollections of the interview. The limitations of the system are noted.—*Journal summary.*

PSYCHOTHERAPY & ANALYSIS

5045. Abramovitz, Carole. (U. Cape Town, South Africa) **Beyond empiricism.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 137-138.—Suggests that the question of goals in psychotherapy is a value-laden choice that is logically prior to the choice of techniques. It is argued that techniques whose outcome is not empirically verifiable should not necessarily be rejected.—*Journal abstract.*

5046. Balint, Michael. **Research in psychotherapy and the importance of the findings for psychoanalysis.** *Revue de Médecine Psychosomatique et de Psychologie Médicale*, 1970(Fal), Vol. 12(3), 225-240.—Tested new techniques to teach physicians to deal psychotherapeutically with their patients in a brief period of time. A case report of a 68-yr-old single female is presented. The new technique, in contrast to the

traditional psychoanalytical approach and an unsuccessfully attempted "focal" technique, consists of tuning in to the patient's wavelength of communications so exactly that S will be able to respond accurately.—*R. Naar.*

5047. Canter, Francis M. (Eastern Michigan U.) **Authoritarian attitudes, degree of pathology and preference for structured versus unstructured psychotherapy in hospitalized mental patients.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 231-234.—95 men and 125 women mental hospital patients indicated preference for relatively structured (lectures) vs. relatively unstructured (group discussions) psychotherapy, each of which the patient experienced in the hospital. Preferences were related to the Ss' degree of authoritarianism as measured by the California F Scale and degree of mental pathology as measured by the MMPI. Social class was held relatively constant, since all Ss were of lower-middle or lower class. Authoritarianism was higher in Ss preferring the structured approach but degree of pathology was not consistently distinguishing. It is concluded that the personality of the patient can be an important factor in considering the kind of psychotherapeutic approach to be used.—*Journal abstract.*

5048. Fried, Edrita. (New York Medical Coll., N.Y.) **Active/passive: The crucial psychological dimension.** New York, N.Y.: Grune & Stratton, 1970. ix, 222 p.

5049. Graves, Marie H. (Headstart Program, Punta Gorda, Fla.) **Help for troubled parents.** New York, N.Y.: Vantage, 1970. 195 p. \$4.95.

5050. Hairston, Elaine H. (Ohio State U.) **An analysis of the use of oral interpretation as a psychotherapeutic technique.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3638.

5051. Hau, Theodor F. (German Psychoanalytic Society, Inst. for Psychoanalysis & Psychotherapy, Freiburg, W. Germany) **Strukturierung des psychoanalytischen Prozesses: Zur heutigen Lage der psychoanalytischen Therapie.** [Structuration of the psychoanalytic process: The current situation of psychoanalytic therapy.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Jan), Vol. 16(1), 41-52.—Discusses the dynamics of the analytical situation, the structuration of the psychoanalytic process and their foundations. Psychoanalysis as a diagnostic and therapeutic method, in the course of its development as a science (not as a dogma), has become more and more differentiated and intensified. As the so-called classical method, it still is best suited to examine and change personality in the direction of the genital character (Freud), the productively-oriented personality (Fromm), or the autonomous man (Schulz-Henkels). As a classical method its indication is relatively narrow. Only 30% of all patients in need of psychotherapy are capable of being analyzed. Another 30% can be treated with psychotherapeutic methods and be made analyzable. The form of therapy has to vary depending on the treatment goal and type of patient. The main efficacy of psychotherapy should not be seen in or expected from therapy but prophylaxis, i.e., psychohygiene, pedagogies, and any kind of social work. It is suggested that in the future, more psychoanalysts besides their practical psychotherapeutic activity should effectively apply the knowledge of psychoanalysis to these prophylactic areas. (31 ref.)—*B. Schay.*

5052. Hau, Theodor F. & Messner, Kurt. (U. Freiburg,

Medical Clinic, W. Germany) **Zur Psychosomatik und stationären Psychotherapie bei Patienten der ersten und der zweiten Lebenshälfte.** [Psychosomatics and inpatient psychotherapy with patients in the first and second halves of life.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 157-164.—In the psychosomatic department of a university clinic, patients (16 yr. old and older) were given psychotherapeutic treatment based on psychoanalysis. From the psychological aspects, the 1st 1/2 of life was set at age 1-30 and the 2nd 1/2 beginning at 40. Patients of both groups differed in the accumulative occurrence of certain diseases and some Hawie IQs. Male patients of the 2nd 1/2 of life scored higher in overall, verbal, and action intelligence. There was no difference between women of both groups, and patients showed no differences in the Hawie intelligence profile. In patients hospitalized with chronic illnesses, the quick response to symptomatic measures seems to have a causal connection. There was no dependency between the degree of chronicity and the intelligence level as well as intelligence profile in the Hawie test. In the selection of persons for inpatient psychotherapy by ambulatory preexamination, patients of the older group seem to make up for the prognostically unfavorable factor of advanced age by a higher level of intelligence.—*B. Schay.*

5053. **Hirsch, Margit.** *Indikáció és prognózis gyermekkori személyiségfejlődési zavarok pszichoterápiájában.* [Indication and prognosis in the psychotherapy of childhood personality disturbances.] *Pszichológiai Tanulmányok*, 1968, No. 11, 529-541.—Emphasized the need for reliable criteria for the application of psychotherapy, and for choosing the appropriate methods for a given case. With regard to prognostic factors, the personal attitude of the psychotherapist and the importance of his theoretical position is stressed. Positive results depend on (a) the empathic abilities of the therapist, on his quick grasp of and access to the evolutionary potentials; (b) on the child possessing a minimal ability to enter into interpersonal relations, and on his ego being at least partly intact; and (c) also on environmental factors, i.e., the personality of the parents and their readiness to cooperate. In the age group investigated the ratio of actual-neurosis and actual conflict were relatively high. Methods of prevention are recommended. Some aspects of these methods are dealt with, and the question of spontaneous remission and its different forms treated. Data derived from comparing prognostic assumptions with experiences gained in actual treatment are given. Validity of assumptions made have been checked by means of katanemistic procedures. (Russian summary)—*English summary.*

5054. **Lambley, Peter.** (U. Cape Town, South Africa) **Comment on "Beyond empiricism."** *Psychological Reports*, 1971(Feb), Vol. 28(1), 169-170.—Comments on the article by C. Abramovitz (see PA, Vol. 46:Issue 3). The general nature of the shift to broader based epistemologies in psychology is emphasized. It is suggested that attempts be directed to clarify issues relevant to the psychologist-in-situation.—*Journal abstract.*

5055. **Lieberman, Lewis R.** (Charles L. Mix Memorial Fund, Inc., Americus, Ga.) **Reinforcement in Rogerian psychotherapy: Rejoinder.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 861-862.—Discusses 3 questions, fundamental to Rogerian therapy, by way of rejoinder to C. B. Truax.—*Journal abstract.*

5056. **Peck, Harris B.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **A small-group approach to individual and institutional change.** *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 435-449.—"For the psychiatric or mental health clinician the small group is often the meeting ground between the system and the individual.... If the clinician is to introduce his laboriously developed skills and conceptual tools into this new arena, he must be able to grasp the theoretical as well as the practical interrelationships between individual and institutional change.... It would, of course, be a gross oversimplification to suggest that the pathology or symptom manifested by an individual is simply, or only, a reflection of conditions in the school, educational system, industry, or job market.... 1 of the ways the clinician can appraise such matters is by examining the functioning of 1 or another of the small-group structures through which the individual participates in the life of the school, industry, or hospital, even though such an institution may involve thousands of people.... Study of the supporting community subsystems gives the clinician access to a world in which he is more at home. He can turn from a telescopic view of the whole vast area to be served to a low-powered delineation of neighborhoods, and finally, to the scrutiny of the small-group subsystems which are the critical component structures of these larger, less manageable psychosocial entities.... the competent clinician generally insists on seeing, hearing, smelling, and experiencing the human beings and the human institutions which he must effectively appraise and genuinely understand if he is to be really helpful.... The mental health professions have begun to accept their responsibility for understanding and influencing both individuals and institutions, but the body of knowledge and practices to enable them to function effectively over such a broad range is far from complete."—*J. Linnick.*

5057. **Pohlen, M.** (Max-Planck Society for Psycho-pathology & Psychotherapy, Munich, W. Germany) **Tagungsvorträge des Berner und Innsbrucker Arbeitskreises für Tiefenpsychologie.** [Convention reports of the Bern and Innsbruck Workshop for Depth Psychology.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 190-195.—Reviews the convention reports of the Workshop for Depth Psychology which was established by 2 former Freud disciples, E. Blum and G. H. Graber. The 1st convention took place in 1961. The theme of all conventions has been the "basic conflict" in psychoanalytic theory. Since the dispute between Freud and Rank, this subject of the oedipal conflict constellation as "basic conflict" in contrast to the hypothesis of birth anxiety has not been discussed by the psychoanalytic schools. It is practically banned. Garber has dealt with the psychoanalytic anxiety and drive theories while Blum has linked psychoanalysis with phenomenology and opened phenomenological knowledge to psychoanalytic thinking. The Freudian concept of psychoanalysis as argued by the different members of the workshop is discussed. The 1968 convention emphasized the dialectic relationship of ego and self, of person and world, of development and growth. The Bern and Innsbruck conventions present a new approach to Freud.—*B. Schay.*

5058. **Rechenberger, Heinz G.** (Hugo-Preuss Str. 11, 407 Rheydt, W. Germany) **Psychotherapeutische Fortbildung: Sechste Mitteilung.** [Further education in psychotherapy: Sixth communication.] *Praxis der Psy-*

chotherapie, 1969(Dec), Vol. 14(6), 281-292.—Various committees of German medical societies discussed further steps establishing requirements and titles for specialization in psychotherapy. Further divisions should be made between psychoanalysis and analytic psychotherapy. Every member of medical societies is authorized to participate in workshops for psychotherapy. The leaders of these groups for further education must meet the requirements of completed education in psychotherapy, 5 yr. of professional experience, and professional training in group-therapy. Opportunities also exist for specialized fields, e.g., autogenic training, hypnosis, etc.—*B. Stanton.*

5059. Schlungs, M. (U. Liège, Inst. of Psychology & Educational Sciences, Belgium) *L'enfant nerveux.* [The nervous child.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970(Sep), Vol. 19(3), 135-137.—Discusses the treatment of nervous children by supportive psychotherapy, bearing in mind A. Le Gall's differentiation of "narrow" and "broad" types of nervous temperament. Points to consider include: (a) avoidance of exaggerated punishment for disobedience; (b) benefits of discipline and an orderly schedule; (c) avoidance of restraint, in favor of showing an interest in, and complimenting, the nervous child, in order for him to develop a taste for work; (d) counteraction of undisciplined behavior in class by a brief play period; (e) counteraction of indecision by obliging the child to act, afterward praising his accomplishments; and (f) to expend his excess excitation, the nervous child can benefit from participating in sports and exacting manual labor.—*T. N. Webster.*

5060. Truax, Charles B. (Arkansas Rehabilitation Research & Training Center, Fayetteville) "Reinforcement and non-reinforcement in Rogerian psychotherapy": A reply. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 701-702.—Presents counter statements based on recent research for L. R. Lieberman's criticisms of earlier work by C. B. Truax (see PA, Vol. 40:4313).—*Journal abstract.*

5061. Varga, Zoltán. (Medical U. Budapest, Children's Clinic, Hungary) *Dysmorphophobiás beteg pszichoterápiája, adalékok a kórkép elméleti vonatkozásaihoz.* [Psychotherapy of a dysmorphophobic patient: Comments on the theoretical aspects of the distress picture.] *Pszichológiai Tanulmányok*, 1968, No. 11, 739-752.—Prolonged treatment of a dysmorphophobic S leads to the conclusion that this distress picture involves 2 possible trends. In some of the cases it may tend toward psychosis and eventually develop into schizophrenia; in others, however, although elements are present that might be called psychotic, no general injury of the total personality has occurred. Such cases may be considered as phobic neuroses that lend themselves to promising psychotherapeutic treatment. The case described appears to justify the latter assumption. (Russian summary)—*English summary.*

Therapeutic Process

Group Therapy

5062. Benson, Katalin & Schenker, László. *A bábjátéknak mint csoportterápiás módszernek krónikus szizofrén betegek körében való alkalmazhatóságának elméleti és gyakorlati*

5063. Boll, Thomas J. (U. Washington, Child Development & Mental Retardation Center) *Systematic observation of behavior change with older children in group therapy.* *Psychological Reports*, 1971(Feb), Vol. 28(1), 26.—Utilized the techniques of R. H. Dana and J. M. Dana (see PA, Vol. 43:14416) to assess the effects of therapist style on children's behavior. 2 groups of 4 or 5 8-11 yr. old children were observed for 10 wk. Ss' behavior was rated for watching, movement, play alone, play with others, vocalization, and speech toward others. Aggressive behavior was rated separately. Results were opposite to those found by Dana and Dana: Ss treated by the nondirective therapist increased their amount of play, vocalization, speech, movement, and hostile, aggressive behavior.—*S. Knapp.*

5064. Fidler, Jay W. (Union County Psychiatric Clinic, Plainfield, N.J.) *The relationship of group psychotherapy to "therapeutic" group approaches.* *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 473-494.—The American Group Psychotherapy Association (AGPA) Task Force definition of psychotherapy is considered restrictive because "it limits us to consideration of those professional relationships in which a health professional with responsibilities for assuring that diagnosis and planning of therapy have occurred comes into contact with patients who acknowledge that they are looking for change with the person consulted and the method (group) being employed . . ." Fulfilling part of the requirements of this definition are groups of patients in "art therapy, dance therapy, occupational therapy, pastoral counseling, remotivation groups, and several others." Also aiding expression are the T groups and the emotional confrontation groups (Daytop and Synanon). These groups, helpful to patients, are designated as having a mental hygiene approach and are characterized as "therapeutic." "Since the use of different groups requires different degrees of training, we shall be increasingly confronted with the definition of legitimate qualifications for each type of procedure." The role of AGPA in relating to *kérdései*. [Theoretical and practical considerations bearing on the applicability of puppetry as a group therapeutic method in the treatment of chronic schizophrenic patients.] *Pszichológiai Tanulmányok*, 1968, No. 11, 753-764. Puppetry has been employed as a group therapeutic method with chronic schizophrenics. Results may be attributed to a number of different factors, the most important of which appears to be the influence of the group on the individual. Preparations for the show require activities involving useful experience for the patients. There arises a kind of competition which, by stimulating the activity of the Ss, contributes to a favorable therapeutic atmosphere. This positive group atmosphere improves contact with the external world by emphasizing the ideas of normal, practical life. Puppetry executed at a high level requires serious, concentrated work. The acquisition of its technique is just as rewarding as the performance of productive work. Playing bears on the evolution of mechanisms regulating behavior, as its subject-matter reflects part of reality. Puppetry, being an organized form of role-playing, reflects a particular section of real life. By stimulating the imagination of the Ss with the help of the artistic impressions, and by requiring them to find autonomous solutions for certain tasks, a specific improvement involving the total personality may be achieved. (Russian summary) (38 ref.) *English summary.*

these groups and their methods is explored. (56 ref.)—*I. Linnick.*

5065. **Fried, Edrita.** (55 E. 86th St., New York, N.Y.) **Individuation through group psychotherapy.** *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 450-459.—Os and interpreters of group dynamics describe the normal sequence of phases to be expected in groups as "narcissistic," "inclusion," "power," and "intimacy." It is rare for individuation and self-originated strength and power to occur in all members of the group at the same time. A "schemata of group dynamic movement is useful... to help the therapist to make diagnostic distinctions... between hostility that derives from the frustration of passivity and hostility mobilized to fortify the patient's ego during the power struggle." What happens during the individuation-strength-power phase is described, and the differentiation between "tantrum anger" and "opposition anger" is discussed. "Group members who seek individuation need not be asked to weigh the content of their complaints but the process. The process is to become separated, individuated, to acquire strength, to try out one's own wings. What is at first accomplished through frequently unwarranted though fairly reasoned attack is later achieved through genuine strength."—*I. Linnick.*

5066. **Hallowitz, Emanuel.** (U. Chicago, School of Social Service Administration) **The challenge to the group psychotherapist created by a society in flux.** *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 423-434.—Happenings in society can be viewed either as a threat to our competence, to our established way of functioning, to our sense of status or importance, or they can be seen as an opportunity and a challenge—a challenge to broaden our vision and deepen our understanding, a challenge to our creative abilities to develop additional ways to serve our fellow men. (32 ref.)—*Journal summary.*

5067. **MacGregor, Robert.** (Dept. of Mental Health, Family Studies, Chicago, Ill.) **Group and family therapy: Moving into the present and letting go of the past.** *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 495-515.—The family therapist, as an agent of change, meets with an established concern that has as its trouble such a relationship among subsystems that it reverberates unproductively, wearing out or otherwise sacrificing its parts instead of processing growth-enhancing experiences. The therapist consults with the family members to help redefine the interrelationships. He brings with him a respect for living systems and a confidence that the "hang-up" had a history understandable to amateurs. By this respect (or reverence for life) and his interest in the study, he engages the personnel, recognizing their responsibility according to developmental status and their task according to the stage of the family life cycle, while at the same time recognizing the collusion in which they join to protect themselves from presumed inferiorities. The relationship between group therapy and family therapy, then, is analogous to that between a relatively closed and a relatively open system. The family therapists choose not to have more than a loose federation of regional interest groups for fear that privileged entrée to their own journal and the creeping rigidity of standards of acceptability might freeze the goose that laid the golden egg.—*Journal summary.*

5068. **Pattison, E. Mansell.** **Group psychotherapy and group methods in community mental health**

programs. *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 516-539.—In terms of social system concepts, group psychotherapy as defined earlier by the American Group Psychotherapy Association Long-Term Policy and Planning Commission represents 1 position of intervention (or a close cluster of positions) along a spectrum of interventions. In this perspective, a variety of group methods, group goals, group members, and group leaders may be employed in the social system that is termed a community mental health program. How close or distant a particular group intervention is to the definition of group psychotherapy becomes irrelevant. Rather, the issues turn to those of appropriate selection of group members, techniques, goals, and leaders, according to the point in the social system in which one plans to intervene and to what purpose.—*Journal summary.*

5069. **Pinney, Edward L.** (Cornell U., Medical School) **A first group psychotherapy book.** Springfield, Ill.: Charles C Thomas, 1970. xiii, 204. \$8.

5070. **Schwartz, Arthur H., et al.** (Yale U., Medical School) **Influence of therapeutic task orientation on patient and therapist satisfaction in group psychotherapy.** *International Journal of Group Psychotherapy*, 1970(Oct), Vol. 20(4), 460-469.—The group therapy meetings of 4 different therapists were systematically studied to determine the influence of task orientation (discussion of therapy-oriented topics) in relation to patient and therapist satisfaction in group psychotherapy. A total of 120 group sessions, 30 for each group, was rated by the therapists and patients involved to determine their satisfaction with each group session and their assessment of the amount of productive or therapeutic work that had been accomplished. A questionnaire including 29 variables, each assessed on 6-point rating scales, was used to obtain data. When patients and therapists felt that task-oriented (therapeutic) work had occurred, they were found to be satisfied with their group therapy session. Patients' assessments of useful work and therapists' statements of useful work were related significantly for 3 of 4 variables dealing with task orientation. The value system of the setting to which patients and therapists worked seemed to be instrumental in influencing the common orientation and consensus of patients and therapists. The hypothesis of Heslin and Dunphy about task orientation in small-group settings was found to be valid in group psychotherapy with emotionally disturbed patients.—*Journal summary.*

Behavior & Conditioning Therapy

5071. **Berecz, John M.** (Indiana U.) **Reduction of smoking through self-administered aversion conditioning of imagined behavior.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 429-430.—Investigated the therapeutic feasibility of self-administered punishment of imagined behaviors. It was predicted that punishing imagined behaviors would suppress corresponding overt behaviors. Students were assigned randomly to 1 of 5 groups. In 1 group, delivery of self-administered shock was contingent upon imagined smoking, while in another group it was contingent upon actual smoking. Controls were provided by minimal-contact, wait, and placebo groups. The data were inconclusive for female Ss. For moderately-smoking males, the actual-smoking and

imagined-smoking treatments were effective, but not differentially so. With heavy-smoking male Ss the only highly effective therapy was the imagined-smoking treatment.—*Author abstract.*

5072. Cautela, Joseph R. (Boston Coll.) **Covert negative reinforcement.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 273-278.—Describes covert negative reinforcement which is designed to increase the probability of a response by instructing an S to imagine an aversive event and to terminate it by imagining the response to be increased. Examples of the applications of the procedure to maladaptive avoidance and approach behaviors are presented. The relation of the procedure to the escape conditioning paradigm is discussed. (37 ref.)—*Journal abstract.*

5073. Gentry, William D. (Duke U., Medical Center) **In vivo desensitization of an obsessive cancer fear.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 315-318.—Describes the case of a 26-yr-old woman with a severe case of an obsessive cancer fear of acute onset. Attempts at standard desensitization did not lead to any decrease of anxiety in relation to physical contact with the patient's breasts. A change to in vivo breast stimulation in the relaxed state produced rapid progress.—*Journal abstract.*

5074. Hall, Roger A. (Colorado State U.) **Desensitization of test anxiety.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 4338.

5075. Herman, Steven H., Barlow, David H., & Agras, W. Stewart. (U. Mississippi, Medical Center) **Exposure to heterosexual stimuli: An effective variable in treating homosexuality?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 699-700.—A 24-yr-old homosexual was sequentially exposed to films of female or male sexual content under positive therapeutic instructions. During the exposure to female movie phase, the patient's penile response to slides of females in test sessions increased over base-line levels. Subjective report of arousal as well as heterosexual behavior outside the laboratory also increased. During the male exposure phase, subjective measures increased, following expectancies created by instructions, while the objective measure decreased. Heterosexual responding increased again when the female phase was reinstated. Results are discussed in terms of exposure facilitating extinction of avoidance responses toward females.—*Author abstract.*

5076. Herrell, James M. (Montgomery County Health Dept., Rockville, Md.) **A use of systematic desensitization to eliminate inappropriate anger.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 431-432.—Describes the use of systematic desensitization to eliminate inordinate anger and overt aggression. A 19-yr-old soldier with a lifelong problem of becoming excessively angry when given commands was treated using standard systematic desensitization procedures except for a change in the hierarchy. Based upon the assumption that a person cannot be both angry and relaxed, anymore than one can be anxious and relaxed, a hierarchy consisting of anger-producing situations was developed. Significant improvement occurred, and it is concluded that systematic desensitization can be a valuable tool in dealing with anger.—*Author abstract.*

5077. Jacobs, Alfred; Edelman, Mari, & Wolpin, Milton. (West Virginia U.) **Effects of differential**

anxiety level and the repression-sensitization dimension in desensitization therapy. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 427-428.—3 reliably different levels of anxiety produced in Ss during cognitive rehearsals of approaching feared objects did not lead to differential decreases of avoidance or fear in the presence of the feared object. Ss designated as repressors on the Byrne Repression-Sensitization scale improved least. The amount of fear reported by repressors during visualization was substantially related to ineffectiveness of treatment, and fear and avoidance were highly related. Similar results were not obtained from sensitizers or an intermediate group. Items in a fear history questionnaire were significantly related to amount of avoidance after treatment.—*Author abstract.*

5078. L'Abate, Luciano. (Georgia State Coll.) **La stanza da gioco automatizzata: Una tecnica comportamentistica per la ludoterapia infantile.** [Automatized playroom: A behavioral technique for child game therapy.] *Bollettino di Psicologia Applicata*, 1968, No. 88-90, 43-54.—Studied a controlled playroom of the Child Development Laboratory of Georgia State College in detail, outlining possibilities. It is concluded that this type of playroom comprised of 2 rooms is beneficial. The separation of material and conceptual techniques produces effects which can be verified to a greater extent. In these rooms the child's behavior can be controlled and modulated in a manner that could not be achieved in the traditional playrooms.—A. M. Farfaglia.

5079. Marquis, John N. (Veterans Administration Hosp., Palo Alto, Calif.) **Orgasmic reconditioning: Changing sexual object choice through controlling masturbation fantasies.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 263-271.—Reports that sexual responses can become attached to formerly neutral stimuli by pairing them with masturbation. The history of using this model to explain perversions and to modify choice of sexual object is discussed along with theoretical considerations. A procedure for eliminating perversions through careful programming of masturbation fantasies is described and results for 14 cases are given. (19 ref.)—*Journal abstract.*

5080. Miller, Arnold L. (Champaign County Mental Health Center, Ill.) **Treatment of a child with Gilles de la Tourette's syndrome using behavior modification techniques.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 319-321.—Describes the use of behavioral modification techniques to ameliorate symptoms of Gilles de la Tourette's syndrome in a 5-yr-old boy. Both the boy's parents and his school teachers were used as aids in carrying out the therapy, whose main feature was rewarding nonperformance of the undesirable behavior. The case suggests that parents can treat Gilles de la Tourette's syndrome in the home under appropriate professional supervision.—*Journal abstract.*

5081. Mitchell, Kenneth R. (U. New South Wales, Sydney, Australia) **Note on treatment of migraine using behavior therapy techniques.** *Psychosomatic Reports*, 1971(Feb), Vol. 28(1), 171-172.—Assigned 2 female and 4 male undergraduates who suffered from migraine attacks to 2 groups. Group A Ss were individually treated by a combination of behavior therapy techniques, systematic desensitization, assertive therapy, and reeducative training. Group B Ss received no treatment. Measures taken for each S over 3 8-wk

periods indicated a significant reduction in the frequency and pain level of the migraine attacks for the experimental group.—*S. Knapp.*

5082. Moss, Gene R., Rada, Richard T., & Appel, James B. (Walter Reed Army Inst. of Research, Washington, D.C.) **Positive control as an alternative to aversion therapy.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 291-294.—The control of undesirable behaviors by aversive techniques under the label "aversion therapy" has become an increasingly prominent behavior therapy. The attention given to these techniques is a measure of resistance of disorders, e.g., sexual deviations to more traditional therapies. Although effective in the animal laboratory, aversive control applied clinically may not be entirely appropriate. Some theoretical and practical drawbacks to aversion therapy are discussed, and an alternative is suggested in the use of positive behavioral control. The treatments of 2 cases of transvestism by aversive and positive control therapy are presented.—*Journal abstract.*

5083. Nawas, M. Mike & Pucel, John C. (Indiana State U.) **Relationship factors in desensitization: A persistent trend.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 239-243.—Explored the relevance to the outcome of desensitization of same-sex and opposite-sex pairings of Ss and Es. 12 groups of 8 undergraduates each, consisting of all S-E same- or opposite-sex combinations were employed. Confirming the findings of an earlier work that S-E sex pairing is irrelevant, this study revealed, however, significant differences between the pseudodesensitization and the no treatment control groups. It is concluded that the inclusion of pseudodesensitization groups in experimental studies is imperative, and that the role of relational factors is by no means a closed issue. (19 ref.)—*Journal abstract.*

5084. Seitz, Frank C. (Montana State U.) **A behavior modification approach to depression: A case study.** *Psychology*, 1971(Feb), Vol. 8(1), 58-63.—Describes the treatment of a neurotically depressed 36-yr-old white, widowed male, hospitalized following a suicide attempt, using a combination of 4 behavior modification techniques: Wolpe's relaxation and desensitization, and assertive training techniques; Premack's differential probability hypothesis; and Lazarus' behavioral deprivation and retraining. "At the end of 8 hourly sessions, the patient showed dramatic improvement according to staff reports, psychological tests, and his own self reports." (16 ref.)—*S. Knapp.*

5085. Seitz, Frank C. (Montana State U.) **Behavior modification of depression.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 425-426.—The therapeutic impact of psychotherapy in its various forms on depression is frequently assumed and occasionally demonstrated. 1 such experimental offshoot of psychotherapy, behavior modification, claims to offer a variety of techniques which alter "depressive behaviors." To date there has been no systematic presentation of these techniques as they relate to depression. This paper offers a conceptualization of clinical-depression from a behavior modification viewpoint. A discussion and critique of the current research involving the application of operant and classical conditioning techniques to the treatment of clinical depression is presented. Problems involved in conducting such research are briefly outlined.—*Author abstract.*

5086. Tahmisian, James A. & McReynolds, William T. (U. Kentucky) **Use of parents as behavioral engineers in the treatment of a school-phobic girl.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 225-228. Reports a case study of a 13-yr-old school phobic girl successfully treated by her parents with instrumental behavior-shaping treatment procedures. Excluding the therapist's initial assessment with the child and an unsuccessful attempt with systematic desensitization, total treatment time was 3 wk. and total time expenditure of the therapist was approximately 2 hr. 90 min. for instruction and training of the parents and 10 min. for each of 3 subsequent follow-up telephone calls.—*Journal abstract.*

5087. Van Egeren, Lawrence F. (Louisiana State U. Medical Center, New Orleans) **Psychophysiology of systematic desensitization: The habituation model.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 249-255.—30 male undergraduate and graduate students with public speaking phobias imagined phobic and neutral scenes repeatedly while 6 autonomic responses were monitored. 6 predictions derived from the physiological habituation model of anxiety desensitization of M. Lader and A. Mathews (see PA, Vol. 43:10064) were tested. However, the aim of the study was to examine the generality of the habituation model rather than to replicate research. Habituation rate was positively correlated with (a) resting activity (magnitude and frequency of skin conductance reactions) (b) affective intensity of phobic scenes (digital pulse amplitude and frequency of skin conductance reactions), and (c) relaxation (digital pulse amplitude) and negatively correlated with reactivity (respiratory rate). Habituation rates were unrelated to pervasiveness of fear. Habituation rates for neutral and phobic stimuli were positively correlated (frequency of skin conductance reactions). The habituation model of desensitization was given little support. (17 ref.)—*Journal abstract.*

5088. Wahler, Robert G. & Cormier, William H. (Tennessee) **The ecological interview: A first step in out-patient child behavior therapy.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 279-289.—Discusses the importance of interview information in child behavior therapy with particular reference to ecological information. An illustration of a preinterview checklists is provided. The ecological interview is described in detail and its function in the construction of behavior therapy programs is discussed. A case study of a 10-yr-old boy is presented to illustrate features of the interview. (16 ref.)—*Journal abstract.*

5089. Wickramasekera, Ian. (Peoria Mental Health Clinic, Ill.) **Desensitization, re-sensitization and desensitization again: A preliminary study.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 257-262.—Describes the treatment of a 41-yr-old white male S who was referred for treatment of obsessive-compulsive sexual behavior. When desensitization was applied to S's anxiety reactions to images of the theme of "infidelity" by his wife, his obsessive compulsive behavior progressively diminished. High anxiety stimuli were prematurely introduced into the treatment and the obsessive compulsive behavior recurred. A resumption of desensitization and the standard progression of scene presentations was successful and treatment was completed in the 24th wk.—*Journal abstract.*

5090. Yen, Sherman & McIntire, Roger W. (Baltimore City Hosp., Children & Youth Clinic, Md.) **Operant**

therapy for constant headache complaints: A simple response-cost approach. *Psychological Reports*, 1971(Feb), Vol. 28(1), 267-270.—Describes a procedure based upon simple response cost approach to weaken constant headache complaint. S was a 14-yr-old girl who presented the complaints over a 9 mo. period. Since other consequential means to control this behavior were difficult to employ, the present procedure requested S to write down conditions related to the headache complaints. The effectiveness of the procedure was evaluated by dual assessment method. Data show that her complaints were eliminated within 8 wk.—*Journal abstract*.

5091. Zupnick, Stanley M. (Medical Coll. of Ohio, Toledo) The effects of varying degrees of a peer-model's performance on the extinction of a phobic response in an individual or group setting. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 433-434.—When in group settings, extinction of a phobic response (snake-handling) varied according to increasing peer-model "performance." Ss attended to the model's behavior and thus handled the snake because of their sensitivity to the effects of "group evaluation," and the implicit promise of receiving social reinforcement. Furthermore, 3 sessions with the phobic object helped "desensitize" their fear via a cognitive rehearsal-desensitization process. This phenomenon also accounted for the occurrence of extinction in individual settings even though the relationship between model performance and degree of handling in these sessions was not obtained.—*Author abstract*.

Special & Adjunctive Therapy

5092. Oystagrh, Philip. (1 Jacques Ave., Bondi Beach, New South Wales, Australia) The use of hypnosis in general and obstetric practice. *Medical Journal of Australia*, 1970(Oct), Vol. 2(16), 731-733.—Discusses the varied uses of hypnosis in general and obstetric practice, gives a brief history of hypnosis, and describes the technique used. A series of cases is presented to demonstrate different effects in the use of hypnosis.—*Journal abstract*.

5093. Todd, Frederick J. & Kelly, Robert J. (U. Colorado, Medical Center, Denver) The use of hypnosis to facilitate conditioned relaxation responses: A report of three cases. *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 295-298.—Describes the treatment of 3 32-49 yr. old women in which hypnotic procedure was used to facilitate the substitution of relaxation for tension responses which had led to headaches, drug taking, and insomnia. The procedure provides conditions for vivid rehearsal along with strong suggestion for the initiation of the new response pattern.—*Journal abstract*.

Drug Therapy

5094. Bueri-Atem, Salomon; Brahim, Domingo, & Curl, Jose O. (U. Cuyo, Mendoza, Argentina) Oxazepam in allergic conditions. *Psychosomatics*, 1971(Jan), Vol. 12(1), 46-48.—Administered oxazepam at 3 dosage levels, (adult, older children, and children under 12), to 49 1-64 yr. old patients with allergies

accompanied by strong emotional components. Other medications were administered as required. Complete remission of all allergic symptoms (including asthma, skin lesions, bronchitis, rhinitis, and conjunctivitis) was obtained in 24 Ss. A satisfactory response (both allergic and emotional) was obtained in 36 Ss. Improvement was unrelated to sex or age. Oxazepam sometimes produced drowsiness in adults. The value of oxazepam in relieving anxiety which may accompany an allergy is discussed. (19 ref.)—*Journal summary*.

5095. Brodsky, Carroll M. (U. California Medical School, San Francisco) Diagnostic concepts based on treatment. *Psychosomatics*, 1971(Jan), Vol. 12(1), 30-35.—Reports experiences with patients being treated with psychotropic drugs. While results of psychoactive drug treatment are unpredictable, in the case of certain types of patients, results can be predicted. 10 brief case histories of various types of manic, schizophrenic, and depressive patients are included, and their reactions to the drugs used in their treatment are described. Problems involved in predicting outcomes of drug treatment are discussed. It is suggested that more up-to-date diagnostic concepts can evolve from an examination of patient-drug reactions.—A. Goldstein

5096. Carroll, B. J. & Davies, Brian. (U. Melbourne, Australia) Clinical associations of 11-hydroxycorticosteroid suppression and non-suppression in severe depressive illnesses. *British Medical Journal*, 1970(Mar), Vol. 1(5699), 789-791.—Separated 50 patients with severe depression into 2 groups by the responses of their plasma 11-hydroxycorticosteroid levels to a midnight dose of 2 mg. of dexamethasone. Clinical and questionnaire comparisons were made between the 2 groups, who were similar in regard to age, sex, and length of symptoms before admission to hospital. No differences were found between the groups in the severity of their depression and anxiety assessed by questionnaire. Nevertheless, agitation was significantly greater in Ss whose cortico-steroid levels were not suppressed by dexamethasone and adverse childhood experiences in those whose levels were suppressed.—*Journal abstract*.

5097. Conners, C. Keith, et al. (Massachusetts General Hosp., Child Development Lab., Boston) Treatment of young delinquent boys with diphenylhydantoin sodium and methylphenidate: A controlled comparison. *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 156-160.—Assigned 43 9-14 yr. old delinquent boys to double-blind treatment with diphenylhydantoin sodium, methylphenidate, or placebo for 2 wk. Ratings of symptoms by cottage parents and teachers, a measure of frustration, the Pontius Maze Test, and an interview were used to assess the effects of the treatments. None of the measures showed effects attributable to the drugs, and subjective reports tended to show negative effects of the active drugs. The danger of random assignment studies was demonstrated, however, by the fact that the more disturbed Ss were assigned by chance to the placebo group. The lack of acute symptomatology, the short period of treatment, and the heterogeneous nature of the sample were considered as possible explanations of the apparent lack of beneficial effects of the 2 drugs. (15 ref.)—*Journal abstract*.

5098. Crane, George F. & Naranjo, Evelyn R. (Spring Grove State Hosp., Catonsville, Md.) Motor disorders induced by neuroleptics: A proposed new classification. *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 179-184.—Proposes a comprehensive classification

tion of motor disorders attributed to neuroleptic drugs. Some manifestations resemble those occurring in known diseases of the CNS; other abnormalities are typical effects of drugs with neuroleptic action. A factor analysis on the most frequently occurring motor disorders in 97 Ss generated the following symptom clusters: (a) tremor, bradykinesia, rigidity, and attendant symptoms; (b) buccolingual-masticatory dyskinesia, astasia, dyskinesia of the lower extremities and posture in extension; and (c) dyskinesia of the upper extremities and postural disorder. The classification and the factors were used to study the effects of drug withdrawal in 22 Ss over a 10-mo period. Symptoms of cluster 1 decreased while those of cluster 2 increased in severity. In 17 controls receiving standard drugs during a comparable period, no significant changes were noted. (16 ref.)—*Journal abstract*.

5099. Danielczyk, W. Folgen einer Disulfiram-Psychose. [Effects of a disulfiram psychosis.] *Nervenarzt*, 1969(Apr), Vol. 40(4), 188-191.—Describes the case of a 33-yr-old government clerk who killed his wife and children and tried to commit suicide. He had been an alcoholic for several yr. and finally agreed to undergo treatment which was successful. He was given 2 antabuse tablets/day. There is evidence that antabuse (disulfiram) can cause a toxic psychosis with impaired consciousness, amnesia, hallucinations, and delusions. 3 mo. after treatment began, S entered a typical state of pseudo-neurasthenia but did not consult his doctor. 2 wk. later, dizziness and nausea increased, and under a delusion he committed the murders and attempted suicide. There was no psychological explanation for the crime, and it was decided that at the time of the murders he was suffering from a disulfiram psychosis and therefore could not be held responsible. He had no history of violence. In the 1st few days after the murders the S was able to explain them. After a week, however, and several operations to save his life, partial amnesia set in and erased the memory of his act. The S was no longer able to identify with the murderer but felt responsible for the consequences.—B. Schay.

5100. Dynes, John B. (Veterans Administration Hosp., Salem, Va.) Oral dyskinesias: Occurrence and treatment. *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 854-859.—Reports a clinical study to determine (a) "the frequency of the drug induced Parkinson-like syndrome and particularly the occurrence of the oral dyskinesias," (b) the type of patient most likely to be affected, and (c) "the value of certain anti-Parkinson drugs in the treatment of patients with severe drug induced oral dyskinesias." Ss were 22 45-81 yr. old patients who showed the most severe and persistent symptoms of oral dyskinesia out of a total population of 1400 patients in a veterans' hospital. 12 carried a primary diagnosis of chronic brain syndrome and 10 a diagnosis of schizophrenia. Results indicate that Ss were not helped appreciably by artane (trihex-phenidyl), cogentin (benztropine), symmetrel (amantadine), or pyridoxine. It is suggested that caution be exercised in the prescribing of phenothiazines for the elderly brain damaged patient. A case report is included. (28 ref.)—P. McMillan.

5101. Echegaray Villagarcía, Jaime. Consideraciones sobre la angustia y su tratamiento farmacológico. [Considerations on anxiety and its pharmacological treatment.] *Revista Mexicana de Psicología*, 1970(Sep), Vol. 4(3), 144-148.—Within the context of Freud's

theory of anxiety, the differences between neurotic and normal anxiety, along with the pathological aspect of their symptoms, and the sources of anxiety (e.g., frustration and fear of nonbeing) are examined. Physio-dynamic (physiodynamic) and psychodynamic (endodynamic) anxiety are distinguished from each other and drugs are especially suggested as a method of treatment for the former (along with psychotherapy) while psychotherapy is recommended for the latter. In stressing the importance of the doctor-patient relationship, it is proposed that pharmacological treatment not only be limited to the symptomatic aspect of anxiety, whereby drugs are considered as pure sedatives, but also be applied to the physiodynamic elements that are the basis of anxiety.—D. H. Schuster.

5102. Giménez Roldán, S. & Campos Castelló, J. (State Great Hosp., Madrid, Spain) Propericiazina y trastornos de la conducta en enfermedades neurológicas de la infancia y adolescencia. [Propericiazine and behavior disturbances in neurologic illnesses of childhood and adolescence.] *Archivos de Neurobiología*, 1969(Jul), Vol. 32(3), 331-346.—Studied the effects of propericiazine on behavior disorders of 152 children. They were divided into 4 groups: (a) Ss where neurologic investigation did not show serious disturbances independent of IQ and EEG abnormalities; (b) Ss with cerebral palsy, which comprised the largest group; (c) Ss with epilepsy; and (d) a heterogeneous group of Ss with organic illnesses of the nervous system. The most frequent problems of conduct were hyperactivity and irritability. They were given an EEG as well as Raven's Progressive Matrices, the Stanford Binet Intelligence Scale, and the Goodenough Intelligence Test. It is concluded that propericiazine is the treatment of choice on behavioral disorders of neurologic Ss, since 32% of excellent and 32% of good results were obtained from this study. (English & French summaries) (34 ref.)—A. M. Farfaglia.

5103. Grozier, Michael L. (Squibb Inst. for Medical Research, New Brunswick, N.J.) Why a long-acting neuroleptic? Fluphenazine decanoate: Brief review and clinical rationale. *Psychosomatics*, 1971(Jan), Vol. 12(1), 56-60.—Most former hospitalized schizophrenic patients who discontinue medication require rehospitalization. A method for insuring that such a patient receives an adequate and continual dose of antipsychotic medication without exposure to the hazards of long-term therapy with high doses of a major tranquilizer is the use of a long-acting injectable neuroleptic, e.g., fluphenazine decanoate. A study is described in which 501 chronically ill psychotic patients were given fluphenazine decanoate. 308 Ss (61%) demonstrated a satisfactory clinical response. These results are impressive in light of Ss' long duration of illness and previous unsuccessful drug therapy. Fluphenazine decanoate has a mean duration of effect of approximately 4 wk. Most of the adverse effects are self-limiting, and treatment has not produced any of the toxicity associated with the chronic administration of other antipsychotic drugs. (29 ref.)—A. Goldstein.

5104. Hollister, Leo E., Overall, John E., Pokorny, Alex D., & Shelton, Jack. (Veterans Administration Hosp., Palo Alto, Calif.) Acetophenazine and diazepam in anxious depressions. *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 273-278.—Classified 67 newly admitted depressed patients on the basis of their presenting signs and symptoms as having the syndrome of anxious depression. Ss were assigned

randomly either to treatment with the phenothiazine derivative, acetophenazine, or with the antianxiety drug, diazepam. After 4 wk. of treatment, both groups were equally improved. Study of the interactions between drugs and demographic variables revealed that Ss with less long-term and uncomplicated depressions responded better to diazepam, the converse being true for acetophenazine. It is suggested that since most patients fall into the group which responds best to them, as well as because of their greater safety, drugs such as diazepam might be the 1st choice of treatment for anxious depression. (18 ref.)—*Journal abstract.*

5105. Jarvik, Lissy F., et al. (New York State Psychiatric Inst., New York) **Chromosome examinations in patients on lithium carbonate.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 166-168. —Examined the report of chromosome damage in Ss on lithium carbonate. Peripheral blood cultures were set up from 16 manic-depressive Ss who had taken lithium carbonate for periods of 2 wk. to over 2 yr. (7 Ss for 1 yr. or more), from 4 manic-depressive Ss on placebo, and from 10 control Ss. Even though the highest average frequency of breaks occurred in the lithium carbonate group (3.3%), the value corresponded to the means (1.9-4.3%) generally observed in the laboratory and the difference between the lithium carbonate group and the controls (1.5% breaks) did not reach statistical significance.—*Journal abstract.*

5106. Klett, C. James; Hollister, Leo E., Caffey, Eugene M., & Kaim, Samuel C. (Veterans Administration Hosp., Perry Point, Md.) **Evaluating changes in symptoms during acute alcohol withdrawal.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 174-178. —Assigned 428 male patients experiencing the symptoms of acute alcohol withdrawal at random to double-blind treatment with chlordiazepoxide, chlorpromazine, hydroxyzine, thiamine, or placebo for a 10-day period. Ss were rated 3 times daily by nursing personnel using a Nurses' Rating Scale and were asked to complete a Mood Scale daily. Ss generally showed a rapid improvement in different symptom areas regardless of the group to which they had been assigned. Treatment comparisons suggested that fewer symptoms were associated with placebo and thiamine treatment than with the 3 psychoactive drugs. It is concluded that the greater incidence of convulsions and delirium occurring in these 2 groups as compared with the chlordiazepoxide group more than offset any advantage that may exist for what is essentially supportive treatment.—*Journal abstract.*

5107. Kupfer, David J., Wyatt, Richard J., Synder, Frederick, & Davis, John M. (Yale U., Medical School) **Chlorpromazine and sleep in psychiatric patients.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 185-189. —Investigated the effect of chlorpromazine on Ss with sleep disturbance. Results with 5 Ss showed that chlorpromazine given at bedtime coincided with a marked increase in actual sleep time as exemplified by a significant decrease in intermittent wakefulness. Total REM time was increased proportionately to the increase in actual sleep. In a more extensive study with 4 Ss, it was found that the administration of daytime chlorpromazine (100 mg) had no direct effect on sleep as compared to placebo. In contrast, bedtime chlorpromazine was associated with significant changes in various sleep parameters. That the time course of chlorpromazine administration is responsible for the

differential effect on sleep is supported by the preliminary investigation with plasma chlorpromazine levels (19 ref.) *Journal abstract.*

5108. Litvak, Ronald & Kaelbling, Rudolf. (Ohio State U., Medical School) **Agranulocytosis, leukopenia, and psychotropic drugs.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 265-267. —Questions the usefulness of a routine white blood cell count (WBC) in detecting a developing agranulocytosis. Routine WBCs may foster a false sense of security and lead a physician to discount other symptoms; on the other hand, not every WBC below 3700/cubic mm is cause for abandoning a helpful drug. It is suggested that the medical staff should be on the alert for evidence of infection in patients taking psychotropic drugs so that laboratory tests can be ordered if indicated by current symptoms or a history suggesting a high risk. 3 case histories are presented from a study of 84 Ss with low WBCs.—*Journal abstract.*

5109. Marshall, Myron H. (Silver Hill Foundation, New Canaan, Conn.) **The psychopharmacology of depression: Perspectives in research.** *Psychosomatics*, 1971(Jan), Vol. 12(1), 49-55. —Administered the antidepressant drug, desipramine (norpramin) to 91 19-72 yr. old outpatients with psychotic or neurotic depressive reactions. Results were analyzed in regard to the apparent degree of efficacy of the drug in relieving depression, improving sleep quality, and as to side effect liability. In general, norpramin was found to be efficacious to the degree found in other studies. Contrary to previous observations, norpramin seemed more effective in neurotic than psychotic depressions. There was a clear parallel improvement in sleep when depression improved. No serious adverse effects occurred.—*Journal summary.*

5110. McConahey, O. Linda & Thompson, I. **Concurrent behavior modification and chlorpromazine therapy in a population of institutionalized mentally retarded women.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 761-762. —Compared the relative efficacy of chlorpromazine and behavior modification therapy in altering the behavior of 26 severely retarded women. Ss were randomly assigned to drug or placebo groups, and treatments were alternated every 28 days for a total of 112 days. During mornings, reinforcement contingencies were in effect; during afternoons, no contingencies were in effect. 50 objective behavioral measures were used both morning and afternoon. There was no overall drug effect across patients on any or all behavioral measures. There were large and statistically significant differences in several behavioral measures between periods when adaptive behavior was reinforced and when it was not. There were statistically significant improvements on all 3 behavior rating scales comparing pre- and posttest scores.—*Author abstract.*

5111. McDaniel, Thomas W. (Arkansas State Hosp., Little Rock) **Comparative therapeutic efficacy of spansule form of phenothiazine and phenothiazine tablets.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 839-843. —65 chronically ill patients, primarily psychotic, received maintenance treatment with thioridazine (average, 260 mg day given in tablet form twice-day for 60 days). All Ss had been treated previously with the same twice-daily dosages of chlorpromazine in sustained-release capsules. Global ratings of response to thioridazine indicate that for the 69% of Ss

this drug had provided at least equivalent therapeutic effect, in comparison to responses recorded earlier upon chlorpromazine medication. 29% of the Ss showed an overall improvement on thioridazine. Ratings of target symptoms and behavioral characteristics reflect these improvements, e.g., anxiety-tension and depressive mood were often alleviated and Ss' attitude-emotional stability and cooperativeness were improved. These results, along with follow-up data recorded for continued twice-daily treatment with thioridazine in regular tablet form, strongly suggest that sustained-release phenothiazine preparations offer no advantages over customary oral tablet preparations and also demonstrate that thioridazine is eminently useful in maintaining chronic psychotic patients.—*Journal summary*.

5112. Noto, R., Robert, J., & Hanote, P. (55 Blvd. de Port-Royal, Paris, France) **Traitement d'urgence et transport des intoxications aiguës par les dérivés imipraminiques: A propos de 70 cas.** [Emergency treatment and transportation of cases of acute imipramine derivative poisoning: Apropos of 70 cases.] *Agressologie*, 1970, Vol. 11(6), 515-521.—Studied the problems raised by the emergency intensive care before admission required by Ss poisoned by imipramine derivatives in 70 cases. The problems common to all drug poisoning are: the preliminary examination before transfer of the patients to evaluate any possible immediate or long-range risk; early, on-the-spot treatment of eventual cardiorespiratory distress; medical control during transfer; and choice of adequate hospital facilities, depending on the state of the patient. The specific problems raised by this type of poisoning are: the intraventricular conduction disorders requiring early treatment with sodium lactate, no matter whether these disorders do or do not cause cardiovascular collapse; electrocardiographic control and systematic venous pressure determination, both to appreciate the risk and orient treatment; the risk of convulsions which appears very rapidly must not be overlooked; the frequency of drug combination with barbiturates, neuroleptics, and sedatives, which increases the risk of alteration of consciousness and cardiorespiratory distress. Very strict care, permanent control during transportation, and an adequate choice of hospital facilities should be able to greatly improve further the prognosis of this type of poisoning. (Russian, German, & Spanish summaries)—*English summary*.

5113. Pancheri, Paolo. (U. Rome, Inst. of Psychiatry, Italy) **Obiettivazione dati e programmazione della ricerca in psicofarmacologia clinica** [Objectification of data and programming of research in clinical psychopharmacology.] *Rivista di Psichiatria*, 1970(May), Vol. 5(3), 249-275.—The most important methodological topics in the field of psychopharmacological research are analyzed and criticized: quantification, variability, formulating a hypothesis, dosage, diagnosis, etc. (English summary) (31 ref.)—*N. De Palma*.

5114. Porter, A. M. **Depressive illness in a general practice: A demographic study and a controlled trial of imipramine.** *British Medical Journal*, 1970(Mar), Vol. 1(5699), 773-778.—Reports that the distribution of 93 consecutive cases of depressive illness in a general practice was nonrandom. Married women were at risk, while men and unmarried women were largely spared. Married women were prone to the disorder at any time in their lives, and relapse was frequent. There was some suggestion that divorced wives and wives of low social

class were particularly predisposed to the disorder. 60 of the patients took part in a double-blind controlled trial of imipramine. There was no evidence that the drug was superior to a placebo in inducing a remission. It is suggested that imipramine has become established in clinical practice on inadequate evidence and that there is a need for further trials. (71 ref.)—*Journal abstract*.

5115. Tupin, Joe P. (U. California, Davis) **The use of lithium for manic-depressive psychoses.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 73-80.—Discusses lithium, "the indications and contraindications for its use, the method of administration, its side-effects and toxicity, and its mode of action." The prophylactic properties of lithium in the treatment of mania and manic depressive behavior disturbances and on the role lithium may play in studies of the biochemical aspects of behavior are emphasized. (79 ref.)—*S. Knapp*.

5116. Wyatt, Richard J., Fram, David H., Kupfer, David J., & Snyder, Frederick. (National Inst. of Mental Health, Lab. of Clinical Psychopharmacology, Bethesda, Md.) **Total prolonged drug-induced REM sleep suppression in anxious-depressed patients.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 145-155.—Administered the MAOI inhibitor (I) phenelzine to 6 anxious-depressed patients while daily behavioral and EEG sleep records were made. REM sleep was completely suppressed for 14-40 nights. Upon discontinuation of MAOI REM sleep increased as much as 250% above normal levels. The bipolar EEG changes were paralleled by similar changes in depression and anxiety. The behavior of all Ss markedly improved at times when REM sleep was completely absent. 2 of the 4 Ss studied after MAOI discontinuation became profoundly anxious with REM compensation. The morning recall of dreams also closely paralleled the presence or absence of REM sleep. Evidence indicates that suppression of REM sleep might help to alleviate depression. (64 ref.)—*Journal abstract*.

HOSPITAL CARE & INSTITUTIONALIZATION

5117. Beahan, Laurence T. (Edward J. Meyer Memorial Hosp., Buffalo, N.Y.) **Emergency mental health services in a general hospital.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 81-84.

5118. Brooks, Dean K. (Oregon State Hosp., Salem) **A bushel of shoes.** *Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 371-375.—Reports the activities of a task force made up of patients, staff, and community members in examining and recommending changes in the elements of physical care in a mental health hospital. The purpose of the task force was to identify and alleviate situations which resulted in patient dehumanization. Studies on toilet paper, clothing, laundry, patient's money, and possessions, as well as eating, and sleeping schedules were examined. Investigations in progress are outlined.—*S. Knapp*.

5119. Falck, Hans S. (U. Maryland, Baltimore) **Individualism and the psychiatric hospital system** *The problem of professional autonomy.* *Bulletin of the Menninger Clinic*, 1971(Jan), Vol. 35(1), 19-27.—"American individualism has serious flaws and is incompatible with an industrial welfare state.... Tradition in psychiatric treatment in nearly all its forms emphasizes individualism of both patient and therapist. Recent interest in group work, family treatment, and community

psychiatry severely challenges it. Thus, ideologically, the extension and elaboration of such methods turns out to be something more than the addition of a few treatment techniques.... The professions must give up their preoccupation with 18th century notions of individualism and with their 20th century counterpart, technical overspecialization. What we need are programs stressing the psychosocial nature of man, placing man in his proper context. We must educate staff who can work next to or above or below each other. Yet we require a point of view that stresses an integrated individuality, with an emphasis on groups and the sharing of responsibilities."—J. Z. Elias.

5120. Forness, Steven; Esveldt, Karen, & Jacobs, Nora. (U. California, Los Angeles) **Classroom exclusion in a children's psychiatric hospital. Exceptional Children**, 1971(Feb), Vol. 37(6), 463-464. —Describes the use of a classroom management technique in which children with disruptive behavior were systematically excluded from the classroom and returned to a psychiatric hospital ward. An 8-wk check list on all exclusions showed that the technique was effective and promoted classroom cooperation. Teacher ratings showed that improved behavior was evident in 89% of the Ss who returned to the classroom.—P. Hertzberg.

5121. Hansell, Norris & Benson, Marvin L. (Harvard Medical School, Boston, Mass.) **Interrupting long-term patienthood: A cohort study. Archives of General Psychiatry**, 1971(Mar), Vol. 24(3), 238-243. —Describes the highly organized day and social system of a program for returning previously desocialized patients from mental hospitals to productive citizenship. 36% of a cohort of 66 patients, with an average 14-yr previous hospitalization, had been converted to outside, independent lives at an 18-mo follow-up. The patient group selected had an age and physical health status compatible with active employment so that the job-skill aspect of the program would be meaningful. Patients become interested in the nonhospital world as a result of a highly demanding, challenging culture and conventional, non-patienthood expectations created within the program.

Journal abstract.

5122. Harper, J. R. & Varakis, G. (Northampton General Hosp., England) **Children in adult intensive therapy units. British Medical Journal**, 1970(Mar), Vol. 1(5699), 810-813. —From experience in the Northampton/Kettering area, 9-10% of all patients in a general hospital requiring care in an intensive therapy unit were aged 12 yr. or under. 59 children were admitted to an intensive therapy unit over a 2-yr period. Of these, 22 had been injured in road traffic accidents, 5 were surgical emergencies, 5 had meningitis, 4 status epilepticus, and 4 respiratory infections. All of the 30 families interviewed were in favor of their child being admitted to the unit, and none considered that the experience had had any lasting adverse psychological effect on the child. It is suggested that certain carefully selected child patients do benefit from the facilities of an intensive therapy unit, and for this reason such units must be designed, equipped, and staffed with this in mind.—*Journal abstract.*

5123. Korman, Maurice & Giller, Donald W. (U. Texas, Southwestern Medical School, Dallas) **Psychosocial factors in early release from psychiatric hospitalization. Psychological Reports**, 1971(Feb), Vol. 28(1), 251-257. —Collected extensive demographic and psychometric information on 402 consecutively admitted

psychiatric patients. Those male Ss who were discharged with medical advice in 75 days or less tended to show less severe pathology on admission together with a history of some stability and interpersonal success, yet saw themselves as troubled in a number of areas and in need of help. While a more favorable diagnosis was equally predictive of early release in females, measures reflecting the significance of marriage and family were featured prominently. Males and females differed markedly, however, regarding the relationship of presenting symptoms (as derived by the Cornell Index) to early release from hospitalization.—*Journal abstract.*

5124. Kretz, Helmut. (U. Heidelberg, Psychiatric & Neurological Clinic W. Germany) **Sozialpsychiatrische Einrichtungen mit oder ohne Trennung der Geschlechter? Probleme und Erfahrungen bei der Einrichtung einer für Männer und Frauen gemeinsamen Bettenstation. [Psychiatric facilities with or without separation of the sexes? Problems and experiences in the establishing of an integrated male-female ward.] Nervenzentr.** 1969(Apr), Vol. 40(4), 176-183. —Discusses the belief that the separation of male and female patients, especially schizophrenics, increases their pathological behavior. An experiment was conducted, based on a theory by Reil and Nossitz 150 yr. ago, that stated that the vital libidinous energies could be used in the healing process. A psychiatric ward for 11 males and 11 females, mostly single and 18-35 yr. old, was integrated 1 1/2 yr. ago. Only bedrooms remained separate. In all other respects the patients lived together, and contacts between males and females were encouraged. Therapy included dancing classes and drama. For the 1st time, female nurses attended to male patients and vice versa. This social training forced the patients to identify with their sexual roles. Occasional incest, due to close contact between male and female patients, was always temporary. Fears that integrated facilities would lead to sexual relations did not materialize due to the patients' own insecurity about their sexual roles. A sexually integrated ward can be successful because it facilitates therapy, humanizes the hospital situation, and reproduces the same conditions that face the patient in the outside world. (S. G. L.) *B. Schatz.*

5125. Lehrer, Paul; Schiff, Lawrence, & Kris, Anton. (Rutgers State U., Psychology, Camden) **The use of a credit card in a token economy. Journal of Applied Behavior Analysis**, 1970(Winter), Vol. 3(4), 389-391.

5126. Lorei, Theodore W. & Cohen, Jacob. (Veterans Administration Hosp. Washington, D.C.) **A comparison of two methods of value measurement. American Journal of Psychology**, 1971(Mar), Vol. 84(1), 23-24. —Category rating and ratio estimation were used by 621 hospital staff respondents to scale the importance (value) of 16 possible outcomes of releasing psychiatric patients or keeping them in the hospital. Stevens et al. find that the relationship between the 2 methods is intermediate between linear and logarithmic was confirmed for 7 of the 8 occupational groups, but not for psychologists. The 2 methods yielded essentially identical answers to the substantive survey questions.

Journal abstract.

5127. Mishara, Brian L. (Northville State Hosp., Mich.) **Effects of a rehabilitation program for chronic elderly "mental" patients: Changes in care needed. Proceedings of the Annual Convention of the American Psychological Association**, 1971, Vol. 64(Pt. 2), 645-646. —Reports a rehabilitation program for long-term

elderly mental hospital patients. Staff training preceded introduction of increased environmental enrichments (e.g., food snacks, ward decoration, planned activities). Decreases in frequency of incontinence, amount of care given for personal hygiene and dress, and numbers of bizarre behaviors were found significant. Results indicate that rehabilitation programs with older, seemingly "hopeless," individuals may prove beneficial by allowing a shift in staff time from physical care to interpersonal interaction, besides improving individual patients' daily behavior. Changes in incontinence may indicate a significant psychological component to this behavior.—*Author abstract.*

5128. Nelson, Constance B. (Veterans Administration Mental Hygiene Clinic, Denver, Colo.) **College students help chronic patients.** *Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 394-395.—Describes a program using volunteer undergraduate psychology students in direct association with patients. 42 male and 6 female students took part in the project in the 1st yr. Students were matched with patients on the basis of similar interests. Students gained valuable experience and were considered a valuable addition to the hospital.—*S. Knapp.*

5129. Schwartz, Arthur N. (Veterans Administration Center Domiciliary, Los Angeles, Calif.) **Volunteers help build patients' self-esteem.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 87-89.—Reports a project in which attractive young women volunteers were recruited to attend group gatherings of institutionalized males in order to provide a safe social situation in which the patients might build self-esteem and social skills.

5130. Steinmetz, Donald K. (Southern Illinois U.) **The use of modeling and reinforcement to increase task orientation with state hospital patients.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3356-3357.

5131. Willard, Charles. (Athens Mental Health Center, O.) **Psychiatric aides as case managers.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 93.—Describes the development of a program using ward aides as case managers in the psychiatric team of an acute intensive treatment unit. It is concluded that a stable personnel force and professional staff members who are receptive to the statements of the case managers are essential to the success of such a program.—*S. Knapp.*

PSYCHOANALYTIC INTERPRETATION

5132. Rank, Otto. **The double: A psychoanalytic study.** Trans. H. Tucker. Chapel Hill, N.C.: U. North Carolina Press, 1971. xxii, 88 p. \$5(cloth).

5133. Riemann, Fritz. (8 München 81, Oberfohringer Str. 27, W. Germany) **Über den Vorteil des Konzeptes einer präoralen Phase.** [Advantages of a pre-oral phase concept.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Jan), Vol. 16(1), 27-40.—The oral phase is considered to be the earliest phase in the child's development. However, the 1st few weeks of life, preceding the development of emotional ties, can be viewed as a separate preoral or sensory phase. The concept of such a preoral phase would have the following advantages: (a) Impressions of the 1st 8-12 wk. of life would be placed on the same level of importance as the oral, anal, and phallic, and thus provide

schizoidism with a clue to its specific phases as in the case of other neuroses. (b) The assumption that the oral phase succeeds an earlier phase of a different kind makes it understandable that there are regressive processes from the oral to the sensory. And (c) the possibility of obtaining access to impressions in the earliest phase through the sensorium as the principle organ and through projection as the principal function, means an increased understanding of schizoid and psychotic phenomena. Herein lie, at the same time, diagnostic as well as therapeutic aids which are merely suggested here. A better understanding of schizoid phenomena can be obtained through this concept and is thus of great help in the treatment of schizoid patients.—*B. Schay.*

5134. Shapiro, David. **Motivation and action in psychoanalytic psychiatry.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 329-343.—Distinguishes between motivational psychology and the psychology of action. The emphasis of psychoanalytic theory on the need-driven concept of action and on the objective-scientific viewpoint is described as inadequate. A volitional conception of action is proposed for an explanation of the subjective experience of volition and for an understanding of certain objective features of action. Action is discussed as self-directed activity when it is determined by integrative processes which supersede the pressure of needs as the directing agency. Compared to needs, conscious motives are influenceable and oriented to instrumentalities. Only a theory of action which allows for such conscious motives can explain the experiences of indecision and temptation. In therapy the concepts of "impulses" and unconsciously motivated actions assume actual quantities of some sort of energy and the "circumvention of those volitional processes which give action its most ordinary, recognizable qualities." It is concluded that the need-driven concept of action which predominates in theory and therapy leads to a preoccupation with motivational forces and ignores the individual's conceptions of his own acts.—*S. Knapp.*

PSYCHODIAGNOSIS

5135. Braun, Jean S. & Brane, Maria. (Lafayette Clinic, Detroit, Mich.) **Comparison of the performance of children with dysrhythmia Grade I and normal EEG on psychological tests.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 457-458.—Many children's clinics and hospitals make standard use of the EEG as part of the evaluation of children with psychiatric symptoms. Abnormal EEGs have been found to correlate with abnormal psychological test functioning. However, a frequent EEG finding is "dysrhythmia Grade I." The present study was designed to determine whether some differences could be discovered between children with Grade I dysrhythmia and children with no children with Grade I dysrhythmia on specific psychological tests. The 2 such EEG finding on specific psychological tests. The 2 groups did not differ significantly on most of the tests. Final diagnoses of these children indicated that Grade I dysrhythmia on the EEG was not differentiating.—*Author abstract.*

5136. Downes, B. **Assessment Centre: Gladesville Hospital.** *Australian Occupational Therapy Journal*, 1970(Apr), Vol. 17(2), 15-17.—Describes the organization and development of an assessment center to (a) derive information concerning a psychiatric patient's

social, psychological, and occupational potential for rehabilitation; and (b) provide rehabilitation programs in line with the patient's potential. Industrial, electrical, and clerical tests were developed from a programed learning course and predetermined time and motion coding of industrial-type tasks (MODAPTS). Social data are obtained from the patient's past educational and employment history. Motivation tests are described. Psychological assessment involves ratings of ward behavior and symptoms. Other tests in development are briefly noted. The content of the final assessment report is outlined, and assessment charts are presented in an appendix.—S. Knapp.

5137. Gill, H. S. (Tavistock Clinic, London, England) **A comparison of test findings with psychiatric assessment.** *British Journal of Projective Psychology & Personality Study*, 1969(Dec), Vol. 14(2), 2-10.—Detailed personality descriptions, based on responses to the Tavistock Clinic word association test, were matched with clinical reports for 20 patients. The clinical reports were written by attending psychiatrists. 3 psychologists matched the 2 groups of evaluations, and for 2 of them the matching was correct for all 20 pairs. The 3rd one matched 15 pairs correctly. The technique is illustrated through the presentation of the full data for 1 patient.—B. Beit-Hallahmi.

5138. Gough, Harrison. (U. California, Berkeley) **Some reflections on the meaning of psychodiagnosis.** *American Psychologist*, 1971(Feb), Vol. 26(2), 160-167.—Although psychodiagnosis is rejected by many psychologists, a rational case can be made for its preservation. Diagnosis may be viewed as a special instance of the general logical problem of causation. The history and systematics of diagnosis suggest that its practice requires special aptitudes including the ability to think inductively. There are levels of diagnosis, proceeding from symptom to pathology to etiology. Psychological aids to diagnosis, such as tests, are of greatest value when addressed to the 2nd and 3rd levels—those of pathology and etiological context. Automated and computerized programs of diagnosis and interpretation can help clarify the infrastructure of a diagnostic problem, but by themselves cannot maintain the tradition of diagnostic thinking to which psychology can and should contribute. (27 ref.)—Author abstract.

5139. Heldt, Thomas J. (Henry Ford Hosp., Div. of Neuropsychiatry, Detroit, Mich.) **Positive psychiatric diagnosis versus psychiatric diagnosis by exclusion.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 851-853.—Presents the view that signs and symptoms of psychiatric disorders "can be positively recognized as certainly as can those of somatic illness." Exception is taken to the idea that a psychiatric diagnosis is only arrived at if there is no apparent organic cause. An aspect of establishing a psychiatric diagnosis is the disproportionate degree of the symptoms present. 5 illustrative case histories are presented.—P. McMillan.

5140. Jones, G. E. (Shenley Hosp., St. Albans, England) **Freedom, constraint and change in the assessment interview.** *British Journal of Projective Psychology & Personality Study*, 1969(Dec), Vol. 14(2), 23-30.—The dynamic structure of the assessment interview is understood in terms of a changing configuration of freedoms and constraints. Implications of this view for the process of assessment and the projective hypotheses are examined. The nature of the stimulus situation and

the process of clinical inference are analyzed. The "projective hypothesis" is redefined in terms of the individual's reaction to the dynamic structure of a stimulus situation.—B. Beit-Hallahmi.

5141. Mecke, Viola. (Children's Health Council, Palo Alto, Calif.) **Centration: A perceptual process diacritic of intellection and a differential diagnostic criterion.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 827-834.—Reports a pilot study to determine whether centration, as a perceptual process, could be a criterion for differentiating between neurologically impaired and emotionally disturbed children. Centration was defined by Piaget as a prolonged involuntary attachment of a sensory modality to 1 part of a visual field that, in turn, affects motor behavior, producing effects on drawing tasks by a separation of designs or their parts coincident with distortions. Neurologically impaired Ss were seen as having basic difficulties with perception whereas emotionally disturbed Ss would have basic difficulties in intellection. Therefore, the centration-distortion error would characterize drawings of the neurologically impaired but not of the emotionally disturbed Ss. A sample of 12 7-10 yr. old Ss for each group was selected, with EEG records, psychological tests, and psychiatric interviews being used as defining criteria. The hypothesis was upheld for each S in the neurologically impaired group making at least 3 out of a possible 4 errors. Only 1 S in the emotionally disturbed group made a centration-distortion error. (23 ref.)—Journal abstract.

5142. Mèrel, Ferenc. **A Lüscher-próba a klinikai pszichodiagnosztikában.** [The Lüscher Test in clinical psychodiagnostics.] *Pszichológiai Tanulmányok*, 1968, No. 11, 711-730.—Lüscher records of 100 neurotics, 85 schizophrenics, 72 psychopaths, 117 mental defectives, and a normal control group of 216 adults and 100 children were processed. Ss were stratified on the basis of intelligence into homogeneous groups of "very good" and "good average" (using the Wechsler IQs), and into favorable and unfavorable groups (classified by means of sociograms). Loadings with adrenalin and noradrenalin were employed. On the basis of significant indices and interpretation of trend differences, the following psychodiagnostic directives were obtained: (a) anxiety based on the agreement of data in Ss with adrenalin loading and anxiety neurosis Ss, (b) alienation based on agreement of data in Ss with peripheral social situation, and schizoid and antisocial Ss, (c) acting out personality, based on data in suicidal Ss, Ss with peripheral social situations, and on data in certain types of social Ss, (d) regulation-deprivation tension, and (e) elaboration. (Russian summary) (21 ref.)—English summary.

5143. Mermis, Bernie & Ross, Don. (H. Hays State Coll., Kan.) **Rater agreement on the Reinforcement and Fear Survey Schedules.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 243-246.—Studied the report-behavior by outside raters of reinforcing and fear-producing stimuli for 5 adolescent psychiatric patients, on both a Reinforcement and a Fear Survey Schedule. Schedules were filled out by target Ss for themselves and then by 7 parents and 7 caretakers, as they thought the targets would fill them out. Correlations between the ratings by Ss and the outside raters showed rater-rater agreement was greater than rater-S agreement for both scales. Journal abstract.

5144. Miller, Arthur A., Burstein, Alvin G., & Leider, Robert J. (U. Michigan, Medical School) **Teaching and**

evaluation of diagnostic skills. *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 255-259.—Proposes a specific educational technique of observation and discussion of a brief diagnostic interview for the teaching, learning, and assessment of a group of skills central to the professional development of the young psychiatrist. This technique was applied over a 3-yr span in the training of 22 residents. With this method, observational and integrative skills as well as diagnostic activity can be assessed and demonstrated by the teacher in a format that stimulates the "learning alliance" and the resident's development of self-critical functions. Observations of frequent problems in the resident's work are presented, the residents' response to this method is described, and various aspects of the format are discussed.—*Journal abstract*.

5145. Overall, John E., Henry B. W., & Ford, Hamilton. (U. Texas, Medical School) **Background variables and outpatient psychopathology.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 303-309.—Obtained some 70 items of personal and social history plus Brief Psychiatric Rating Scale symptom rating profiles recorded by 2 different professional Os for a sample of 729 adult psychiatric outpatients. Personal and social characteristics of the patient himself and types of problems encountered by the patient in his social context proved to be the most relevant kinds of information. Items related to the social class of parental family and the type of precipitating event were found to be of lesser relevance. A minimum set of background variables necessary to account for much of the systematic variance in manifest psychopathology in the outpatient population are identified.—*Journal abstract*.

5146. Pancheri, Paolo & Liotti, Giovanni. (U. Rome, Inst. of Psychiatry, Italy) **Validazione clinica del multi-dimensionale drawing test.** [Clinical evaluation of the multi-dimensional drawing test.] *Rivista di Psichiatria*, 1970(Mar), Vol. 5(2), 116-134.—Examined 19 normal and 37 psychiatric Ss with Rene Block's multi-dimensional drawing test. This type of test utilizes drawing for diagnosis. A chronometer, white paper, and 7 felt pens of various colors are provided. S must make a design of free choice in 60 sec. and then begin another. Contents drawn by Ss were classified in 5 categories: objects, plants, animals, human beings, and special things. It is concluded that the multidimensional drawing test did not show enough specific sensitivity for use in differential diagnosis. (English summary)—A. M. Farfaglia.

5147. Pancheri, Paolo & Stracca, Massimiliano. (U. Rome, Inst. of Psychiatry, Italy) **Risultati del M.M.P.I. in 360 pazienti psichiatrici.** [Results of the MMPI in 360 psychiatric patients.] *Rivista di Psichiatria*, 1970(Mar), Vol. 5(2), 135-157.—Studies the results of the application of MMPI on a heterogeneous psychiatric population. 320 psychiatric and 108 normal 20-40 yr. old female Ss were administered the short form of the MMPI. Psychiatric Ss were divided into 4 groups: (a) schizophrenic, (b) depressive states, (c) psychopathic, and (d) neurotic. It is concluded that this psychodiagnostic test furnishes psychometric facts which correspond to psychopathological elements in the clinic. Some problems remain open: (a) the use of the control scales as clinical scales, and (b) the inclusion of the samples of each nosographic psychopathic group for which a clarification of the criteria is needed. (English summary) (17 ref.)—A. M. Farfaglia.

5148. Perez, Francisco & Satz, Paul. (U. Florida) **The effects of feedback on clinical prediction.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 465-466.—16 judges, 8 clinical psychologists (P) and 8 graduate students in psychology (G), were asked to predict length of stay in psychotherapy from MMPI profiles. Judges were randomly divided into feedback (FB) and no-feedback (NFB) conditions. It was hypothesized that judges in the FB condition would increase their judgmental accuracy and would do significantly better than judges in the NFB condition. The results, while in the predicted direction, were not significant, largely because of the high level of initial accuracy obtained on this clinically relevant task. Implications for training are discussed.—*Author abstract*.

5149. Pethő, Bertalan. (Medical U., Neuropsychiatric Clinic, Budapest, Hungary) **Tesztmódszerek pszichiátriai alkalmazásáról.** [Test methods in psychiatry.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 423-458.—Defines a psychological test as the means of sampling an S's behavior patterns within a closed sphere of phenomena by means of objective, standardized procedures. The development of test methods and their relevance to psychology and psychiatry are discussed. To avoid confusion between the 2 areas, it is suggested that (a) psychiatry should be the main reference point; (b) organic orientation should prevail; (c) test methods should be founded on sensorimotor phenomena; (d) quantitative tests should prevail over psychiatric examinations; (e) information should not be considered independently, but in a multidimensional context; and (f) the holopsychiatric approach should include a holistic study of man. (Russian summary) (8 p. ref.)—*English summary*.

5150. Quattlebaum, Lawrence F. & White, William F. (U. Georgia) **Relationships among the Quick Test, two measures of psychomotor functioning, and age.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 824-826.—As part of a routine testing battery, 180 neuro-psychiatric Ss were administered Form 1 of the Quick Test, the Bender Visual Motor Gestalt Test (scored by the J. D. Hain method), and the Memory-for-Designs Test. The relationships among the Quick Test and the 2 psychomotor tests were examined, taking age into consideration. It was suggested that the relationship between the Quick Test and psychomotor performance is probably similar to that of other measures of intelligence. Implications for the clinical use of these tests are discussed.—*Journal abstract*.

5151. Szyrnski, Victor. (U. Ottawa, Ontario, Canada) **Brief review of the "Two Houses Technique" in child psychiatry.** *Skolepsykologi*, 1970, Vol. 7(2), 113-120. Describes the test as an economical, quick, and valuable technique of establishing significant contact with the child. It provides indications of specific patterns or family dynamics.—P. Mylov.

BEHAVIOR DISORDER

5152. Warren, Richard J., et al. (Washington U., Medical School) **The hyperactive child syndrome: Normal chromosome findings.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 161-162.—Nuclear sex determinations were done on 82 males and 14 females under psychiatric care for the hyperactive child syndrome. Complete karyotype analysis was done on lymphocytes from peripheral blood of 20 male and 3

female Ss. No evidence of sex chromosome aneuploidy or of other chromosome abnormality was found. It is concluded that a recognizable chromosome abnormality is not a major cause of the hyperactive child syndrome. (15 ref.)—*Journal abstract.*

Drug Addiction

5153. Gilmour, Douglas G., et al. (New York U., Medical School) **Chromosomal aberrations in users of psychoactive drugs.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 268-272.—Cultured and examined peripheral blood leukocytes from 56 users of psychoactive drugs and 16 non-drug-users for the presence of structural chromosomal abnormalities. None of the Ss admitted recent exposure to x-rays, other irradiation, or viral infection. Drug-users were divided into 5 groups: (a) Ss who smoked marihuana lightly; (b) psychiatric patients treated with phenothiazine; and (c) 1 group each of heavy users of 2 or more combinations of marihuana, heroin, amphetamine, and LSD. With the exception of the controls and the light users of marihuana, all groups showed elevated incidences of chromosomal aberrations. Increases were not general in any 1 group, but were largely accounted for by a few Ss within each group with more than 1 aberration each. Although it may be that any or all of the drugs could damage chromosomes in this way, it seems more likely that some other factor or factors common to drug-users might be responsible.—*Journal abstract.*

5154. Mann, Edward T. (New Jersey Coll. of Medicine & Dentistry) **Male drug addiction and the Kahn Test of Symbol Arrangement.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 875-880.—Attempts to evaluate the usefulness of the Kahn Test of Symbol Arrangement (KTSA) for assessing the degree of character disturbance in drug addicts. The KTSA and WAIS were administered to 40 institutionalized 13-18 yr. old addicts over a 2-mo period. Evaluation of both semiobjective variables tapping cognitive-associative functioning and objective factors assessing more dynamic features was made. The composite symbol pattern for 40 Ss showed a close correspondence with that determined by past research for "character and behavior disorder" and the resulting diagnosis indicates little discrepancy from that obtained through psychiatric interviewing. The more clinical features of the KTSA generally support the diagnosis of characterological disturbance. In several cases it was felt that neurosis (obsessive-compulsive) and underlying schizophrenic process were more appropriate diagnoses. However, both quantitative and qualitative examination of KTSA performance show consistently strong trends typically found in most drug addicts.—*Journal abstract.*

5155. Mendiño, Joseph. **Drugs of addiction and non-addiction: Their use and abuse: A comprehensive bibliography 1960-1969.** Troy, N.Y.: Whitston, 1970. 315 p. \$11.50.

5156. Washbrook, R. A. (H. M. Prison, Birmingham, England) **A study of drug addicts in a British custodial environment.** *International Journal of Offender Therapy*, 1969, Vol. 13(2), 82-89.—Describes the present legal position and recent modifications of the British system. 37 16-26 yr. old addicts were observed in custody. Upon withdrawal, only 2 showed minor symptoms. It is suggested that "glory" be taken out of addiction and its treatment, that specialized treatment

centers may do more harm than good, that the "togetherness" of addict subculture should be combated, and normal attachments and interests developed. Concentration (a) on the defects of society, (b) on the family and environment, and (c) only lastly on the individual himself is recommended. Improving the community and good casework may be preferable to high-powered psychotherapy. (French, German, & Spanish summaries)—*Journal summary.*

5157. Wikler, Abraham. (U. Kentucky, Medical School) **Some implications of conditioning theory for problems of drug abuse.** *Behavioral Science*, 1971(Jan), Vol. 16(1), 92-97.—Analyzes the development of drug cults as a conditioning process. Examples are given of specific effects of alcohol, barbiturates, opiates, amphetamines, cocaine, marihuana, LSD, and other psychotomimetic drugs that can reinforce continued use of the drug. It is hypothesized that, through repeated temporal contiguity between such primary reinforcement and the performance of rituals, novitiates eventually learn to perceive the magical drug-effects defined by the cult and to experience them even without benefit of the drug when the rituals are performed (secondary reinforcement). It is suggested that the maintenance of secondarily reinforced behavior in the absence of further programmed reinforcement by the drug is a consequence of previous classical conditioning of primary drug effects and possibly, of interoceptive conditioning. Some therapeutic applications of conditioning theory, and expansion of basic psychopharmacological research as well as of educational and social ameliorative efforts in drug abuse control are discussed. (27 ref.)—*Journal abstract.*

Alcoholism

5158. Chodorkoff, Bernard. (Sinai Hosp., Detroit, Mich.) **Alcoholism: Some theoretical considerations.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 169-173. Integrates contributions from D. W. Winnicott (see PA, Vol. 41, 10649) and F. Jacobson with the observation that the alcoholic favors cathecting his body and somatic experiences in place of mental representations of persons, situations, and experience. In effect, a psychological state is produced similar to that of "splitting between psyche and soma" (Winnicott) and one in which "drive discharge is regressive" (Jackson). The case of a 40-yr-old female alcoholic is reported. *Journal abstract.*

5159. Garibay Patrón, Miguel. **Análisis de una psicoterapia de grupo con alcohólicos.** [Analysis of group psychotherapy with alcoholics.] *Revista Mexicana de Psicología*, 1970(Sep), Vol. 4(3), 117-124. The group therapy used by AA has proved to be effective and should be considered as a positive auxiliary technique to individual psychotherapy. It has aided the alcoholic to overcome his narcissism and relate to others, accept reality, experience a spiritual awakening, and be treated as a person as well as a patient. The alcoholic person is neurotic, and it is generally observed that, although he stops drinking, he often needs the individual psychotherapy of a psychiatrist in order to adjust. It is concluded that alcoholism in Mexico could be considerably reduced if the psychiatrist would first use the group psychotherapy offered by AA and then reinforce it with individual therapy.—D. H. Schuster.

5160. Hoffmann, Helmut; Wojnowicz, Eugene J., &

Anderson, Donald E. (Minnesota State Hosp., Willmar) **Analysis of drinking attitudes and drinking behavior in hospitalized alcoholics.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 83-88.—Factor analyzed responses from 211 male alcoholics hospitalized in 6 different alcoholism treatment centers to a 41-item inventory containing attitudes toward drinking and drinking behavior. 12 factors describing the symptomatology of alcoholism were found. It is concluded that drinking attitudes and drinking behavior as measured by this inventory appear to be multidimensional and discriminate between alcoholic and nonalcoholic populations.—*Journal abstract.*

5161. Horn, John L. & Wanberg, Kenneth W. (U. Denver) **Dimensions of perception of background and current situation of alcoholic patients.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 633-658.—Factor analysis of responses by 2032 alcoholics to a social-history questionnaire disclosed 7 factors relating to social and personal adjustment during childhood and 8 factors relating to current adjustment and problems. Further analysis revealed 2 broad distinctions, between childhood delinquency-anxiety symptoms and parental loss and illness, and between current social and intrapersonal maladjustment. (31 ref.)—*Journal abstract.*

5162. Keehn, J. D., Bloomfield, Frances F., & Hug, Mary A. (Alcoholism & Drug Addiction Research Foundation, Medical Care Unit, Toronto, Ontario, Canada) **Use of the Reinforcement Survey Schedule with alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 602-615.—The pleasure that 40 20-60 yr. old alcoholics derived from a number of objects, activities, and situations was similar to that shown by a nonalcoholic population, as measured by the Reinforcement Survey Schedule. 1/4 of the alcoholics derived no pleasure from alcoholic beverages, while 4 derived much pleasure. Treatment implications are discussed.—*Journal abstract.*

5163. Miller, Byron A., Pokorny, Alex D., & Kansas, Thomas E. (Veterans Administration Hosp., Houston, Tex.) **Problems in treating homeless, jobless alcoholics.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 98-99.—Compared 35 delayed-exit alcoholics with 115 Ss who had been discharged from an alcoholic treatment program. The delayed-exit Ss were (a) more depressive, uncooperative, and evasive; (b) were lacking in drive and self-confidence; (c) were socially withdrawn and spent most of their time alone; (d) drank more often to excess, to spite someone, and to ameliorate physical pain; (e) preferred wine and beer; (f) attended AA more frequently; (g) were less vocationally motivated; and (h) were more depressed, psychasthenic, and socially isolated on the MMPI. Ss were similar to those usually called homeless, jobless alcoholics. It is recommended that a special program be designed for their rehabilitation.—S. Knapp.

5164. Nathan, Peter E., Zare, Nancy C., Ferneau, Ernest W., & Lowenstein, Leah M. (Boston City Hosp., Alcohol Study Unit, Mass.) **Effects of congener differences in alcoholic beverages on the behavior of alcoholics.** *Quarterly Journal of Studies on Alcohol Supplement*, 1970(May), No. 5, 87-100. Observed the operant, physiological, psychological, and social behavior of 8 middle-aged Skid Row men alcoholics, 4 in each of 2 30-day studies. An 18-day drinking period was preceded by a 6-day predrinking period and followed by a 6-day withdrawal period. The 30 days were divided

into alternate 3-day segments, one of socialization, the other of restriction to individual rooms. In Study I, Ss could drink only a 43% alcohol solution colored with caramel for 9 days and only bourbon the next 9 days. In Study II they drank bourbon for the 1st 9 days and then vodka. Beverages were available in exchange for reinforcement points earned on an operant console during the predrinking and drinking periods. In both studies Ss earned points at high rates in the predrinking period spent them all during the early part of drinking, then resumed working for points, but at slower rates. All Ss peaked at or above a blood alcohol level of 200 mg/100 ml during the 1st days of drinking. No consistent differences in blood alcohol levels attributed to beverage difference were noted, nor any pattern of beverage preference or congener effects. The usual drinking pattern produced alternation between low and high (up to 300 mg/100 ml) blood alcohol levels. Most Ss became more sociable at start of drinking; anxiety, depression, and hostility increased during drinking. Wittenborn Psychiatric Rating Scales reflected changes from normal to grossly psychotic behavior in some very intoxicated Ss. Ataxia measures were significantly different during drinking, and performance on 2 of the 3 measures was better at blood alcohol levels below 150 mg/100 ml than at higher levels. The incidence of nystagmus and other nystagmoid movements increased with duration of drinking. In all tests no consistent differences in behavior as a function of differences in congener of the beverages were observed.—*Journal abstract.*

5165. Paige, Paul E., La Pointe, William, & Krueger, Ann. (Camarillo State Hosp., Calif.) **The marital dyad as a diagnostic and treatment variable in alcohol addiction.** *Psychology*, 1971(Feb), Vol. 8(1), 64-73.

Investigated personality characteristics of male alcoholics and their wives. The characteristics of both partners were compared and evaluated in terms of their marital interaction and the alcoholic condition. 25 male alcoholics and their wives were tested with the MMPI and analyses were conducted through the use of the psychological dimensions of the MMPI and 40 subscales. Results indicate that on 3 subscales the wives were higher than the reported means, on 4 of the subscales the alcoholic husbands were extreme, and on 6 of the subscales both the husbands and wives were extreme which indicated shared pathological characteristics within their relationship. These characteristics are discussed regarding previous findings and implications for treatment. Findings indicate that the marital dyad of the alcoholic is a stagnant and unexciting relationship. Both appear to be unable to satisfy each other's needs for contact and involvement in any healthy and adaptive way, due primarily to a limited repertory (ego) of appropriate experiences. (22 ref.)—*Journal summary.*

5166. Reinhardt, James M. **Alcoholism and culture conflict in the U.S.A.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 177-181.—Reports that the individual's failure to deal with the conflicting forces in his culture may result in alcoholism. It is suggested that man needs a social milieu that offers him identifications he can trust. Alcoholics often suffer from a sense of hollowness and defeat. Though they may feel quite adequate at home, they feel haunted by a sense of unworthiness when in the world. Cultures that stimulate ambition beyond the opportunities available may create a feeling of despair in an individual. (French, German, & Spanish summaries)—*Journal summary.*

5167. Rubington, Earl. (Northeastern U.) **Referral,**

past treatment contacts, and length of stay in a halfway house: Notes on consistency of societal reactions to chronic drunkenness offenders. *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 659-668.—Most of the members of a halfway house who were referred from jails stayed less than 28 days, while over 1/2 of those referred from sources such as alcoholism clinics and hospitals stayed longer. Long-term members also had more previous alcoholism treatment contacts than did short-term members, who, it is suggested, have been exposed to more negative and inconsistent societal reactions and develop excessive aspirations to conformity and an unstable self-image.—*Journal abstract*.

5168. Ryback, Ralph S. (McLean Hosp., Belmont, Mass.) **Alcohol amnesia: Observations in seven drinking inpatient alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 616-632.—Alcoholic blackouts were observed in 5 of 7 alcoholics while drinking in an experimental setting. The blackouts usually occurred after a rapid rise in blood alcohol levels and involved amnesia during a block of time rather than for specific events. (81 ref.)—*Journal abstract*.

5169. Segal, B. M., Kushnarev, V. M., Urakov, I. G., & Misionzhnik, E. U. (Moscow Psychiatric Research Inst., USSR) **Alcoholism and disruption of the activity of deep cerebral structures: Clinical-laboratory research.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 587-601.—Clinical and laboratory findings were similar in 515 21-65 yr. old alcoholics and in 120 men with postinfection diencephalic syndromes, suggesting that the hypothalamic centers play an important role in the development of alcohol addiction. (47 ref.)—*Journal abstract*.

5170. Süle, Ferencné & Süle, Ferenc. **Szinpramistest vizsgálat alkoholista betegekben.** [Colour Pyramid Test examinations of alcoholic patients.] *Psichológiai Tanulmányok*, 1968, No. 11, 731-738.—Compared test records of 150 alcoholic males with those of 100 normal males. Significant differences between the 2 groups are that the alcoholic Ss are dependent, irritable personalities, their internal control is low, and their extroversion is below normal as it lacks stability, masculinity, and constancy. They have a specific need for being emotionally obsessed; this hinders the development of adequate interpersonal relations and intrapsychic structures and leads to the appearance of psychopathic traits. (Russian summary)—*English summary*.

5171. Tomsovic, Milan. (Veterans Administration Hosp., Sheridan, Wyo.) **A follow-up study of discharged alcoholics.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 94-97.—Investigated drinking behavior, employment, and attendance at AA of 266 Ss who had completed a 90-day intensive alcoholic rehabilitation program. Answers to questionnaires sent 3, 6, and 12 mo. after completing the program revealed a steady decline in all areas. Comparison between schizophrenic and nonschizophrenic alcoholics revealed no significant differences between the groups. The best prognoses were for the neurotic alcoholics who showed enthusiasm for the program, ability to change, and utilization of AA after release. Limitations of the study are described.—*S. Knapp*.

5172. Ward, Robert F. & Faillace, Louis A. (Baltimore City Hosp., Md.) **The alcoholic and his helpers: A systems view.** *Quarterly Journal of Studies on Alcohol*,

1970(Sep), Vol. 31(3-A), 684-691.—When viewed within the framework of general systems theory, alcoholism is a symptom of a complex interactional process. Pathological drinking is a circular, self-perpetuating behavior which is maintained to preserve homeostasis. The patterns of the alcoholic's relations with his family, physicians, police, religious groups, and his employer are described. (24 ref.)—*Journal abstract*.

Suicide

5173. ———. **Mythology of suicide.** *British Medical Journal*, 1970(Mar), Vol. 1(5699), 770.—People admitted to hospital after deliberate acts of self-damage often deny suicidal intention. Some doctors, coroners, and members of the general public have accepted the explanation that the drug was taken automatically, without intention. "Automatism" is discussed, with the conclusion that in some cases it is claimed because it is a respectable version of suicide, but this interpretation probably does not apply to all instances of "automatism."—*S. R. Diamond*.

5174. Brockopp, Gene W. & Lester, David. (Suicide Prevention & Crisis Service, Inc., Buffalo, N.Y.) **Time competence and suicidal history.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 80.—Administered the 23-item Time Competence scale of the Personal Orientation Inventory to 20 psychiatric patients who had attempted suicide and 20 patients who had not. No significant differences between the 2 groups on their time competence was found.—*S. Knapp*.

5175. Lester, David. (Suicide Prevention & Crisis Service, Inc., Buffalo, N.Y.) **Cognitive complexity of the suicidal individual.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 158.—Selected 14 undergraduates who had threatened or attempted suicide and 15 undergraduates who had not considered suicide but had neuroticism scores as high as the suicidal Ss. Ss were compared on measures of cognitive complexity and suicidal potential. No significant differences were found.—*S. Knapp*.

5176. Lester, David. (Suicide Prevention & Crisis Service, Inc., Buffalo, N.Y.) **MMPI scores of old and young completed suicides.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 146.—Examined the MMPI protocols of 52 15-81 yr. old white males who had completed suicide. Older Ss showed (a) significantly more response conformity, (b) less denial of personal inadequacies, (c) a tendency to use physical symptoms as a means of resolving conflicts less, and (d) a greater tendency to paranoia. Results are compared with those obtained in other studies of nonsuicidal males.—*S. Knapp*.

5177. Segal, Bernard E. & Humphrey, John. (Dartmouth Coll.) **A comparison of suicide victims and suicide attempters in New Hampshire.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 830-838.—Reports indications from settings previously unreported of differences between victims of suicide and hospitalized suicide attempters, comparing social characteristics, place of residence, and methods used to attempt suicide. The suicide victims were 701 males and 239 females who committed suicide in New Hampshire between 1955 and 1967. The suicide attempters were 46 males and 54 females admitted during a 6-mo period in 1969 to the state's only public inpatient psychiatric

facility. Results suggest that (a) a higher proportion of attempters are young and female; (b) among both attempters and victims, men tend to use more certain suicide methods than women; (c) attempters use less lethal methods than victims; and (d) "the treated population of suicide attempters is different from, and at lower risk than, the largely unseen population of prospective suicide victims." It is possible to identify members of attempter groups whose risk of suicide is 10 or more times greater than other attempter groups or the public in general, e.g., a white male, over 65, living alone, who has attempted suicide within the previous year or 2. It is concluded that an emphasis on risk categories rather than individual descriptive characteristics is a necessary step toward identifying those who need help. (17 ref.)—*P. McMillan*.

Crime

5178. Campbell, Jay & Clannon, Thomas L. (Pennsylvania State U.) **From the Medical Facility of the California Department of Correction: Questionnaire-study of the aspects considered relevant by its group therapists.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 158-164.—Evaluated the responses of 27 therapists on a questionnaire concerning therapist attributes, group therapy techniques, and responsive patients. There was wide agreement that a positive personality and intuition were more important than highly specialized training. In contrast, there was significantly less consensus as to whether psychiatric diagnoses affected therapeutic results. Psychosis, constitutional defects, and early traumas were not regarded as constituting a negative prognosis. (French, German, & Spanish summaries)—*Journal summary*.

5179. Christiansen, Karl O. (Criminal Inst., Copenhagen, Denmark) **Kriminaliteten i en større dansk tvillingpopulation: Socialpsykologisk set.** [Delinquency in a greater Danish population of twins: From a social-psychological point of view.] *Nordisk Psykologi*, 1969, Vol. 21(1-2), 43-44.—Presents a simple tabulation of 8000 pairs of twins, born between 1881-1910. The frequency of concordance is only $\frac{1}{2}$, the expected amount, i.e., 19.2% for the 218 pairs of both type, ranging from 35.8% for identical male twins to 4.3% for fraternal female twins.—*P. Mylov*.

5180. Coleman, Benjamin I. (Dept. of Health, New York, N.Y.) **Reality therapy with offenders: II. Practice.** *International Journal of Offender Therapy*, 1970, Vol. 14(1), 26-30.—Describes in concrete details how 4 nonverbal and unwilling male patients were involved in therapy and taught to express themselves, adjusted better, and developed more interests. (French, German, & Spanish summaries)—*Journal summary*.

5181. Kertész, Imre. **A metodológia és a metodika kérdései a kriminálpszichológiában.** [Problems of methodology in criminal psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 487-501.—Psychological methodology means the application of the laws and categories of dialectic materialism to mental phenomena. The development of concrete research methods is founded on that of methodology. In the field of criminal psychology, healthy, normal individuals are morally distorted and socially inadapted. The methods employed in criminal psychology coincide fundamentally with general psychological methods, with the difference that

the application of methods is determined by different aims. It is a surplus requirement that the methods must be not only exact and reliable in themselves, but must also comply with various other requirements, i.e., possible social implications, the observation of the relevant laws, the safeguarding of the lawful rights of the S. and the recording of examination data in accordance with legal procedures. (Russian summary) (30 ref.)

English abstract

5182. Russel, Donald H. (Dept. of Mental Health, Boston, Mass.) **From the Massachusetts Court Clinics, U.S.A.: II. Diagnosing offender patients.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 147-152.—Continues the study by D. H. Russel (see PA, Vol. 46:Issue 3) on court clinics. Since the sociolegal subdivision of offenses does not correspond to medicopsychological concepts, there is no reason to assume that any given "offense" is motivated by typical psychological factors. A medicopsychological approach considers each case individually, in terms of causation, therapy, and prognosis. 6 subgroups are described: (a) normal persons, (b) neurotics, (c) psychotics, (d) deprived persons, (e) character disorders, and (f) organic conditions. The court clinics operate mainly on presentence and probation levels. Since each court caters to vastly different socioeconomic communities, their selection of cases referred for treatment and diagnosis varies considerably. (French, German, & Spanish summaries)—*Journal summary*.

5183. Russell, Donald H. (Dept. of Mental Health, Boston, Mass.) **From the Massachusetts Court Clinics, U.S.A.: I. A study of its administration and community aspects.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 140-147.—Describes the history and workings of court clinics which provide diagnosis and treatment in close working relationship with the court personnel. Plans for the development of closer cooperation with other community agencies and better community awareness are described. (French, German, & Spanish summaries) *Journal summary*.

5184. Schmideberg, Melitta. (Assn. for Psychiatric Treatment of Offenders, London, England) **Reality therapy with offenders: I. Principles.** *International Journal of Offender Therapy*, 1970, Vol. 14(1), 19-25.—Describes the task of therapy in improvement of the patient's reality sense. The offender must become aware that social adjustment is in his own long term interest. Therapy should try to develop feelings of affection and guilt and make these acceptable to the patient. (French, German, & Spanish summaries)—*Journal summary*.

5185. Sjöberg, Lennart. (Uppsala U., Sweden) **Är frihet det bästa straffet? [Is freedom the best penalty?]** *Nordisk Psykologi*, 1969, Vol. 21(3), 212-217.—Results from an investigation of the relation between recidivism and legal sanctions indicate that severe sentences were associated with higher probabilities of relapses. However, an insufficient design (ex-post-facto experiment), unreliable measures, and statistical regression make the results invalid. *P. Mylov*.

5186. Whiskin, Frederick E. (Brookline Court Clinic, Mass.) **From the Massachusetts Court Clinics, U.S.A.: III. Enforced psychotherapy.** *International Journal of Offender Therapy*, 1969, Vol. 13(3), 152-157.—Continues the study by D. H. Russel (see PA, Vol. 46:Issue 3) on court clinics. The court may make psychotherapy a "condition" of probation or of suspended sentence. Paradoxically, certain offenders re-

spond well to enforced therapy because, having no choice, it saves them from admitting that there is something wrong with themselves. The authority of the court may be invoked to make the patient face reality, and after their defenses have broken down, they become responsive to influence. Enforced therapy may turn into a genuine relation with insight. It may also help offenders with a neurotic sense of guilt and those with superego deficiency. (French, German, & Spanish summaries)—*Journal summary*.

Juvenile Delinquency

5187. Beshai, James A. (Duquesne U.) **Behavioral correlates of the EEG in delinquents.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 459-460.—2 delinquent groups divided in terms of presence or absence of definitive signs of EEG dysrhythmia were matched with normal Ss and given a battery of tests measuring: extroversion-neuroticism, high risk-taking, psychomotor inhibition, and future-past discrepancy ratings. Results show no significant differences between the 2 EEG groups on the 1st 2 measures, but there were significant differences on the last 2. Further research on measures of sensory and motor control may still support the EEG as a reliable predictor of cortical maturation and developmental characteristics of delinquents. All tests used showed significant differences between delinquent and normal Ss.—*Author abstract*.

5188. Branton, Joan. **The Holtzman Inkblot Technique: A preliminary study with a British delinquent sample.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 23-26.—Form A of the Holtzman Inkblot Technique was administered to 25 19-20 yr. old British delinquents. Protocols were scored in accordance with Holtzman's criteria, and the results compared with the original standardization samples. Data indicate the technique to be a valid instrument for use with this population. Possible future work is outlined.—*Journal abstract*.

5189. Desai, Haribhai G. (Saurashtra U., Bhavnagar, India) **Factors relating to juvenile delinquency.** *Indian Educational Review*, 1970(Jul), Vol. 5(2), 74-83.—A review of the literature included studies published during 1936-1967. Discussions and summaries of studies are organized under 4 major headings: personality factors, home and family conditions, mass media of entertainment and communication, and physical environmental factors. Studies indicate that delinquency is assignable to no single universal source, it springs from a wide variety of subversive circumstances. (35 ref.)—*K. C. Panda*.

5190. Hernandez Martinez, Maria Virtudes. **Del "comportamiento" de la delinquencia juvenil.** [On the behavior of juvenile delinquency.] *Revista del Instituto de la Juventud*, 1970(Jun), Vol. 29, 51-71.—Examines the general behavior of youth today, its deviations (delinquency), and the opinions of experts in this field. Within the context of a general social maladjustment of youth, the symptoms (violence, aggressiveness, drug abuse, etc.), causes (population growth, excessive freedom, influence of the media), manifestations, and various approaches to solving these problems are discussed. It is concluded that (a) many conflicting theories exist when dealing with this crisis; (b) besides the influence of the media, the predisposition

of the individual is an important factor that contributes to the "vulnerability" of the S; (c) there is a desperate need for a concerted social awareness, action, and change; and (d) the media is a poor influence on youth and needs to be improved.—*S. Maze*.

5191. Hespel, Jean. **Etude du sur-moi chez le délinquant juvénile à travers le test P.N.** [The superego of juvenile delinquents as revealed by the P.N. Test.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(2), 101-109.—Reviews steps in the hypothesized internalization of the superego. Representative conduct of Ss confirming the steps is suggested. Situations evoked in the Patte Noir Test are in turn ascribed to the behavior for a given step.—*K. J. Hartman*.

5192. Larson, James D., Fitzgerald, Bernard J., & Martin, Robert. (U. Wyoming) **Social class, reported parental behavior and delinquency status.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 323-327.—Evaluated the influence of social class on reported parental behavior as a significant factor in social and solitary delinquency status. 46 delinquents were selected and classified by social class and type of delinquency behavior. Ss were then tested with a modified Parent Child Relations Questionnaire. Results indicate, contrary to previous research, the social class cannot be considered a significant factor in differentiating social and solitary delinquents. Reported parental behavior of delinquents was also not highly related to social class. Findings support earlier research suggesting that solitary and social delinquents vary in etiology of their delinquency.—*Journal abstract*.

5193. Pippin, Louis D. (North Texas State U.) **The relationships between personality adjustments and perceived behavior of teenage boys at Boys Ranch, Texas.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3349.

5194. Plocek, Karel. (Psychological Counseling Centre, Borough National Committee, Brno, Czechoslovakia) **Význam školského neprospěchu pro vznik a vývoj delikvencí mladistvých.** [Significance of bad progress in school for the beginning and development of delinquency in the young.] *Jednotná Škola*, 1970(Dec), Vol. 22(5), 931-942. Proposes that delinquency in the young is conditioned in its beginning and developed by many factors, both specific and nonspecific. Delinquency is seen as generally preceded by a long lasting antisocial development with accompanying changes in personality and especially in character. An important symptom of antisocial development in school age children is poor progress in school, eventually out of proportion with their age, which is not caused by lack of intelligence. A lack of cooperation by the young delinquent in any attempt at their education and training also were noted. From an analysis of the causes of poor progress in school of 100 delinquents a general clinical psychological examination showed that poor progress or under average progress for reasons other than lack of intelligence was the most significant and frequent (68%) of the Ss symptom of antisocial development. The educational implications for the prevention of social noncooperation are discussed. (Russian summary) *English summary*.

5195. Riscalla, Louise M. (New Jersey State Diagnostic Center, Menlo Park) **Crisis therapy with adolescents.** *International Journal of Offender Therapy*, 1970, Vol. 14(1), 40-43. Reports that diagnostic interviews offer the psychologist an opportunity to establish

contact with an apprehended youngster in need of direction. The 1st aim in treating offenders is to establish quick rapport so that patients return for a 2nd interview, and to prevent them from "acting out"; to calm them to work with their environment, mobilize any potential helpfulness, and cooperate with the court and its probation and parole services. The crisis may make him more responsive and more ready to discuss his problems. (French, German, & Spanish summaries)—*Journal summary*.

5196. Romano, Mary E. (Public Schools, New York, N.Y.) **Helping "pre-offenders" in the school.** *International Journal of Offender Therapy*, 1970, Vol. 14(1), 36-40. Suggests that there is a negative and possibly self-fulfilling forecast implied in diagnosing a child as a "preoffender". Even very difficult children often react positively to the interest shown by the guiding counselor. Mental health agencies in the actual school setting could be of immeasurable benefit. (French, German, & Spanish summaries)—*Journal summary*.

5197. Vedeler, Gerdt H. (U. Oslo, Inst. of Criminology, Norway) **Institusjonsbehandling: Skisse til en klinisk-sosilogisk modell for beskrivelse av terapiprosesser i det lille ungdomspsykiatriske behandlingshjem.** [Residential treatment of delinquent youth: Toward a clinical-sociological model for description of therapeutic processes in the small psychiatric treatment home for adolescents.] *Nordisk Psykologi*, 1969, Vol. 21(3), 203-211.—The model is outlined. Lack of positive results of traditional residential treatment for delinquent youth is admitted. This fact, however, is not viewed as necessarily discouraging provided the underlying therapeutic processes are properly understood. Emphasis on description of institutional content and therapeutic processes as opposed to measurement of results is advocated as the type of research which currently is most needed. A combination of clinical and sociological approaches is emphasized with reference to the social system aspects of institutional life and therapy. Some unique characteristics of residential treatment are listed. Factors of special therapeutic relevance are discussed: intention and therapeutic philosophy, clientele, institutional milieu and the outside society; various interdependent relations between these factors are listed on an individual and on a system level. A comparative study of different institutions is suggested with the aim of formulating general principles and indications for residential treatment.—*English summary*.

Homosexuality & Sexual Deviation

5198. Buckner, H. Taylor. (Sir George Williams U., Montreal, Quebec, Canada) **The transvestic career path.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 381-389.—Presents conclusions gathered from intensive interviews with 7 transvestites and a survey of 262 transvestites. 5 distinct steps to becoming a transvestite were found to be based on a biologically or socially induced passivity: (a) the association of feminine wearing apparel with sexual gratification, usually through masturbation; (b) perception of some heterosexual difficulties; (c) blockage of the homosexual outlet with return to the earlier pattern of gratification; (d) elaboration of masturbation fantasies into the development of a feminine self; and (e) fixation of the gratification pattern in the identity of the transvestite. This pattern usually becomes fixed by 18-20 yr. of age.

The end result is the creation of a female alter ego. The transvestite "internalizes and carries out within himself both the erotic and social aspects of what is ordinarily a process which would link him to the social order." Recommendations for therapy include a supportive sociosexual milieu. (21 ref.)—S. Knapp.

5199. Kockott, G. (Max-Planck Inst. of Psychiatry, Munich, W. Germany) **Psychiatrische- und lerntheoretische Aspekte der Transsexualität und des Transvestitismus.** [Psychiatric and research-hypothetical aspects of trans-sexualism and transvestism.] *Nervenarzt*, 1970(Aug), Vol. 41(8), 387-391.—Transsexualism is generally considered today to be an extreme variation of transvestism. The transsexual person identifies himself fully with the opposite sex and wants his body changed accordingly. In spite of the fact that the desire for a sexual-transformation operation is no ideal pathogonomic criterium for transsexualism, it is used as such, as no better criterium is available at present. A few pertinent psychopathological points are outlined. Etiological considerations are discussed in some detail on a hypothetical basis. As a working hypothesis, it appears useful to consider transvestism as a conditioned behavior; some statistical and experimental examination results are given in support. Therapeutical treatments are described with preference given to the use of aversion therapy. (38 ref.)—P. von Toal.

5200. Stoller, Robert J. (U. California, Medical School, Los Angeles) **The term "transvestism."** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 230-237.—Reports that current terminology in psychiatry has accepted "transvestism" not only as a term, but also as a diagnosis. A review is presented of clinical data on 60 males with behavior which is classified as "transvestism" as it is used in the literature. 7 groups of cross-dressers are distinguished and 6 case examples are presented. In each case, it is suggested that the term "transvestism" is wrongly being used as a diagnosis and not as a symptom of deeper-lying psychological disorders. (19 ref.)—*Journal abstract*.

MENTAL DISORDER

5201. Agrawal, K. G. (National Inst. of Health Administration & Education, New Delhi, India) **Personality dimensions as revealed by the Hindi personality differential.** *Indian Journal of Psychology*, 1970(Mar), Vol. 45(1), 23-37.—40 personality concepts were rated by normal, neurotic, and schizophrenic Ss against 34 scales using Osgood's semantic differential technique. While clusters of factor loadings for the 3 groups have differences, basic factors are the same. 4 basic dimensions that emerged are: conformity, tough-mindedness, normalcy, and tenseness. The possibility of accepting these dimensions as personality dimensions is discussed. (22 ref.)—*Journal summary*.

5202. Agresti, Enzo & Taddei, Mario. (Provincial Neuropsychiatric Hosp., Florence, Italy) **In tema di Dismorfofobia: Studio clinico e fenomenologico.** [On the subject of dysmorphophobia: A clinical and phenomenological study.] *Rivista di Psichiatria*, 1970(May), Vol. 5(3), 224-248.—"After having illustrated some preliminary considerations about the 'living body' and phenomenology, the problem of dysmorphophobia from the nosographical viewpoint is examined phenomenologically. 6 clinical dysmorphophobic syndromes are considered from the viewpoint of psychopathology

and psychodynamics. It is concluded that on the phenomenological level the dysmorphophobic manifestations indicate a change of the 'co-existence' which concretizes itself in the esthetic-formal sphere." (English summary) (15 ref.)—*N. De Palma*.

5203. **Beiser, Morton.** (Harvard School of Public Health, Boston, Mass.) **A study of personality assets in a rural community.** *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 244-254.—Studied the adult population in a rural county in maritime Canada to (a) identify personality attributes considered personal assets, and (b) determine the relevance of these attitudes to positive mental health and psychiatric disorder. The rationale for selection of these particular traits is described. Using epidemiological techniques, a group of 64 psychiatrically disturbed individuals and a group of 59 healthy, well-adjusted people were identified. Ss were studied intensively for 5 yr. Methods included psychiatric interviewing, collecting community information and medical data, and psychological testing. A list of personality attributes which seem to equip people to deal with this particular environment was evolved. (33 ref.)—*Journal abstract*.

5204. **Cardona Lopez, Luz M.** **El psicópata de William McCord-Joan McCord.** [The psychopathology of William McCord-Joan McCord.] *Revista Mexicana de Psicología*, 1970(Sep), Vol. 4(3), 125-131.—Discusses the definition, historical background, causes, diagnosis, treatment, and sociolegal implications of a psychopathic condition and proposes that: (a) a psychopath is an asocial, impulsive, aggressive, and unprincipled S who has difficulty in adapting and relating to his environment; (b) his condition can be due to hereditary, neurological, environmental and/or neurosocial factors; (c) diagnosis of a psychopath is based on characteristics, e.g., egocentrism, superficiality, intense anger, fear of rejection; (d) adequate treatment is hard to find although psychodrama, individual therapy, psychoanalysis, drugs, etc., are suggested with special emphasis on Wiltwick's method of rapport, tolerance, group influence and advice for children; and (e) laws regarding mental patients and psychopaths should be revised. It is concluded that studies undertaken in the past 150 yr. have led to nothing concrete and that a more thorough analysis of this problem is necessary. *D. H. Schuster*.

5205. **Conte, Hope R.** (Bronx State Hosp., N.Y.) **Studies of body image: Body worries and body discomforts.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 595-596. Tests of body image concerned with body worries and body discomforts were administered to 165 individuals. Ss included normal senior citizens, hospitalized geriatric mental patients, geriatric ex-mental patients, residents of a home for the aged, and middle-aged schizophrenics. Female groups, but not male groups, differed significantly on both measures and had more discomforts and worries than did the males. The oldest group scored lowest on both measures, while a group of middle-aged schizophrenics scored highest. The data suggest that a person's bodily worries and discomforts are not related to age per se, but reflect special life circumstances.—*Author abstract*.

5206. **Dawson, E. B., Moore, T. D., & McGanity, W. J.** (U. Texas, Medical School, Galveston) **The mathematical relationship of drinking water lithium and rainfall to mental hospital admission.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 811-820.—De-

scribes a study comparing the level of lithium in the drinking water of 27 Texas communities and the frequency and type of state mental hospital admissions, using data from a National Nutritional Survey in Texas. Environmental factors, i.e., altitude, temperature, and rainfall, were also examined for possible influences. Multiple samples of local tap water were measured for lithium content and state hospital admission data examined for a 2-yr period. Results indicate that (a) lithium was present in measurable amounts in the drinking water of 22 county seats; and (b) the number of patient 1st admissions and readmissions (and the diagnosis of personality disorder, psychosis, and neurosis) from each county was "inversely proportional to the lithium content of their residential drinking water," most significant in the eastern portion of the state. It is suggested that the quantity of lithium in local drinking water may depend either on soil content or on the amount leached from the soil and diluted by the amount of regional rainfall. J. F. Cade's theory that lithium is an essential element to man is discussed. A table giving identifying characteristics of the 27 counties involved is included.—*P. McMillan*.

5207. **Dewald, Paul A.** (St. Louis U., Medical School) **Folie à deux and the function of reality testing.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(1), 390-395.—Presents the case history of a variant of folie à deux in which 1 member was both subject and object of the delusional ideas of the other. This resulted in severe distortion of the member's sense of identity and confidence in his perception of reality. A 45-yr-old businessman sought psychiatric help in determining what his behavior had actually been. Although a poor lover with premature ejaculation and low sexual drive, his wife had continuously accused him of promiscuity. After protesting his innocence for many years, the patient began to capitulate to her demands for a confession. As the details of the fantasized promiscuities became more elaborate, his wife became more loving and responsive, while the patient became more and more unsure of the line between fact and fantasy. Dramatic symptom remission occurred when the patient was able to transfer his dependency needs to the therapist. It is concluded that the patient's reality-testing functions could not withstand the "combined pressures of the threat of loss of the object and the simultaneous promise of drive-derivative gratification if he accepted the object's version of reality." A conceptual formulation of the development of reality testing in the child is presented.—*S. Knapp*.

5208. **Eicke, Dieter.** (43 Ungererstr., Munich, W. Germany) **Die Introjektion des eigenen Produktes.** [The introjection of own product] *Zeitschrift für Psycho-somatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 165-177.—Describes 8 cases of the depressive mechanism. This mechanism (introjection of own product) is a component of the psychopathology of depression. The typically depressive mechanism is regarded as a turning of aggression against the self. There is not sufficient stabilization between self and self-ideal and often there is a narcissistic identification with a lost love object and hate of it because of its loss. The self image of the described patients was determined by their intolerable aggression and acted out in role identifications, there being also close connections with somatization. The aggressive impulses that are turned against the self have a distinct anal level of development. All patients

observed identified with the opposite sex indicating a fixation on the anal phase. The depressive frequently regresses to oral needs because anal satisfaction is not possible. The sooner the patient is made aware of his own aggression, the faster he will get out of it.—*B. Schay.*

5209. Kroecker, L. L. & Oetting, E. R. (U. Rochester) **Inadequacies of the acquisition responses of mental patients on an FI schedule.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 723-729.—Defines mental illness as a failure of the individual to assess his environment accurately and to respond optimally to environmental contingencies. An experimental operant conditioning laboratory was utilized to assess an individual's ability to develop a new behavior repertoire appropriate to unique stimulus conditions. 10 mental patients and 5 normal controls were placed on a fixed interval 1-min schedule for 40 min. and their acquisition responses analyzed for rate, variability, and efficiency. No mental patient performed the task adequately while several normal Ss performed in a highly efficient manner. The most frequent error for mental patients was in the direction of behavioral excess. Diagnostic implications are discussed.—*Journal abstract.*

5210. Leff, Melitta J., Roatch, John F., & Bunney, William E. **Environmental factors preceding the onset of severe depressions.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 293-311.—Studied environmental and behavioral events occurring prior to the onset of depression in 13 patients with endogenous and 27 patients with nonendogenous depression. Ss reported 2-6 environmental stresses with a clustering in the mo. prior to breakdown. 5 of the most common events were (a) threat to sexual identity, (b) change in marital relationship, (c) geographical move, (d) made to face denied reality, and (e) physical illness. It was noted that 18 of 28 Ss on whom data were available showed moderate to severe deprivation of contact with a parent of the same sex during their developmental period and Stress a. Instances of endogenous depression were lower in this study and those Ss revealed the same types of stressful events as the other Ss. Implications for biological studies of endogenous depression are discussed. The case histories of 6 Ss with endogenous depression are described. (41 ref.)—*S. Knapp.*

5211. Maisel, Robert. (U. California, Davis) **Decision-making in a commitment court.** *Psychiatry, Washington, D.C.*, 1970(Aug), Vol. 33(3), 352-361.—Presents an analysis of the rationale of commitment proceedings based on observation of 50 hearings and published research. The formal structure of commitment proceedings is outlined. 2 characteristics of the hearings are noted and discussed: the speed and lack of controversy. Typically, hearings were finished in 8-10 min., with a range of 2-20 min. The judges tended to follow the advice of the medical examiners, who in turn seemed to routinely follow hospital recommendations. The patient himself was often ignored and rarely had counsel. Once having been hospitalized for behaving in a socially obnoxious manner, it is difficult for the person to convince the staff that he is not sick. The predispositions of the staff to consider the person sick and the effects of the process of becoming a mental patient are discussed. It is suggested that the courts reexamine their role in the commitment process and become aware of the seriousness of incarceration for mental illness. (17 ref.)—*S. Knapp.*

5212. Masterson, James F. (Cornell U., Medical

School) **Treatment of the adolescent with borderline syndrome: A problem in separation-individuation.** *Bulletin of the Menninger Clinic*, 1971(Jan), Vol. 35(1) 5-18.—Consensus of psychoanalytic theory now holds that the basic psychopathology is not the presenting symptom but a specific and stable form of psychologic ego structure, i.e., a developmental arrest, reflecting a separation-individuation problem. "This brief paper applies this theory to the diagnosis, psychodynamics, and treatment of the Border-line Adolescent." A case report of a 16-yr-old girl suffering from a borderline syndrome is presented.—*J. Z. Elias.*

5213. Meyer, Adolf E. & Otte, Hilka. (U. Hamburg, Medical Clinic, W. Germany) **Zur orthogonalen Dimensionalität der Anorexia nervosa bei Frauen.** [Orthogonal dimensionality of anorexia nervosa in women.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 142-156.—Analyzes the interrelation of several components in the psychic picture of anorexia nervosa and the connections with the somatic symptoms of these psychosocial variables. Beginning in 1961, all anorexia patients of a university clinic were given standardized examinations. 31 patients were chosen at random for a factor analysis based on 6 important factors. 53 relevant anamnestic, clinical, biochemical, and test-psychological variables were intercorrelated. Several factor-analytical dimensions matched previously observed characteristics of anorexia nervosa. However, this clinical picture of anorexia nervosa proved to be pluridimensional in the factor analysis. The analysis showed a covariation of helplessness, orality in the narrower sense, and introversion. Negativism, however, had 2 independent facets, extrapunitive nonconformism and negation of psychic problems. Since the factors are presented orthogonally, the nature of the psychological correlations is not adequately determined because certain correlations are overestimated while others tend to be underestimated. The advantage of rectangular factor solution lies in the greater clarity and interpretability enabling the development of new, precise hypotheses. (26 ref.) *B. Schn.*

5214. Mundy, Jean. (Long Island U.) **Content analysis: TAT Card 12BG—the rowboat as a symbol for female body image and sexual activity.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 219-222. Analyzes the symbolic meaning of stories told by 12 female mental patients in response to TAT Card 12BG. The guidelines set down by L. Phillips and J. Smith for content analysis of the Rorschach are used.—*Journal abstract.*

5215. Penk, W. E. & Van Hoose, T. A. (Veterans Administration Hosp., Dallas, Tex.) **Structural properties of cognition and maladjustment.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 471-472.—It has been hypothesized that structural variables in cognition vary as a function of maladjustment—specifically, that schizophrenics and controls, when structuring conceptions of acquaintances, do not differ in dimensionality and articulation, but that schizophrenics are comparatively ambivalent and less affectively involved. These hypotheses were tested using nonsocial stimuli, i.e., common objects. Contrary to findings with social stimuli, controls obtained significantly higher dimensionality and articulation scores; neurotics were significantly lower in dimensionality, articulation, and affective salience; and schizophrenics were significantly

higher in pretest ambivalence and posttest affective salience. Findings are discussed in terms of differential effects of meaning domain and interaction of maladjustment on structural properties.—*Author abstract*

5216. Plisztor, Ferenc. (Medical U. Budapest, Neurological & Psychiatric Clinic, Hungary) **A craniumra és a cerebrumra vonatkozó hipochondriás félelmek és léveseszmék keletkezésének néhány törvényszerűsége.** [Some regularities in the derivation of hypochondriac anxieties and illusions concerning the cranium and cerebrum.] *Pszichológiai Tanulmányok*, 1968, No. 11, 477-492.—In a casuistically interesting sample of 10 psychotics and 12 severely hypochondriac neurotics, hypochondriac symptoms localized cranio-cerebrally occurred in 9 Ss as the exclusive symptoms and in the other 13 as the dominant symptoms. On the basis of phenomenological and pathogenetic criteria, 5 pathomechanical types as models are distinguished. In the 1st (3 Ss) intracranial coenesthesia were not accompanied by striking anxieties nor pathological interpretation. Hypochondriasis manifested itself only in the constricted focusing on complaints. In 4 Ss phobic disposition associated with external iatrogenic effects was outstanding. In another 3 Ss bizarre cerebral sensations were dominant with secondary interpretation. In the last 2 classes including 12 Ss, the lowered achievement level and concomitant experiences of inefficiency due to schizophrenia, depression, or cerebral lesions, came to be converted into hypochondriasis characterized by a host of interpretive doxogenic symptoms. Among the factors determining the hypochondriac symptoms and their localization, cranio-cerebral sensations, and external iatrogenic effects are stressed. With regard to interpretations, the importance of the use of individual organ symbols and predisposing personality traits are indicated. (Russian summary)—*English summary.*

5217. Reiss, David & Elstein, Arthur S. (National Inst. of Mental Health, Adult Psychiatry Branch, Bethesda, Md.) **Perceptual and cognitive resources of family members: Contrasts between families of paranoid and nonparanoid schizophrenics and nonschizophrenic psychiatric patients.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 121-134. Tested 3 groups of families, each consisting of a father, mother, and hospitalized child, with a battery of perceptual and cognitive tasks. 8 of the children were diagnosed as paranoid schizophrenics, 8 were diagnosed as nonparanoid schizophrenics, and 8 (control group) were diagnosed as character disorder, depressive reaction, or adjustment reaction of adolescence. Families of schizophrenics had lower mean scores for the Shipley-Institute of Living Scale for Measuring Intellectual Impairment. Abstraction scale, showed more frequent overexclusions on S Epstein's Inclusion Test and showed substantially reduced reversal rates on reversible figures. As a unit, most families with schizophrenics (a) have an inability to discern the underlying pattern or deep structure in an array of ordered stimuli, (b) rigidly apply limited or conservative generalization in constraining the environment in order to impose stability on it, and (c) show a strong preference for conventional rather than personal reality. (91 ref.)—*Journal abstract.*

5218. Sperling, Eckhard & Massing, Almut. (1. Göttingen, Psychiatric Clinic, W. Germany) **Der familiäre Hintergrund der Anorexia nervosa und die**

sich daraus ergebenden therapeutischen Schwierigkeiten. [The family background of anorexia nervosa and the resulting therapeutic difficulties.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 130-141.—After a theoretical introduction concerning the state of psychoanalytic and empirical social research, interaction with reference to the family is discussed. Using the example of anorexia mentalis (anorexia nervosa), hypotheses for the investigation of the sociodynamics and psychogenesis of this disease are developed. Role stereotypes and shifts in dominance are described in particular. The meaning of the family as a resistance carrier is emphasized with a loss-of-treatment quota of about 1/3 of the diseased. Hypotheses are statistically examined by means of the matching method based on the records of 115 cases of anorexia (100 case histories, 15 new studies) and a random control group of 15 "healthy" persons. Results show dominance by members outside of the core family (e.g., maternal grandmothers), an extremely high incidence of working mothers in anorectic girls as well as a significantly high rate of illness among their fathers. Ideological fixations in the family and their effects on treatment are discussed. Initially the mutual designation of blame plays a central part as resistance. (25 ref.)—*H. Schay.*

Neurosis & Emotional Disorder

5219. Goldstein, Alan J. (Temple U., Medical School) **Case conference: Some aspects of agoraphobia.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 305-313.—Presents a case conference in which 3 cases of agoraphobia are discussed showing the variety of factors relevant to different cases. Therapeutic strategy determined by the features of the case, are noted.—*Journal abstract.*

5220. Letourneau, Jacques F. & Strub, Bertrand. (1. Montreal, School of Optometry, Quebec, Canada) **The perception of reversible and ambiguous figures among obsessional neurotics.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Oct), Vol. 47(10), 887-892. 2 reversals drawings and 2 series of ambiguous pictures were shown to 13 obsessional neurotics and to 30 normal controls. Monocular and binocular tests were made. Results indicate that the Ss show a smaller amount of reversibility in the perception of the drawings than normal persons. The ambiguous pictures are also perceived with greater rigidity in Ss than in normal individuals. Rivalry does not seem to have a precise influence on the phenomenon. (18 ref.)—*Journal abstract.*

5221. Mendels, Joseph. (1. Princeton, N.J., Depression Research Program) **Concepts of depression.** New York, N.Y.: John Wiley, 1970. xiii, 124 p. \$4.00 (hbk), \$2.95 (paper).

5222. Pitts, Ferris N. (Washington U., Medical School) **Biochemical factors in anxiety neurosis.** *Behavior Science*, 1971(Jan), Vol. 16(1), 1-10.—Presents a selective review describing the history of the development of the concept of anxiety neurosis and details the clinical picture and natural history of the disorder. Many studies of physiological and biochemical differences between anxiety neurotics are briefly reviewed. The production of anxiety attacks in susceptible individuals with the infusion of 1-adrenergic agonists, epinephrine, epinephrine and the end-product of their activation of

the anaerobic glycolytic pathway (lactate) is covered in detail, with emphasis on the evidence for this phenomenon. The prevention of such episodes by calcium ion and β -adrenergic blockade by propranolol is discussed. The challenging prospects for the future clarification of the chemical mechanism of expression of anxiety symptoms (and attacks), as well as the future of chemotherapy of anxiety, is examined. (2 p. ref.)—*Journal abstract.*

5223. Pohlen, Manfred. (Max-Planck Inst., Munich, W. Germany) Eine Errötungspsychose: Über die strukturelle Verwandtschaft von Erythrophobie und Beobachtungs-Verfolgungswahn. [A blushing psychosis: The structural relationship of erythrophobia and persecution delusion.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Jan), Vol. 16(1), 53-79.—States the case history of a 33-yr-old male who was treated for erythrophobia over a 2-yr period (350 sessions). In the course of treatment, a transference neurosis became a narcissistic neurosis. It was found that patient's persecution delusion actually was a shield against homosexual tendencies. The various forms of delusion served to cover up his delusion of greatness; to show to the whole world his unique phallic greatness. The typical schizophrenic exhibitionism intermingled with the exhibitionism of the erythrophobe. The phallus image of the self remained at the level of its concrete meaning instead of reaching metaphorization. The narcissistic problems of ego and self-genesis, as experienced in therapy with the patient, showed the transition, i.e., structural relationship between erythrophobia and paranoid developments. The border between both forms of disease had fallen but the consciousness of delusion of the erythrophobe is not identical with that of the schizophrenic. Erythrophobia, a pregenital disorder, should be classified as a narcissistic neurosis placed between schizophrenic psychoses and transference neuroses. (33 ref.)—*B. Schay.*

5224. Tellenbach, Hubert. *Transkulturelle Aspekte der Melancholie*. [Transcultural aspects of melancholy.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1969, Vol. 17(1-2), 13-27.—Transcultural psychology concerns the comparison of contemporary phenomena of foreign cultures. A survey of the literature demonstrates lower incidence of melancholy and higher incidence of mania in cultures unpenetrated by Western civilization. 3 main factors correspond to higher incidences of melancholy: (a) higher social status and income, (b) urbanization, and (c) Westernization. Melancholy in the Far East exists in the form of hypochondria, agitation, exhaustion, and conversion reaction. Guilt feelings rarely lead to suicide. (38 ref.)—*B. Stanton.*

5225. van der Veen, Ferdinand; Howard, Kenneth I., & O'Mahoney, Michael T. (Inst. for Juvenile Research, Chicago, Ill.) Dimensions of the family concept in relation to emotional disorder and family position. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 451-452.—The Family Concept Test, consisting of 80 items descriptive of the entire family unit, was factor-analyzed and yielded 9 meaningful dimensions. 18 groups, based on emotional disturbance and family position (father, mother, daughter, and son) were scored on these dimensions and compared by means of analyses of variance. In families with a disturbed as contrasted with a nondisturbed child all members perceived less affectionate trust and outgoing enjoyment in the family. In

addition, disturbed children viewed their families as less sociable and less responsible, while their parents saw less considerateness and less shared activity. In all families children perceived less family trust, communication, togetherness, and importance of the family than their parents.—*Author abstract.*

5226. Winokur, George; Cadoret, Remi; Dorzab, Joe, & Baker, Max. (Washington U., Medical School) Depressive disease: A genetic study. *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 135-144.—Examined 31 male and 69 female depressives. A family history was obtained on each, and a family study was done on 129 primary relatives. An analysis of the genetic data is in favor of the possibility that at least 2 types of depressive illness exist. The prototype of depression spectrum disease would be a female with an onset prior to age 40 in whose family more depression is seen in female relatives than male relatives and the deficit in males is made up by alcoholism and sociopathy. The 2nd prototype is that of pure depressive disease in which the S is a male whose illness starts after age 40 and in whom there are equal amounts of depression in both male and female relatives and no large amount of alcoholism or sociopathy in the males. (20 ref.)—*Journal abstract.*

5227. Wolpe, Joseph. (Temple U., Health Sciences Center) Identifying the antecedents of an agoraphobic reaction: A transcript. *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Dec), Vol. 1(4), 299-304.—Presents an interview with a 48-yr-old woman directed to identifying the essential stimuli to her agoraphobic reactions. Her anxiety had decreased considerably as a result of favorable changes procured in her marital situation. At 1 stage of her life, when she removed herself from a particular stress situation, no harm resulted; but at another stage, when the same stress was inescapable, she experienced mounting anxiety, on the basis of which the agoraphobic reaction came to be established.—*Journal abstract.*

Psychosis

5228. Beigel, Allan & Murphy, Dennis L. (U. Arizona, Medical School) Unipolar and bipolar affective illness: Differences in clinical characteristics accompanying depression. *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 215-220.—Made a comparison of the clinical characteristics of the depressive state between 25 patients with a diagnosis of depressive psychosis (unipolar) and 25 patients with a diagnosis of manic-depressive psychosis (bipolar). Ss were observed for a 14-day drug-free period in a research ward during which time mania was absent. Higher levels of physical activity, overt expression of anger, and somatic complaints differentiated the unipolar from the bipolar Ss who tended to be less active and more socially withdrawn. Anxiety and psychotic behavior were not differentiating characteristics, although the former approached significance. Evidence from biological, genetic, and other clinical studies supports the hypothesis that depressive psychosis and manic-depressive psychosis may be distinctly different types of affective disorder. (29 ref.)—*Journal abstract.*

5229. Holfeld, H. & Leuner, H. (Research Inst for Psychology & Psychotherapy, Munich, W. Germany) Der "Vatermord" als zentraler Konflikt einer psychogenen Psychose. ["Patricide" as central con-

[lict of a psychogenic psychosis] *Nervenarzt*, 1969(May), Vol. 40(5), 203-209.—Discusses an unusual psychogenic psychosis and its psychodynamics. The dynamics in the case of a 31-yr-old male S centered around the theme of patricide. When he was 15, S betrayed an officer, who could have been his father, to the Gestapo. The officer was later hanged in the presence of the boy. It is shown, with the aid of repressed experiences, that an unsolved and very serious father-son rivalry existed, leading to a patricide fixation. The treatment revealed to S the existence of his self-destructive, murderous aggression against his father and opened to him the road to a corrective emotional experience.—*P. von Toal*.

5230. Rose, H. K. (Hanover Medical School, Psychiatric Clinic, W. Germany) *Überlegungen zu einem sozialpsychiatrischen Reaktivierungsprogramm bei chronisch Psychotischen*. [Reflections concerning a social-psychiatric reactivation program with chronically psychotic patients.] *Nervenarzt*, 1969(Jun), Vol. 40(6), 255-264.—Discusses in relation to a reactivation of chronic psychotics, the reoccupation techniques used in psychotherapy, and the occupation and work therapies with their characteristics, possibilities, and adequate indication position. A theoretical substantiation of their effects in social-psychiatric practice is attempted. Based on experiences in a rehabilitation center, a staged plan is sketched for the application of the methods of the detached-permissive exercise treatment up to a professional education. The value of an organized work therapy is presented as a differential instrument of clinical treatment. (62 ref.)—*P. von Toal*.

Schizophrenia

5231. Anokhina, I. P. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) *Rol' izmenenii neirokhimicheskikh funktsii mozga v formirovani i techenii psikhopatologicheskikh sostoyani*. [Role of changes in the neurochemical functions of the brain in the formation and course of psychopathological states.] In V. V. Parin (Ed.), "Sistemnaya organizatsiya fiziologicheskikh funktsii." (See PA, Vol. 44:4609) 82-96.—Presents the results of a number of studies: (a) the functional state of cerebral adrenergic and cholinergic structures in schizophrenics in various stages and forms of the psychosis; (b) polygraphic recordings of bioelectrical activity, autonomic and motor functions against a background of various sensory and verbal stimuli; (c) pharmacological agents which affect central neurochemical functions; and (d) the central mechanism of action of psychomimetic LSD-25 in rabbits. LSD-25, amiazine (chlorpromazine), benactyzine, and serotonin were injected in several regions of the cortex and subcortex, with EEG recordings undertaken from different regions of the brain. The character, degree, and localization of pathology in the central adrenergic systems and the changes in the functions of other neurochemical structures in the brain determine considerably the psychotic picture. Major functional changes observed occurred in the structures involved in the Papez-Nauta circle mainly, in the mesencephalic reticular formation and the limbic system. It is suggested that disturbances of the activity of the cerebral adrenergic substrate, resulting in psychoses, are related to insufficiency of the enzyme systems which destroy, in particular, catecholamines of the MAO group. (English summary) (33 ref.)—*J. D. London*.

5232. Bannister, Donald. (Medical Research Council London, England) *Schizophrenia: Carnival mirror of coherence*. *Psychology Today*, 1971(Jan), Vol. 4(8), 66-69, 84.—Using the Kelly grid method of assessing the interrelationships of interpersonal constructs, it is concluded that schizophrenic language is incomprehensible primarily because it is noise—not because it is a secret language or a private code. The schizophrenic's language is especially loose when dealing with interpersonal relations while only somewhat disturbed when dealing with objects. This finding is not compatible with biological theories of the origin of schizophrenia. Research is in progress to discover the manner in which disorganized language develops.—*J. J. Parnes*.

5233. Dunham, H. Warren. (Lafayette Clinic, Detroit, Mich.) *Sociocultural studies of schizophrenia*. *Archives of General Psychiatry*, 1971(Mar), Vol. 24(3), 206-214.—Reviews and analyzes various studies of schizophrenia. The 2 major approaches to schizophrenia are derived from the "soft" diagnosis which has its roots in psychoanalytic, learning, socialization, and anomie theories and the "hard" diagnosis which stems from E. Kraepelin's classical work on dementia praecox. It is concluded that psychiatry must reject narrow approaches and move to new levels of synthesis if the riddle of schizophrenia is to be solved. (59 ref.)—*Journal abstract*.

5234. Friedman, Martha S. (Columbia U.) *Family life education for expressed acceptance of self and others*. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3335.

5235. Hartung, Jürgen R. (L. Houston) *A review of procedures to increase verbal imitation skills and functional speech in autistic children*. *Journal of Speech & Hearing Disorders*, 1970(Aug), Vol. 35(3), 203-217.—Discusses the importance of establishing verbal behavior in nonspeaking, autistic children, use of some of the theoretical foundation underlying verbal conditioning, and reviews procedures and related theoretical implications. Verbal imitation behavior appears to precede the development of more complex verbal behavior. An imitative repertoire is a prerequisite for each of the stages of verbal conditioning. Imprecise imitation of verbal training assumes that the imitator already imitates the verbal responses of others consistently. (2 p. ref.)—*C. C. Benoit*.

5236. Lane, Ellen. (Case Western Reserve U.) *Biological factors affecting estimates of fertility rates of schizophrenics*. *Journal of Psychology*, 1971(May), Vol. 78(1), 49-63.—Analysis of commonly used sampling methods indicates that selection, attrition, and reproduction rates have been substantially underestimated in past studies. More accurate estimates would be obtained by considering the effects on schizophrenic fertility of previously uncontrolled variables, e.g., sex, economic level, race, institutionalization, time of assessment, divorce, ileptimacy, and chronicity. (26 ref.)—*Author abstract*.

5237. Mourer, Stephen D. (South Florida) *Some issues regarding semantic generalization in schizophrenia*. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 64(Pt. 1), 449-450.—Predictions are derived from a theory of disordered thought offered by Chapman, Chapman and Miller concerning the conditions under which schizophrenic Ss exhibit excessive generalization errors. The theory assumes that both the schizophrenic and normal

are biased toward responding to words in terms of the words strongest aspects of meaning, but that schizophrenics are more strongly biased toward this than are normals. 26 schizophrenic and 27 normal Ss were instructed to indicate by pressing buttons marked "yes" and "no" whether or not test words presented in serial fashion on a memory drum had appeared on a previous training list. "Yes" responses to test words not appearing on a previous training list were the measure of generalization errors. The predictions were supported in that schizophrenics made significantly more errors to words on the test list that shared strong meaning responses ($p < .01$), but normal Ss did not. In addition, the difference between generalization errors to words sharing strong and weak meaning responses was significantly greater for schizophrenics than for normals ($p < .05$).—*Author abstract.*

5238. Serra, A., Pontalti, C., & Pontalti-Venier, S. (Catholic U. of the Sacred Heart, Medical Faculty, Rome, Italy) **Sulla genetica della schizofrenia: I. Retrospective.** [On the genetics of schizophrenia: I. Retrospectives.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Sep), Vol. 31(5), 417-450.—On the basis of a review of the literature, monogenic theories of any kind, including simple Mendelian models, do not show sufficient grounds for support. A multifactorial genetic model, probably of the additive type, fits available data best. More recent studies are gradually bringing into light specific familial and social causes for many, as yet unexplained, clinical symptoms.—*L. L'Abate.*

5239. Stevens, Barbara C. (Inst. of Psychiatry, London, England) **Illegitimate fertility of psychotic women.** *Journal of Biosocial Science*, 1970(Jan), Vol. 2(1), 17-30.—Earlier studies on psychotic patients suggested that their illegitimate fertility was lower than expected on the basis of general population trends. Present findings were part of a study on marriage and fertility of women suffering from schizophrenia and affective disorders. 1300 women were selected from admissions to a London hospital during 1955-1963 and followed up until August 1966. The proportion of total live births which were illegitimate was 19.1% among the schizophrenics, 7.5% among the affectives, and 12.7% in the general population of London during 1961. The high illegitimate fertility of schizophrenics is probably related to their low probability of marriage; more births occurred before than after admission, especially among the older group of Ss suffering from affective disorders. Most of the births were the result of a serious relationship rather than casual promiscuity, and they were more frequent among Jamaican Ss and Ss with probable psychopathic personalities in both clinical groups. The genetic and social relevance of the study is discussed. (25 ref.)—*Journal abstract.*

5240. Taylor, Michael A. & Levine, Robert. (New York Medical Coll., N.Y.) **Puerperal schizophrenia: A physiological interaction between mother and fetus.** *Biological Psychiatry*, 1969(Jan), Vol. 1(1), 97-101.—Tested 2 hypotheses that (a) "prepartum schizophrenic psychoses should be associated with a lower incidence of male live births and a higher incidence of female live births"; and (b) that remissions of schizophrenia "occurring during pregnancy should be associated with a greater number of male live births, while exacerbations should be associated with a greater number of female live births." The charts of 25 acutely ill or schizophrenic clinic patients (mean age 22 yr.) were reviewed. Data

support both hypotheses. It is concluded that among pregnant schizophrenic women, "a male fetus suppresses the expression of acute psychotic symptoms, although a female fetus apparently has no such effect." "Such a view suggests a hormonal model based upon male fetal androgen and progesterone influence upon the maternal schizophrenic process...."—*P. McMillan.*

Schizophrenia Treatment

5241. Blumenthal, Irving J. (State U. New York Downstate Medical Center, Brooklyn) **Management of schizophrenia in the Veterans Administration.** *Psychosomatics*, 1971(Jan), Vol. 12(1), 61-68. Presents a historical survey of the treatment of the schizophrenic veteran in Veterans Administration hospitals. The development of psychopharmacological drugs has brought about reductions in the use of restraint measures and somatic therapies, e.g., ECT, insulin coma therapy, and lobotomy. The advent of the "open door" policy, chemotherapeutic cooperative studies, short-term hospitalization, intensive community care following discharge, and the "team" approach are noted. Because of the increased number of schizophrenic patients reentering the community, there is a need for outpatient services and community psychiatry. (17 ref.) *Journal summary.*

5242. Bonier, Richard J. & Koplosky, Annette (McLean Hosp., Belmont, Mass.) **The borderline adolescent in crisis intervention.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 437-438.—28 13-19 yr. adolescents were seen in crisis intervention for 4 treatment interviews following an intensive diagnostic process. 12 Ss were classified as borderline schizophrenics and 16 as nonborderline schizophrenics. They were matched for age, social class, IQ, and type of crisis treatment. 1/2 of each group was seen in family therapy and 1/2 in individually centered crisis intervention. Neither form of intervention appeared more effective though as long as a 2 1/2-yr follow-up indicated some improvement in the borderline group, and no improvement in nonborderline group. Groups differed statistically in precipitating factors. Type of intervention is described.—*Author abstract.*

5243. Graziano, Anthony M. (State U. New York Buffalo) **A group treatment approach to multiple problem behaviors of autistic children.** *Journal of Abnormal Children*, 1970(Sum), Vol. 36(10), 765-770. Describes a group behavior therapy approach involving social environment programming with a professional supervisor and a nonprofessional staff. 4 autistic children were observed individually and in a group to determine their gross behavioral deficits in various response classes. A range of response constituents was identified and techniques to stimulate and reinforce those responses were developed. The severely psychotic Ss with extreme deficit and surplus behavior were significantly improved in the 3 1/2-yr program of behavior modification.—*P. Hertzberg.*

5244. May, Philip R. (U. California, Neuropsychiatric Inst., Los Angeles) **Modifying health-care services for schizophrenic patients.** *Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 363-368. Reports a study which assigned 228 1st admission schizophrenic patients to 1 of 5 treatments: (a) individual psychotherapy; (b) an antipsychotic drug, trifluoperazine

psychosomatic research, and epidemiological and cross-cultural psychosomatic research. 3 psychosomatic problems of current interest are noted: (a) the side effect of oral contraceptive medication, (b) psychiatric implications of hemodialysis and renal transplantation, and (c) jejunoileal bypass in obesity. The future of psychosomatic research is discussed. (15 ref.)—A. Goldstein.

CASE HISTORY

5251. Belfer, Myron L. & d'Autremont, Chester C. (National Inst. of Mental Health, Bethesda, Md.) **Catatonia-like symptomatology: An interesting case.** *Archives of General Psychiatry*, 1971(Feb), Vol. 24(2), 119-120. Reports the case of a 16-yr-old boy admitted to a hospital in a condition resembling catatonia. Thorough diagnostic procedures revealed an arteriovenous malformation of the left frontal lobe which was resected. Postoperative follow-up indicated a return to full orientation and coherence. It is suggested that clinicians be aware of possible organic etiology of catatonia and catatonia-like symptomatology. Certain changes related to frontal lobe pathological abnormality are enumerated.—*Journal abstract.*

5252. Goldfield, Michael D. & Glick, Ira D. (Langley Porter Neuropsychiatric Inst. San Francisco, Calif.) **Self-mutilation of the female genitalia: A case report.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 843-845. Presents a case report of self-mutilation of the vagina. The patient was a 19-yr-old white unwed mother of a 2-yr-old child, and had been admitted to a gynecological service for investigation of vaginal bleeding which had occurred over a 2-yr period. In a discussion of the case, self-mutilation of the vagina is considered as part of a larger symptom complex, often consisting of a previous history of multiple hospitalizations, multiple surgeries, and sexual histories involving many partners with little emotional involvement. Such patients are usually egocentric, attention seeking, histrionic, and demanding, and may request multiple prescriptions for pain from many different physicians. Important clues in the physical examination are multiple abdominal scars, and evidence of self-induced dermatological excoriations. Self-mutilation should be strongly suspected in these kinds of patients who present with unexplained vaginal bleeding. *Journal summary.*

5253. Schachter, Mendel. (Marseille Committee of Emotionally Disturbed Children, France) **A propos d'une certaine prostitution dangereuse: La prostitution "acte gratuit" chez des grandes adolescentes: Contribution à la psychopathologie de la jeunesse féminine dite rebelle.** [A propos of dangerous prostitution: Prostitution as a "gratuitous act" in adolescents. Contribution to the psychopathology of rebellious young girls.] *Rivista di Psichiatria*, 1970(Mar), Vol. 5(2), 158-173. Presents 2 case histories of a 17-yr-old and a 24-yr-old females who developed habits of engaging in promiscuous sexual activity. An attempt is made to isolate the source of this activity. The average young adult female who engages in promiscuous sexual intercourse is: middle class, attached to a definite ethical and religious value system, college educated, and involved in latent family conflicts resulting from the establishment of faulty identification patterns. Prostitution as a "gratuitous act," is illustrated regarding 2 clinical and psychological observations, aiming to focus the attention on problems concerning the future of the

youth and peace of the society. (English summary) P. A. Stanton.

5254. Szegedi, Márton & Münich, Iván. **Szexuális motivációból elkövetett emberölés-sorozat pszichológiai elemzése.** [Psychological analysis of a murder series committed for sexual motives.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 272-284.—Presents a case study. Results based on an examination of the S's background and psychological tests (Rorschach 1A1 etc.), indicate that the S was not psychotic, he had an alienation tendency "which led to formation of secondary structures within his personality," he was psychosexually fixated on an autoerotic level making it impossible for him to develop heterosexual interests, and "the quantity and depth of information gained by the projective tests was superior to that obtained through observation" (English & Russian summaries) M. Moore.

5255. Villacián, J. M. & Ortiz Manchado, O. (I. Valladolid, Faculty of Medicine, Spain) **Acerca de un caso de síndrome de Klinefelter.** [Regarding a case of Klinefelter syndrome.] *Archivos de Neurobiología*, 1969(Jul), Vol. 32(3), 397-401.—Studied the case of a 51-yr-old male patient who was admitted 15 yr before for paraphrenic delirious-hallucinatory symptoms. The Klinefelter syndrome is characterized by gynecomastia (breast growth), an absence of spermatogenesis, and an increase of gonadotropines. S suffered from a dual personality: low intensity delirium suffered in silence and an almost normal personality. S presented no signs of oligophrenia which is a typical principle of the syndrome. There is an absence of sexual instinct and a weak capability to love. The most interesting fact is the karyotype XY/XXY/XXXY with abnormal cells being more numerous than normal cells. Only 1 other such case where mental retardation did not exist was reported by McSweeney, but in his case normal cells were more numerous. (English & French summaries)—4 M. Farfaglia.

MENTAL HEALTH & REHABILITATION

5256. ———. **Vocational development in a therapeutic community.** *Journal of Emotional Education*, 1970(Spring), Vol. 10(2), i-xxviii.—The Institute for Emotional Education is a therapeutic community committed to the advancement of "emotional education." Its therapeutic experiences include "social therapy" and "work therapy." Vocational development is directed primarily towards helping the client realize his full human potential. The vocational training includes the teaching of both basic skills and human relations. An important agent of vocational development in the therapeutic community is the "job forum." It secures information on client qualifications, researches available jobs, and matches clients to jobs. Emotional support is also rendered by the "job forum." It prepares documentation (resumes, etc.), provides role-playing opportunities, makes use of a "buddy system," and evaluates client interviews.—I. E. Shifren.

5257. Bishop, Ronald C. & Hill, James W. (Southern Illinois U.) **Effects of scheduled versus discretionary rests on the performance of handicapped workers.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 503-504.—10 handicapped soda-pop case repair workers in a sheltered workshop worked under 6 different rest/schedule schedules. The schedules ranged from the usual 15 min

midmorning and midafternoon to a schedule which permitted the worker to leave the job as often, and for as long as he wished. Dependent variables were duration and frequency of unscheduled rest pauses as well as quantity and quality of production. Significant changes in all 4 dependent variables were observed under the different conditions but they were unrelated to absolute quantity of time away from work. Under the schedule of complete freedom, workers maintained their original quantity of production while increasing quality above 4 of the other 5 conditions. Several theoretical positions are offered as possible explanations of the results.

—Author abstract

5258. Dawe, E. Lloyd & Smith, E. Burnett. *Psychiatry in Rhodesia. Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 388-389.

5259. Felsenburg, Rosa. (Indiana-Purdue U., Indianapolis) Mental health services should be planned: The danger of "build now, think later." *International Journal of Offender Therapy*, 1970, Vol. 14(1), 31-36.—Considers that although helping children to adjust to their families is seen as the main aim by modern treatment ideology, many are still sent to residential facilities far away, sometimes even adjacent to mental hospitals. The detrimental consequences of poor planning and of unthinking stereotypes are highlighted (French, German, & Spanish summaries)—*Journal summary*

5260. Foster, Ashley. The use of psychological testing in rehabilitation planning for Alaskan native people. *Australian Psychologist*, 1969(Nov), Vol. 4(2-3), 146-152.—70 native Alaskans were individually administered either the WAIS (N = 42) or the Revised Beta test (N = 28) to determine rehabilitation guidance possibilities. Results indicate that while scores on subtests of the Revised Beta test did not differ significantly, poorest scores were in the area of visualization of similarities and dissimilarities and in the ability to envision a whole from the parts on a 2-dimensional plane. The WAIS Performance IQ scores were significantly higher than Verbal IQ scores, with highest scores in the Object Assembly subtest and lowest scores in the Arithmetic subtest. Results support the impression that the Alaska Native has a greater facility in the handling of concrete problems. It is concluded that while an IQ test alone cannot measure the abilities of native Alaskans, a good test can be useful in evaluating rehabilitation potential by providing a distribution of abilities and an indication of the degree to which such abilities differ from a normative population.—R. Wils.

5261. Gellman, Victor A. & Evans, Anne S. (Boston State Hosp., Mass.) Volunteer case aides rehabilitate chronic patients. *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 90-93.—Describes the training and activities of volunteers, trained and supervised by professional social workers, assigned to mental hospital inpatient. Volunteer characteristics, supervision and future work for the program are outlined. "Of great significance in the success of the volunteers is their belief that their patients have something worthwhile to contribute; that belief is transmitted to the patients."

5262. Hedberg, Magnus. (Royal Inst. of Technology, Stockholm, Sweden) Psykiologi och politik [Psychiatry and politics.] *Nordisk Psykiologi*, 1969, Vol. 21(1), 1-10.—Describes the criticism of the Swedish mental health campaign from young Marxists and left-wing doctors. The model is a simple class-divided society

where psychologists, sociologists and physicians are used by the state to control the real economy of the workers. It is feared that the existing psychiatric system should be taken over by political activity.—J. M. S.

5263. Janderholm Ek, Ann C. U. (Stockholm, Sweden) Mentalhälsokampanj. För vem? [Mental health campaign: For whom.] *Nordisk Psykiologi*, 1969, Vol. 21(5), 359-367.—In 1968, the Swedish organizations launched the project "Mental health in our working life." The Swedish Psychological Association was invited, but the representative was without any influence on the material. The author severely criticizes the implicit definition of mental health as adaptation to under a paternal regime. Conflicts seem to result in immature workers with no reference to the social situation. In the name of service over form, the population is proclaimed as incapable of anything but passive adaptation. A new psychology in service of the workers is called for.—J. M. S.

5264. M. Calhilo, A., Hector & Calderon S., Guillermo. El problema y el programa de salud mental en la ciudad de México. [The problem and mental health program in Mexico City.] *Revista Mexicana de Psicología*, 1970(Sep), Vol. 14(1), 1-14.

Examines the conditions that contribute to poor mental health in Mexico: (a) overpopulation, overcrowded living quarters, lack of privacy and freedom, and dangerous means of transportation, with special emphasis on overcrowding of psychiatric hospitals, and other. Data for mental illness are given. These include psychiatric hospital admissions (1960-68) and (30 out of 1000) and (132 out of 1000) respectively, mental defectives (11 out of 1000) and (132 out of 1000) respectively. A mental health program for the city of Mexico City is outlined, stressing the need for the development of the best mental health practice for the individual or group process in psychological disorders, extensive adequate therapeutic neuropsychiatry, and rehabilitation of mental patients. D. H. S. Hunter

5265. Melzer, H. & Ludwig, David. (Washington U.) Positive mental health of workers as related to memory optimism, work competency and personal life values. *Journal of Applied Social Psychology*, 1970, Vol. 1(1), 1-10.—Assesses the content of life and work memories and personal values of 141 workers to obtain indices of positive mental health. The categories used for assessing mental health were (a) self-regard, (b) maturity, (c) personal organization, and (d) relation to environment. These factors, as well as the total mental health index, were correlated with memory, optimism, personal life values, and competency, and personal values. Positive correlation was found for the relation of mental health and memory, optimism, and competency. Work life values were positively related to memory, optimism, and competency, and personal values were positively related to memory, optimism, and competency. The total mental health index was positively related to memory, optimism, and competency.

5266. Rios, Mathew. (Ministry of Mental Health, Honduras) Psychiatry in Honduras. *Journal of Applied Social Psychology*, 1970, Vol. 1(1), 11-16.

5267. Rind, John I. A. Margolin, Robert J. Educational therapy: Past present and future. *Archives of General Psychiatry*, 1970, Vol. 21, 98-102.

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John Philip & Krauss Herbert H. (1971) Perceived therapeutic regard as a function of disclosure and disclosure ...

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Marriage & Family

4379 Cordis Joseph P. (Chicago) The effects of teaching ...

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Social Casework

5282. Bailey, Margaret B. (Community Council of Greater New York, N.Y.) **Attitudes toward alcoholism before and after a training program for social caseworkers.** *Quarterly Journal of Studies on Alcohol*, 1970(Sep), Vol. 31(3-A), 669-683.—A 30-hour alcoholism training program for 71 social caseworkers resulted in some changes in their theoretical concepts of alcoholism but no change, or even slight movement away from the desired direction, in attitudes related to casework practice, treatment relationships, and motivation. (15 ref.)—*Journal abstract.*

5283. Pinderhughes, Charles A. (Tufts U., Medical School) **Non-pathological paranoia in social workers.** *Smith College Studies in Social Work*, 1970(Nov), Vol. 41(1), 1-9.—Emotionally healthy persons can align their false belief systems with those of their relatives, friends, schoolmates, and culture mates. By employing camouflaging labels they can avoid awareness of the paranoia. All such group members are sociable healthy persons who have aligned their paranoia to that of other persons to whom they have affiliative bonds. Their group is right and outsiders are wrong. Their paranoia is nonpathological because their capacity for social relationships is intact enough for their paranoia to be group-related.—*M. W. Linn.*

PHYSICAL HANDICAP

5284. Angliss, Valmai E. (Royal Children's Hosp., Parkville, Victoria, Australia) **Handicapped adolescents: Services and disservices.** *Australian Occupational Therapy Journal*, 1970(Jan), Vol. 17(1), 32-36.—Briefly considers some of the developmental tasks of the adolescent, the turmoil of the period, and the reactions of adults to various aspects. The handicapped adolescent is described as having an even more difficult, if not impossible task of development, especially if his handicap is severe and develops early in life. The relationship of the handicapped adolescent with his parents is characterized by guilt and restrictions. In the hospital setting, there is a tendency for the personnel to force the adolescent to suppress his aggressions and growing sexual awareness in order to keep him safely dependent. The case histories of a burned boy, a suicidal girl, and a girl with multiple congenital defects of the extremities are related. The failure of the hospitals to meet their needs is emphasized. A new center for the treatment of handicapped adolescents is described and programs are outlined which may alleviate some of the problems and deficiencies noted.—*S. Knapp.*

5285. Cameron, Paul; Van Hoeck, D., Weiss, N., & Kostin, M. (U. Louisville) **Happiness or life-satisfaction of the malformed.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 641-642.—How does the happiness of the malformed compare to that of normals in our society? A questionnaire indexing happiness, believed-difficulty-of-life, suicide contemplations and attempts, and frustration was administered to 144 handicapped and 151 normal persons in in- and outpatient clinics of 2 hospitals and university students. No difference was found between the 2 groups on reported happiness or degree of frustration. Some evidence suggested normals are more apt to contemplate and/or attempt suicide. The

handicapped judged their lives to be more difficult.—*Author abstract.*

5286. Johnson, Gil & Tuttle, Dean. (California State Dept. of Vocational Rehabilitation, Oakland) **Education and habilitation of multiply handicapped blind youth.** *New Outlook for the Blind*, 1971(Feb), Vol. 65(2), 56-62.—A joint project between the California School for the Blind, Berkeley, and the California State Department of Vocational Rehabilitation was instituted to help multiply handicapped blind students to adjusting better in their sighted communities and to further vocational and educational goals. 3 groups were identified, a high school, transitional work-experience, and work evaluation group. Various community agencies such as sheltered workshops were involved to which students residing at the School for the Blind traveled back and forth and individual and group counseling were made available. After 2½ yr. of experience it was felt worthwhile to continue the project. Among conclusions drawn was that working with multiple handicapped blind students required much time, a variety of services, and an individualized program. More adequate services were thought to be necessary.—*M. J. Stanford.*

5287. Kissin, Gerald. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Model for communicating the dynamics of the psychosocial adjustment of the handicapped.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 643-644.—Assisting the handicapped to a more effect psychosocial adaptation requires the enlistment of the efforts and the cooperation of many individuals in many disciplines. Examination of the success or failure of these efforts has shown that the quality of communication has been the prime determinant. A conceptual model visually depicted was evolved providing a base line upon which more effective communication can be developed. This is done by presenting a model of a simplistic developmental comparisons of the "life-space" of the "normal" and "handicapped" individual. By example and extension the model has been enlarged to encompass many of the functional elements of adjustment and "therapeutic intervention" which can be understood and utilized regardless of the original orientation of the individual(s) involved.—*Author abstract.*

5288. Neel, J. V., et al. (U. Michigan, Medical School) **The effects of parental consanguinity and inbreeding in Hirado, Japan: III. Vision and hearing.** *Human Heredity*, 1970, Vol. 20(2), 129-155.—Investigates the effects of parental consanguinity, age, and sex on defects of the eye and ear, accommodation, mean visual acuity, and mean db. of hearing loss at 4 frequencies in 1355 13-16 yr. old school children and their parents on Hirado Island, Japan. In the children, the effect of paternal and maternal inbreeding on these same indicators was also investigated. Age and sex effects had high levels of statistical significance, but, unlike the results on Hirado with respect to a variety of other indicators, socioeconomic effects are negligible. None of the regressions on the consanguinity or inbreeding is individually significant, nor is there any consistent pattern to the totality of the regressions. However, the sampling errors do not conflict with the significant positive findings regarding consanguinity effects in a previous study in Hiroshima and Nagasaki.—*Journal abstract.*

5289. Nel, B. F., Gouws, S. J., Sonnekus, M. C., & van der Stoep, F. **Essays on the handicapped child.**

treatment of wide-angle chronic glaucoma. *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Jun), Vol. 47(6), 473-480.—Reviews the rationale for use of adrenergic drugs in the treatment of glaucoma, and their application in research to manage wide-angle chronic glaucoma with CNS stimulants. Use and possible ocular and systemic complications resulting from treatment with MAO inhibitors and other major psychoanaleptics are considered. (19 ref.)—*Journal abstract*.

5298. Korb, Donald R. **Preparing the visually handicapped person for motor vehicle operation.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Aug), Vol. 47(8), 619-628.—Considers the possibilities of motor vehicle operation of persons wearing telescopic lenses. The biotic telescopic system is discussed with regard to spatial orientation, hypothetical prerequisites for motor vehicle operation, and clinical and subjective problems. Reasons for rejecting 35 out of 67 persons examined for telescopic lenses are elaborated. The successful driving experience of 26 Ss from this sample is discussed. These Ss wore telescopic lenses in which the magnification did not appear to be a factor in adaptation. They attained an acuity of 20/40 or better and had unblemished safety records. (28 ref.)—P. Hertzberg.

5299. Martin, Clessen J. & Herndon, Mary A. (Texas A & M U., Human Learning Research Lab.) **Facilitation of associative learning among blind children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 629-630.—Examined the associative strategies reported by blind children, and attempted to determine whether syntactical strategy aids facilitate the storage of verbal associations in memory for these Ss. The experimental (E) group received syntactical strategies during the learning task; the control (C) group was not provided with any E-supplied strategies. Performance of the E group was significantly superior to the C group. Blind Ss' verbal reports concerning how they learned the associations could be classified according to a previous classification scheme developed from sighted Ss' verbal reports.—*Author abstract*.

5300. Mayadas, Nazneen S. (Washington U.) **Selective factors associated with role behaviors of the blind.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3648-3649.

5301. Mehr, Helen M., Mehr, Edwin B., & Ault, Carroll. (Vision Rehabilitation Center of Santa Clara County, San Jose, Calif.) **Psychological aspects of low vision rehabilitation.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Aug), Vol. 47(8), 605-612.—Discusses the formation of a group of partially sighted 15-16 yr. old Ss and professional people of various disciplines to learn about the problems of being partially sighted. Group sizes varied from 8-15 individuals who met twice/mo for a total of 12 times. Observation of Ss regarding their handicap revealed (a) denial reactions, (b) over-independent reactions, and (c) defensive reactions. The discussion groups helped assuage fears, doubts, misperceptions, and embarrassment through the airing of mutual problems. Implications of findings, gained through a questionnaire sent to group members, were related to the partially sighted child, the adolescent, the young adult, the adult, and an elderly couple, as well as to the optometrist and ophthalmologist.—P. Hertzberg.

5302. Pálhegyi, Ferenc. **A fogalmak belső struk-**

túrjának kialakulása a vakok gondolkodásában. [Development of the central structure of concepts in the thought processes of the blind.] *Pszechologiai Tanulmányok*, 1968, No. 11, 545-564.—The psychol. "lifespace" of blind differs from that of seeing persons. External facts that have stimulus value for them are not exactly those to which the seeing respond. The implication of this for developmental psychology is that the blind "assimilate" the external world in a perceptual framework that has become, through their special adjustment, different from the normal, i.e., they adjust to an external world that has been "blindly" organized. Accordingly, it is assumed, that in developing their ideas different aspects of a concept will become central and of primary importance for the blind. For testing this assumption, object-sorting tasks were given to seeing and blind Ss. 1 of the tasks consisted of sorting 8 slips of paper into 2 groups. Of the 8 slips 4 were shaped differently, and 1/2 of the slips that had the same shape were thicker, the other 1/2 thinner. While the normal Ss sorted the slips on the basis of form, the blind performed the task on the basis of thickness. The experiments show that traits of objects negligible for the seeing are often essential for the blind. Data have led to conclusions that might be utilized in improving teaching methods for the blind. (Russian summary) (59 ref.)—*English summary*.

5303. Patton, William E. (New Hampshire Assn for the Blind, Concord) **Research on criteria for measuring mobility readiness of adventitiously blind adults.** *New Outlook for the Blind*, 1970(Mar), Vol. 64(3), 73-80.—Describes a 3-yr research oriented project conducted by the New Hampshire Association for the Blind. A teamwork approach to mobility service including coordinated casework counselling, was provided to 91 different legally blind persons on a community basis. There were 2 main goals: (a) to identify specific component factors of client readiness and (b) to construct "an instrument for measuring total readiness of adventitiously blind adults." The final research consisted of 14 criteria grouped into 3 general categories: physiological, psychosocial, and emotional. "A readiness instrument composed of 8 criteria was found to have a positive correlation with performance significant to less than the .1 level. It is concluded that "important specific factors related to readiness for mobility service" have been identified in this research. (22 ref.)—B. A. Burkard.

5304. Rosenbloom, Alfred A. (Illinois Coll. of Optometry) **Prognostic factors in low vision rehabilitation.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Aug), Vol. 47(8), 600-605.—Determined the extent to which a patient continues to use a low vision aid. Follow-up low vision data are reported on 276 Ss randomly selected from the 1st 1000 cases reexamined in a low vision program within 6-12 mo. of their original examination. Types of ocular pathology and visual aid in relation to visual outcome were considered. It was found that over 75% of the Ss were successful in their ability to carry out meaningful visual tasks primarily at a near point. To insure continued successful use of the aid, it was suggested that Ss receive "the necessary adaptive training for mastery of the precise fixation demands involving head, hand and eye." It was found that almost all Ss required continued low vision care with regular follow-up intervals. Psychiatric evaluations and counseling were also found helpful.—P. Hertzberg.

5305. Sonnekus, M. C. **Die problematiek van de**

slegslende kind: 'N verkennende pedagogies-psigologiese ondersoek. [Problems of partially sighted children: Results of a pedagogical-psychological investigation.] *Opvoedkundige Studies*, No. 55, 77 p. Presents (a) a phenomenological study of the problems of the partially sighted child, and (b) the results of a pedagogical-psychological investigation of 18 partially sighted children. The standard approach which defines the child in terms of visual ability and the problem in terms of educational structure and apparatus is considered inadequate. Rather, the partially seeing child's problem is basically one of bodily experience and not only the lack of a part of his visual sense organ. The world of the partially sighted child is spatially distorted. Results of an investigation of partially sighted children revealed a manifold somatic burden, e.g., toxoplasmoses, retarded skeletal growth, high metabolism, and congenital cardiac defect. The home environments were characterized by manifold constitutional, organic, and pedagogical vacuums. Various psychopathological disturbances in the children were noted. A synthesis of the data is presented as a hypothetical world view of the partially sighted child. The pedagogical-didactic tasks with regard to these children are outlined emphasizing the importance of the home environment. (7 p. ref.)—*English summary*.

5306. Winton, Chester A. (U. California, Berkeley) **The legally blind young adult.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3643.

Deafness & Hearing Disorder

5307. Altshuler, Kenneth Z., Vollenweider, John, & Rainer, John D. (Columbia U., Coll. of Physicians & Surgeons) **Cross cultural study of personality in the deaf.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 631-632.—Describes an ongoing study which includes selected psychological tests given to hearing adolescents and comparable Ss with early total deafness. The study is a cross-cultural effort to define whether early language deprivation and limited language skills are inherently associated with impulsivity. It also includes a survey and clinical comparison of deaf psychiatric patients in New York State and throughout Yugoslavia. Psychological results thus far in the American section are reported. Scores on the Porteus Maze, Id-Ego-Superego and a new Draw-a-line test indicate greater impulsivity in the deaf, but the relative absence of a relationship between an individual's scores on the various measures suggests that impulsivity is multifactorial and comprises a number of different qualities.—*Author abstract*.

5308. Bowe, Frank G. (5708 16th Ave., Hyattsville, Md.) **Educational, psychological, and occupational aspects of the nonwhite deaf population.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 633-634.—Information from widely scattered fragmented sources is synthesized to present an overview of knowledge relating to nonwhite deaf persons—Negro, Puerto Rican, and Indian. This survey reveals undereducation and underemployment markedly in excess of that found for white deaf people. Perhaps the most significant finding of this survey concerns the paucity of information available on this segment of the deaf population. The need for further research and services is both crucial and immediate.—*Author abstract*.

5309. Chovan, William L. & McGettigan, James F. (Western Carolina U.) **The effects of vocal mediating responses on visual motor tasks with deaf and hearing children.** *Exceptional Children*, 1971(Feb), Vol. 37(6), 435-446.—Investigated the effects of vocal labeling on short-term memory with 2 MA levels of 60 deaf and 30 hearing children in order to determine the nature of the interaction among vocal labels, age levels, and a design arrangement task. It was found that 6-yr-old deaf and hearing children performed the same while 9-yr-old hearing children showed better recall than their deaf peers, with and without vocal labels. For the deaf, vocal labeling tended to have an interfering effect at the older levels, in part because of the competing stimuli in vocal auditory and visual-motor responses. (25 ref.)—*Journal abstract*.

5310. Fitzgerald, Mary D., Sifton, Ann B., & Freeman, McConnell. (Vanderbilt U.) **Audiometric, developmental, and learning characteristics of a group of rubella deaf children.** *Journal of Speech & Hearing Disorders*, 1970(Aug), Vol. 35(3), 218-228. Studied audiometric, developmental, and intellectual characteristics in 19 3-yr-old rubella children. These Ss showed a profound hearing loss (mean best binatural average = 91 db.) with a predominantly flat audiometric curve. The earlier in gestation the mother contracted rubella the more severe the hearing loss. These Ss were responsive to early remedial intervention and wearable amplification. They were below normal in stature, body weight, and head circumference. All functioned mentally at or above age level compared to other deaf children when tested on the Nebraska Test of Learning Disabilities. (C. C. Berger)

5311. Flynn, John T. & Levine, Edna S. (U. Connecticut) **Analysis of contributing characteristics to effective interpretation for the deaf.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 635-636.—Attempted to empirically assess and identify the contributions of relevant personal attributes that relate significantly to effective interpretive skills for the deaf. This study will culminate in a prediction scheme that will enable training programs for potential interpreters to efficiently select candidates for such programs. A corollary purpose of the study is to identify traits and attributes that may prove common requirements for all service workers with the deaf and follow through aptitude and attribute studies in other disciplines, notably rehabilitation counseling.—*Author abstract*.

5312. Jackson, C. Wesley; Ellis, Rosemary; Hughey, George A., & Schlotfeldt, Rozella M. (Case Western U., Frances Payne Bolton School of Nursing) **Auditory deprivation: Stapedectomy patients who reported social change due to hearing impairment versus those who did not.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 637-638.—21 stapedectomy patients were clearly separated into 2 subgroups which did not differ on average hearing. "Social change" patients reported social deprivation associated with hearing impairment. They also were more hostile toward their ear conditions and described themselves as relatively more unhappy, stressful, sleepy, dizzy, friendly and neurotic than the "no social change" subgroup. The findings illustrate the differential effects of similar auditory impairment on patients' reported social stimulation. The mood and personality differences give additional significance to the

different social patterns and indicate the need to further investigate differential patterns of social stimulation associated with adult hearing impairment.—*Author abstract.*

5313. **Vernon, McCay.** (Western Maryland Coll.) **Potential, achievement, and rehabilitation in the deaf population.** *Rehabilitation Literature*, 1970(Sep), Vol. 31(9), 258-267.—Reviews research findings which indicate that deaf persons have essentially the same intelligence and manual dexterity that the hearing have. Although their work habits are good and they are stable in job tenure, their achievement in education, technical and professional employment, and psychosocial areas is unnecessarily low. Evidence is offered that this low achievement is primarily due to (a) inappropriate and inadequate education, vocational and technical training; and (b) inadequacies of counselling and job placement services. It is suggested that research is needed (a) to understand the gross failure of urban schools to serve the deaf; and (b) to remedy the inadequate preparation and use of the deaf at professional levels, especially in education, at the Bureau of Education of the Handicapped, and in rehabilitation. It is concluded that a continuation of present failures to develop the potential of deaf persons will result in mass unemployment. (56 ref.)—*Journal summary.*

SPEECH DISORDER

5314. **Bloodstein, Oliver.** (Brooklyn Coll., City U. New York) **Stuttering and normal nonfluency: A continuity hypothesis.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 30-39.—Reviewed research findings on specific behaviors associated with stuttering: part-word repetition, word repetition, sound prolongation, and forcing. The occurrence of these behaviors in children regarded as stutterers and non-stutterers was compared. It is concluded that (a) each of these behaviors is more common in the young stutterers, (b) each behavior occurs in discernible amounts in both groups, and (c) distribution in the speech sequence and conditions under which frequency varies has not been established. It is concluded that evidence is compatible with the view that these behaviors as found in the speech of both groups represent a continuum of the same thing. (17 ref.)—*S. Knapp.*

5315. **Carl, Sigrun.** (5 Anselm Feuerbach Platz, Freiburg/Breisgau, W. Germany) **Atemrhythmisierende Entspannungstherapie bei Sprechgestörten.** [Rhythmical respiration relaxation therapy of speech defect.] *Praxis der Psychotherapie*, 1969(Dec), Vol. 14(6), 256-260.—Presents a case of a 24-yr-old male student with a history of stammering since age 5. Conventional methods of speech therapy were ineffective. The therapeutic method developed by Marianne Fuchs was initiated on a weekly basis for 1½ yr. followed by less regular sessions which continued for another 6 mo. The method is based on rhythmical respirations which increase body awareness. The developing gains in body control and means of expression eliminated neurotic speech blockage. Relaxation therapy not only eliminated stammering, but effected the patient's emancipation from 5 women upon whom he was highly dependent. It improved self-esteem in his marriage and professional training.—*B. Stanton.*

5316. **Fawcus, Margaret.** (Kingdon-Ward School of Speech Therapy, London, England) **Intensive treat-**

ment and group therapy programme for the child and adult stammerer. *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 59-65.—Describes intensive group therapy programs for stammerers. Adult groups contain from 8-12 members, while smaller groups organized by ages are recommended for children. Each patient is interviewed and the severity, frequency, and type of stammer are rated. A questionnaire is completed for the patient's assessment of his speech problem, anticipated difficulty in 50 speech situations, previous treatment, and personal and family background. Treatment focuses on the modification of abnormal speech behavior by slow syllable-timed speech and block modification to establish a basic fluency level. Assignments on the elimination of speech avoidance, objective evaluation of audience reaction, and the scientific study of his own speech contribute to change in the patient's attitudes. Group therapy is considered to provide interpersonal relationships, realistic stress, and the opportunity for positive reinforcement. Results of the programs are considered promising.—*S. Knapp.*

5317. **Fransella, Fay.** (St. George's Hosp. Medical School, London, England) **Stuttering: Not a symptom but a way of life.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 22-29.—Describes a treatment program used on 17 men and 3 women, 17-49 yr. old, based on G. Kelly's personal construct theory. In this theory, stuttering is regarded as an essential part of the personality rather than a symptom. The aim of the treatment is to encourage the stutterer in the role of a fluent speaker and in experiments with fluency. The patient is asked to remember occasions when he spoke fluently or not as badly as he had expected and to describe the circumstances and events. The implications grid technique of D. N. Hinkle is the primary tool for therapy. This technique helps in the redirection of the stutterer's conception of himself in relation to speech. The patient is asked to describe photographs of people as the "sort of person people see me as being when I am stuttering" or not stuttering, and to consider and explain why he thinks certain characteristics describe him or he would like to describe him. Analyses of these grids, speed of speech, total disfluencies, and ratings of severity are made. Results of 2 yr. treatments of stutterers indicates the validity of this treatment program.—*S. Knapp.*

5318. **McCool, J.** (Ayrshire Child Guidance Center, Scotland) **Psychopathogenic non-fluency.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 16-21.—Reviews the results of an investigation to provide a basis for prognosis in stammering. The importance of causative factors of cognitive functioning and personality were assessed. Although cognitive functioning seemed to play a small part in stammering, the precise nature of this effect was not clear. The nature and adjustment of the personality as measured by a questionnaire seemed to play an important, but secondary role, "acting as a trigger mechanism or making the stammer resistant to therapy." It is concluded that these factors operate upon a basic neurological predisposition to stammer.—*S. Knapp.*

5319. **Neaves, Alison I.** (Ayrshire Child Guidance Service, Scotland) **To establish a basis for prognosis in stammering.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 46-58.—Compared 84 successfully and 81 unsuccessfully treated 8-17 yr. old stutterers. Tests of motor impairment and intelligence

and data gathered on birth and family histories indicate that (a) motor impairment, (b) a history of poor speech development, (c) stammering present at the beginning of speech, and (d) a family history of stammering, were significantly more in evidence in the unsuccessfully treated group. Ss indicating only 1 of the handicaps listed had an 80% chance of success in treatment, while Ss with 4 had only a 5% chance. The use of factors found to have secondary significance (intelligence and personality adjustment) or limited significance (lack of cerebral dominance, age, and social class) in determining prognosis is discussed. Evidence is considered to indicate that poor neuromuscular coordination is a causative factor in stuttering and that this is the result of heredity rather than brain damage. Implications for psychological and physiological theories and the treatment of stammering are discussed.—S. Knapp.

5320. Van Riper, C. (Western Michigan U.) **The use of DAF in stuttering therapy.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 40-45.—Reviews the research on delayed auditory feedback (DAF) and its utility in stuttering therapy. DAF is described as helping the stutterer to realize that other people can be made to stutter and that their responses to it are similar to their own. Further, DAF can teach the stutterer that his disfluency is modifiable and can be reduced, if not eliminated, in severity. Variations in delay intervals and volume for different Ss is discussed. Coping mechanisms are noted and the necessity of discouraging these established. It is suggested that stutterers pay too much attention to auditory and not enough to proprioceptive feedback and that DAF encourages the stutterer to remedy this situation. The use of DAF in conjunction with videotaping is discussed. (31 ref.)—S. Knapp.

5321. Wohl, Maud T. (Glasgow Speech Clinic, Scotland) **The treatment of non-fluent utterance: A behavioural approach.** *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 66-76.—Presents a treatment program for nonfluent speech based on the view that such speech "is a dysfunction which interferes with the normal process of language-embedding and with feedback experience and reinforcement." Detailed classification, assessment, and treatment plans are presented for festinate speech and stammering. Treatment of the 1st is concerned with the strict monitoring of speed and regularity. Stammering is additionally treated for specific types of blocking and ataxic behavior. "All for specific types of blocking and ataxic behavior. All training is mounted on the universals of language embedding. Education in using the electronic metronome to control speech... precedes the speaker's using the instrument in situations of graded degrees of difficulty. Where indicated, the residual psychological overlay of fear and apprehension are dealt with by a combination of Wolpeian reciprocal management and aversion-relief therapy."—S. Knapp.

NEUROLOGICAL DISORDER

5322. Lorranger, Armand W., et al. (Cornell U., Medical School) **Cognitive impairment in Parkinson's syndrome.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 463-464.—The WAIS was administered to 63 non-institutionalized parkinsonians. The majority or at the very least a large minority showed cognitive impairment large enough to be of both practical and theoretical

significance. There appeared to be a gradient ranging from a mild loss of a ability to retrieve and understand familiar verbal material, through an intermediate one in immediate memory and attention span, to a severe 1 in perceptual analysis and problem-solving. Neither all nor most of the impairment could be explained by the additive effects of depression, peripheral motor disability, and treatment with anticholinergic drugs.—*Author abstract.*

5323. Maiorchik, V. E. (Burdenko Inst of Neurosurgery, Moscow, USSR) **Zavisimost' stvolovyykh reaktsii ot funktsional'nogo sostoyaniya kory bol'shikh polusharij golovnogo mozga cheloveka.** [Brainstem reactions as a function of the functional state of the human cerebral cortex.] In S. P. Narikashvili (Ed.), "Korkovaya regulatsiya deyatelnosti podkorkovykh obrazovaniy golovnogo mozga." (See PA, Vol. 46: Issue 2) 81-93.—15 normal Ss and 50 patients with focal affections of the cortical structures participated in a study of the corticofugal regulation of the functions of the rhombencephalic divisions of the brain, utilizing synchronous recordings of a complex of electrophysiological and autonomic indices. Brainstem reactions, such as nystagmus and vascular tonus, were altered following signs of an increase in cortical excitation. A decrease in corticofugal control of brainstem reactions in cases of temporofrontal tumors led to a disturbed interaction between different reactions of the autonomic nervous system. An increase in respiratory periodicity in the rheoencephalogram and plethysmogram in normal Ss was manifested bilaterally when falling asleep in patients with brain tumors this effect was manifested excessively and more distinctly on the side contralateral to the site of the tumor. (English summary) (24 ref.)—D. London.

5324. Németh, Nóra. (Hungarian Academy of Sciences, Inst of Psychology Budapest) **A testséma-vilozás integrációs zavara agydaganatos gyermekbetegeknél.** [Lack of integration due to changes in the body-scheme in children suffering from brain tumor.] *Psychologiai Tanulmányok*, 1968, No. 11, 459-475.—Among the psychopathological characteristics of infantile brain tumors the absence of the awareness of illness is outstanding along with severe neural symptoms. Focal brain lesions manifesting themselves in the lack of integration of the complex functional systems, cannot be revealed with the help of the traditional diagnostic tools devised for the detection of the disturbances of consciousness. This may partly be responsible for the discrepancies in data concerning such disturbances in infantile brain tumors. It is interpreted as a sign of disturbed consciousness if, simultaneously with a disturbance in the sensorimotor functioning, there occurs some lack of body-scheme integration without the child noticing it. Body-scheme change cannot be made explicit in children by means of verbal responses, but when graphically projected it appears on the same side as the clinical symptom. The human figure drawings of such children are their somatic self portraits. They may be evaluated as the graphic projections of the infantile organic psychosyndrome—disturbed consciousness—and appear to be helpful in revealing the complex functional integrational disturbances of thought processes associated with body-scheme changes and anosognosia. (Russian summary) (64 ref.)—English summary.

5325. Pinelli, Paolo. (Catholic U. of the Sacred Heart, Rome, Italy) **Considerazioni sulle ipercinesie da L.**

dopa: Significato del deficit biochimico e del deficit anatomico. [Considerations on hyperkinetic behavior from L-dopa: Significance of biochemical and anatomic deficits.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Sep), Vol. 31(5), 405-416.—EMG follow-ups of parkinsonism treated with L-dopa suggest that: (a) a kinetic hypertonic syndrome derives from a functional disturbance of operating neuronal cell assemblies; (b) hereditary and acquired assemblies are located in hierarchically different levels of the CNS; (c) a fall in the dopamine level enhances activity of the central pool and as a consequence rigidity together with akinesia results; and (d) cellular impoverishment in the inhibitory system hinders modulation of the central pool, even if substitutive therapy with dopamine is affected.—*L. L'Abate*.

5326. **Rosenstock, Harvey A. Alzheimer's presenile dementia: A review of 11 clinically diagnosed cases.** *Diseases of the Nervous System*, 1970(Dec), Vol. 31(12), 826-829.—Reviews the early course of 11 patients with clinically diagnosed Alzheimer's disease. Principle findings indicate that (a) Alzheimer's presenile dementia is distinguishable clinically from other idiopathic dementias of the presenium. (b) There is a predictable course of early amnesia, disorientation, confusion, apraxia, and impaired perceptual organization. (c) Depression and other psychiatric symptoms are not uncommon in the early stages of the illness. (d) EEG changes occur early and include diffuse slowing and loss of the dominant alpha rhythm. The pneumoencephalogram may reveal generalized cortical atrophy and/or ventricular dilatation. (e) The early occurrence of confabulation, focal neurologic deficits, incontinence, muscular atrophy, and convulsions would suggest a disorder other than Alzheimer's disease.—*Journal summary*.

Brain Damage

5327. **Bell, D. Bruce; Lewis, Franklin D., Diller, Leonard, & Bell, Beverly W.** (Social Security Administration, Washington, D.C.) **The puzzling imperistence of the Motor Imperistence Test.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 623-624.—The Motor Imperistence Test was administered to 17 Ss who had residual paralysis on the left side of the body following cerebrovascular accidents. The reliability of the rankings of the total scores obtained by these Ss over a 60-day period with the same Es and over a shorter period with different Es was somewhat compromised by the lack of consistency in the performance of individuals and across items. The major problem with this test was a lack of homogeneity which was improved by omitting certain items. Other methodological and theoretical implications of the test are also discussed.—*Author abstract*.

5328. **Gainotti, Guido.** (U. Perugia, Clinic of Nervous & Mental Diseases, Italy) **Deterioramento intellettivo e distintegrazione psico-motrice nelle demenze.** [Intellectual deterioration and psychomotor disintegration in mental disorders.] *Acta Neurologica*, 1970(Sep), Vol. 25(5), 607-627.—Studied 32 randomly selected hospitalized patients with symptoms of mental disorders of various kinds and due to diffuse brain lesions for relationship between loss of intellectual efficiency and motor disintegration. Verbal and nonverbal tests sensitive to deterioration (Wechsler-Bellevue's Arithmetic and Block Design subtests and Rey's "15 words" and "Complex Figure" tests) were administered for evalu-

ation of loss of intellectual efficiency. Signs of motor disintegration were explored by standardized examinations of various motor activities. On the basis of results of intellectual efficiency tests, patients were divided into 3 groups corresponding to initial, progressive, and complete stages of deterioration. Data showed a clear-cut relationship between intellectual deterioration and psychomotor disintegration. A rigid order of appearance of various signs could not be indicated but approximations are suggested as to time and degree of occurrence. (English summary) (18 ref.)—*M. J. Stanford*

5329. **Gainotti, Guido.** (U. Perugia, Clinic of Nervous & Mental Disorders, Italy) **Il comportamento emozionale dei cerebrolesi destri e sinistri in situazione di test neuropsicologico.** [Emotional behavior in right- and left-sided brain-damaged patients in neuropsychological testing situations.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Sep), Vol. 31(5), 457-480.—Left-sided brain-damaged patients tended to show a clear prevalence of catastrophic reactions, anxiety, depression, or anger and abandonment of the task. Right-sided brain-damaged patients reacted by indifference, tendency to joke, anosognosia, belittlement, and denial of handicap. Different patterns of denial of illness stem from the functional organization of each side of the brain.—*L. L'Abate*.

5330. **L'Abate, Luciano & Gale, Elliot N.** (Georgia State Coll.) **Neurological status and psychological functioning.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 999-1007.—To match psychological test results and reports with neurological status, 2 studies involving different patient samples were conducted. Intellectual functioning, visual reproduction, speed, and ability to abstract were compared for 2 groups of neurological (N = 16) and control (N = 12) Ss from a city hospital. In this sample, a "blind" global matching of psychological test results and neurological status was correct 65% of the time. With similar information for Ss from a private psychiatric hospital (26 brain-damaged patients, 20 equivocal brain-damaged patients, and 25 non-brain-damaged controls), the same matching was 66% correct. Significant relationships between neurological status and psychological test results are discussed. (15 ref.)—*Journal abstract*.

5331. **Lantosyné-Dabas, Erzsébet & Éderváriné-Kovács, Ilona.** (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A nevelési és környezeti tényezők szerepe a gyermekkori koponyatraumák okozta személyiségváltozásban.** [Role of educational and environmental factors in personality changes due to cranial traumas.] *Pszichologiai Tanulmányok*, 1968, No. 11, 443-457.—Examined the environment and education preceding cranial trauma in 50 children. On the basis of data obtained, educational environments were divided into Group A, in which educational influence was found to be negative, and into Group B, in which it was positive. In the pretrauma period complaints were present in 54% of the cases in Group A, and only in 8% of the cases in Group B; after the trauma this percentage rose to 73 in Group A and 42 in Group B. In Group A complaints following the trauma represented mostly intensification of behavioral difficulties existing already in the pretrauma period; in Group B neurovegetative and more severe organic lesions were complained about. Although intelligence level of the 2 groups was found to be about the same, their school achievements differed to a great extent: 54% of Group A and only 13% of Group

B were underachieving at school. This difference was supported by the qualitative differences observed in the course of psychological tests including various tasks. Group A Ss were rather moody, impatient, and demanded support, while the work of Group B Ss was characterized by discipline, patience, and a compensatory mood. Findings suggest that the effect of the cranial trauma is in many instances only secondary, and may be attributed to injuries incurred in the premorbid educational period. (Russian summary) (19 ref.)—*English summary*.

5332. Lempp, Reinhart. (U. Tübingen) *Frühkindliche Hirnschädigung und spätere neurotische Entwicklung*. [Cerebral lesion of early childhood and later neurotic development.] *Praxis der Psychotherapie*, 1969(Dec), Vol. 14(6), 274-281.—Describes the "exogenous psychosyndrome" occurring in early childhood in 500 Ss who experienced minimal brain damage. Mild cerebral palsy produced developmental lag in abilities to differentiate between figure and background and acoustical perception. Behavioral symptoms of agitation, flattening of affect, hypersensitivity, and antisocial conduct were characteristic. Investigation of the family environment indicated that while the child-parent relationship might initially have remained intact, it was likely to become dissociated through parental use of excessive negative reinforcement. Neurosis was the most frequent outcome.—B. Stanton.

5333. Ormai, Vera; Kalmár, Magda; Grozdits, Zsuzsa H., & Fabricius, Ildikó. (Eötvös Lóránd U., Budapest, Hungary) *Adatok az agysérült gyermekek pszichológiai vizsgálatának metodikájához*. [Data on methods used in the psychological examination of children with cerebral lesions.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 387-421.—Reports results reached by brain-injured children in the Bender pattern copying test (rated according to H. Santucci and N. Galifret), a variation of the Kohs Mosaic Test, and the Draw-a-Man Test. A good solution of the 3 tests infers intact visual perception and sensorimotor coordination, disorders observed frequently after organic brain injuries. The data of 5-11 yr. old normal children (25 in each age group) are quoted. Correlation between tasks—assumed on the basis of similar function values—was verified in every age group (significance varied between $p < .02$ – $p < .001$). Traits in the development of normal Ss were compared with the results of 25 8-11 yr. old epileptic but not mentally backward primary school children. The epileptics were found to have obtained significantly lower results, especially in the synthesis of spatial relations. In Ss born prematurely, retarded neuromotor development was found. In the Ss complicated at birth with asphyxia, visual perception as well as motor development were impaired. Results prove that the methods may be useful in the psychological testing of children with cerebral lesions. They not only provide an opportunity for quantitative and qualitative analysis, but also for observing the child's activity and thus detecting the factors bringing about failure. (Russian summary) (3 p. ref.)—*English summary*.

5334. Reed, James C. & Reitan, Ralph M. (Tufts U., Medical School) *Verbal and performance differences among brain-injured children with lateralized motor deficits*. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 747-752. Children diagnosed as infantile hemiplegias were classified into groups by side of motor deficit. 35 Ss had right hemiplegia and 25 had left

hemiplegia. Each S was administered the WISC and the reading section of the Wide Range Achievement Test. No relation was found between side of deficit and Verbal Performance difference scores. In each group WISC Performance IQ was lower than WISC Verbal IQ. There was no significant difference in reading achievement. Relationships between intelligence test pattern and side of deficit reported for brain-injured adults do not appear to hold for children.—*Journal abstract*.

5335. Russell, Elbert W. (Veterans Administration Hosp., Cincinnati, O.) *A reexamination of Halstead's biological intelligence factors*. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 461-462.—The 4 factors in W. C. Halstead's concept of biological intelligence were derived from a factor analysis by Thurstone of Halstead's tests for brain damage. The major tests in his analysis were matched with results from 66 chronic brain-damaged Ss and a factor analysis was performed. Only 1 of the 4 resulting factors was similar to any of Halstead's factors. Instead, the factors represented performance, verbal, pure motor speed, and verbal attention variables.—*Author abstract*.

Epilepsy

5336. Ferson, Jean. (Temple U., Medical School) *The "monster complex" in children who have seizures*. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 625-626.—The title refers to a syndrome observed by the author in the course of her routine diagnostic work with handicapped children. 11 cases are described, 7 girls and 4 boys 3-14 yr. of age. They are called "monsters" because they were nearly unmanageable and showed little or no conscience development. A psychological explanation is offered in which the epileptic seizures are seen as disrupting the normal parent-child "contract"; i.e., parents tacitly agree to control and protect the child and the child agrees to be controlled. When the seizure occurs, doubt is cast on the ability of each party to fulfill his or her side of the agreement. A period of testing and uncertainty begins which can culminate in "the monster complex." Group counseling for parents is recommended as a means of avoiding its development.—*Author abstract*.

5337. Ives, Lawrence A. (U. Manchester, England) *Learning difficulties in children with epilepsy*. *British Journal of Disorders of Communication*, 1970(Apr), Vol. 5(1), 77-84.—Reviews research and findings on epileptic children in the areas of (a) intelligence, (b) perceptual-motor difficulties, (c) psychological testing, (d) intellectual faculties, (e) personality and behavior, (f) hyperactivity in brain-damaged epileptic children, and (g) stammering. The research and techniques are evaluated and suggestions are made for future investigations with emphasis on longitudinal studies of medical, educational, psychological, social, and economic variables. (28 ref.)—S. Knapp.

MENTAL RETARDATION

5338. Anderman, S., Barclay, A., Kahana, B., & Yater, A. (St. Louis U.) *Intelligence and serum phenylalanine in levels in phenylketonuric children*. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 613-

614.—Examined the effect of located phenylketonuria (PKU) on the human child. The case histories of 16 boys and 9 girls who had been identified as PKU, and started on the dietary treatment within the 1st 2 mo. of life provided data for a number of variables. The effects of serum phenylalanine upon cognitive development, behavior, and physical development were investigated. Furthermore, an analysis of the contribution of non-treatment factors such as sociodemographic and sex variables was also completed. Results of a correlational analysis indicate that the 2 most significant predictors of the cognitive criterion were current serum phenylalanine levels and socioeconomic level of the family. Furthermore, sex differences in significantly lower IQ and significantly higher current levels of serum phenylalanine with boys, as well as significantly poorer parental dietary control with boys were also noted.—*Author abstract.*

5339. Barton, Elizabeth S. (Meanwood Park Hosp., Leeds, England) **Inappropriate speech in a severely retarded child: A case study in language conditioning and generalization.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 299-307.—The modification of inappropriate speech, a class of behaviors rather than a limited number of specific examples, is little known in the severely retarded. In this study, operant techniques were used to modify the strikingly bizarre and inappropriate speech of an 11-yr-old severely retarded boy. S's appropriate verbal responses to questions about magazine pictures were reinforced with candy. When he responded inappropriately, the magazine was withdrawn, and social interaction was discontinued for a 10-sec time-out period. Negative responses were ignored, the next picture displayed, and the next question asked immediately. In 10 sessions, appropriate responses increased from 26-86% of all responses. A reversal of reinforcement was then introduced, in which inappropriate responses were reinforced, appropriate responses resulted in time out, and negative responses were treated as before. This reduced the percentage of appropriate responses to 24%. Subsequent sessions of reinforcement for appropriate responses increased appropriate responses to 96% of all responses. At significant stages in the experiment, a measure of possible generalization was attempted. Although some generalization was recorded, it was minimal: some explanations are discussed.—*Journal abstract.*

5340. Bódor, Jenő. **Az értelmi fogyatékos gyermekek pszichológiai fejlődésének vizsgálata a Szovjet kutatók munkáiban.** [Soviet studies concerned with the development of mentally defective children.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 477-486.—Reports the following basic principles applied by Soviet researchers to the psychology of mental retardation: (a) leading part played in development by training and instructing, (b) complex structure of anomalous development, (c) determinism regarding factors of anomalous development, and (d) nearness of zones of development. The analysis of Soviet research in this field proved that success has been due to the dialectic materialistic interpretation of development and to an adequate consideration for the above basic principles, setting an example for future investigations. (Russian summary) (18 ref.)—*English summary.*

5341. Bradley, Betty H. (Columbus State Inst., O.) **The use of the playroom in education of mentally retarded children.** *Rehabilitation Literature*, 1970(Apr), Vol. 31(4), 103-106.—Describes playroom techniques

applied to specific educational problems on the basis of 10 yr. of work with mentally retarded children at the Columbus State Institute. Major benefits claimed are the areas of improved communication with staff members, specific remediation on educational behavioral difficulties, and a decrease in fragmentation of services to institutionalized children.—S. L. Warren.

5342. Bramza, Anthony F., Witt, Peter A., Linford, Anthony G., & Jeanrenaud, Claudine. (U. Illinois Children's Research Center) **Responses of mongoloid children to colored block presentation.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 1008. Examined the responses of 5 male and 6 female, 66-95 mo. old mongoloid children presented with the same colored blocks used in a previous study by A. F. Gramza and P. A. Witt (see PA, Vol. 46:Issue 3). Comparative data was provided on the effect of color on block choices and the nature of block play in mongoloid Ss. P. Hertzberg.

5343. Brolin, Donn & Wright, George N. (Stout State U.) **Implementing rehabilitation recommendations for the mentally retarded.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 586-592. Attempted to determine the extent to which 5 types of recommendations from an evaluation center for the retarded were implemented and variables related to their implementation. Data on 229 former outpatients of a diagnostic center, mostly noninstitutionalized, ranging in CA from 15-51 yr. and in IQ from 40-89, were obtained from a follow-up questionnaire and evaluation center records. Caseworkers reported on the extent to which recommendations were followed, and related the influence of 17 variables in implementing different types of recommendations (i.e., social, medical, psychological, vocational, and educational). Statistical procedures used to analyze the data at $p < .05$ were chi-square, Pearson product-moment correlation, and the stepwise multiple regression analysis. Findings indicate that the influence of different variables on the implementation of recommendations varies according to the type of recommendation and sex of the client. Importance of the family was found to be particularly related to the client's rehabilitation.—*Journal abstract.*

5344. Buday, József. (City School-Health Center Budapest, Hungary) **Összehasonlító fáradékonysági vizsgálatok Down-beteg gyermekeknél ózontartalmú levegő hatására.** [Comparative examinations of fatigue in children suffering from Down's syndrome, when treated with air containing ozone.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(2), 263-271.—Treatment of classroom and dormitory air with ozone resulted in decreased fatigue of 13-14 yr. old children suffering from Down's syndrome. (English & Russian summaries) M. Mende.

5345. Flanigan, Patrick J., Peters, Carlotta J., & Conry, Julianne L. (U. Wisconsin) **Item analysis of the Children's Manifest Anxiety Scale with the retarded.** *Journal of Educational Research*, 1969(Jul), Vol. 62(4), 472-477.—Examined the usefulness of the CMA scale with a retarded population. Item analysis of scores earned by 16 male randomly assigned retarded and 19 normal Ss indicates that the stimulus items function differentially between groups regarding their ability to discriminate high and low anxiety. (20 ref.) *Journal abstract.*

5346. Friedrich, Douglas; Fuller, Gerald B., & Hawkins, William F. (Central Michigan U.) **Relationship between perception (input) and execution (output).** *Perceptual & Motor Skills*, 1969(Dec), Vol.

29(3), 923-934.—15 brain-damaged and 9 non-brain-damaged retarded Ss were given the following visual-motor tasks: (a) the WISC Block Design subtest, (b) the WISC Block Design multiple-choice procedure presented by H. G. Birch, et al., and (c) the Minnesota Percepto-Diagnostic test circle-diamond figures, incorporating pencil and block procedures. A combination of the Block Design subtest and the circle-diamond figures was successful in indicating Ss with execution (motor) or integrative dysfunctions. The multiple-choice procedure proved invalid as a technique for differentiating Ss with executive or integrative dysfunctions from Ss with visual perceptual difficulties. Results argue against the commonly held notion that perception is a unitary process. Rather, the findings suggest that failures on visual-motor tasks by mentally retarded Ss result primarily from faulty executive or integrative components. (21 ref.)—*Journal abstract*

5347. Fuller, Renée & Shuman, Joyce. (Rosewood State Hosp., Owings Mills, Md.) Treated phenylketonuria: Intelligence and blood phenylalanine levels. *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 539-545.—Analysis of 113 phenylketonurics (age range = a few days to 5 1/2 yr.) on treatment with a low phenylalanine diet showed: (a) a decrease in performance on tests of intelligence in Ss younger than 18 mo. when blood phenylalanine levels were below 5 mg/100 ml, raising the question of whether phenylalanine needs of phenylketonuric infants are greater than normal infants and older children, (b) dietary regimens producing phenylalanine levels above 5 mg/100 ml were not followed by a decrease in IQ; and (c) discontinuation of dietary treatment was more deleterious to the IQ of those Ss whose phenylalanine intake had been more limited (blood phenylalanine level less than 9 mg/100 ml) in the year immediately prior to discontinuation than in those Ss kept on more liberal intake (phenylalanine greater than 9 mg/100 ml). (35 ref.)—*Journal abstract*

5348. Graham, James T. & Graham, Louella W. (University of) Language behavior of the mentally retarded: Syntactic characteristics. *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 623-629.—Language samples from 9 mentally retarded Ss with CAs ranging from 10-18 yr. and MAs ranging from 3-6-10 yr. were analyzed syntactically. Results indicate that certain indices of linguistic sophistication and Ss' MAs were correlated. It was tentatively hypothesized that nonmongoloid retardates develop rules of their language at a different rate but in much the same way as intellectually-average children.—*Journal abstract*

5349. Greene, Elaine G. (U. Alabama) A comparative study of perceptions of parents toward their mentally retarded children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7A), 3392.

5350. Irle, Gerhard. Die Gesellschaft und der Schwachsinnige. [Society and the feebleminded.] *Praxis der Psychotherapie*, 1969(Dec), Vol. 14(6), 245-255. Reviews literary descriptions of the role of the mental defective in society utilizing comparisons of character descriptions from Faulkner, Dostoevsky, and Pearl S. Buck. The role of the mental defective has not changed appreciably. There are few opportunities for and little interest in the integration of the mental defective into society. It is pointed out that individuals having minor degrees of mental retardation encounter greater difficulties than those who are severely handi-

capped. The individual having a mild degree of mental retardation frequently does not have the benefit of special schools nor is he granted acceptance of his disability by society. As a consequence, he faces increased pressures to perform, frequently accompanied by parental and peer mockery. (14 ref.)—*Journal abstract*

5351. Kohnenber, Robert J. (Washington) The punishment of persistent vomiting. A case study. *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 241-245. In an attempt to control severe vomiting in a severely mentally retarded 21-yr-old female, shock was delivered after each stomach tension, a preeminent response that consisted of an overt abdominal movement. Contingent shock resulted in an initial temporary increase followed by a decrease in rate of stomach tensions. There was a decrease in emitted vomitus which resulted in a weight gain of the patient.—*Journal abstract*

5352. McKay, Dorothy. An examination of the differences between the paintings and figure drawings of a group of institutionalized mentally retarded children and a group of "family-reared" mentally retarded children. *Australian Occupational Therapy Journal*, 1970(Jan), Vol. 17(1), 13-24. Selected 9 institutionalized and 9 family-reared mentally retarded children with MAs of 4-6 yr. and CAs of 7-19 yr. Ss were given 8 crayons of differing colors and asked to draw themselves and then another person on a large piece of paper. Ss were then given another piece of paper and 8 liquid poster colors with which to paint a picture of their choosing. Productions were analyzed by area covered, height of figures, paper used, colors used, numbers of human figures, and the Goodenough-Harris Drawing Test. Institutionalized Ss used significantly more paper, while family-reared Ss indicated significantly better body irregularity and more human figures in their spontaneous paintings. Significant and non-significant results were all in the expected direction indicating that the institutionalized Ss had experienced sensory deprivation, had less creative control, and less opinions of themselves, had greater amounts of emotional disturbance, and had little interest in other human beings. It is concluded that human figure drawings and paintings are valid methods of assessing institutionalized perceptual and maternal deprivation. (26 ref.)—*Author*

5353. Nihira, Kazuo. (U. California Neuropsychiatric Inst., Los Angeles) Environmental expectations and adaptive behavior. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 66(Pt. 2), 619-620. Descriptions of retardates coping problems were obtained by means of the common resident technique in 8 institutional settings, residential institutions, private centers, and special education centers. Results indicate that a shift of environment from residential to community was accompanied by a decrease in reported incidents involving self-help skills and an increase in those involving community interactions. Results were interpreted in terms of 1) differences in the retardates' actual behavior patterns and 2) differences in environmental demands and expectations between settings. The study yielded descriptions of behavioral demands largely neglected by the standard instruments designed to measure degrees of retardation.—*Author abstract*

5354. Owens, David, Dawson, James C. & Levin, Sheldon. (Continuing Medical Health Services, San Diego, Calif.) Alzheimer's disease in Down's syn-

drome. *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 606-612.—Although neuro-pathologists describe Alzheimer's changes in the brains of all victims of Down's syndrome over 35 yr. of age, only 3 cases of clinical dementia in such individuals are described in the literature. In order to establish clinical correlates of Alzheimer's disease, psychiatric and neurologic findings obtained from a middle-aged group were compared to those of Down's syndrome patients in their early 20s. The older group exhibited significantly greater incidence of abnormality in (a) object identification, (b) snout reflex, (c) Babinski sign, and (d) palmomental sign. Both groups displayed mild hypertonia rather than hypotonia, and face-hand test was abnormal in 75% of Ss tested. While dementia is uncommon, subtle neurological changes reflect neuropathological findings present in aging sufferers of Down's syndrome. (17 ref.)—*Journal abstract.*

5355. Paul, Howard A. & Miller, Joel R. (Pennsauken Schools, N.J.) **Reduction of extreme deviant behaviors in a severely**, 1971(Feb), Vol. 67(4), 193-197.—A 12.5-yr-old girl with a MA of 2.11 yr. who displayed many negative behaviors, e.g., hand biting, chin hitting, disrobing, smearing feces, breaking objects, spitting, etc., was given a treatment program using behavior modification techniques. A combination of reinforcing positive behaviors and using a time out procedure was effective in reducing the deviant behaviors and in shaping more adaptive behaviors. 20 therapy sessions conducted over a 2-mo period, were sufficient to produce noticeable changes in behavior. Carry over was reported by personnel in cottage and school areas.—*Journal abstract.*

5356. Payne, James S. (U. Virginia) **Prevalence survey of severely mentally retarded in Wyandotte County, Kansas.** *Training School Bulletin*, 1971(Feb), Vol. 67(4), 220-227.—Conducted a prevalence survey in Wyandotte County, Kansas to determine the extent of severe mental retardation. Severely mentally retarded individuals were defined as persons whose IQs were 50 and below. The prevalence and incidence rates of this study were compared with similar studies and results indicate a somewhat higher rate of incidence of severely mentally retarded in Wyandotte County. (16 ref.)—*Journal abstract.*

5357. Rundle, A. T. & Atkin, Julia. (St. Lawrence's Hosp., Caterham, England) **Serum alkaline phosphatase isoenzymes in Down's syndrome.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 613-616.—Starch gel electrophoresis was used to investigate the serum alkaline phosphatases in 75 cases of Down's syndrome. Of these, 51 cases were found to be of the genetic variety Pp 1, i.e., with a single band of activity; 17 cases were found to be of the Pp 2 form, with an additional band of activity of intestinal origin; 1 case was found with a 3rd band which is tentatively suggested to be the rare normal variant C; and 6 cases were shown to have a slow-running band of activity in the β -lipoprotein region which may also be normal variants. These findings are discussed with particular reference to gene location on the 21st chromosome. (27 ref.)—*Journal abstract.*

5358. Turnure, James E. (U. Minnesota, Inst. of Child Development) **Distractibility in the mentally retarded: Negative evidence for an orienting inadequacy.** *Exceptional Children*, 1970(Nov), Vol. 37(3), 181-186.—Describes 3 studies in which the orienting behavior of

normal and mentally retarded children was investigated under a variety of conditions. An initial study found that, in many cases, normal Ss showed nontask orientations to a greater extent than did retarded Ss. An examination of those circumstances wherein the retarded had been found to glance more indicates that such circumstances, often observed in the classroom, are inappropriate for adjudging retarded children to be distractible. Further research involving only retarded Ss shows that the inclusion of an adult in the learning situation greatly increased retarded Ss' nontask orientations. However, it was also shown that if cues were provided by the adult they would be utilized by the Ss; the retarded Ss glancing apparently represented information seeking and not merely vacuous orientations to a salient social stimulus. A new conception of children's attending behaviors is suggested to account for the findings.—*Journal abstract.*

5359. Valletutti, Peter. (Coppin State Coll.) **Language of the mildly mentally retarded: Cognitive deficit or cultural difference?** *Exceptional Children*, 1971(Feb), Vol. 37(6), 455-459.—Discusses the problem of stereotypic judgments which relate socioeconomic status to speech and language patterns. An evaluation of language is proposed which alternates between the opposing conservative and liberal perspectives on speech defects. "It supports a view which assigns educational priority to the cognitive function of language and assigns a minor role to social acceptability." (35 ref.)—P. Hertzberg.

Learning & Motor Ability

5360. Anders, Terry R. (Harvard Medical School, Boston, Mass.) **Short-term memory for serially presented supraspan information in nonretarded and mentally retarded individuals.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 571-578.—Attempted to test Ellis' hypothesis that mental retardates exhibit a short-term memory deficit as a result of their failure to employ rehearsal and other mnemonic devices generally used by intellectually-average individuals. Nonretarded (mean age = 19.3 yr.) and mentally retarded (mean age = 21.6 yr.) Ss were compared on a task which required partial recall of serially presented supraspan lists of letters following filled and unfilled delays of 0, 5, 10, and 20 sec. As predicted, the results showed that filling the retention interval with rehearsal-preventing activity has a far more detrimental effect upon the short-term memory of intellectually-average individuals than on the short-term memory of retardates. These results are consistent with Ellis' account of the short-term memory deficit of mental retardates.—*Journal abstract.*

5361. Bricker, William A. & Bricker, Diane D. (George Peabody Coll. for Teachers, John F. Kennedy Center) **Receptive vocabulary as a factor in the discrimination performance of low-functioning children.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 599-605. 3 groups of low-functioning children—1 receiving name training, 1 receiving no name discrimination training, and the 3rd receiving no training—were compared on a series of discrimination problems to determine the effects of denotative naming. A pretest, intervention, posttest design was used with random assignment of 30 institutionalized retardates to the 3 conditions. In Treatment 1, the color-form stimulus name served as a cue for choice; in Treatment 2,

problem presentation occurred without naming; in Treatment 3, no intervening training was given. Although the training groups did not differ significantly on training and posttesting, both groups showed reliable improvement across training blocks and performed significantly better on the posttest than did the control Ss. Generalization testing also revealed a statistically reliable difference in favor of the trained groups.—*Journal abstract.*

5362. Guess, Doug; Smith, James O., & Ensminger, Eugene. (Kansas Neurological Inst., Topeka) **The role of nonprofessional persons in teaching language skills to mentally retarded children.** *Exceptional Children*, 1971(Feb), Vol. 37(6), 447-453.—Reviews a 2-yr research project in which 2 former psychiatric aides were trained to serve as language developmentists for small groups of institutionalized severely retarded children. 40 Ss participating in the program were compared with a matched control group on variables of IQ, language, age, and social quotient. Ss attending language classes met daily for approximately 1 hr. They were taught from the Peabody Language Development Kits and a series of lessons developed during the project. Results show significantly greater language scores made by the language training group. IQ score increases were equivocal, but again favored those Ss attending language classes.—*Journal abstract.*

5363. Hall, Judy E. (U. Alabama, Center for Developmental & Learning Disorders, Birmingham) **Effect of response bias of mental retardates upon oddity learning.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 579-585.—64 mental retardates were assessed for a bias to respond to form, color, or size. Each S was then tested on oddity learning with either form or color odd. There were 4 groups: FF, FC, and CC, and CF (the 1st letter indicating dimensional bias; the 2nd, odd dimension). $\frac{1}{2}$ of each group were high MA (8-10 yr., approximately) and $\frac{1}{2}$ were low MA (6-8 yr., approximately). After the 64 oddity trials, each S was reassessed for bias. Ss tested on oddity with their bias dimension odd (FF and CC) performed significantly better ($p < .0009$) than Ss tested with their nonbias dimension odd (FC and CF). When the individual biases of each S were controlled, oddity learning did not increase with MA. Biases were found to be remarkably strong and resistant to change. Results were interpreted as consistent with Zeaman and House's analysis of oddity learning. (20 ref.)—*Journal abstract.*

5364. Johnson, John T., & Olley, J. Gregory. (Memphis State U.) **Behavioral comparisons of mongoloid and nonmongoloid retarded persons: A review.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 546-559.—In an effort to provide information concerning the utility of the American Association on Mental Deficiency's medical classification system for psychology, a review is made of the literature that has compared mongoloid and non-mongoloid retarded Ss on behavioral tasks. The studies reviewed are grouped into the areas of (a) mental abilities, (b) sensory processes, (c) learning and conditioning, and (d) RT and activation. While there appeared to be more similarities than differences between mongoloid and nonmongoloid retarded Ss, several problems are discussed which prohibit firm conclusions. Suggestions are made concerning the elaboration of a viable behavioral classification system for mental retardation. (27 ref.)—*Journal abstract.*

5365. Martin, Clessen J., & Herndon, Mary A. (Texas A & M U., Human Learning Research Lab.) **Influence of memory strategies upon the learning of new words among educable retarded children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 617-618.—Attempted to determine whether E-supplied memory strategies could facilitate word recognition learning among educable retarded children. 3 groups were formed. The syntactical group received memory strategies during the word recognition task. The word formation group was given cue word training. The repetition group was instructed to repeat the words during the word recognition task. Relearning trials were administered 48 hr. after the word recognition task. While there were no significant differences in mean correct responses during acquisition, there were significant differences during relearning in favor of the syntactical group.—*Author abstract.*

5366. Meindl, Joseph L., Barclay, Allan G., Lamp, Robert E., & Yater, Allan C. (Indiana U., South Bend) **Mental growth in noninstitutionalized mongoloid children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 621-622.—Compared a mental growth curve for non-institutionalized mongoloid children with those curves presented for institutionalized mongoloid patients. While arguments have been advanced for the intellectual and social superiority of home-rearing as opposed to institutional rearing for mongoloid retardates, studies concerning mental growth curves for mongoloid children have been limited largely to institutionalized populations. Ss were drawn from the outpatient register of a child development clinic and a residential school for exceptional children. Marked differences in mental growth after age 9 yr were noted between the curves presented for institutionalized and noninstitutionalized Ss.—*Author abstract.*

5367. Redd, William H. (Massachusetts General Hosp., Boston) **Effects of reinforcement contingencies on attention span and task related stimulus control in retarded children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 671-672.—During training with an adult, 3 retarded boys were presented 3 tasks, each associated with a different training regime (extinction, contingent, or noncontingent reinforcement). The contingent task acquired discriminative properties, whereas other tasks did not. Control was maintained in familiar and unfamiliar settings and with novel adults. When the contingent task was introduced following the presentation of extinction and noncontingent tasks, Ss manipulated the contingent task, when the other 2 tasks were presented after the contingent task, Ss ignored them and continued working on the contingent task. Results were replicated when assignments of reinforcement contingencies to tasks were removed.—*Author abstract.*

5368. Sajwaj, Thomas & Hedges, Donald. (U. Mississippi, Medical Center) **Functions of parental attention in an oppositional, retarded boy.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 697-698.—2 experiments analyzed the interaction of punishment and positive reinforcement. Contingent parental attention could not maintain cleanup behavior in a retarded oppositional boy. When a blast from a bicycle horn was used to eliminate disruptions, cleanup increased greatly. How-

ever, praise was now necessary to maintain the high level of cleaning. Furthermore, the praise had to come from the parent using the horn. These results suggest that the horn prompted the child to look more to a parent, thus attending to the parent's praise. Exp. III demonstrated a transient punishment effect of praise. This suggests that a response-consequence linkage may have discriminative functions.—*Author abstract.*

5369. Twardosz, Sandra & Sajwaj, Thomas. (U. Kansas) **Development of complex sentence structure in a retarded girl using a multiple baseline technique.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 663-664.—Multiple base-line techniques were used to demonstrate that prompts and differential positive reinforcement (praise and tokens) increased complex language in a retarded girl. These procedures were extremely effective when used by her preschool teacher. However, these same procedures, when used by the child's mother with comparable accuracy were considerably less effective. Reversals showed that the teacher's praise alone could maintain the complex speech as effectively as praise and tokens together. The differential effectiveness of the mother and teacher may be ascribed to subtle differences in praising or to possible differences in the child's reinforcement history with these individuals.—*Author abstract.*

Training & Vocational Rehabilitation

5370. Brown, Lou; Johnson, Sylvester, & Fenrick, Nancy. (U. Wisconsin) **Increasing individual and assembly line production rates of retarded students.** *Training School Bulletin*, 1971(Feb), Vol. 67(4), 206-213.—Work arrangements (individual and assembly line) and reinforcement (social only and social plus tangible) were manipulated to increase the production rates of 6 trainable level students, 15-20 yr. old, in an envelope stuffing task. Individual work settings consistently resulted in higher production rates than assembly line settings regardless of the reinforcement contingencies in effect. Production rates also consistently improved when tangible reinforcement in the form of components of a "banana split" was successively made contingent on attaining a student or group specified goal. These environmental manipulations were successful in part because the teachers specified their instructional objectives in a way that required direct measurement of their Ss' behavior.—*Journal abstract.*

5371. Cowden, Kenneth. (Dewitt State Hosp., Auburn, Calif.) **The mentally retarded can contribute.** *Hospital & Community Psychiatry*, 1969(Dec), Vol. 20(12), 395.—Describes the use of 19 mentally retarded patients (average IQ = 41) as harvesters of tomatoes when local farmers faced losses due to the unavailability of workers. Patients harvested up to 75% as much as nonpatients, but were better at selecting usable tomatoes. Patients improved in color perception, coordination, and size judgments. Patients were prompt and demonstrated good work habits. Earning money led to feelings of accomplishment and enhanced self-esteem.—*S. Knapp.*

5372. Etienne, Jerald & Morlock, David A. (Northern Illinois U.) **A pre-vocational program for institutionalized mental retardates.** *Training School Bulletin*, 1971(Feb), Vol. 67(4), 228-234.—Describes a prevocational program designed to facilitate the institutionalized

mental retardate's return to the community. The program was designed in sequential phases to insure the maximum amount of success at each level of difficulty, with eventual total release from the institution as the final goal. Each step is discussed in terms of proceeding from dependence to independence.—*Journal abstract.*

5373. Gray, Bonnie L. & Weiss, David J. **Pilot study of the measurement of job satisfaction.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 611-612.

5374. Hendel, Darwin D. (U. Minnesota) **Test format and administration variables as related to the performance of mentally retarded adults on multifactor tests of vocational abilities.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 615-616.—It was hypothesized that modifications in test format and administration variables would improve the performance of mentally retarded adults on multifactor ability tests such as the General Aptitude Test Battery. 2 studies were designed to investigate: (a) individual vs. group administration and speeded vs. non-speeded conditions, and (b) standard vs. simplified instructions and standard vs. simplified practice. Although a significant main effect resulted for speeded vs. non-speeded conditions in all groups in Study 1, higher means were obtained for the speeded conditions. Results indicate that more radical procedural modifications in testing procedures may be required for mentally retarded clients.—*Author abstract.*

5375. Schumaker, Jean & Sherman, James A. (U. Kansas) **Training generative verb usage by imitation and reinforcement procedures.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 273-287. 3 retarded children (1 18-yr-old boy, and 1 16-yr-old and 1 14-yr-old girl) were trained, using imitation and reinforcement procedures, to produce past and present tense forms of verbs in response to verbal requests. 2 types of experimental sessions were arranged: training and probe. During training sessions, S was trained to produce 1 verb in both the past and the present tense. Then, in a probe session, the generalization of this training was tested by presenting to the S a series of untrained verbs interspersed with previously trained verbs. Responses to untrained verbs were never reinforced. Training sessions alternated with probe sessions throughout a multiple base-line design involving 4 classes of verb inflections as the base lines. The results showed that, as past and present tense forms of verbs within an inflectional class were trained, Ss correctly produced past and present tense forms of untrained verbs within this class. When verbs from 2 or more classes were trained, Ss correctly produced the verb tenses from each of these classes. Thus, the imitation and reinforcement procedures were effective in teaching generative use of verb inflections (15 ref.).—*Journal abstract.*

5376. Skaarbreivik, Karl J. (Tromsø off. Laererskole, Norway) **A follow-up study of educable mentally retarded in Norway.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 560-565.—Information concerning the present status of 174 educable mentally retarded individuals, 124 males and 50 females, who had been discharged from Norwegian vocational training schools for educable retardates in 1959 and 1960, was obtained in 1967. Data with regard to economy, occupation, social life, criminality, and official support were collected from several official agencies. The information obtained indicated that approximately 1/3 of

the research population was self-supporting with a fairly good standard of living, and that only about 1/4 needed continuous official support. While most of the male Ss were employed in industry or construction, a substantial number of the females were housewives. The relationship between some personal variables and adjustment to society was analyzed. This analysis emphasized the importance of other handicaps as an important factor in addition to low intellectual abilities.—*Journal abstract.*

5377. Wargo, Donald G. & Meek, Virgelia C. (Children's Asthma Research Inst. & Hosp., Denver, Colo.) **Concept identification performance as a function of experimenter warmth in educable mental retardates and nonretarded rehabilitation clients.** *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 593-598.—24 educable mentally retarded (EMR) rehabilitation center students and 24 nonretarded rehabilitation students were randomly assigned to 1 of 2 Es who provided 1 of 3 types of informative feedback ("warm," "cold," or "mechanical") in a serially presented visual concept identification task involving 2 relevant and 1 irrelevant nonredundant binary dimensions. The data were analyzed by repeated-measures analysis over the course of the problem. Results indicate no overall differential response to E warmth for the 2 groups, but there was some indication that the "warm" condition offered by 1 of the Es may have constituted a distraction for the retarded Ss on early trials. The overall difference between retardates and nonretardates in terms of mean errors was reduced considerably by dropping out postsolution data, suggesting that presolution performance over the 1st 1/2 of the problem did not significantly differ for the 2 groups. Implications for the understanding of retardate cognitive functioning are discussed.—*Journal abstract.*

PHYSICAL ILLNESS

5378. ———. Aldosterone, angiotensin, and hypertension. *British Medical Journal*, 1970(Mar), Vol. 1(5699), 769.—In 1955 J. W. Conn described primary aldosteronism, in which excessive secretion of aldosterone is associated with hypertension, and this has led to a great deal of clinical investigation and speculation. Recent studies of aldosterone excretion or excretion rates have clarified the relationships. Results of these studies are described. The part played by aldosterone in the development or continuation of hypertension is uncertain, but, like angiotensin, it increases the intracellular concentration of sodium. Primary aldosteronism is a rare cause of hypertension, accounting for well below 1% of all hypertensive patients. Varieties of aldosteronism are discussed. Differentiation of these syndromes from essential hypertension is important, since they afford the opportunity for rational treatment by aldosterone antagonists or surgery, whereas management of essential hypertension remains empirical in the absence of knowledge of its cause. (27 ref.) S. R. Diamond.

5379. Doll, Richard E., Rubin, Robert T., & Gunderson, E. K. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Life stress and illness patterns in the US Navy: II. Demographic variables and illness onset in an attack carrier's crew.** *Archives of Environmental Health*, 1969(Nov), Vol. 19, 748-752.—Studied approximately 1/3 of the enlisted crew of an attack carrier (N=738) during a 6-mo

deployment to Vietnam. Questionnaires about personal background and military status were given at the beginning of the cruise, and the illnesses developed by these men during the cruise were tabulated. Discussed is the relationship of 16 demographic variables to illness onset: job specialty, pay grade, age, race, religion, birth region, marital status, number of dependents, education, socioeconomic status, active duty status (regular vs. reserve), IQ level, parents' status (living or deceased), birth order, father's occupation, and father's education. On the basis of analyses of variance, the following demographic variables were found to have a significant overall relationship to illness incidence: job specialty, age, pay grade, race, birthplace, and number of dependents. The remaining 10 variables were statistically unrelated to illness incidence. Relatively high illness rates occurred in younger, nonrated seamen, especially those in the fireman/fireman apprentice category who worked on the ship's engines. Relatively high illness rates also occurred in Negro and American Indian sailors.—*Journal abstract.*

5380. Gelst, Harold. (Everett A. Gladman Memorial Foundation, Oakland, Calif.) **Emotional aspects of dermatitis.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 627-628. 100 patients in 5 separate diagnostic categories, each including 20 dermatology patients, were studied by the MMPI, Rorschach, and Draw-a-Person tests. The diagnostic categories were acne, vulgaris, atopic dermatitis, hand eczema, psoriasis, and cellulitis. Test results were analyzed qualitatively and quantitatively. The mean scores for each patient for each scale of the MMPI were computed. For the Rorschach a composite psychograph was made by getting the mean movement, diffusion, vista, texture, achromatic, and bright color variables of the psychograph. The most severe psychopathology was in the psoriasis group. Both unexpressed rage and psychosexual deviation were the primary psychopathological characteristics found, together with schizophrenic signs.—*Author abstract.*

5381. Hódosi, Rezső. (Medical I, Budapest, Children's Clinic, Hungary) **Diabeteses gyermekek személyiségfejlődési problémái és nyaraltatásuk során szerzett tapasztalatok.** (Problems of personality development in children suffering from diabetes and experiences gained during their stay in a vacation camp.) *Psychologiai Tanulmányok*, 1968, No. 11, 521-528. In the 1st part of the study, psychopathological factors affecting the personality of the children at the onset of diabetes mellitus are analyzed. The particular phases of the psychopathological process and their characteristics are recounted. Impact of the illness on the child and the family structure is examined, noting the relation and interaction of factors involved. The role of anxiety associated with diabetes and that of ensuing frustrations is stressed. It is pointed out that personality distortions brought about by the illness differ markedly from those occurring in the premorbid personality. Certain response types that develop following particular phases of the illness are described. The 2nd part of the study deals with the psychological problems diabetic children had in the vacation camp. In spite of initial difficulties in the field of adjustment, being sent to the vacation camp constituted an important social experience for them. A longer stay in a holiday camp is recommended since the personality disturbances can be treated more effectively there. (Russian summary)—*English summary.*

5382. Jenkins, C. David. (U. North Carolina, School of Public Health, Chapel Hill) **Psychologic and social precursors of coronary disease: II.** *New England Journal of Medicine*, 1971(Feb), Vol. 284(6), 307-317.—Presents a comprehensive review of 160 papers concerning psychological and social factors involved in coronary disease. Studies from various countries agree that life dissatisfactions and stress are correlates of ischemic heart disease. Blohmke and others have reported that men in 5 categories of coronary disease differed from healthy controls by 1 or more of the following variables: tedious work, job difficulties, or feeling ill at ease at work. S. Wolf, J. Bruhn, and H. Kits van Heijningen have indicated, in separate studies, that job dissatisfaction and frustrations are predisposing factors to myocardial infarctions. S. M. Sales and J. House reported an observed association of mortality and job dissatisfaction which was independent of social class. "The clinical judgment of stress by physicians or patients' self-ratings has also been associated with coronary disease, apart from reference to the external events or conditions triggering it. A particular problem exists in retrospective studies in that it is difficult, if not impossible, to distinguish the stress reaction consequent to severe disease from that preceding it." Other researchers have identified and accepted the existence of a coronary prone behavior pattern characterized by extreme competitiveness, impatience, perfectionism, hyperalertness, and pressing needs for achievement. Recurrent and fatal myocardial infarcts have been associated with this behavior pattern. (162 ref.)—*B. A. Stanton.*

5383. Köttgen, Ulrich. (U. Mainz, Kinderklinik, W. Germany) **Das kranke Kind und die Familie.** [The sick child and the family.] *Praxis der Psychotherapie*, 1969(Dec), Vol. 14(6), 261-266.—Demonstrates how diseases of early life threaten and upset the equilibrium of family life. Under pressure, mothers often lose sound judgment which results in family unrest. Forms of defensive mother behavior (e.g., overprotection) are common. The responsibility distribution within the entire family structure is altered. After recuperation, the need for special care and treatment of the child remains as a further burden to the family. In the case of incurable or handicapped children, the climax of the family crisis occurs when the parents learn that there is no hope for complete recuperation. In this instance, there is a large, painful spectrum of alternative decisions to be made, and medical and educational counseling are indispensable.—*B. Stanton.*

5384. Krüskemper, Gertrud & Krüskemper, Hans L. (Hannover Medical Coll., W. Germany) **Neurotische Tendenzen und Extraversion bei Hyperthyreose.** [Neurotic tendencies and extroversion in hyperthyroidism.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1970(Apr), Vol. 16(2), 178-189.—14 patients with decompensated diffuse hyperthyroidism were given a number of psychological tests which also included the MPI and Maudsley Medical Questionnaire (MMQ). These tests were administered (a) before a medicinal-thyrostatic therapy (test), and (b) after a euthyroid metabolism of at least 3 mo. (retest). With 1 exception the MMQ showed a decrease in neurotic tendencies with the mean group value of 19.07 (test) sinking to a normal value of 12.35 (retest). The Lie scale remained constant with 11.21 as compared to 11.64. The Neurosis scale of the MPI after treatment sank significantly

from 26.21 in the test to 18.36 in the retest. The mean value of the extroversion-introversion dimension shifted from 20.93 in the direction of the extroversion pole to a value of 24.5. An assessment made by 10 physicians and thyroid experts of the patients' answers to the individual items proved more reliable for the MMQ than for the MPI.—*B. Schay.*

5385. Levendel, László; Mezei, Árpád; Nemes, Livia, & Litvai, Mihályne. **Adatok a tüdőgümőkór okozta cor pulmonale chronicumban szenvedő betegek személyiségéhez.** [Data concerning the personality of patients suffering from cor pulmonale chronicum caused by tuberculosis.] *Pszichológiai Tanulmányok*, 1968, No. 11, 507-519.—Examined personality patterns of Ss suffering from cor pulmonale chronicum caused by severe tuberculosis of the lungs with the Rorschach test in order to establish adequate methods for their institutional care. Rorschach scores assumed to characterize cor pulmonale were checked on 50 Ss whose cor pulmonale diagnosis was unequivocally established, on 50 tuberculous Ss who were free of cor pulmonale, and 32 healthy Ss. The difference between the 3 groups proved to be statistically significant. The sign-list characterizing records of the experimental group includes the signs of extreme insecurity previously found in tuberculous Ss, defect responses generally occurring in chronic illnesses, and signs of malignity made up of responses expressing severe disturbance or dissolution of the body image. The records reveal that the Ss are infantile, dependent, and passively withdrawn which is in keeping with their restricted motility. Scores indicative of dysphoria, depression, anxiety, and repressed aggression complete the personality picture. (Russian summary) (17 ref.)—*English summary.*

5386. Lustig, Felicia M. (New York U.) **A study of the effect of a pulmonary rehabilitation program on anxiety, medical orientation, social introversion, attitude toward work, and engagement in vocational activities in patients with chronic obstructive pulmonary emphysema (COPD).** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3344-3345.

5387. McDaniel, James W. (U. Colorado, Medical School, Denver) **Physical disability and human behavior.** New York, N.Y.: Pergamon, 1970. xiii, 231 p. \$7.95.

5388. Rubin, Robert T., Gunderson, E. K., & Arthur, Ransom J. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Life stress and illness patterns in the US Navy: III. Prior life change and illness onset in an attack carrier's crew.** *Archives of Environmental Health*, 1969(Nov), Vol. 19, 753-757.—Studied approximately 1/3 of the enlisted crew of an attack carrier (N = 687) during a 6-mo deployment to Vietnam. The Schedule of Recent Experience (SRE), designed to document significant recent life change, was administered at the beginning of the cruise, and the illnesses developed by these men during the cruise were tabulated. The relationship of prior life change to illness onset is discussed. Initially, an item weighting system which was constructed from civilian populations failed to be used in scoring, but this scoring system was discarded to discriminate future illness. A new weighting system was then derived by stepwise multiple regression analysis, which was done separately for unrated seamen and petty officers. Several different items emerged as unique predictors for these 2 groups of men. The life change scores based on the regression-derived weighting system

clearly and significantly discriminated future illness, indicating that new SRE scoring methods can be useful in illness prediction in small samples. (17 ref.)—*Journal abstract.*

5389. Rubin, Robert T., Gunderson, E. K., & Doll, Richard E. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Life stress and illness patterns in the US Navy: I. Environmental variables and illness onset in an attack carrier's crew.** *Archives of Environmental Health*, 1969(Nov), Vol. 19, 740-747.—Studied approximately $\frac{1}{3}$ of the enlisted crew of an attack carrier (N = 738) during a 6-mo deployment to Vietnam. Cruise activities, work conditions, and the illnesses developed by these men during the cruise were tabulated. The relationship of the environmental variables of ship's activity and work (division) assignment to illness onset is discussed. The majority of illnesses occurred in a relatively small portion of the population; 29% of the men developed 75% of the illnesses. This distribution was similar to those found in other studies of military and working populations. The high incidences of dermatological, respiratory, and gastrointestinal illnesses were similar to those reported for other military enlisted populations. The rates for both overall illness and for most individual illness categories showed a consistent elevation during combat periods compared to inport periods; an exception was the period of Sea of Japan operations surrounding the Pueblo crisis. Occupation appeared to be an important factor influencing illness incidence; illness rates were higher in those groups of men who performed physically demanding or hazardous tasks and who worked in hostile environments. (17 ref.)—*Journal abstract.*

5390. Schneider, Pierre B. **Le médecin: Thérapeute ou psychothérapeute?** [The physician: Therapist or psychotherapist?] *Revue de Médecine Psychosomatique et Psychologie Médicale*, 1970(Fal), Vol. 12(3), 241-253.—Poses the question of whether the therapeutic action of the physician is able, in certain circumstances, to inspire a psychotherapeutic model. It is suggested that the physician may regard the illness itself, rather than the patient, as the object of study. This type of approach is seen to be necessary in clinical diagnostics; however, treatment should entail consideration of the total patient, including his personality. The physician is in a position of direct access to information concerning the affective life of the patient.—B. A. Stanton.

5391. Schubert, Josef. (U. Saskatchewan, Regina, Canada) **Rorschach protocols of asthmatic boys.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 16-22.—4 Rorschach protocols illustrate the divergence of reactions found in asthmatic children. None of the diagnostic groups, subdivided on the basis of severity of asthma and parental attitude, was found to be psychologically homogenous. In physiologically severe asthma, neurotic anxiety is related to a good prognosis and emotional constriction is related to a poor diagnosis. With physiologically mild asthma, anxiety is related to a poor prognosis.—*Journal abstract.*

5392. Vernon, McCay. (Western Maryland Coll.) **Usher's syndrome: Deafness and progressive blindness: Clinical cases, prevention, theory and literature survey.** *Journal of Chronic Diseases*, 1969(Aug), Vol. 22(10), 133-151.—Presents a multidisciplinary survey and synthesis of the literature on Usher's syndrome: congenital deafness and retinitis pigmentosa

with CNS degeneration. Although rare in the general population, the disease is significantly prevalent among the deaf. By complete auditory, visual, and vestibular diagnostic procedures heterozygote carriers of Usher's may be identified and victims may be diagnosed earlier. Prevention is strongly urged in view of the trauma and chronicity of the affliction. High risk diagnostic screening coupled with genetic counseling is considered both feasible and practical. Research into biochemical, genetic, metabolic, psychiatric, and other behavioral aspects of Usher's is described as having great generality. Usher's represents a centering of gross CNS pathology with major psychological correlates such as aphasia, memory pathology, psychosis, and mental retardation. An understanding of the pathogenesis of Usher's may give insight into causes of forms of these other conditions. Data on 8 cases are presented. (92 ref.)—*Journal summary.*

COMMUNITY SERVICES

5393. Armsby, Richard E. (Hawaii State Hosp., Honolulu) **The adolescent crises team: An experiment in community crises intervention.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 735-736.—106 adolescents (mostly drug abusers and runaways) referred for inpatient treatment were treated in their homes for 2-8 sessions with their families and other significant people. The adolescent crisis teams were composed of trained nonprofessionals and natural helpers in the community. Full use was made of existing community resources. During 6 mo. of operation, 22% of the adolescents were referred for inpatient treatment, 40% were referred for outpatient follow-up, and 38% needed no further treatment. Costing only $\frac{1}{10}$ as much, adolescent crisis teams have proven an effective alternative to hospitalization.—*Author abstract.*

5394. Scher, Maryonda. (Veterans Administration Hosp., Seattle, Wash.) **The place of the mental hospital in community mental health.** *Hospital & Community Psychiatry*, 1970(Mar), Vol. 21(3), 85-87.—Reports that the education of the public to their responsibilities for the care of the mentally ill within the community has resulted in an unwanted negative conception of the mental hospital. It is maintained that the need for mental hospitals, locked doors, and medical management still exists and its importance for rehabilitation of the patient must not be underestimated. S Knapp.

5395. Zacker, Joseph & Bard, Morton. (City Coll., City U. New York) **Community institutions resist change: Neurotic or adaptive?** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 729-730. Mental health professionals, like other people, tend to adopt conceptual styles appropriate for the situations they deal with most often. It may be disadvantageous, however, to transfer such conceptual styles to such unfamiliar situations as, for example, working with community institutions. The traditional psychotherapeutic view of resistance as a maladaptive effort to avoid anxiety based on fears of the unknown is discussed as 1 such conceptual style. An incident wherein police recruits resisted innovative training methods is discussed to illustrate how a conceptual style might have precluded empathic appre-

ciation of an institution's needs and structure.—*Author abstract.*

GERIATRICS

5396. Burnside, Irene M. (U. California, Medical School, San Francisco) **Group work with the aged: Selected literature.** *Gerontologist*, 1970(Fal), Vol. 10(3, Pt. 1), 241-246.—A review of the literature suggests "that leaders adopted group principles and group dynamics to a variety of groups and settings. Group methods and approaches ranged from book-discussion groups to psychoanalytic therapy groups." Diverse mental health personnel provided leadership. "Important traits in the group leader were: flexibility, warmth, perseverance, patience, and ability to listen." Studies on the effectiveness of group work with the aged are lacking. Questions are raised concerning the characteristics of an "older persons" group, particularly in relation to age and disability breakdowns. The effect of coleadership and progress goals also need exploration. (32 ref.)—*J. Linnick.*

5397. Gaillard, J. M. (U. Geneva, Psychiatric Clinic, Switzerland) **La désintégration du schéma corporel dans les états démentiels du grand âge.** [The disintegration of the body schema in elderly patients with states of dementia.] *Journal de Psychologie Normale et Pathologique*, 1970(Oct), No. 4, 443-472.—It was found that the representation of the body is affected by 2 types of mechanisms: (a) the structure of space representation which is metric up to the level of concrete operations and becomes typological at the preoperational level, and (b) the relative importance of parts of the body for the S. The known body is very dependent upon the symbolic function. At the infrasympbolic level a knowledge of the body no longer exists. Cases of vascular dementia present a problem particularly interesting with regard to the possibility of the representation of the body, without touching aspects of the body schema, in relation to its operation or symbolic function. However, in the Pick syndrome, the body schema is retained despite advanced dementia. (18 ref.)—*L. A. Ostlund.*

5398. Goldberg, Harold L., Latif, Janet, & Abrams, Seena. (West-Ros-Park Mental Health Center, Boston, Mass.) **Psychiatric consultation: A strategic service to nursing home staffs.** *Gerontologist*, 1970(Fal), Vol. 10(3, Pt. 1), 221-224.—Describes geriatric patients with acute behavioral disorders and the practical objectives for managing such patients. The methods and successful results of a specific program established between a psychiatric consultation team and local nursing home staffs for the main purpose of preventing unnecessary hospitalizations are reviewed and discussed.—*Journal abstract.*

EDUCATIONAL PSYCHOLOGY

5399. Bjerstedt, Å. & Nilsson, B. (Malmö School of Education, Sweden) **Department of Educational and Psychological Research, Malmö: Some notes on current activities.** *Educational & Psychological Interactions*, 1970(Dec), No. 35, 18 p.—Presents a survey which includes historical notes, information on organization and training programs, and brief descriptions of the major research and development projects in progress.—*Journal abstract.*

5400. Bonboir, Anna. (U. Louvain, Belgium) **L'observation au service de l'experimentation en psychologie scolaire.** [The role of observation in experimentation in scholarly psychology.] *Educational Sciences*, 1970(May), Vol. 4(1), 5-10.—Explores the relation between empiricism, systematics, and epistemology in educational research, with special reference to methodology. In particular the fact that "the independent variable X" (whichever is chosen) has to be determined in an evolving educational situation raises problems of cumulative effects difficult to assess by conventional research methods. (German summary, —*English abstract.*)

5401. Conway, Jerome K. (U. Toronto, Medical School, Ontario, Canada) **Forms of information representation and cognitive operations.** *Viewpoints*, 1970(Sep), Vol. 46(5), 155-163.—Anticipates that multiple vs. single channel studies will be relegated to the same category as most comparative media research—an unproductive experience of only passing, historical interest. As the role of research becomes more clearly associated with the broader goal of a theory of instruction, and as we begin to make discriminations of a higher order than "2 of something versus 1 of another," our efforts may yet become a focal part of the everyday assumptions of audiovisualists.—*Journal summary.*

5402. Descamps, Marc A. (Sorbonne, Paris, France) **La relation enseignant-enseigné au début des études de psychologie.** [The teacher-student relationship in introductory psychology courses.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(6-8), 453-457.—17 teachers of psychology and 82 1st-yr psychology students were questioned regarding their perceptions of themselves and their respective roles in the classroom. Teachers were asked what qualities they liked in students and what qualities they felt students liked in their teachers, and students were asked what qualities they liked in their teachers and what qualities they thought teachers liked in their students. Teachers were in substantial agreement as to what qualities they liked in their students (88%) but less so regarding what they felt students liked in their teachers (47%). Students were in 65% agreement as to the qualities they liked in their teachers, but only 46% agreement as to the qualities they thought teachers liked in their students. Comparative data are presented.—*R. E. Smith.*

5403. Dürö, Lajos. (U. Szeged, Hungary) **A pszichológiai-pedagógiai kísérlet metodológiai jelentősége a személyiség erkölcsi fejlődésének vizsgálatában.** [Methodological significance of psycho-pedagogical research in the moral development of personality.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 185-198.—Discusses psychopedagogical experiments for the assessment of personality traits, analyzing the methodological connections of its development. The experimental character of investigation as well as the general methodological significance, are noted. It is also noted that psychopedagogical experiments aimed at a synthetic study of personality play an important part in transforming the functional attitude and the pedagogical aspect which are inappropriate when considering the child. (Russian summary) (19 ref.)—*English summary.*

5404. Eisner, Elliot W. (Stanford U.) **Media, expression, and the arts.** *Viewpoints*, 1970(Sep), 46(5), 103-118.—Describes the relationship between media, expression, and the arts, and suggests what these relationships imply for educational practice and media

research. To do this requires brief excursions into the demands visual works make on those who wish to encounter them on the plane of meaning. 7 ideas are discussed: (a) expression is a consequence of intelligence; (b) the arts are one of man's major expressive modalities, hence depend on intelligence; (c) expression proceeds through the forms of art by virtue of the symbols, syntaxes, and media with which the artist works; (d) the expressiveness of the arts is known by the experience the forms of art evoke; (e) to experience art forms requires an ability to "read" the form, i.e., to decode what artists have encoded; (f) artistic development depends not only on the artist's ability to create new symbols and syntaxes but also on the nature of the media available; and (g) new forms of art evoke new forms of experience, inform us about the qualitative aspects of life, and reawaken our awareness to the old.—*Journal summary.*

5405. Fischer, Constance T. (Duquesne U.) **Levels of cheating under conditions of informative appeal to honesty, public affirmation of value, and threats of punishment.** *Journal of Educational Research*, 1970(Sep), Vol. 64(1), 12-16.—Examined conditions conducive to minimal classroom cheating. 135 4th-6th graders were given the opportunity to cheat on a 60-item general achievement test. Ss were assigned to 5 experimental conditions: (a) control, (b) informative appeal to honesty, (c) public affirmation of the value of not cheating, (d) value-relevant threat of punishment, and (e) non-value-relevant threat of punishment. A majority of Ss cheated under conditions a and b, but a significant decrease occurred in the last 3 conditions. No significant differences were found between the cheating under the last 3 conditions. In view of other studies and developmental theory, public affirmation of the value of not cheating is suggested as the preferable classroom technique for minimizing cheating.—*Journal abstract.*

5406. Fleming, Malcolm I. (Indiana U.) **Media research projects: Considerations from a perceptual point of view.** *Viewpoints*, 1970(Sep), Vol. 46(5), 119-136.—In this paper, messages are "seen as objects of the perceptual process, objects which both facilitate the process of information extraction and place limits upon the amount and kind of information extracted. Within this context, interest lies in such problems as the media correlates of perception and the perceptual correlates of learning . . . the collection of perceptual data in message studies, while not yielding sufficient information in most cases, can provide the basis for a more complete and more analytical account of the learner's behavior with reference to more of the details and subtleties of the stimulus." Some implications of perceptual research are reviewed and "attention has been directed toward some of the medium or message conditions for perception that might be investigated further." (17 ref.)—*I. Linnick.*

5407. Glick, Oren. (U. Puget Sound) **Interaction effects of sex of mother's child and child's reading performance on the mother's evaluation of the school.** *Journal of Educational Research*, 1970(Nov), Vol. 64(3), 124-126.—Selected from 2 schools 24 3rd graders performing at or above the reading criterion and 68 below that level. Ss' mothers were interviewed and evaluated the schools on an 11-point scale for the past, present, and future. The reading criterion factor did not significantly differentiate the groups. Sex of the child did approach significance, with a positive relationship between evaluations and performance for girls and a

negative relationship for boys. For mothers of Ss performing below criterion, sex was not significant. For Ss performing above criterion, mothers of girls rated the schools more favorably than mothers of boys, who supplied the lowest mean ratings. The attribution of responsibility for poor performance was examined in the mothers of 10 female and 4 male Ss. Ratings of the child's or the school's responsibility support the hypothesis that mothers of girls would consider the school most responsible, while mothers of boys would consider the child himself responsible.—*S. Knapp.*

5408. Hengen, Nona L. (Southern Oregon Coll.) **Perception of danger in action illustrations: Implications for nonverbal communication in education.** *Bulletin of the School of Education, Indiana U.*, 1970(Jul), Vol. 46(4), 1-68.—In a world oriented to pictorial illustration, standards for visual literacy need to be developed. In this article "specific picture elements that significantly change the pictorial connotations a reader derives from reading a structured stimulus picture" are analyzed. It is concluded that to become "better picture readers, is an ability that can be taught." Implications for audiovisual communications and for education are considered.—*I. Linnick.*

5409. Kratochvil, Daniel W., Carkhuff, Robert R., & Berenson, Bernard G. (American Inst. for Research, Palo Alto, Calif.) **Cumulative effects of parent and teacher offered levels of facilitative conditions upon indices of student physical, emotional, and intellectual functioning.** *Journal of Educational Research*, 1969(Dec), Vol. 63(4), 161-164.—Tested 80 5th grade students, 38 of their past and present teachers, and their parents (76 mothers and 69 fathers) to determine the relationships between parent and teacher-offered levels of facilitative conditions and indices of student physical, emotional, interpersonal, and intellectual functioning. Levels of facilitative conditions offered by parents and teachers were determined by their levels of communication and discrimination. Student levels of functioning were measured by 2 indices of physical functioning: (a) height-weight, and (b) physical fitness test scores; 2 indices of emotional functioning: (a) level of communication, and (b) level of discrimination; 2 indices of intellectual functioning: (a) GPA, and (b) achievement test scores; and 1 index of creativity-productivity, a 42-item questionnaire concerning student achievements. Results indicate that the cumulative effects of parent and teacher offered levels of facilitative conditions on student functioning were not significant. In 1 instance the immediate effects were significant.—*Journal abstract.*

5410. McDonald, Frederick J. (New York U.) **Relationships of media to observational learning.** *Viewpoints*, 1970(Sep), Vol. 46(5), 137-154.—Suggests that observational learning is an established psychological fact. People do learn by observing. The media problem is to use the media to facilitate observational learning. The facilitation can take the form of a more effective portrayal of the model's behavior. The author's preference in designing training programs is to combine what is known about feedback systems with what is known about modeling systems to create new kinds of instructional systems that alternate modeling and feedback phases. The guiding principle seems to apply, i.e., that the modeling is most effective in the early phases of learning and feedback systems are needed to maintain the learning.—*Journal summary.*

5411. Meredith, Patrick. (U. Leeds, Epistemic Com-

munication Research Unit, England) **Number, space and measurement: I. Educational Sciences**, 1970(May), Vol. 4(1), 37-55.—Presents the 1st part of an epistemic analysis of certain fundamental concepts in mathematics. The purpose is to reconcile the abstractness of mathematics with the concreteness of psychophysical events both in the discovery and proof of new theorems and in the communication and learning of established concepts. Since, whatever other materials may be involved, mathematics is most commonly an activity with ink and paper, governed by documentary conventions, the structural properties of the "medium" combine with those of the "message." The result is only partly rational. By analyzing the notation, it is shown that the relation between the distribution of symbols in a printed volume and their temporal transitions, involved in reading and turning pages, can point the way to an isomorphism between abstract structure and concrete expression. (French & German summaries)—*Journal abstract*.

5412. Pittenger, Owen E. & Gooding, C. Thomas. (State University Coll. New York, Oswego) **Learning theories in educational practice: An integration of psychological theory and educational philosophy**. New York, N.Y.: John Wiley, 1971. 222 p.

5413. Smith, Vernon. (Indiana U.) **The teacher's prejudices and the children's dialects**. *Bulletin of the School of Education, Indiana U.*, 1969(Nov), Vol. 45(6), 127-144.—Explores communication with the culturally different in the classroom as 1 facet in the general problem in the education of children. "All dialects are standard or acceptable except the language of the poor." The culturally different child is expected to learn the standard spoken dialect (ignoring the dialect he has already learned), the language of instruction, and the written or literary dialect, and also has to adapt to the standards and values of his teacher. Suggestions are offered to the teacher to become more concerned with the children's feelings than with their overt behavior, to accept them, and to respect them as they are. (26 ref.)—*I. Linnick*.

5414. Van Zyl, P. (Randse Afrikaanse U., Johannesburg, South Africa) **Die struktuur van die pedagogiek en sy deeldisiplines**. [The structure of pedagogy and its part disciplines.] *Opvoedkundige Studies*, No. 57, 61 p.—Considers terminology difficulties between "education" and "pedagogy." The history of pedagogy is outlined, and the part disciplines of fundamental, anthropological, psychological didactic, comparative, and historic pedagogy are discussed. It is concluded that pedagogy is a humanitarian science. The other humanitarian sciences—philosophical anthropology, psychology, sociology, biology, physiology, history, and theology—are considered to be "marginal sciences" which can contribute to pedagogy, but not prescribe for it. A full text English translation is included. (48 ref.)—*S. Knapp*.

5415. Williams, D. I. & McComisky, J. G. (U. Hull, England) **Effect of change in stimulus setting on visual task performance: Implications for educational practice**. *Educational Sciences*, 1970(May), Vol. 4(1), 21-23.—Tested 28 15-16 yr. old boys in a task involving the checking of letter pairs. The material was in booklet form, a separate page being worked on in consecutive sessions. For the experimental group, pages were of different colors. For the controls, all pages were white. As predicted, the performance of the experimental

group was superior to that of the controls over the latter $\frac{1}{2}$ of the experimental period. (French & German summaries)—*Journal abstract*.

ATTITUDE & ADJUSTMENT

5416. Bailey, Robert E. (U. Florida) **Differences in the personal-social problems of Negro and Caucasian secondary school students**. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3326-3327.

5417. Buhl, Anthony J. (Oregon State U.) **The compared perceptions of a senior high school by teachers and students as measured by the Stern High School Characteristics Index**. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3331.

5418. Butler, Oscar P. (Michigan State U.) **A comparative study of the self-concept of black and white freshman students from the Midwest and South**. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3331.

5419. Chickering, Arthur W. (Goddard Coll.) **Civil Liberties and the experience of college**. *Journal of Higher Education*, 1970(Nov), Vol. 41(8), 599-606. —Examined the finding that students become more liberal during their college years. Students from 13 small colleges rated their agreement or disagreement with 3 questions on civil liberties as entering freshmen and at the end of their sophomore year. A net change toward liberalism was found, but the change was greater for men than for women. Moderate conservatives generally became more liberal, while the reverse was true for moderate liberals. All findings varied in magnitude from college to college. Institutional characteristics positively associated with increasing liberalism were (a) the proportion of liberal peers, (b) study motivated by interests or anticipated future activities, (c) student-faculty contact, and (d) demonstrations. Negatively associated characteristics were (a) the proportion of conservative peers, (b) emphasis on professional-vocational preparation and propriety, (c) emphasis on lecturing and memorization, and (d) study motivated by filling requirements and getting good grades. Implications for the planning of educational practices are discussed.—*S. Knapp*.

5420. Coor, Ina F. (Washington U.) **The effects of grade level and motivation training on ego development**. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3332.

5421. Danesino, Angelo & Layman, William A. (St. Peter's Coll., Jersey City, N.J.) **Catholic attitudes and beliefs in transition: A decade study of a Jesuit college**. *Psychological Reports*, 1971(Feb), Vol. 28(1), 247-250.—Surveyed and compared the attitudes of 280 male and female Catholic undergraduates concerning 13 religion-oriented topics and 1 general "Life Style" area with results of a similar survey of 100 male Ss made 10 yr. earlier. Data suggest an over-all liberalization of ideas regarding all religion-oriented topics except "Labor Unions," where the reverse effect was noted. No change in life style opinions was observed.—*Journal abstract*.

5422. Dugmore, W. Owen & Grant, Claude W. (Central Washington State Coll.) **Experiment in cluster registration of college freshmen: Effects upon achievement, anxiety and perception of the college environment**. *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 216-218.—Studied the effects of cluster registration upon various aspects of student

experience at a state university. From among 81 1st quarter freshmen, undecided as to academic major, 7 groups of students were identified who had registered for the same general education courses and who could be kept together for the duration of the quarter in their respective groups (clusters) by assigning them to appropriate course sections. A control group of 71 was also used. Findings indicate that cluster registration (used in this investigation) did not improve the quality of the university experience of these Ss.—*Journal abstract.*

5423. Frantz, Thomas T. & Snider, Bill. (State U. New York, Buffalo) **Dimensions of student behavior.** *Journal of Educational Research*, 1969(Dec), Vol. 63(4), 181-184.—Attempted to determine the number and nature of dimensions which students perceive as underlying college student behavior. Previous research and theory indicate that approximately 5 dimensions (academic, social, vocational, nonconformity, and noncommitted) are appropriate for categorizing the behavior of college students. 99 students were given 2 130-item lists of behaviors exhibited by students and classified the behaviors in categories. Analysis of the categories using categorical analysis resulted in the identification of approximately 24 behavioral dimensions—clearly more than the 5 or 6 employed by most researchers. It was also found that men and women perceived behavior in somewhat similar dimensions.—*Journal abstract.*

5424. Fullerton, Sally A. (U. Oregon) **Development and change in self concept descriptions and concurrent changes in school behavior of junior high school students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3265.

5425. Goldenberg, Herbert & Goldenberg, Irene. (California State Coll., Los Angeles) **School phobia: Childhood neurosis or learned maladaptive behavior?** *Exceptional Children*, 1970(Nov), Vol. 37(3), 220-226.—Discusses school phobia, emphasizing Parent × Child interactions. Separation from the parent and home is seen as an essential process in normal growth. Disturbed separations are discussed as interruptions of maternal care. Theories of the etiology of school phobias include (a) separation anxiety; (b) mother-child symbiosis; (c) conflicts around aggression, regression, and dependency; and (d) the child's unrealistic self-image. Therapeutic strategies uniformly include the need to return the child to the classroom or to the school building as soon as possible. The use of psychoanalytic and desensitization approaches are discussed. (21 ref.) —P. McMillan.

5426. Hagey, Sylvia J. (U. Oregon) **Risk taking, self complexity, and role choice at two stages in the lives of college women.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3638.

5427. Hansen, James C. & Warner, Richard W. (State U. New York, Buffalo) **Environmental press, student needs, and academic adjustment.** *Journal of Educational Research*, 1970(May), Vol. 63(9), 404-406.—Investigated the relationship of students' perceptions of the high school environment and their personal needs to their academic adjustment. 179 randomly selected high school sophomores completed the High School Characteristics Index, the Activities Index, and a modified form of the College Inventory of Academic Adjustment. An intercorrelational matrix revealed that Ss' perceptions of the intellectual press of the school and their intellectual needs were significantly related to their academic adjustment. Ss' perceptions of the dependency

and emotional expression presses and their own needs in these areas were related to selected aspects of academic adjustment. Implications for the education of those students who do not fall into the model student mold are discussed.—*Journal abstract.*

5428. Hedges, Richard G. (U. Washington) **A study of leftist student activists at the University of Washington.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3339.

5429. Johnson, Charles D. & Gormly, John. (U. Wisconsin, Milwaukee) **Achievement, sociability, and task importance in relation to academic cheating.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 302.—Examined behaviorally measured cheating in relation to self-report data on academic activity, social participation, and future plans among 27 ROTC upperclassmen. 1/3 of the Ss cheated on a difficult novel associations test. In relation to noncheaters, cheaters showed greater social participation and were more likely to intend to be career officers. Cheaters were not, however, significantly different from noncheaters on achievement variables.—*Author abstract.*

5430. Kirby, Frank D. & Toler, Hayward C. (Humboldt State Coll.) **Modification of preschool isolate behavior: A case study.** *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 309-314.—A 5-yr-old preschool boy with a low rate of interaction with his nursery school classmates was induced to pass out candy as a tactic to increase his rate of interaction with them. Interaction with classmates increased markedly during the periods he passed out choices of candy. These changes may have been due to increases in both his rate of initiating activities with his classmates and to increases in his classmates' rate of initiating activities with him. A total time of less than 1 hr. was required of the teacher during the experiment. *Journal abstract.*

5431. Klindová, Luboslava. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Niekol'ko poznámok k štruktúre a obsahu vzdelávania z hľadiska psychohygiény.** [Structure and content of learning from the point of view of mental hygiene.] *Jednotná Škola*, 1969(Apr), Vol. 21(4), 348-356. Discusses proposed reforms of general education schools. The principles of mental hygiene are related to the present state of learning and education. The organization of school life and some of the phenomena associated with required subjects are critically evaluated. The overburdening of pupils, the quality of the didactic system, and the standards of textbooks are considered. Attention is drawn to features in the conception of the general education schools which are at variance with the pupils' mental hygiene. Recommendations for changes are presented. (Russian summary) *English summary.*

5432. Lindblom, Börje & Henrysson, Lennart. (School of Education, Malmö, Sweden) **Gymnasisternas attityder till studie- och yrkesorientering.** [Attitudes towards educational and vocational guidance among Swedish students at the "gymnasium" level.] *Pedagogisk-Psychologiska Problem*, 1970(Dec), No. 124, 24 p.—Evaluated the educational and vocational guidance programs in effect in Swedish gymnasia through questionnaire interviews with students in their last (3rd) gymnasium yr. Most students were dissatisfied with the present guidance programs, and felt that the programs should be reorganized. Most students found informational publications helpful, but few reported benefits from program-related radio and TV programs. Most

boys, but significantly fewer girls, found conversations with educational and vocational counselors helpful. Suggestions for the program's improvement are discussed. (15 ref.)—*D. W. Scott.*

5433. Livingston, Samuel A. **Simulation games and attitude change: Attitudes toward the poor.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Apr), No. 63, 14 p.—Investigated the effect of a simulation game on players' attitudes toward the poor by means of a pretest-posttest questionnaire study. The respondents were the senior class ($N = 202$) of an all-boys Catholic high school, who played the game for 4 periods in their social studies classes. Ss' attitudes were significantly more favorable to the poor after they played the game than before. The Ss' attitude change varied significantly from teacher to teacher, but was not significantly correlated with any of several other variables investigated. The game produced no change in factual information and a small but significant decline in interest in the subject matter.—*Journal abstract.*

5434. Loigman, Bernard. (Rutgers State U.) **Relationship between social adaptation and academic success of tenth grade students in two senior high schools.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3344.

5435. McPartland, James, et al. **Student participation in high school decisions: A study of 14 urban high schools.** *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1971(Feb), No. 95, 191 p.—Presents the results of a questionnaire administered to 3450 11th and 12th grade students and 765 teachers from 14 high schools in the Baltimore-Washington area. The purpose of the study was to (a) define and categorize the existing and possible kinds of student participation in high school decisions, (b) describe attitudes concerning alternative decision-making procedures, and (c) analyze some likely effects of student involvement in decisions. The examination focused on distinctions between academic and nonacademic decisions, procedures and outcomes, and participation through holding authority vs. communication. Teachers and students both thought that students should have more voice in decision making, although teachers were generally less favorable especially in the academic area. Student attitudes about outcomes and procedures were analyzed by differences in the students (e.g., race, socioeconomic background, and sex). The effects of different kinds of student participation were analyzed. Effects of nonacademic participation were examined through extracurricular activities, student government, and the student court. Effects of academic participation were analyzed in a school which allowed a wide range of student academic choice. (7 p. ref.)—*Journal abstract.*

5436. Medinnus, Gene R. & Johnson, Theodore M. (San Jose State Coll.) **Parental perceptions of kindergarten children.** *Journal of Educational Research*, 1970(Apr), Vol. 63(8), 379-381.—Selected 21 well-adjusted and 21 poorly-adjusted kindergartners matched for CA, sex, IQ, and socioeconomic status. Semantic differential descriptions consisting of 50 bipolar adjectives were completed by Ss' parents and 2 kindergarten teachers. The hypothesis of a greater discrepancy in ratings between father and mother of poorly-adjusted children when compared to well-adjusted children was supported at the .05 level. Greater discrepancies were found between mother and teacher and father and teacher of the former group as compared with the latter.

The items showing significantly greater discrepancies of the poorly-adjusted as compared to the well-adjusted were identified. It is concluded that greater communication between parents and between parents and teachers is urgently needed in the case of the poorly-adjusted child.—*Journal abstract.*

5437. Noffsinger, Thomas. (Garfield Elementary School, Lake County Regional Program for Handicapped Children, Mentor, O.) **The effects of reward and level of aspiration on students with deviant behavior.** *Exceptional Children*, 1971(Jan), Vol. 37(8), 355-364.—Tested the efficacy of rewards and level of aspiration with children classified by Quay's Behavior Problem Checklist. 45 junior high age boys who were potential dropouts were classified according to deviant classroom behaviors. Ss were then tested in several different levels of aspiration and reward treatment combinations. Results show no differences between classifications of Ss and no hypothesized differences in the differential effectiveness of level of aspiration and reward for the types of students. Results also show that setting a high level of aspiration had a significant positive effect. (22 ref.)—*Journal abstract.*

5438. O'Brien, Mary G. (Fordham U.) **Relationship of self perceptions of Puerto Rican and non-Puerto Rican parochial school children to selected school related variables.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3347-3348.

5439. Orlik, Peter; Fisch, Rudolf, & Saterdag, Hermann. (U. Saarlandes, Inst. of Psychology, Saarbrücken, W. Germany) **Fragen der sozialen Orientierung von Studienanfängern des Faches Psychologie.** [Questions of social orientation of freshmen in psychology.] *Psychologische Rundschau*, 1971(Jan), Vol. 22(1), 17-37.—Extensive questionnaires given to 94 freshmen investigated their opinions and attitudes towards psychology and their satisfaction with their studies. It was found that the students were often vague and misinformed about the characteristics of psychology as a study subject. Disappointed expectations led frequently to dissatisfaction. Orientation courses in high school are proposed in order to minimize the difficulties students have to overcome due to their misconceptions. *W. J. Koppitz.*

5440. Plimpton, Franziska H. (Washington U.) **The effects of motivation training upon the origin syndrome.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3349.

5441. Price, J. R. & Magoon, A. J. (U. Delaware) **Predictors of college students' ratings of instructors.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 523-524.—A large sample of college students completed a 35-item course evaluation instrument. The instrument could be divided into 2 sections: (a) 11 course and student characteristics which presupposed no evaluative judgments; and (b) 24 rating items bearing on the course and instructor, all evaluative judgments. The results of a canonical analysis revealed 4 important correlations relationships. These suggested that students rate courses on the basis of instructor impact, workload, course structure, and whether the course is an elective or not. Important predictors were the expected grade in a course and availability of the instructor outside class. (a) members of this sample sought such help). *Author abstract.*

5442. Seidel, Harry E. (California State Coll., Pa.)

Attitudes, goals, achievements, and educational needs of adolescents from two Appalachian communities. *Journal of Educational Research*, 1970(May), Vol. 63(9), 424-429. Selected 81 pairs of students matched for sex and class attainment from the 10th, 11th, and 12th grades of a high school attended by residents of 2 neighboring but culturally and economically divergent communities. A semi-structured interview form was completed for each S. Analysis of information elicited on the topics of family life, employment, education, government, entertainment, peer groups, sex, and religion reveal significant differences between Ss from the 2 communities. Ss from the more prosperous town showed significantly higher educational and vocational ambitions, optimism, and satisfaction with their living conditions. It is suggested that school systems which embrace distinct populations might broaden their curriculum so that students can find a program best suited to their abilities.—*Journal abstract*

5443. Shepler, Monte P. (Columbia U.) **Changes in attitudes and values and selected factors in the collegiate environment related to change among freshmen students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3303.

5444. Skelton, Louise S. (East Texas State U.) **Analysis of the value deprivations of college students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3353.

5445. Sohal, T. S. & Gupta, Mohan P. (Punjab Agricultural U., Ludhiana, India) **Students' motives behind strikes.** *Indian Educational Review*, 1970(Jul), Vol. 5(2), 97-106. Reports results of a survey of the motivational factors underlying students' involvement in strikes. A 25-item Likert-type questionnaire was devised and administered to a random sample of 90 undergraduates at an Indian college soon after they had gone on strike. The most important factors underlying strikes were strained relationships between teachers and students, misleading influence of senior students, inadequate entertainment and extracurricular activities, and influence of political parties. No significant relationship was found between age, academic grade, rural urban background, GPA of students, and their attitudes toward strikes. The study suggests that a greater amount of attention should be paid to the specific needs and aspirations of individual students.—*K. C. Panda.*

5446. Spradling, James W. (U. South Dakota) **An analysis of personality and environmental press in two church related colleges and a state university.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3356.

5447. Waterman, Alan S. & Waterman, Caroline K. (Rensselaer Polytechnic Inst.) **The relationship between ego identity status and satisfaction with college.** *Journal of Educational Research*, 1970(Dec), Vol. 64(4), 165-168. Conducted 2 studies at a technologically oriented university to investigate the relationship between E. Erikson's concept of ego identity and student attitudes toward college. Results of the 1st study with 32 undergraduates indicate that Ss going through an identity crisis over occupational choice had the least favorable evaluations of their education. Ss who had never experienced a crisis but were committed to a vocational goal were the most favorable. The 2nd study with 282 Ss demonstrated that Ss who went through a crisis over the choice of a major field while in college showed more negative attitudes than Ss who had not

experienced such a crisis. Findings suggest that the association of crisis with college is an important factor in student dissatisfaction.—*Journal abstract.*

5448. Weigel, Richard G. & McKinney, Fred. (Colorado State U.) **Self-oriented sentence completion responses and reported personal biographical data.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 201-202. Examined the relationship of responses on a self-oriented sentence completion blank and personal adjustment, as inferred from reported personal biographical data. The McKinney Sentence Completion Blank (MSCB) and a personal biographical data questionnaire were administered to 160 undergraduates. A self actualizing response pattern on the MSCB was found to reflect reported personal biographical data characteristic of unselected, emotionally healthy Ss while a defensive response pattern was positively related to biographical data characteristic of Ss with emotional problems. The immobilized affect response pattern did not appear to reflect immobilization in the traditional sense. Implications for counseling and for self-concept research are discussed.—*Journal abstract.*

5449. Weigel, Richard G., Weigel, Virginia M., & Hebert, John A. (Colorado State U.) **Non-volunteer subjects: Temporal effects.** *Psychological Reports*, 1971(Feb), Vol. 25(1), 191-192. Found differences in study habits and attitudes in samples of 318 general psychology students drawn at varying times during the academic term, although differences in manifest needs were not. It is suggested that the temporal differences in students' study habits and attitudes could well affect the generalizability of experimental findings.—*Journal abstract.*

5450. Weiss, Richard L., Sales, Stephen M., & Bode, Shelley. (U. Michigan) **Student authoritarianism and teacher authoritarianism as factors in the determination of student performance and attitudes.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 83-87. Recent investigations designed to elucidate the teacher behaviors which are facilitative of positive student attitudes and increased student performance have presented inconsistent results. It is hypothesized that the inconsistency between studies may be due to an interaction between teacher and student characteristics in the determination of the dependent variables involved. To test this hypothesis 10 teachers and 36 students in a West Coast high school were administered a revised version of the California I Scale. High- and low-I groups of both teachers and students were selected and students' grades and attitudes toward their teachers were observed. It was found that high-I students exposed to low-I teachers showed particularly low attitudes toward their teachers and particularly low grades. Data for other combinations of student and teacher characteristics were essentially equivalent. (17 ref.)—*Journal abstract.*

5451. Whittaker, David & Watts, William A. (U. California, Berkeley) **Personality characteristics associated with activism and disaffiliation in today's college-age youth.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 200-206. Contrasted a sample of 210 college students with the youthful members of 2 of 210 college students with the youthful members of 2 expressively alienated forms of nonconformity: 33 student activists committed to confrontation tactics to force social change and 151 disaffiliated college dropouts withdrawn from incompatible social conditions. Compared to other students, both nonconventional sub-

cultures appeared to have similar group profiles on the Omnibus Personality Inventory which reflected their greater intellectual disposition, nonauthoritarianism, and individual expressiveness. However, the Adjective Check List indicated that although both groups were significantly higher on need for autonomy and change and lower on order, they were differentiated by other need scales. Compared to dropouts, activists, like other students, were higher on dominance and achievement and lower on succorance and, unlike students, higher on aggression. Furthermore, activists were higher than students on exhibition and lower than dropouts on abasement whereas dropouts were higher on heterosexuality and lower on endurance than students. (21 ref.)—*Journal abstract.*

5452. Williams, Eva L. (North Texas State U.) **The relationship of selected factors to teacher and student preferences in simulated situations.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3359.

5453. Williams, Robert L. (U. Tennessee) **Personality, ability, and achievement correlates of scholastic attitudes.** *Journal of Educational Research*, 1970(May), Vol. 83(9), 401-403. Administered the California Study Methods Survey to 1818 high school students to assess attitudes toward school. 56 satisfied and 65 dissatisfied Ss were selected and compared with the California Short-Form Test of Mental Maturity, the reading and mathematics sections of the California Achievement Test, GPA, the Bell Adjustment Inventory, and the Tennessee Self-Concept Scale. The groups differed significantly on all dependent measures, with the satisfied group obtaining superior ability, achievement, and personality scores. When intellectual ability was controlled, the groups did not differ on achievement measures, but the dissatisfied group still scored significantly lower on personality measures and average GPAs. Results suggest that the personality dimension affects the student's work and relationship with his teachers to produce diminished evaluation of his academic progress. (16 ref.)—*Journal abstract.*

5454. Winthrop, Henry. (U. South Florida) **Abuses of sensitivity training on the American campus.** *Bulletin of the Menninger Clinic*, 1971(Jan), Vol. 35(1), 28-41. Delineates the various weaknesses in sensitivity training on the campus. The distinctions made "among the 3 separate concepts of anti-rationality, irrationality, and non-rationality are extremely germane to the professional degradation that sometimes occurs in the basic encounter group and to the abuses in procedure and the improprieties of outlook that occasionally crop up in such groups." Although the focus of attention is on sensitivity training groups on the American campus, it is thought that the remarks may be "applicable in substantial measure to many such groups of extramural origin."—*J. Z. Elias.*

5455. Young, Mary L. (U. Minnesota) **Personal-social adjustment, physical fitness, attitude toward physical education of high school girls by socioeconomic level.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 593-599. Tested 114 11th grade girls representing 3 socioeconomic groups to determine whether there were any significant differences between socioeconomic groups with reference to personal-social adjustment, attitude toward physical education, and physical fitness. These variables were measured by the California Test of Personality—Secondary Form AA, the Wear Attitude Inventory—Form A, and the American Association for

Health, Physical Education, and Recreation Youth Fitness Test. Socioeconomic level was determined using McCall's Scale. Relationships between these variables for the entire group and for each socioeconomic group were investigated. Results show a significant difference between socioeconomic groups in the matter of personal-social adjustment, with the high socioeconomic group showing better adjustment scores than the middle group and the middle better than the low group. There were also significant positive relationships between the following variables: physical fitness and attitude toward physical education, physical fitness and personal adjustment, and attitude toward physical education and personal-social adjustment. These relationships, at times, differ according to socioeconomic level.—*Journal abstract.*

5456. Zakrzewski, Aurelia R. (Wayne State U.) **Attitudes toward international affairs related to extent of knowledge, personality factors, and democratic beliefs: A status study of a specific group of high school seniors.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3432.

TESTING

5457. Backman, Margaret E. (Douglas Coll., Rutgers State U.) **Patterns of mental abilities of adolescent males and females from different ethnic and socioeconomic backgrounds.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 511-512.—Examined patterns of mental abilities, composed of group means of 6 factors. The sample, consisting of 2925 12 graders from the nationwide study Project TALENT, included Jewish-whites, non-Jewish-whites, Negroes, and Orientals from 2 socioeconomic status (SES) levels. The statistical model was an analysis of variance. Ss exhibited patterns of mental abilities characteristic of their sex; these patterns were somewhat modified by ethnic background. Sex accounted for 69% of the total variance and ethnicity for 13%. Differences related to SES accounted for only 2% of the total variance and were considered unimportant.—*Author abstract.*

5458. Beez, Wolfram V. (Indiana U.) **Influence of biased psychological reports on "teacher" behavior and pupil performance.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3329.

5459. Bennett, M. J. (U. South Pacific, Suva, Fiji) **Reasoning test response in urban and rural Fijian and Indian groups in Fiji.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 260-266.—Describes the problem of administering the Secondary School Entrance Examination (SSEE) in Fiji, consisting of almost equally divided Melanesians and Indians. An attempt to improve the quality of the SSEE and to develop a test of more general ability less influenced by contrasting teaching standards and varying home backgrounds are reported. The Pacific Reasoning Series was used as a starting point and as a means of overcoming previous difficulties. Results of the administration and evaluation of this test are reported. Some unique problems which arose are described.—*H. Roemmich.*

5460. Carroll, Imogene V. (U. Alabama) **A comparison of the intelligence quotients of sixth-grade children of Negro and Caucasian educators and non-educators.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3161.

5461. Carver, Ronald P. & Darby, Charles A. (Amer-

ican Inst. for Research, Silver Spring, Md.) **Development and evaluation of a test of information storage during reading.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 33-44.—Previous research has suggested potential advantages for a new type of item for measuring comprehension in reading and listening. The test items are called "chunked" and consist of groups of meaningfully related words in which certain groups have been changed in meaning from the original passage. A chunked type of test, designed to indicate information stored during reading, was developed and analyzed in 2 studies. From these studies, it is concluded that the Chunked Reading Test is a valid test of information storage during reading in terms of its utility in measuring the differences in information stored between readers and nonreaders of passages, and that it offers many advantages over the traditional standardized reading tests.—*Journal abstract*.

5462. Darum, Annie. (National Hosp., Copenhagen, Denmark) Marianne Frostig: **Developmental Test of Visual Perception.** *Skolepsykologi*, 1969, Vol. 6(3), 194-198.—Experience shows that the test is a valuable instrument and could be used in the evaluation of school readiness. (18 ref.)—P. Mylov.

5463. Farr, Roger. (Indiana U., Inst. for Child Study, Reading Clinic) **The evaluation of reading behavior.** *Bulletin of the School of Education, Indiana U.*, 1969(Nov), Vol. 45(6), 99-111.—Despite the limitations of standardized reading tests in determining students' functional reading levels and reading skills development, the results can "be used to place youngsters in general ability level reading groups and could also be used as a screening device for students who are in need of a more extensive diagnostic evaluation."—J. Linnick.

5464. Farr, Roger & Roelke, Patricia. (Indiana U., Inst. for Child Study) **Measuring subskills of reading: Interrelations between standardized reading tests, teachers' ratings, and reading specialists' ratings.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 27-32.—Examined the convergent and discriminant validity of 3 methods for assessing 3 subskills of reading: word analysis, vocabulary, and comprehension. These 3 subskills were measured by teachers' ratings, specialists' ratings, and standardized tests. Correlations of all 3 skills, each measured by the 3 different methods, were studied by the multitrait-multimethod procedure. Although there was some support for convergent validity, the study revealed a total lack of discriminant validity for any of the 3 subskills of reading.—*Journal abstract*.

5465. Ginsburg, Robert E. (U. Utah) **An examination of the relationship between teacher expectancies and students performance on a test of intellectual functioning.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3337.

5466. Gregersen, Jørgen. (Royal Danish Coll. of Teacher Education, Copenhagen) **Uppsalaprøven til debat.** [School-readiness testing: The Uppsala-test.] *Skolepsykologi*, 1970, Vol. 7(2), 82-105.—Criticizes investigations in school-readiness testing. Further investigations and validations are proposed before this testing is given up. (20 ref.)—P. Mylov.

5467. Hansen, Richard. (City Coll., City U. New York) **The influence of variables other than knowledge on probabilistic tests.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 9-14.—In probabil-

istic test and scoring systems the examinee is required to respond to each of the options of a multiple-choice test with a probability which represents the confidence he has in that option. It seems reasonable to assume that for such tests to yield valid information about the examinees, the knowledge they have should be the primary influence on the probabilities they assign. An attempt was made to seek the relationship between the degree to which examinees display certainty in their responses and certain personality variables. Proponents of probabilistic testing would expect such correlations to be low. In this study it was found that individuals do respond to multiple-choice questions with a characteristic certainty that cannot be accounted for on the basis of their knowledge. This certainty was related to scores of both the F Scale and the Kogan and Wallach risk-taking measure.—*Journal abstract*.

5468. Hedl, John J., O'Neil, Harold F., & Hansen, Duncan N. (Florida State U.) **The affective nature of computer-based testing procedure.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 535-536.—Studied certain affective aspects of a man-machine interaction within the context of a computer-based interactive intelligence test. Each S (N = 48 undergraduates) was tested with the WAIS, Slosson Intelligence Test, and a computer-based Slosson Intelligence Test. It was hypothesized that computer test administration would lead to lower state anxiety and higher attitude reactions in comparison with the examiner-administered tests. However, the computer testing procedures led to higher levels of state anxiety. This elevation may partly have been a function of the particular computer administration methodology.—*Author abstract*.

5469. Hendrickson, Gerry F. **The effect of differential option weighting on multiple-choice objective tests.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1971(Jan), No. 93, 47 p.—Studied whether option weighting improved the internal consistency and intercorrelation of subtests. The differential option-weighting scheme employed was based on one devised by L. Guttman. 10,000 Scholastic Aptitude Tests were 1st scored with Guttman-type weights and then with conventional correction-for-guessing weights. The internal-consistency of the tests increased markedly when Guttman-type weights were used. The correlation of the 2 verbal subtests increased somewhat when Guttman weights were used, but the correlation of the 2 mathematics subtests as well as the intercorrelation of all verbal and mathematics subtests decreased. Differences in the factor structure of the Guttman-weighted and the conventionally weighted subtests are used to explain the result. (30 ref.)—*Journal abstract*.

5470. Hill, Adrian R. (U. Strathclyde, Glasgow, Scotland) **Student selection and the M'Comisky A-C (Performance) Test.** *Educational Sciences*, 1970(May), Vol. 4(1), 31-36. Compared the accuracy performance scores obtained on the M'Comisky A-C (Performance) Test for concept attainment by 54 student-entrants on an architecture course, and the results of 3 architecture tests at the end of their 1st academic yr. It is concluded that the A-C Test is unsatisfactory as a means of student selection on the basis of architectural ability. Data showed a systematic order of concept usage. It is suggested that a weighting factor be applied in the

performance scores of less frequently used concepts. (French & German summaries) (19 ref.)—*Journal abstracts*.

5471. Hill, Adrian R. & Lau, Jackie J. (U. Strathclyde, Glasgow, Scotland) **Situational effects in using the M'Comisky A-C (Performance) Test.** *Educational Sciences*, 1970(May), Vol. 4(1), 25-30.—Investigated the effects of 2 Es, 2 rooms, and 2 sets of blocks on the accuracy performance scores obtained in the M'Comisky A-C (Performance) Test for concept attainment. Analysis of the scores of 8 female and 46 male undergraduates reveals no significant E or rooms effect, but an interaction trend suggests the presence of an E status effect. A change in sets of blocks was statistically significant. Results are discussed in the light of previous studies on situational effects. (French & German summaries) (16 ref.)—*Journal abstracts*.

5472. Hrabal, Vladimír. **Zkušenosti s českým překladem testu struktury inteligence zvláště u starších žáků ZŠ a středoškolků.** [Experience with the application of Czech translation of Ist(Amthauer) to elder pupils of elementary nine-year schools and to students of secondary schools.] *Vychovny Poradce*, 1969, Vol. 6(4), 1-12.—Describes experiences with the application of the Czech translation of R. Amthauer's Intelligence Structure Test (IST) to 8th and 9th graders of elementary schools and to students of secondary schools. Methods used were: (a) comparison of results with those obtained by the use of the other similar intelligence tests, (b) interrelation and analysis of subtests as to their objectivity and proper design, and (c) correlation of results with conventional schoolmarks. The variables were: performance levels of students; other intelligence tests, e.g., WAIS, Raven Matrices Test (RM); and subtests of the IST. Experience showed that IST generally favors high performance students and particularly, natural sciences students and mathematicians. 137 pupils from Prague schools took the IST and the average IQ for excellent, average, and below average students were 136, 124, and 81, respectively. Corresponding figures using the RM Test were 118, 114, and 97. There was a close correlation between the resulting total school marks and IST total score. Experience indicated that relation of IST to school marks is considerably closer than in RM but not so close as in WAIS. The experience obtained with the application of IST was satisfactory.—*I. Halev*.

5473. Jacobs, Stanley S. (U. Pittsburgh) **Correlates of unwarranted confidence in responses to objective test items.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 15-20.—Investigated the effects of several variables on the expression of unwarranted confidence in the accuracy of responses to objective test items. A final examination was administered to 72 Ss under confidence-weighting instructions with 2 levels of penalty for incorrect responses. A 2-way analysis of variance revealed no significant main effects or interaction attributable to level of penalty or sex. Although increased penalty level had no effect on confidence expression, the test's reliability decreased from .85 to .39, and the correlation between conventional and weighted scores dropped from .88 to .095. Confidence weighting seems to be a questionable measurement technique, since it is contaminated by individual differences in personality. This technique may, however, serve a useful diagnostic function in assessment. (22 ref.)—*Journal abstracts*.

5474. Kellogg, Richard L. (U. Rochester) **Test anxiety and the interrupted task paradigm.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3342.

5475. Kleinke, David J. (State U. New York, Albany) **A linear-prediction approach to developing test norms based on item-sampling.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3342-3343.

5476. Linn, Robert L. & Werts, Charles E. (Educational Testing Service, Princeton, N.J.) **Considerations for studies of test bias.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 1-4.—Discusses 2 problems in the investigation of predictive bias in tests: (a) the effect of unreliability of the predictors, and (b) the effect of excluding a predictor from the regression equation on which there are preexisting group differences. Hypothetical results illustrating the effects of unreliability and of a missing predictor are presented. It is suggested that computation of within-group reliability coefficients at least would enable a better evaluation of the nature and magnitude of the effect of unreliability on the within-group regression equations. It is also pointed out that all variables that are used as predictors for the selection decision should be considered when predictive bias is investigated.—*Journal abstracts*.

5477. Meernhout, M. F. (U. Congo, Lab. of Psychology & Labor Study, Kinshasa, Republic of Congo) **Valeur du test D.48 appliqué en sixième Primaire au Congo-Kinshasa.** [Value of the D.48 test applied in the 6th primary class in Congo-Kinshasa.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970(Sep), Vol. 19(3), 130-134.—Administered the Dominoes Test (D.48), an intelligence test in its standard form, to 366 11-17 yr. old Congolese boys during a school year. Prolonging testing time by 10 min. (35 instead of 25 min.) did not result in significantly improved performance. Results were slightly lower than those obtained previously by R. G. Doutrepoint on 794 Belgian 5-14 yr. old boys and girls, but agree with those of J. P. Lejeune on 286 Belgian boys and girls of the 6th primary class as to better results in the older age groups. A metric adaptation of the D.48 is seen necessary before its true value and practicability can be realized outside its validation milieu. (English summary)—*T. N. Webster*.

5478. Menne, John W. & Tolsma, Robert J. (Iowa State U.) **A discrimination index for items in instruments using group responses.** *Journal of Educational Measurement*, 1971(Spr), Vol. 8(1), 5-7.—Stresses the need for discriminative items in evaluative instruments using group responses. It is argued that the percentage of the total sum squares due to "between groups" is an appropriate index of item discrimination. The within-group variance should, however, be low in relationship to the between-group variance. A distinction is made between the measurement of group responses and the measurement of individuals. In the latter case the total score based on 30 or more modestly discriminating items is considered essential; in the measurement by group responses, items scores are regarded as more important and the scale scores are generally based on only 5-15 items.—*S. B. Mitra*.

5479. Meuris, G. (Catholic U., Louvain, Belgium) **La mesure de l'aptitude verbale chez les écoliers de 12 à 18 ans: Un test de compréhension verbale.** [Measuring verbal ability in students 12 to 18 years of age: A test of verbal comprehension.] *Information Psychologique*, 1970(Jan), Vol. 10(37-38), 49-60.—After

a brief historical introduction, describes the construction, item analysis, and validation of a multiple-choice vocabulary test. Results are reported of a factor analytic study of 8 ability tests: verbal, number, spatial reasoning, letter series, verbal reasoning, numerical reasoning, and spatial reasoning.—S. G. Vandenberg.

5480. Moore, George C. & Falls, Harold B. (U. Arkansas) **Functional classification for physical education in the upper elementary grades by peer assessment.** *Research Quarterly*, 1970(Dec), Vol. 41(4), 519-522. Investigates a paper and pencil peer rating of physical performance (Physical Performance Scale) for reliability and validity using 538 5th and 6th grade boys and girls as Ss. Test-retest reliability was high. Correlation coefficients were .812 for 5th graders and .879 for 6th graders. To determine validity, Pearson r's, analysis of variance, and biserial correlation were used. The criterion used for validating the scale was average T scores on selected American Association for Health, Physical Education, and Recreation Youth Fitness Test items. The scale demonstrated good validity for discriminating between high and low levels of physical performance as determined by the Youth Fitness Test scores. In addition, when the Ss were grouped according to average physical performance T scores, the mean peer rating scores were significantly different among the groups.—*Journal abstract*.

5481. Nighswander, James K. (Southern Illinois U.) **A validity study of self-report and physiological measures of test anxiety.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3346-3347.

5482. Phillips, Beeman N. (U. Texas) **School stress as a factor in children's responses to tests and testing.** *Journal of Educational Measurement*, 1971(Spring), Vol. 8(1), 21-26. Response styles are conceptualized as stress reactions, and the stressful school experiences of acquiescent, negativistic, self-enhancing, and self-derogating children were studied. School interpersonal stress was lower among acquiescent than negativistic Ss, while school academic stress was higher among self-enhancing than self-derogating Ss. 1 of the major implications of the conceptual approach and empirical results is that tests might be generally improved by identifying the kinds of stressful experiences Ss have had, and relating these to the kinds of responses Ss make to tests and testing. In addition, while the importance of the reaction of Ss to the measuring process is generally accepted, much more needs to be done on the kinds of responses individuals make to the content, in comparison to the conditions, of testing. Finally, these observations are particularly pertinent to tests and testing in schools, especially when the teacher is involved in the process and makes tests and testing stressful. This will tend to increase the effects of response style tendencies and decrease the validity of tests. *Journal abstract*.

5483. Pugh, Richard C. **Tests for creative thinking-potential for school testing programs.** *Bulletin of the School of Education, Indiana U.*, 1968(Nov), Vol. 44(6), 1-30.—The Torrance Tests of Creative Thinking (TTCT) 1-30.—The Torrance Tests of Creative Thinking (TTCT) contain verbal and figural activities which can be administered to any school-age children. It is recommended that the verbal test be administered on an individual basis below the 4th grade. Torrance's assumption is that "in order for creativity to be viewed scientifically, it must be defined in a way that permits

objective observation and measurement and in terms that are compatible with common usage." The rationale for the scores—entitled fluency, flexibility, originality, and elaboration—is briefly described. Analysis of research points up the "usefulness of the TTCT in a school testing program," but further exploration is necessary. "The relationship with existing commonly-used measures of achievement and intelligence seems to be following a pattern of low, positive correlation.—I. Linnick.

5484. Rosina, Jozef. (Komenský U. Pedagogical Faculty, Trnava, Czechoslovakia) **Hodnotenie a klasifikácia žiakov ako motivačné činitele.** [Evaluation of the pupils' progress and marking as factors of motivation.] *Jednotná Škola*, 1969(Nov), Vol. 21(9), 814-827.—Discusses the motive function of evaluation and marking. A survey of the factor analysis of school proficiency is reported which concludes that in the case of normal pupils basic mental aptitudes play an insignificant role in proficiency. The decisive factor is described as a "halo effect" representing a set of intellectual and extraintellectual factors. The pupil's activity and his attitude to learning are seen as conditioned by social and individual motivation. Among the significant motives for learning are the satisfaction of the need to know, self-expression, need for companionship, safety, desire for beauty, and freedom. Evaluation and marking in schools are closely linked with the satisfaction of these needs. Favorable praise is considered to have a generally positive motivating effect, whereas negative evaluation may have a favorable effect in small quantities, but large quantities lead to permanent frustration of self-expression. The question of fair evaluation and marking are discussed. (Russian summary)—*English summary*.

5485. Tillman, M. H. & Veal, I. Ramon. (U. Georgia) **Systematic errors in rating the quality of themes varying in mode of discourse and grade level.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 131-136.—Developed theme models for assessing quality of writing within 4 modes of discourse: argumentative, descriptive, expository, and narrative. Compositions were obtained in each of the modes at Grades 2, 4, and 6. Using the model themes, 3 raters rated all themes. Analysis of variance was performed to locate sources of systematic rater error within the context of these rating procedures. At Grade 6, a rater leniency error was found, perhaps reflecting that raters tended to equalize time actually spent in rating themes without proper regard to the time needed to rate themes. It is suggested that rater attitude toward models and the subsequent ratings be emphasized. It is noted that the use of different mode models did not affect the variation among raters.—*Journal abstract*.

SPECIAL EDUCATION

5486. Axelrod, Saul. (U. Connecticut) **Token reinforcement programs in special classes.** *Exceptional Children*, 1971(Jan), Vol. 37(5), 371-379. Reviews token reinforcement programs in the special education classroom and indicates that positive results were almost invariably obtained, even with different types of target behaviors and various kinds of populations, including handicapped teenagers, urban underachievers, dropouts, the learning and reading disabled, and the emotionally disturbed. It is suggested that ways be devised of

withdrawing tokens without interruption of progress and that greater use be made of reinforcers already existing in the classroom.—*Journal abstract.*

5487. Forward, Theodore C. (Case Western Reserve U.) **Factors relating to an increase in achievement of hyperkinetic children who are on the combined program of motor perceptual training and drug therapy.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3334-3335.

5488. Gaskins, A. Irene. (U. Pennsylvania) **Characteristics that differentiate dyslexics from non-dyslexic poor readers.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3336.

5489. Glavin, John P., Quay, Herbert C., & Werry, John S. (Temple U.) **Behavioral and academic gains of conduct problem children in different classroom settings.** *Exceptional Children*, 1971(Feb), Vol. 37(6), 441-446.—Presents a 2-yr research study which was completed with conduct problem children who presented severe difficulties in the public school system and were placed in experimental special classrooms. In the 1st yr. (1967) the program emphasized the elimination of grossly deviant behaviors and the acquisition of attending behaviors as precursors for academic gain. Program emphasis was changed the 2nd yr. (1968) to stress rewards for academic performance. Attractive reinforcers were attached to appropriate academic tasks in the context of a highly structured classroom program. A comparison of the academic and behavioral results of the 2 yr. is presented and discussed.—*Journal abstract.*

5490. Grossman, Arnold H. (New York U.) **Problem tendencies in children and types of behavior problems manifested by children deemed acceptable as campers in organized resident summer camps as reported by camp directors.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3360.

5491. Kotzé, J. M. (U. Pretoria, South Africa) **Die opvoeding van die breinbeskadigde kind as orthopedagogiese opgaawe.** [The upbringing of the brain-injured child as orthopedagogical task.] *South African Journal of Pedagogy*, 1969(Jul), Vol. 3(1), 49-62.—Distinguishes between the orthopedagogic task as an application of collected data taken from other sciences and as a genuine pedagogic concern. It is stressed that orthopedagogy must always be grounded in theoretical pedagogy, promoting guidance of the child toward responsible self-determination. In regard to the brain-injured child, the pedagogue is urged to understand the child's world, accept that he constitutes different relationships toward reality, and help him accept his limitations. (English summary) (56 ref.)—P. Hertzberg.

5492. Nel, B. F. (U. Pretoria, South Africa) **Die orthopedagogiek as wetenskapsgebied van die pedagogiek.** [Orthopedagogy as a field of the science of pedagogy.] *South African Journal of Pedagogy*, 1969(Jul), Vol. 3(1), 1-21.—Reviews the history of orthopedagogy, noting that classes and schools for deviate children were not established until the end of the 18th century. Orthopedagogy is regarded as an inseparable part-science of pedagogy in which the handicapped child necessitates a different pedagogical approach. The importance of the pedagogue-teacher in regard to influencing a handicapped child's person-image and acceptance of his handicap is stressed with regard to a fundamentally pedagogical aim. Phenomenological analysis of the child in his situation is considered essential to orthopedagogy. In this approach, communication, en-

counter, dialogue, and observation are considered essential methods. (English summary) (31 ref.)—P. Hertzberg.

5493. Shands, Frances J. (Washington U.) **Social exchange and language training for disadvantaged children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3352.

5494. Stewart, James H. (North Texas State U.) **A study of early changes in selected personality components of students in an institutional home and school.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3241-3242.

5495. Szabó, Pál. (Library of the State Inst. of Hygiene, Budapest, Hungary) **Komplex vizsgálati módszer és rehabilitációs eljárás iskolaéretlen gyermekeknél.** [A complex method for the examination of scholastically immature children and their rehabilitation.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 208-221.—Reports experiments designed to find effective procedures for the rehabilitation of scholastically immature children while keeping them in school. Experimental classes of 15 children each were organized for Ss selected by a complex examination. Teacher, physician, psychologist, and logopedist cooperated during the course of rehabilitation which enabled the majority of the Ss to cope with the class curriculum without impairing their health. "Doubly handicapped" Ss, i.e. Ss born prematurely, with prenatal injury, or afflicted by other adverse circumstances were an exception. Such Ss did not profit by the special teaching program. For them the organization of a preparatory class was considered advisable. The experiment has been planned to take 3 yr. Experiences of the 1st yr. are reported. (Russian summary)—*English summary.*

5496. Truex, Milton H. (Case Western Reserve U.) **A study of gains from pre and early elementary compensatory training.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3357-3358.

5497. Vliegthart, W. E. **Het veld der orthopedagogiek.** [The terrain of orthopedagogy.] *South African Journal of Pedagogy*, 1969(Jul), Vol. 3(1), 22-29.—Orthopedagogy is viewed as "the study of the orthopedagogical in respect of the child who, as a result of his own psychic and organic structure, provides serious hindrances to his normal upbringing." It is stressed that the boundary between orthopedagogy and pedagogy is vaguely defined and diversified according to types of defects, i.e., blindness, deafness, etc. Advice for orthopedagogues and teachers in special education is included. (English summary)—P. Hertzberg.

5498. von Hilsheimer, George. (Summerland, Buck Brook Farm, Roscoe, N.Y.) **The teacher as a human engineer.** *Academic Therapy*, 1970-1971(Win), Vol. 6(2), 135-149.—Emphasizes that behaviorism is more than simple reward-punishment conditioning and gadgetry. 22 techniques are described for teaching skills and behavior. The indications and contraindications for each are noted. The techniques are: (a) counting, (b) dissonance, (c) negative instruction, (d) negative practice, (e) disarming, (f) assertion training, (g) motor-verbal interaction, (h) escape conditioning, (i) health and body awareness with the aid of adequate medical inventories, (j) psychokinetics, (k) relaxation, (l) sleep regulation, (m) feedback, (n) exorcism, (o) operant conditioning, (p) precision training, (q) moral therapy, (r) cognitive therapy, (s) terror relief, (t) traumatic conditioning, (u) radicalized environment, and (v) existential democracy. (41 ref.)—S. Knapp.

Gifted

Remedial Education

5499. Griffiths, Anita N. (Griffiths Guidance, Lakeland, Fla.) **Self-concept in remedial work with dyslexic children.** *Academic Therapy*, 1970 (Win), Vol. 6(2), 125-133. Presents conclusions derived from remedial work with 32 and 28 6-15 yr. old dyslexic boys and girls. Pre- and posttesting with the Marianne Frostig Developmental Test of Visual Perception, the Gilmore Oral Reading Test, the WISC, and a personality checklist indicated an improvement in all areas. Behavior at home and at school also indicated improvement. Attitudes of teachers, counselors, therapists, parents, and children are discussed in relation to their effect on the child's self-concept. It is concluded that while the behavior modifiers are useful and effective, the manipulation of the child incurs resentment, and indicates and teaches a lack of trust. The danger of self-fulfilling prophecies with regard to these children is noted. The helping attention which focuses on trust, positive attitudes, and empathy is recommended. Since the tests of these children indicate many differences, remedial sessions should be individually administered, avoiding as much as possible all situations and materials which have come to be associated with failure. A general outline of techniques and procedures is presented.—S. Knapp.

5500. Lane, Patrick R. (Maimonides Medical Center, Community Mental Health Center, Brooklyn, N.Y.) **Educational therapy for adolescent nonreaders.** *Academic Therapy*, 1970-1971 (Win), Vol. 6(2), 155-159.—Describes a remedial reading program and its use with 11 nonreading 7th-8th grade boys. The program utilized "a gradual progression of phonic skills with strong reinforcements of learning, major use of linguistic word patterns, and a minimizing of contradiction in sounds of letters." After 4 mo. of instruction, the average group improvement was 12 mo. with some Ss showing as much as 2 yr. and 5 mo. 2 Ss who did not significantly improve were tested and revealed severe learning disabilities. 7 other Ss showed perceptual problems. Behavioral improvement and improvement of self-image were marked. Development of a reader using slang and pictures of teenagers is noted.—S. Knapp.

5501. Raymer, Donna R. (Northwestern U.) **A study of compensatory education for "high risk" college students.** *Dissertation Abstracts International*, 1971 (Jan), Vol. 31(7A), 3377.

5502. Silberberg, Norman & Feldt, Leonard S. (Kenny Rehabilitation Inst., Minneapolis, Minn.) **Intellectual and perceptual correlates of reading disabilities.** *Skolepsykologi*, 1970, Vol. 7(2), 67-81. Investigated the psychometric configurations on the WISC and Bender-Gestalt Test for 6 groups of primary grade pupils with reading problems. Pattern analysis provided virtually no clues as to the nature or extent of reading disability, either for the group as a whole or within a single grade (16 ref.).—*Journal abstract*.

5503. Sonnekus, M. C. (U. Pretoria, South Africa) **Die vraagstuk van "remedierende" onderwys as ortopedagogiese aangeleentheid.** [The problem of "remedial" teaching as orthopedagogical concern.] *South African Journal of Pedagogy*, 1969 (Jul), Vol. 3(1), 30-48. Asserts that the current approach to remedial teaching is directed to the diagnosis and treatment of symptoms. This practice of error-analysis is criticized for eliminating causes of errors as well as the errors

themselves. A child with learning difficulties is considered to be an orthopedagogical concern, and as such, the final objective is to realize his educationality to its full potential. An orthopedagogical orthopedagogical diagnosis to determine the level of what has been pedagogically achieved in relation to what can still be achieved is suggested. A child's learning image is considered to be his experience image. (English summary) (37 ref.)—P. Hertzberg.

Sensory & Physical Handicaps

5504. Chovan, William L. (Western Carolina U.) **Vocal labels and characteristics of recall in an object arrangement task with deaf and hearing children.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971 (Vol. 66 Pt. 2), 547-548. Investigated the effects of vocal labels on memory using an object task. The 60 deaf and 30 hearing Ss were divided into 2 MA levels: primary (below 7) and intermediate (above 7 = MA). Within each level, Ss were assigned to treatment. When the groups were viewed in terms of levels, there were significant differences between intermediate and primary deaf and hearing groups. At both the primary and intermediate levels, there were no significant differences between Ss with vocal labels and without vocal labels. Results suggest that the availability of additional modes of mediation accounted for differences between the primary and intermediate levels.—*Author abstract*.

5505. Gore, George V. **The effects modes of oral presentation have on certain cognitive skills.** *New Outlook for the Blind*, 1970 (Mar), Vol. 64(3), 86-88.—Discusses the difficulties of the visually handicapped student in a local public school due to the fact that his mode of reading requires so much more time. An investigation is described in which students listened to recorded material which had been compressed or accelerated to a 5% increase over the original time. "The compressed mode and the normal mode of presentation were significantly superior to the accelerated mode for both comprehension and recall." Results of a statistical analysis of the data are shown. "Plain sense comprehension comprised 35% of the text material used; interpretation comprised 40% and evaluation and application 25%." There were "significant differences in comprehension and recall scores among the modes of oral recorded presentation" and these differences depended on the learning skill being examined. Compressed and normal modes showed superiority to the accelerated mode when the interpretation skill area was measured. It is suggested that if the student could vary the speed of compression, the results of measuring comprehension and recall might become more meaningful.—B. A. Burkard.

5506. Hanninen, Kenneth A. (Wayne State U.) **The effect of texture on tactual perception of length.** *Exceptional Children*, 1970 (May), Vol. 36(9), 657-672.

Tested 29 blind and 28 sighted elementary and junior high school students in 2 local public schools and 2 residential schools for blind for the effect of coarse and fine texture on their ability to judge the lengths of abrasive paper presented individually. It was predicted that Ss would underestimate the coarse textures and overestimate the fine textures when stimuli were presented successively for tactual exploration. Results do not support the predicted bias in judgment of length.

however, analysis of the errors to criterion in training support the idea that texture consistently facilitated or interfered with making judgments of length. Implications for tactile displays in classrooms for blind are suggested.—*Journal abstract.*

5507. Kluge, Karl J. (98 Schneiderstr., Dortmund, W. Germany) **Das Essener Modell: Eine Form der auserschulischen Sonderpädagogik.** [The Essen model: A form of extracurricular special education.] *Heilpädagogische Werkblätter*, 1970(Nov), Vol. 39(6), 293-301.—Based on sociogram and interview results which showed that handicapped children feel socially isolated during school activities, groups of such children were formed under the auspices of the Catholic Scout Movement in Essen, W. Germany. Special education children participated actively in normal groups after the leaders had received intensified training in handling these children.—*R. F. Wagner.*

5508. Lowenbraun, Sheila & Affleck, James Q. (U. Washington, Coll. of Education) **The ability of deaf children to use syntactic cues in immediate recall of speechread material.** *Exceptional Children*, 1970(Sum), Vol. 36(10), 735-741.—Investigated the ability of 41 profoundly deaf children (CA 6-13.11) to use grammatical cues in the oral reproduction of speech-read material. Shifting patterns of significant results on the indicator variables of number of omissions, additions, substitutions, and word order reversals; correct reproduction; and length of production proved in part the hypothesis that grammatical structure influences the ability to reproduce speech-read material.

5509. Moores, Donald F. (U. Minnesota) **An investigation of the psycholinguistic functioning of deaf adolescents.** *Exceptional Children*, 1970(May), Vol. 36(9), 645-652.—Investigated the ability of cloze procedures to assess morphologico-syntactic and semantic differences between deaf and hearing groups matched on reading achievement scores. 37 students, average age 16.10, mean grade reading score 4.77 on the Stanford Achievement Test, and attending a residential school for the deaf served as Ss. The control group, 37 4th and 5th grade hearing children, had a mean reading score of 4.84 and an average age of 9-10. Passages of 250 words were developed from 4th, 6th, and 8th grade textbooks. The performance of the hearing Ss was superior on all measures for each passage, supporting the thesis that standardized tests spuriously raise estimates of reading ability of the deaf and that the relative inferiority of the deaf can be traced to both grammatical and semantic inadequacies. The sensitivity of cloze procedures was established and future applications of the technique discussed.—*Journal abstract.*

5510. Stone, Martin C. (Rosedale Cerebral Palsy Developmental Training Center, White Plains, N.Y.) **Behavior shaping in a classroom for children with cerebral palsy.** *Exceptional Children*, 1970(May), Vol. 36(9), 674-677.—Describes a behavior shaping technique based on reinforcing or rewarding the desired response and not rewarding the inappropriate one. 7 7-9 yr. old boys with low IQs and a diagnosis of cerebral palsy with possible diffuse organic brain damage were placed in a special class where appropriate classroom behavior and learning were rewarded for a 1-yr period. The outcome, based upon observation, showed overall improvement in behavior patterns. However, the Ss needed continually tangible rewards to motivate their learning.—*P. Hertzberg.*

5511. Vernon, McCay. (Western Maryland Coll.) **The role of deaf teachers in the education of deaf children.** *Deaf American*, 1970(Jul), Vol. 22(1), 1-20.—Reports that the deaf teacher, like the deaf child, has in some respects been shortchanged by the "education of the deaf." It is happening and has happened at every level from the Bureau of Education of the Handicapped to the local school that requires normal hearing for teachers of deaf children. The role of Gallaudet College in this area has been mixed. Major improvements have for the most part come from member groups of the National Association of the Deaf in their attempts to open schools to the use of deaf teachers. In the final analysis other improvements must depend in large part upon the knowledge and effective political action of the deaf community. As an integral part of this community and the hope of the future, Gallaudet must be at the forefront of such action. Programs for political action are suggested. (20 ref.)—*Journal summary.*

Mental Retardation & Learning Disorder

5512. Adelman, Howard S. (U. California, Riverside) **Learning problems: I. An interactional view of causality.** *Academic Therapy*, 1970-1971(Win), Vol. 6(2), 117-123.—Presents definitions of learning disabled (LD), emotionally disturbed (ED), and educational handicapped (EH) children. Conceptualizations of the child and of the classroom situation are discussed. It is hypothesized (a) that within the populations labeled LD, ED, and EH are "at least 3 major subgroups of youngsters with learning or behavioral problems or both, ranging from those youngsters whose problem seems to stem primarily from the deficiencies of the learning environment to those who actually have major disorders that interfere with school learning or performance, or both; and (b) that there is a significant relationship between teachers' ability to personalize instruction and the type and relative proportion of the problem-youngsters who are likely to be found in these teachers' classrooms."—*S. Knapp.*

5513. Auxter, David. (Slippery Rock State Coll.) **Reaction time of children with learning disabilities.** *Academic Therapy*, 1970-1971(Win), Vol. 6(2), 151-154.—Compared the visual and auditory RT and speed-of-limb movement of 17 normal and 18 learning disabled 68-76 mo. old children. No significant differences were found between the groups in visual and auditory RT. The normal Ss performed significantly better than the learning disabled group at the 0.5 level of confidence. Analysis of the speed-of-limb task indicates that the disabled Ss had difficulty in shifting "vision" from 1 area to another for a hand-eye match or limited ability to structure the space field that encompassed the perceptual-motor task."—*S. Knapp.*

5514. Bach, Heinz. (U. Mainz, W. Germany) **Die Psychomotorische Erziehung unter besonderer Berücksichtigung geistigbehinderter Kinder.** [Psychomotor education under special consideration of mentally retarded children.] *Heilpädagogische Werkblätter*, 1970(Nov), Vol. 39(6), 272-273. Psychomotor education in mentally retarded children has 3 major goals: (a) exploration of the child's world (environment) through experiencing form, space, direction, etc. (b) assistance for life endurance, experienced through coordination, rhythm, and variety of movement, and (c)

reduction of maladjusted behavior, e.g. overcoming inhibitions, anxieties, or neurotic disturbances. Since in the retarded child the motor forms of conceptual thinking are dominant, their education in the sense of spiritual (cognitive) awakening becomes identical with psychomotor education.—R. F. Wagner.

5515. Chasey, William C. & Wrick, Wancea. (Texas) Effects of a physical developmental program on psychomotor ability of retarded children. *American Journal of Mental Deficiency*, 1971(Mar), Vol. 75(5), 566-570.—The Oseretsky Tests of Motor Proficiency were administered to 27 73-146 mo. old educable mentally retarded (EMR) children before and after participating in a 15-wk physical developmental program, and to 20 EMR children not enrolled in the developmental program. A comparison of pre- and postprogram performances on the Oseretsky tests indicated that (a) EMR children receiving a concentrated physical education program improved significantly in the gross motor skill components of the Oseretsky tests, and (b) these improvements resulted in the experimental EMR group surpassing the control group on the majority of items of the posttest. (19 ref.)—*Journal abstract.*

5516. Flynn, Tim M. & Flynn, Lynda A. (Florida State U.) The effect of a parttime special education program on adjustment of EMR students. *Exceptional Children*, 1970(May), Vol. 36(9), 680-681.—Attempts to determine if the personal and social adjustment of educable mentally retarded (EMR) Ss in a regular elementary class is improved by placement in a parttime special education program. Ss were 61 EMR students enrolled in special education, 61 EMR students waiting for placement in a special education program, and 61 normal students. Ss were tested on a School Adjustment Scale (SAS) which consisted of 30 classroom situations with a choice of 5 possible behaviors for each. Special class Ss did not score significantly higher than waiting list Ss on the SAS. Reasons for this unexpected result are discussed.—P. Hertzberg.

5517. Forer, Ruth K. (California, Los Angeles) Time understanding of normal achieving and educationally handicapped boys. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3371.

5518. Forness, Steven R. & Weil, Marvin C. (California Neuropsychiatric Inst., Los Angeles) Laterality in retarded readers with brain dysfunction. *Exceptional Children*, 1970(May), Vol. 36(9), 684-695.

26 boys from a perceptual motor training program were given the Gray Oral Reading Paragraphs, the Peabody Picture Vocabulary Test, and the Harris Tests of Lateral Dominance. 17 Ss had normal verbal intelligence but were retarded in reading. 13 of these had a diagnosis of minimal brain dysfunction. Ss with brain dysfunction were also found to have a high incidence of crossed dominance which appeared to be a function of left eyedness. More severely disabled Ss (reading retardation ≥ -3 yr.) had a definite tendency to be left eyed.—P. Hertzberg.

5519. Hathaway, Mildred L. (Case Western Reserve U.) A verbal learning study using the three-stage chaining paradigm. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3339.

5520. Helms, Harold B. An auditory approach to learning number facts. *Academic Therapy*, 1970 (1970Win), Vol. 6(2), 217-218.—Describes the use of a tape recorder in teaching a youngster with both reading

and number dysfunctions. The auditory approach seemed to relieve some of the anxieties associated with learning and provided an opportunity for successful learning without pressure.—A. Kopp.

5521. Keesey, Merle A. (Oregon) The effects of two types of pretraining of the paired associate learning performance of retarded and non-retarded children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3374.

5522. Maycock, George A. (Texas Tech U.) Emotional, social, and academic adjustment of the mentally retarded as related to socio-economic level. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3375.

5523. Murdoch, John B. (Adelphi Home for Children, Rhinebeck, N.Y.) Effect of stress on perceptual-motor functioning of adolescents with learning difficulties. *Perceptual & Motor Skills*, 1970(Dec), Vol. 29(3), 883-886.—Analyzes the Bender Visual Motor Gestalt (B-G) scores of 69 adolescents enrolled in a residential treatment center for the effects of stress upon perceptual-motor functioning. All Ss had been tested twice with the B-G, once at preplacement (designated the stressful condition) and upon leaving, no following enrollment. Results indicate that Ss tend to make fewer errors on the 2nd administration. Only in those Ss diagnosed as brain-impaired, however, did this difference reach conventional levels of statistical significance.—*Journal abstract.*

5524. Morris, James C. (Utah State U.) Parent training in precise behavior management with mentally retarded children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3376.

5525. Reger, Roger & Kuppman, Marion. (Board of Cooperative Education Services, Buffalo, N.Y.) The child oriented resource room program. *Exceptional Children*, 1971(Feb), Vol. 37(1), 40-46.—Describes a program in which 19 school districts in the Buffalo, New York area established resource rooms which included special education classes for children exhibiting as special needs. The program was designed to help children with learning disabilities. A child evaluation center to help children from regular classes was also established. The program was generally considered to be successful.—P. Hertzberg.

5526. Rucker, Chauncey A. & Vincenz, Filomena M. (I.) Confronting Maintaining social acceptance gains made by mentally retarded children. *Exceptional Children*, 1970(May), Vol. 36(9), 696-698.

Investigates the permanence of gains made by 95 educable mentally retarded (EMR) students in an extension of a study by M. Chennault (see PA, Vol. 42, 7746) in which the social acceptability of EMR students was increased by placing them with normal students in a class. Ss were given the Ohio Social Acceptance Scale (OSAS) as a pre-post, and post-posttest measure. Ss in the experimental condition put in a carnival fun their class, while control Ss served as controls. OSAS results show a significant difference in social acceptance between the 2 groups for the pre- and posttest comparison, but not for the pre- and post-posttest comparison (1 mo. later). This indicates that the acceptance of EMR Ss can be enhanced for a period when treatment ceases.—P. Hertzberg.

5527. Sabatino, David A. & Harden, David L. (Pennsylvania State U.) Information processing behaviors related to learning disabilities and educable

mental retardation. *Exceptional Children*, 1970(Sep), Vol. 37(1), 21-29. All the elementary school age children failing in a county school system were administered a battery of psychoeducational tests to determine their information processing behaviors. Of the 472 Ss who successfully completed audiometric and visual screening and had no school record or medical history of acute physical, chronic health, or social personal problems, 1 group (N = 185) had average and above verbal intelligence. These Ss were considered to have learning disabilities on the basis of their perceptual deficits. The remaining Ss with below average intelligence (educable mental retardation) seemed to work to predicted grade equivalent in some academic achievement areas. The principal components obtained from an orthogonal rotation of the behavioral variables indicate that these 2 S groups had many similar perceptual and language deficits, but decided behavioral differences. *Journal abstract*

5528. Salvador, Virginia M. (U. Oregon) **Role expectations for the teacher of secondary educable mentally retarded as held by counselors, administrators and teachers of the retarded.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3377-3378.

5529. Sallia, John & Shugerts, James. (U. Illinois) **Color related behavior of mentally retarded children with color blindness and normal color vision.** *Exceptional Children*, 1970(Sep), Vol. 37(1), 37-38.

Tested 2 groups of children (retarded color blind, and retarded with normal color vision) in 3 ways: (a) color matching tasks (5 single and 5 multiple colored) using a "match to sample" format, (b) the Dvorine Pseudo-Isochromatic Plates, and (c) the Word-Color Association Test. It was found that the 2 groups did not differ significantly on the number of correct word color associations or on the color matching task. Findings imply "that in a low educable classroom the beginning performance on word color association, simple color matching, and simple color naming are likely to be similar for color blind and normal color vision children."—P. Hertzberg.

5530. Willner, Madeline T. (Columbia U.) **The relationship between teacher preparation, experience, and attitude toward the importance of reading and the word recognition achievement of educable mentally retarded children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3379.

Emotional Disorder

5531. Gloss, Garvin G. (Case Western Reserve U.) **An application of the Premack contingency reinforcement principle to the behavior of three conduct disordered children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3337-3338.

5532. Kanter, Harvey L. (U. Texas) **Birth order, background factors, and teacher referral for emotional disturbance.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3341-3342.

5533. Kravetz, Richard J. & Forness, Steven R. (U. California, Graduate School of Education, Los Angeles) **The special classroom as a desensitization setting.** *Exceptional Children*, 1971(Jan), Vol. 37(5), 389-391. —Describes the use of a desensitization technique in which a boy, hospitalized for fear of speaking, received checkmarks for following classroom behavioral rules and

doing the work. The checkmarks were exchanged for candy or toys at the end of each week. The E formulated an individualized hierarchy of fearful situations for which adaptive responding was reinforced. The last step of the hierarchy was reached in 6 wk. Desensitization was considered successful for the S in this case, and is suggested in areas where generalization of learned responses is critical.—P. Hertzberg.

COUNSELING & GUIDANCE

5534. Anderson, Edward C. (U. California, Los Angeles) **Promoting career information-seeking through group counselor's cues and reinforcements.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3257.

5535. Anderson, Wayne & Kutzen, Neil. (U. Missouri) **Size and confidentiality policies of college counseling centers.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(2), 130-132. —Investigated the relationship between size, religious affiliation, and administrative organization with confidentiality of records by college counseling centers based on the results of a 26-item questionnaire completed and returned by 219 (67.5% of the sample) institutions. Compared to an earlier study, the findings indicate a greater tendency to keep records confidential, at least within the center itself (by some 78% of the respondents). The larger the institution, the greater the likelihood that confidentiality is maintained. The smaller institutions tended to make information more available to personnel outside of the center, regardless of the affiliation of the institution. No significant relationship was found to exist between the degree of confidentiality of the records and the status of the counseling center in the institution. R. H. Mueller.

5536. Backner, Burton L. (Queens Coll., City U. New York) **Counseling black students: Any place for whitey?** *Journal of Higher Education*, 1970(Nov), Vol. 41(8), 630-637. Investigated the ability of white counselors to work with black and Puerto Rican students. Questionnaires were completed by students in a special educational program for minority groups. 115 Ss in the program and 14 dropouts completed the 1st questionnaire; 174 Ss completed the 2nd questionnaire; and 30 Ss completed the final questionnaire. Findings indicate that the majority of the Ss considered the racial or ethnic background of their counselor as irrelevant. Those Ss who did think it was important indicated that this attitude was a product of the student's feeling about the counselor as a person rather than as a white. It is concluded that while such programs should have a majority of black and Puerto Rican counselors, white counselors can work with minority groups better than has been assumed. S. Knapp.

5537. Bailey, Roger L. (U. Kansas) **A canonical correlation analysis to the Basic Interest Scales and the Edwards Personal Preference Schedule: A test of Holland's theory.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3259.

5538. Barnes, David B. (Rutgers State U.) **Analysis of student, faculty and administrator perceptions of the role of the Acadia University Counseling Centre.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3327.

5539. Barnett, Rosalind. (Harvard U.) **Personality correlates of vocational planning.** *Genetic Psychology Monographs*, 1971(May), Vol. 83(2), 309-356.—Hypo-

esized that: (a) senior-level college women, at different stages of psychological development, think and act differently toward their future careers; and (b) vocational planning is related systematically and predictably to other behaviors and attitudes. Vocational planning refers here to specific patterns of behavior in the vocational decision-making situation. 3 behavior patterns were defined by combinations of scale scores on 2 variables measuring psychological aspects of vocational planning: commitment and implementation. Directional hypotheses were developed relating the pattern groups to 4 clusters of psychological and sociological attributes: demographic, personal system, family structure, and current social structure. Data indicate that the groups were quite homogeneous with respect to a broad array of variables. Accurate postdictions were made as to a wide range of experiences, behaviors, and attitudes. Predictions regarding the stability or change of vocational plans over a 5-mo period were confirmed. (22 ref.)—*Author abstract.*

5540. Blaškovič, Oskár. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) *Koncepcia obsahu gymnázia a niektoré otázky školského psychologického poradenstva.* [Conception of grammar schools and some questions related to psychological advisory system.] *Jednotná Škola*, 1969(May), Vol. 21(5), 441-447.—Suggests that the new conception of grammar schools can create suitable conditions for the improvement of the preparation of students for further study and for selection of a profession. Problems connected with the structure and content of teaching and their role in the professional development and maturing of pupils, and in professional information and orientation in general, are discussed. The need for an expansion of the psychological services in the schools is emphasized. (Russian summary)—*English summary.*

5541. Booyesen, F. C. 'N ondersoek na 'n pedagogiesverantwoorde stelsel van loopbaanstudie deur leerlinge: 'N studie in beroepsoriëntering. [A pedagogically motivated system of career study by pupils.] *Opvoedkundige Studies*, No. 56, 108 p.—Proposes that introduction to the vocational world must be regarded as a formative accumulative process, which starts in the family situation. In the primary school this continues and the task of the orientator is to help the child with the correct choice of school, subjects, and fields which will be in keeping with the future choice of a career. Through continual self-evaluation and career studies the child will be able to develop a clearer perspective of his future. The use of exploratory media to assist the child in the development of this perspective is discussed. The integration of the self-image and a vocational image is considered the goal. Recommendations for changes in the present guidance system, selection and training of orientators, and new facilities are presented. (English summary) (10 p. ref.)—*S. Knapp.*

5542. Bredenkamp, J. F. 'N ondersoek na die betekenis van die Zulliger tafeln medium by die beroepskeuse van jeugdiges. [An investigation of the significance of the Zulliger medium in the vocational choice of juveniles.] *Opvoedkundige Studies*, No. 58, 131 p.—Defines the concept of projection and describes the Zulliger-Tafeln-Medium (Z-medium), a 3 plate Rorschach-type test. The symptom values of the Z-medium interpretations are considered for (a) answering time; (b) number of answers; and (c) the apperception, qualitative, content, and wider interpretive calculation

columns. Implications for vocational choice in the Z-medium interpretations are noted. It is concluded that the Z-medium may be useful in obtaining information about a subject where other media have failed. (English summary) (93 ref.)—*S. Knapp.*

5543. Brindley, Fern B. (Case Western Reserve U.) *Social factors influencing educational aspiration of black and white girls.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3259-3260.

5544. Brooks, Martin T. (U. Oregon) *High school seniors' future time perspective and selected factors associated with occupational choice: An exploratory study.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3330-3331.

5545. Chapman, James L. (West Liberty State Coll.) *Development and validation of a scale to measure empathy.* *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 281-282.—Developed and validated an instrument that tested an S's ability to identify the emotion or emotions expressed by another. Ss were 53 university students and 88 enrollees in National Defense Education Act Summer Institutes. The instrument was composed of selected scenes of videotape recordings of counseling interviews. Ss responded to each adjective on a continuum indicating how strongly they possessed the feeling described by the adjective at the end of each scene.—*Journal abstract.*

5546. Cohen, Daniel. (Pace Coll.) *Differentiating motivations underlying vocational choice.* *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 229-234.—Determined whether or not expressed motivations for curricular choice would discriminate between college seniors in business administration and in teacher education. A list was compiled of all motivations expressed by 504 randomly selected male undergraduates. After eliminating duplications, 289 items were selected, weighted, and combined into a questionnaire with a 5-point intensity scale. The t ratio and factor analysis were used to isolate the common underlying "teacherness" and "businessness" within groups. Major significant factors ($p < .001$) were then programmed into the discriminant analysis. The factor weights of 2 important factors (indicated by F ratios) were used as the coefficients for the final discriminant equation. Subsequent tests indicate that the items in the final instrument and the discriminatory formula separated the Ss into their appropriate occupational groups on the expressed motivational level. (19 ref.)—*Journal abstract.*

5547. Csirszka, Janos. *Uloha vlastnosti osobnosti při realizaci profesionálních přání.* [Role of personality features in the realization of vocational intentions.] *Výchovný Poradce*, 1969, Vol. 6(4), 35-37.—Presents methods used in determining such features based on the following considerations: (a) choice of vocation must be in the best interests of the individual and society; (b) personality development and best working results must be assured; and (c) personality features must give proper direction to natural abilities. Personal features helpful in realizing vocational ambitions were found to be (a) interest in work, (b) emotional approach to the vocation problem, (c) the development of proper approach to work, (d) high quality motivation and conscientiousness, (e) behavior control, and (f) ability to meet possible moral conflicts. It is concluded that the youth must be guided by his parents and pedagogs in such a way as to learn to enjoy work, and that a habit to work must be inculcated.—*I. Halev.*

5548. Csirszka, János. **Vizsgálati módszer a munka-és pályaeérdeklődés megismerésére.** [Interest taken in work and occupation.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 285-299.—The usual methods for the investigation of interest make the Ss choose preferred areas of interest. Saturation in trends of interest, i.e., a great variety of themes which interest an individual, must be distinguished from intensity of interest. This distinction is of practical importance when differentiating between trends, and not single themes of interest. For the latter purpose the M. Irle Berufs-Interessen-Test has been modified: (a) for items concerning specific occupations, items expressing general trends of interest were substituted; (b) trends of interest were selected by taking into account economic conditions in Hungary; and (c) 2 complementary tests were added to examine leadership and minimalist "sets." The data of level values of a preliminary investigation involving 500 14-15 yr. old elementary school boys and 500 17-18 yr. old secondary school girls are reported. (Russian summary) (19 ref.)—*English summary.*

5549. Dahlem, Glenn G. (Pattonville Public Schools, Mo.) **Actual, ideal, and expected role concepts of secondary counselors.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 205-208.—Investigated actual, ideal, and expected role concept perceptions of 74 secondary school counselors. A 50-item checklist by L. D. Schmidt was used as the research instrument. Expected role, i.e., what counselors believed public expectations of their activities to be, did not differentiate itself from ideal role. Significant ($p < .001$) differences were found on 10 of the 50 work activities contained in the checklist. Counselors indicated a desire to participate in more professional duties than they were then doing. Addition of more research activities was the paramount role alteration desired.—*Journal abstract.*

5550. Dorsett, Herman W. (Columbia U.) **Social, economic, and emotional problems anticipated by graduate school-bound Negro college students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3334.

5551. Dyer, Wayne W. (Wayne State U.) **Group counseling leadership training in counselor education.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3263.

5552. Fletcher, Raymond. (Texas A & M U.) **Differences in selected psychological characteristics of participants and nonparticipants in activity.** *Perceptual & Motor Skills*, 1971(Feb), Vol. 32(1), 301-302.—Comparisons of EPPS responses by 672 activity participants and 278 nonparticipants yielded 1 difference (endurance) significant at $p_{.01}$ and 4 differences at $p_{.05}$. The magnitudes of these differences were so small as to be inconsequential for prediction.—*Journal abstract.*

5553. Garfield, S. Jeffrey; Cohen, Helen A., Roth, Robert M., & Berenbaum, Harris L. (Educational Resources, Inc., Chicago, Ill.) **Effects of group counseling on creativity.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 235-237.—Investigated the possible relationships between improvement in group counseling and changes in assessed creativity. It was hypothesized that creativity is positively related to mental health and that Ss who were judged improved, after 30 hr. of group counseling, would also show improvement on variables typically associated with creativity. 38 male undergraduates who participated in a group counseling experience over a 15-wk time span

were pre- and posttested on various measures of creativity, and pre- and posttested on Rogers' elements of creativity, i.e., (a) openness to experience; (b) locus of evaluation; and (c) ability to toy with ideas. At the end of the experimental time Ss were assigned to either an improved or unimproved category on the basis of therapists' ratings, outside judgments, and Q adjustment scores. Results indicate that improvement in group psychotherapy correlates significantly with gains in ratings on the more dynamic aspects (creative life style) of creativity. The correlations with the more cognitive measures of creativity were in the predicted direction but not significant.—*Journal abstract.*

5554. Gust, Tim. (U. Hawaii, Honolulu) **Extending counselor supervision.** *Counselor Education & Supervision*, 1970(Spring), Vol. 9(3), 157-161.—Proposes that supervision of the counselor trainee be extended into the trainee's 1st employment setting following completion of his master's degree program. This extension would be of benefit to the producer (counselor training program), the product (counselor trainee), and the consumer (local school or agency). The proposed model is suggested as also being relevant to the training of counselor supervisors.—*Journal abstract.*

5555. Harrington, Thomas F., Lynch, Mervin D., & O'Shea, Arthur J. (Northeastern U.) **Factor analysis of twenty-seven similarly named scales of the Strong Vocational Interest Blank and the Kuder Occupational Interest Survey, Form DD.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 229-233.—Compares the factor structures of the similarly named scales of the SVIB and Kuder Occupational Interest Survey (OIS), Form DD. 4 factors emerged from the analysis on the OIS and 5 factors were isolated on the SVIB. The OIS factors contain meaningful groupings of scales. This result and the high intercorrelations among the scales within the factors indicate that grouping occupational scales on the OIS is as appropriate as on the SVIB. Interpretations that attempt differentiation of a person's interests on the basis of individual scale scores within a factor are not advised. In a merged factor analysis of the 2 inventories, joint factors did not emerge.—*Journal abstract.*

5556. Hinze, William H. (Indiana U.) **The effects of group play activity upon the reading ability and anxiety of seven and eight year old boys with low reading achievement.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3269.

5557. Hollender, John W. (Emory U.) **Development of vocational decisions during adolescence.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 244-248.—Asked 5200 5th-12th grade students to state a vocational choice or indicate indecision in a cross-sectional study. Overall, significantly more female (69%) than male (59%) Ss reported a definite vocational choice. The percentage of male Ss who reported a definite vocational choice was greater in the elementary school (6th grade) and in the senior high school (10th-12th grades), than in the junior high school (7th-9th grades) for the Ss in the 2 lowest aptitude quartiles. Increasing intellectual ability, assessed by scholastic aptitude measures, was associated with increasing vocational decisiveness for both males and females. Results are discussed in the framework of a descriptive approach to vocational development theory. (16 ref.)—*Journal abstract.*

5558. Jackson, Mozelle & Thompson, Charles L.

(Northern Illinois U.) **Effective counselor: Characteristics and attitudes.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 249-254.—Studied 45 male and 28 female National Defense Education Act trained school counselors, differentiated according to sex and counselor effectiveness, for differences on (a) cognitive flexibility; (b) tolerance of ambiguity; and (c) attitudes toward self, most people, most clients, and counseling. All Ss were similar in cognitive flexibility and tolerance of ambiguity, but the most effective Ss were more positive in their counseling-related attitudes than the least effective Ss. Both effective and least effective female Ss were more positive than male Ss toward counseling-related attitudes. Attitudes toward most people, most clients, and counseling differentiated the 2 counselor effectiveness groups and male and female Ss. (25 ref.)—*Journal abstract*.

5559. Jansen, David G., Robb, George P., & Bonk, Edward C. (North Texas State U., Counseling Center) **Characteristics of high-rated and low-rated master's degree candidates in counseling and guidance.** *Counselor Education & Supervision*, 1970(Spring), Vol. 9(3), 162-170.—Investigates the relationship between intellectual and nonintellectual variables and counseling competence by comparing 17 female student counselors rated as falling within the top 25% in overall competence at the end of an evaluation seminar with their 17 female counterparts rated in the bottom 25%. Competence was operationally defined as a composite of knowledge of counseling theories and techniques, knowledge of and ability to use test data in counseling, and counseling skill. Significant differences between the high- and low-rated student counselors were observed on the dimension of CA, 5 of 6 intellectual variables, and 5 of 11 non-intellectual variables. Ss were tested on the Ohio State University Psychological Test, Cooperative English Tests, Guilford-Zimmerman Temperament Survey, and the Minnesota Teacher Attitude Inventory.—*Journal abstract*.

5560. Jotikasthira, Ampar & Sander, D. (U. Colorado) **Development of student personnel services in Thai education.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(1), 17-22.—Currently noticeable shifts taking place in adolescent boy-girl relationships are producing conflict with long-standing social norms in Thailand. Rapidly developing economy, increased educational opportunities, and intensified vocational education programs produce enormous pressures on Thai youth. These have created an unprecedented need for rapid expansion of student personnel services. The problems are viewed as challenges; change represents opportunity; and counselors are in need of finding new ways to provide for individual differences among students and other youths.—S. M. Amatora.

5561. Kassera, Wayne J. & Sease, William A. (Wisconsin State U., School of Education, River Falls) **Personal change as a concomitant of counselor education.** *Counselor Education & Supervision*, 1970(Spring), Vol. 9(3), 208-211.—Selected 3 groups of students at various levels of counselor preparation to determine if significant changes in personal characteristics took place as a result of a semester of counselor education. The CPI, Rokeach's Dogmatism Scale (Form D), Berger's Acceptance of Self and Others Scale, and Porter's Test of Counselor Attitudes were employed as instruments to ascertain change. Results indicate a significant difference between advanced groups and

beginning groups and between pre- and posttest measures in a direction perceived as desirable by authorities in the field.—*Journal abstract*.

5562. Kinnick, Bernard C. & Nelson, Theodore M. (Colorado State Coll.) **The EPPS norms: Reevaluation a necessity.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 37-39.—Compared over a 6-yr period EPPS results from a 10% sample (743 males and 1077 females) of the total undergraduate population at a state college with the original Edwards norms. Males differed significantly from the published Edwards norms on 8 of 15 variables; the female sample differed significantly on 6 of 15 variables; and the total sample revealed significant differences on 9 of 15 psychological need variables. The study demonstrates that, even though the original EPPS had an excellent research base, a major revision of the Edwards norms is now warranted so that the EPPS may continue to be a successful counseling and assessment tool.—*Journal abstract*.

5563. Lewis, Marion Q. & Baker, Ronald D. (Iowa State U.) **Model reinforcement of verbalizations versus actions.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 283-284. Investigated model reinforcement counseling in a field experiment with 206 male undergraduates who had indicated that they would like to know more about other majors. 52 Ss viewed a videotape model in which a student described educational information-seeking activities to a friend who provided verbal reinforcements for his activities. 54 Ss viewed a second model in which the student's descriptions of his activities were augmented by scenes illustrating the activities described. The same sound track was used for both models. Ss were surveyed 1 mo. later as to their knowledge and use of campus educational information sources. No significant differences in total number of resources named or used were found between treatment, or treatment and control groups. *Journal abstract*.

5564. Lister, James L. & Northrop, J. L. (U. Florida) **Teaching experience for counselors: Review of evidence.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(1), 8-16. Presents relevant research on the effects of teaching experience on counselor functioning under 2 major headings: interview behavior and guidance practice. The 1st is divided into studies of graduate students enrolled in counselor education programs and those using Ss who were practicing counselors. It is concluded that because of the great need for excellence in counseling, no potential source of qualified counselors should be ignored. The evidence indicates that the teaching ranks are not the exclusive source of effective counselors, although additional research is necessary to clarify the precise contribution of experimental background to counseling performance. Limitations of the studies are pointed out and indicate tentative acceptance until definitive research is conducted.—S. M. Amatora.

5565. Looft, William R. (U. Wisconsin) **Vocational aspirations of second-grade girls.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 241-242.—Asked 41 2nd grade girls in a Catholic school about their vocational interests or aspirations from 2 different perspectives: (a) their desired occupational goals, and (b) their realistic expectations regarding their occupational goals. To the 1st question most Ss nominated vocations which were very sex-role stereotyped and altruistic (nurse and teacher were most common); to the 2nd question Ss

tended to (a) repeat their original response, (b) change their expectation to becoming mothers and housewives, or (c) express that they did not know what they would be. Findings suggest that sex-role expectations pertaining to vocational aspirations are acquired and solidified far sooner than the time when the individual actually has to begin to make decisions regarding his adult life.—*Journal abstract*.

5566. Mann, Philip A. (U. Texas) **Referral source and test-seeking as factors in establishing a counseling relationship.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 221-224.—Examined 2 hypotheses: (a) faculty-referred cases are less likely to reach agreement than cases referred by friends or self-referrals, and (b) cases in which a specific request for testing is made are less likely to reach agreement than cases in which the client does not request testing. Referral source and test seeking were found to interact in effecting a successful counselor-client contract in studies of 279 undergraduates. Faculty-referred test seekers were least successful and self-referred test seekers were most successful in reaching agreement with a counselor. Implications for counseling practice are discussed.—*Journal abstract*.

5567. Markey, Martin J., Fredrickson, Ronald H., Johnson, Richard W., & Julius, Mary A. (U. Massachusetts) **Influence of playback techniques on counselor performance.** *Counselor Education & Supervision*, 1970(Spring), Vol. 9(3), 178-182.—Studied the training impact of different electronic playback techniques on ratings of student counselor performance. 32 upperclass female undergraduates were randomly divided into 4 playback treatment groups: (a) audio-video, (b) audio, (c) video, and (d) no playback received. 4 female undergraduates served as trained clients. All student counselors interviewed 2 different trained clients in 2 20-min sessions separated by a playback treatment period. All sessions were recorded by television cameras. Trained judges rated the 2nd interview using the Counselor Evaluation Inventory, Nonverbal Behavior Scale, and Audio-Visual Counseling Scale. 2-way analysis of variance was used to compare scores on criterion instruments. Results indicate no judged differences among the playback treatment groups, nor could discriminant rankings be made among the various playback methods. Several explanations are discussed as to limited influence of playback media on early interview performance. (19 ref.)—*Journal abstract*.

5568. McCabe, Fred J. (U. Idaho) **A comparison of selected psychological, sociological, and educational characteristics of occupational, academic, and vocational groups.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3273.

5569. McCarthy, Barry W. (American U.) **Comparison of effectiveness of group-counseling procedures.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 283-286.—Compared, using delayed multiple-criteria measures, the effectiveness of 2 different group-counseling techniques with 88 undergraduates who expressed a desire to improve their academic performance. The procedures were (a) the traditional approach focusing on personal-emotional problems, and (b) the development of behaviors appropriate for college achievement. Groups were compared with 2 control groups on 3 criteria, change in GPA, adjustment scores, and study habits and attitudes scores. No significant differences were found.—*Journal abstract*.

5570. Mechling, Donald J. (U. California, Berkeley) **Some behavioral and attitudinal correlates of the locus of control and the locus of evaluation in high school students.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3273.

5571. Miller, C. Dean; Morrill, Weston H., & Uhlemann, Max R. (Colorado State U., Counseling Center) **Micro-counseling: An experimental study of pre-practicum training in communicating test results.** *Counselor Education & Supervision*, 1970(Spring), Vol. 9(3), 171-177.—Employed microcounseling techniques to train 10 graduate students in communicating test results. Training emphasized listening and responding to cues given by the client, brief and concise statements about test-related information, and relating the information to the client's experiences and needs. Training aids included programed materials, brief videotapes of positive and negative models, role-playing, and videotape feedback of the role-playing and test interpretation sessions. Judges' ratings of trainees in the experimental group were significantly higher than their ratings for the 10 trainees in the control group. Client ratings of counselor effectiveness did not differ significantly for the 2 groups. Changes in clients' pre- and posttest attitude and knowledge scores were statistically significant. An enthusiastic response to the microcounseling approach was evident from both inexperienced and experienced Ss.—*Journal abstract*.

5572. Mishne, Judith. (U. Chicago, School of Social Service Administration) **Group therapy in an elementary school.** *Social Casework*, 1971(Jan), Vol. 52(1), 18-25.—Although it represents a small, wealthy district with funds, personnel, and leisure to develop programs, the experiences of the Orange School System in a pilot study are relevant to the widespread crisis in schools today. Because of the study, the school district altered its approach to the unreachable, nonreferable child. It has designated funds for personnel who could be with students, talk to them, and most important, listen to them. Results showed all the children concluded the year reading on their proper 3rd grade level, higher than the national 3rd grade norm. The teacher's comments were positive concerning improved social adjustment, increased interest, effort put forth by a child, better conforming to classroom routine, better group acceptance, and lessened tension.—*M. W. Linn*.

5573. Mitchell, Sandra K., Lunneborg, Patricia W., & Lunneborg, Clifford E. (U. Washington) **A Vocational Interest Inventory based on Roe's interest areas.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 569-570.—The construction and early validation of an ipsative, forced-choice Vocational Interest Inventory (VII) to measure A. Roe's 8 foci of occupational activity is detailed. Designed for counseling use with the broad range of high school students, the VII produced consistently interpretable mean profiles for groups of high school juniors having only tentative vocational orientations: health sciences, engineering, business, etc. Factor analytic studies revealed 3 dimensions. Service vs. technology and science vs. business provided confirmation for the Roe-Holland hypothesis of a circular continuity of vocational interests. The 3rd factor defined an organizational (indoor) vs. outdoor dimension.—*Author abstract*.

5574. Morgan, Elizabeth R. (Columbia U.) **Behavior theory counseling with culturally disadvantaged.**

underachieving youth. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3274-3275.

5575. Morgan, James M. (Indiana U.) **The effect of model exposure and behavior rehearsal on the initiation of dating experiences by seldom dating college men.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3275.

5576. Payne, Paul A. & Mills, Robert B. (U. Cincinnati, Counseling Service) **Practicum placement in a counseling-employment agency for disadvantaged youth.** *Counselor Education & Supervision*, 1970(Spr), Vol. 9(3), 189-193.—To emphasize the development of skills in helping the culturally disadvantaged, 8 graduate students were given practicum placement in an agency which gave counseling and employment training to disadvantaged youth. Ss attended staff meetings, interviewed staff members concerning the work they performed, and discussed client contacts with caseworkers, in addition interviewing agency clients. Increased awareness of problems, broadened conceptualizations, and expansion of interpersonal skills were seen as advantages of the practicum. Limitations included some lack of goal clarity and inefficiency of time use in dealing with the clientele.—*Journal abstract*.

5577. Perkins, John A. & Wicas, Edward A. (15 Brae St., Providence, R.I.) **Group counseling bright underachievers and their mothers.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 273-278.—Investigated the use of counseling with small groups of bright, underachieving, 9th grade boys and/or their mothers. 120 boys and 60 mothers comprised the total sample. 5 male public school counselors were trained to offer minimal levels of accurate empathy, regard, and genuineness within a group counseling context. Post-treatment results reveal significant increases in GPAs and self-acceptance. It was found that when counselors worked with mothers with or without students, the effect on underachievers was equal to or greater than when counselors worked only with underachievers. (19 ref.) *Journal abstract*.

5578. Riley, Richard. (U. Rochester) **An investigation of the influence of group compatibility of group cohesiveness and change in self-concept in a T-group setting.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3277.

5579. Rochester, Dean E. (Southern Illinois U., Edwardsville) **Persistence of attitudes and values of NDEA students: Two years post institute.** *Counselor Education & Supervision*, 1970(Spr), Vol. 9(3), 205-207.—82 students who had been enrolled in a yr-long counseling and guidance program were followed up for a 2-yr period concerning attitudes and values. Data was obtained from a final N of 78 Ss. Ss were administered the Porter Test of Counselor Attitudes and the Study of Values. Ss' attitudes and values were similar to those present at the onset of their program and similar to those present after they had been away from their program 1 yr. Some differences were noted concerning end-yr. of-program responses. Changes occurring during the programs appear minimal. Since there were no differences indicated between the 1- and 2-yr follow-up, 1 yr. might be a sufficient period for this type of investigation.—*Journal abstract*.

5580. Schvaneveldt, Jay D. (Utah State U.) **Role problems of the college family life educator and researcher.** *Family Coordinator*, 1971(Jan), Vol. 20(1), 3-10.—Points out the difficulty of depicting the family

life educator or researcher due to the diverse roles inherent in the occupation. Performing a teaching, research, and counseling function, the family life educator's image is often confused or ambiguous. Specific problems in the roles of sex, professionalism, multiple functions, and interdisciplinary conflicts are illustrated.—M. W. Linn.

5581. Sieveking, Nicholas A., Harrison, Patsy J., Ackerman, Barbara R., & Gorsuch, Richard L. (Vanderbilt U.) **Moral judgments of students, parents, and psychological clients.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 579-580.—Parents were more severe than their offspring, college students, in judging the wrongness of specific behaviors on scales such as Misrepresentation, Anti-Social Selfishness, and New Morality. Parents also reported more frequent church attendance and greater personal importance of religion. Students who had been clients for psychological services, as compared with nonclient students, chose "none" for religious preference more frequently and rated religion as less important to themselves, although there were no differences between student-clients and student-non-clients in severity of moral judgments. On several scales parents of nonclients were more severe in judging wrongness than were parents of clients.—*Author abstract*.

5582. Smith, Osler P. (East Texas State U.) **Changes in self-actualization and self-concept as a result of the use of visual feedback in marathon sensitivity training.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3280.

5583. Spiritas, Alexis A. & Holmes, David S. (U. Texas) **Effects of models on interview responses.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 217-220.—Predicted that the degree to which a model gave personally revealing responses in an interview would influence the degree to which Ss gave revealing responses in a subsequent interview. The prediction stemmed from previously reported data on the disinhibiting effects of models and behavioral contagion. 120 female undergraduates were exposed to a revealing model, a nonrevealing model, or no model before being interviewed by either a male or female. Results indicate that the models significantly affected the duration and the degree of revealingness of interview responses. Across modeling conditions Ss talked longer to the female interviewer but were not more revealing than they were with the male interviewer. (16 ref.)—*Journal abstract*.

5584. Squatriglia, Robert W. (U. South Carolina) **The impact of short-term group counseling on student values.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3280-3281.

5585. Stillman, Stephen & Resnick, Harvey. (Ohio State U.) **Does counselor attire matter?** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 285-286. Investigated the relationship between counselor attire and (a) client disclosure, and (b) client perception of counselor attractiveness in an initial interview analogue. 50 male undergraduates took part in a 20-min interview with either a professionally or casually attired counselor and then responded to the Disclosure Scale and the Counselor Attractiveness Rating Scale. Analyses of variance revealed no significant differences ($p < .05$) between mean scores on these instruments. It is concluded that counselor attire has little effect on client disclosure and client perception of counselor attractiveness.

tiveness in an initial interview.—*Journal abstract.*

5586. Stoffer, Dean L. (Edinboro State Coll.) **Investigation of positive behavioral change as a function of genuineness, nonpossessive warmth, and empathic understanding.** *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 225-228.—Research has shown that genuineness, nonpossessive warmth, and accurate empathy are positively related to therapeutic outcome for neurotic and schizophrenic adults. An attempt was made to extend and clarify these findings with elementary school children. 35 adult females volunteered to work individually with 35 children who were experiencing behavioral and academic difficulties. Early and late interviews were tape recorded and rated on each of 3 variables. Each helper and each child completed a relationship inventory. Late-rated non-possessive warmth, late-rated accurate empathy, and the total scores on the children's relationship inventories were significantly related to positive behavioral change. Similar programs will need to find methods of raising the overall level of therapeutic conditions offered by the helpers.—*Journal abstract.*

5587. Strong, Stanley R., Hendel, Darwin D., & Bratton, Joseph C. (U. Minnesota) **College students' views of campus help-givers: Counselors, advisers, and psychiatrists.** *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 234-238.—67 female undergraduates described either counselor, adviser, or psychiatrist on 100 adjectives and indicated how likely they were to discuss 9 topics with the assigned person. Ss (a) described counselors and advisers similarly as more warm and friendly than psychiatrists who were considered more intellectual, analytic, decisive, cold, and critical; (b) viewed counselors and advisers as more appropriate sources of help with vocational and educational problems and considered psychiatrists more appropriate for specific personal problems; and (c) viewed counselors as likely sources of help for achieving personal development and gaining knowledge of strengths and weaknesses.—*Journal abstract.*

5588. Stugart, David B. (Michigan State U.) **An experimental study investigating the effects of model race and model age-referent group upon the vocational information-seeking behaviors of male black eleventh-graders.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3281.

5589. Verett, Gary D. (North Texas State U.) **The effect of a summer group counseling institute on selected attitudes and personality characteristics of junior college counselors.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3283.

5590. Wisser, Robert E. (Lehigh U.) **A comparison of the effects of three types of counseling upon the adjustment of fifth grade boys.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3284.

5591. Yochim, David A. & Dworkin, Nancy. (Children's Hosp., Washington, D.C.) **A comprehensive interdisciplinary pupil appraisal system utilizing the school psychologist as psychoeducational diagnostician and consultant.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 565-566.—Describes a comprehensive interdisciplinary pupil appraisal system, based on the fundamental concepts of early intervention and multiple, need-matched diagnostic levels. School psychologists are utilized in the key role of psychoeducational specialist, with functional tasks also spelled out

for social workers and physicians. The activities of each team member at each of the diagnostic levels are presented, with particular attention given to the psychologist's performance of a brief, academic task-oriented psychoeducational assessment, a major component of the 2nd level. Mention is made of a preliminary evaluation study attempting to determine, using multiple criteria, the utility of the system.—*Author abstract.*

PERSONNEL

5592. Ames, Robert G. (U. Idaho) **Personal variables of satisfied superintendents.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3191.

5593. Burrello, Leonard C. & Sage, Daniel D. (U. Michigan, Inst. for Study of Mental Retardation) **A Behavior Preference Inventory for special education administrators.** *Exceptional Children*, 1971(Jan), Vol. 37(5), 365-370.—Discusses the development and validation of the Behavior Preference Inventory (BPI), to measure the need values of special education administrators, utilizing J. B. Rotter's social learning theory. The 5 need categories of recognition-status, protection dependency, dominance, independence, and love and affection, were examined in an experimental test sample with which a validating instrument was used involving the administrator's subordinates. A normative sample involving 341 members of the Council of Administrators of Special Education contributed additional descriptive data. It is advocated that the BPI is useful as a screening device in related research on the relationship of need value to expectancy and situational determinants in decision making. It is also proposed that the instrument serve as a vehicle for the sensitization of administrators to their personality investment in decision making.—*Journal abstract.*

5594. Cross, W. Ray. (U. Minnesota) **Relationships between elementary school principals' in-basket performance and their on-the-job behavior.** *Journal of Educational Research*, 1969(Sep), Vol. 63(1), 26-30.—Investigated the empirical validity of the Whitman School In-basket Test for elementary principals. Correlations were computed among scores from a predictive test, a concurrent test, and corresponding measures of observed on-the-job behavior. Results indicate that (a) there was evidence of stability of in-basket performance, (b) stylistic measures of principals' in-basket performance were not substantially related to their on-the-job behavior; and (c) there was evidence that impressionistic measures of in-basket performance bore some relationship to impressions of on-the-job behavior.—*Journal abstract.*

5595. Dickenson, Walter A., Foster, Car M., Walker, Newman M., & Yeager, J. Frank. (Nicholls State Coll.) **A humanistic program for change in a large city school system.** *Journal of Humanistic Psychology*, 1970(Fal), Vol. 10(2), 111-120.—Describes a series of projects instituted in the Louisville, Kentucky, public school system. The principal purpose is to change the self-perception and role definition of teaching and administrative personnel. The teacher as helper or manipulator is to be replaced by the teacher as facilitator. This will require personal growth in the areas of awareness, identity, commitment, involvement, meaning, and becoming (20 ref.).—P. Swartz.

5596. Fortin, Clifford C. (U. Minnesota) **The relation**

of certain personal and environmental characteristics of school librarians to their life values and work satisfactions. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3573.

5597. Fragano, Lilia V. (Rutgers State U.) The chairman of foreign language department: A study of role expectations and role behavior. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3386-3387.

5598. Saris, Ronald J. (U. Idaho) The development of a 13th subscale to the Leader Behavior Description Questionnaire-Form XII entitled: "Responsibility Defference." *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3236.

5599. Sperry, Leonard T. (Northwestern U.) An experimental study of the outputs of curriculum groups under varying levels of simulated expectations and social class. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3354.

5600. Wacker, Charles H. (U. California, Los Angeles) Application of a theory of interpersonal competence to the communication process in a public college. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3247.

5601. Wolfe, Douglas E. (Case Western Reserve U.) Developing internal teams for innovation in educational systems. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3643.

Teachers & Teacher Training

5602. Anderson, Donald D. (Armstrong State Coll.) Personality attributes of teachers in organizational climates. *Journal of Educational Research*, 1969(Jul), Vol. 62(10), 441-443.—Attempted to ascertain by means of responses to the EPPS, if personality patterns of elementary school teachers in schools possessing open organizational climates differed significantly from those of elementary school teachers in schools having closed organizational climates. Through the use of the Organizational Climate Descriptive Questionnaire, 71 teachers from schools having open organizational climates and 99 teachers from schools having closed organizational climates were identified. Raw score profiles collected by administering the EPPS were tabulated for each of the Ss in the 2 groups and analyzed statistically through the use of generalized F test and the t test. The F ratio was not significant at the acceptable .05 level of confidence. Teachers from schools having open climates did score significantly ($p < .05$) higher on the personality variables of intraception and abasement.—*Journal abstract*.

5603. Anderson, Richard D. (U. Oregon) Levels of agreement in role expectations and perceived role expectations for the teacher of educable mentally retarded elementary children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3368.

5604. Asbury, F. R., Ball, R. L., & Constantino, N. V. (U. Georgia) Effects of foundations course on personality variables. *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(1), 23-32.—The study, based on a sample of 365 teacher candidates, studied the effects of systematic treatment, discussion, and concrete exemplification in classroom practice of selected concepts of human behavior on some personality variables of teacher candidates in a foundation of education course. Data were derived from pre- and postcourse tests using the Minnesota Teacher

Attitude Inventory (MTAI) and the Myers-Briggs Type Indicator (MBTI). Statistical analysis revealed that candidates (a) achieved significantly higher scores on postcourse MTAI measures, (b) made a significant mean movement from "thinking" toward "feeling" preferences on the MBTI, (c) made a significant mean movement from judgmental toward perceptive preferences on the MBTI, (d) failed to change significantly on the Sensing-Intuiting scale of the MBTI, and (e) failed to change significantly on the Introversion-Extroversion scale of the MBTI.—S. M. Amatora.

5605. Baker, Eva L. (U. California, Los Angeles) Relationship between learner achievement and instructional principles stressed during teacher preparation. *Journal of Educational Research*, 1969(Nov), Vol. 63(3), 99-102.—Little research has been done which investigates the relationship between teachers' behavior and their ability to bring about behavioral changes in their students. 38 Peace Corps trainees were given instruction in the use of theoretically-based learning principles. Os were concurrently trained to record teachers' use of these principles. The trainees were then required to teach high school students in a videotaped lesson. Trainees were each assigned a behavioral objective to achieve and high school students were pre- and posttested on items measuring the objectives. Positive relationships were found between student achievement and trainees' observed use of certain learning principles.—*Journal abstract*.

5606. Barnhill, Edgar W. (U. Oregon) Role expectations of elementary teachers of the educable mentally retarded. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3368-3369.

5607. Bartel, Bernhard W. (U. Minnesota) The effectiveness of student feedback in changing teacher classroom image. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3327-3328.

5608. Borgsmiller, Patricia A. (Southern Illinois U.) Salience of concepts and commitment to extreme judgments in the response patterns of teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3330.

5609. Cagle, James R. (Mississippi State U.) Selected personality characteristics distinguishing traditional-oriented and permissive-oriented student teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3384.

5610. Coffelt, Donald H. (Texas Tech U.) Cognitive and attitudinal differences between special and general education teachers and student-teachers concerning exceptional children. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3370.

5611. Dessault, Gilles. (U. Laval, Quebec, Canada) A theory of supervision in teacher education. New York, N.Y.: Teachers Coll. Press, 1970. xv, 275 p. \$3.50(paper).

5612. Emans, Robert. (Ohio State U.) Teacher attitudes as a function of values. *Journal of Educational Research*, 1969(Jul), Vol. 62(10), 459-463. Hypothesized that conflicting values are related to a lack of acceptance of a school's curriculum by the faculty. Data were collected through the employment of 3 instruments (Differential Values Inventory by R. Prince, an adaptation of the Kretlow Scale by B. Kretlow and W. Dreier, and the Teacher Attitude Scale). School faculties which expressed the greater differences in educational values also expressed the greatest amount of disapproval

of the school's curriculum. However, individual teachers with extreme values indicated more favorable attitudes toward the curriculum than teachers with more neutral values. Values held by principals were related to teachers approval of the curriculum. (16 ref.)—*Journal abstract.*

5613. Feather, N. T. (Flinders U., South Australia, Bedford Park) Teaching effectiveness and examination performance in introductory psychology. *Australian Psychologist*, 1970(Mar), Vol. 5(1), 36-48.—A questionnaire, to provide information about teaching effectiveness and about the course, was administered to 162 students in introductory psychology before the final examination. The results were interpreted to show a trend toward Ss' regarding an instructor more highly as he emphasized general concepts and principles. The questionnaire was evaluated as useful in predicting instructors' effectiveness. Also, there was some support for the hypothesis that positive evaluations of teaching effectiveness of an instructor was associated with better performance on his examination questions. The general problem of using student responses to evaluate teaching effectiveness and course content is discussed.—*H. Roemmich.*

5614. Gaulke, Earl H. (Washington U.) The psychology of the Lutheran Sunday church school teacher: Teacher personality, situational factors, and teaching style. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3336.

5615. Gray, William A. (U. Texas) An experiment to increase teacher acceptance of students (TAS) by means of three "stimulus films" with and without subsequent group discussion. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3338.

5616. Grieger, Russell M. (Ohio State U.) The effects of teacher expectancies on the intelligence of students and the behavior of teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3338.

5617. Hammer, Robert E. (U. Iowa) Job satisfaction of special class teachers in Iowa: An application of the Herzberg two factor theory. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3373.

5618. Hansen, Duncan N. & Harvey, William L. Impact of CAI on classroom teachers. *CAI Center Technical Memorandum, Florida State U.*, 1969(Oct), No. 10, 7 p.—Considers the predominant factors within computer-assisted instruction (CAI) that may cause changes in teacher roles in terms of the requirements for new guidance and modeling skills for the teachers, technical competencies, and the control of CAI development. The pattern of potential CAI development is discussed in terms of individualization, the role of computer-managed instruction, and the ultimate complexities of diversified CAI. 7 potential role changes for teachers in terms of their day-to-day behaviors are described and implications for teacher training are discussed.—*Journal abstract.*

5619. Herrell, James M. (Montgomery County Health Dept., Rockville, Md.) Galatea in the classroom: Student expectations affect teacher behavior. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 521-522.—A naive "guest lecturer" gave a brief talk to 2 introductory psychology classes, 1 which had been told he was "warm" and 1 "cold." The initial and terminal segments of his talks were played for 41 raters, who rated his talks along 3 dimensions. The terminal segment of his "cold" talk was rated as colder, more tense, and less

competent than the initial segment of that talk. The terminal segment of his "warm" talk. It is concluded that student expectations can affect teacher performance. Implications for the use of student ratings of faculty are discussed.—*Author abstract.*

5620. Hobbs, George W. (North Texas State U.) An investigation of certain factors related to self-concept, sexual knowledge, and attitude toward sex education of a group of elementary teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3388.

5621. Hobson, Edward N. Empirical development of a computer managed instruction system for the Florida State University model for the preparation of elementary school teachers. *CAI Center Technical Report, Florida State U.*, 1970(Apr), No. 8, 124 p.—Describes the design, development, and prototype implementation of a computerized management system for training elementary teachers. The problems examined consisted of the development of a data acquisition and instructional system (a) to collect reliable data to assess the management system's actual performance and its acceptability by the trainees, (b) to manage a variety of available resources, (c) to schedule trainees' activities, and (d) to monitor each trainee's progress. 19 elementary education students participated in a 3-wk field trial of an individualized instructional curriculum. The activities included the selection of tasks and resource options, the teaching of concepts to local school children, the taking of quizzes both manually and via a teletype terminal, and the entering of data associated with these activities at an on-line teletype terminal. Hardware, software, and personnel requirements of the present operational model are made with their respective costs. The management system's interface with the university information system is discussed.—*Journal abstract.*

5622. Holden, Alice A. (U. Maryland) An evaluation of change in attitudes and interpersonal relationships of pre-service teachers participating in an early childhood education program. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3389.

5623. Johnson, Barbara M. (U. California, Los Angeles) Factors affecting compatibility and dissimilarity among members of elementary school teaching teams. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3271.

5624. Johnson, Darrell W. (U. Washington) A study to examine the effects of systematic group process intervention upon teacher-pupil verbal interaction. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3340.

5625. Joyce, Mary U. (Fordham U.) An empirical investigation of Erikson's developmental crises of ego identity, intimacy, and generativity in religious women. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3341.

5626. King, Arthur D. An application of simulator techniques to an innovative teacher training program. *CAI Center Technical Report, Florida State U.*, 1970(Nov), No. 16, 127 p.—Analyzed an innovative teacher training program with 2 simulation techniques. The training system allowed for self-pacing and freedom of choice concerning the number and type of learning subtasks (enablers) the trainee would undertake. Within the behavioral simulation, 19 elementary education

evaluation of research findings in educational psychology. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3350-3351.

5637. Sands, Billie L. (Michigan State U.) An exploratory study of self-actualization and self-perception of competency among Michigan family life teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3425-3426.

5638. Silcock, Anne. (U. Queensland, Brisbane, Australia) Aspects of the role performance of kindergarten teachers. *Australian Psychologist*, 1970(Mar), Vol. 5(1), 25-35.—Examined the role performance of kindergarten teachers with the purpose of reporting behaviors characterizing their interactions with young children. The interactions of 9 teachers and 15 student teachers with 24 3.1-5.4 yr. old children were observed for 3 consecutive hr. on each of 2 successive mornings and recorded. 3 goals were found to predominate, at least quantitatively. Children were (a) persuaded to join in certain aspects of the program, (b) encouraged to take part in "ritual-related" behavior, and (c) induced to join such common activities as tidying up the room. Teachers used mild methods in 51% of the transactions, temperate in 46%, and strong methods in less than 3%. Significant differences existed between the methods employed for different ages. Some differences in compliance with different ages were found, and at each age a discrepancy of more than 20% occurred between responses made by children to meet teachers' goals and responses they would have preferred. More than 1/3 of all contacts initiated by teachers resulted in conflict. It is stated that the role of the kindergarten teacher is that of a teacher, carrying with it the authority and responsibilities concomitant with that role.—H. Roemmich.

5639. Snibbe, Homa M. (U. Utah) The relationship of professors' personality characteristics to grading behaviors. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3354.

5640. Staines, J. W. (U. Newcastle, New South Wales, Australia) The teacher's therapeutic role in ordinary classroom situations. *Australian Psychologist*, 1970(Mar), Vol. 5(1), 9-24. Presents an argument for a dual role of the typical elementary and secondary teacher: that of teaching for academic outcomes and that of therapist. 4 viewpoints are discussed which deal with the therapeutic role of the teacher: (a) the psychoanalytic view in which the teacher's therapeutic role is rigidly excluded, (b) the view that the teacher often contributes to psychic disorders and is needed in an ancillary role in treatment under the supervision of a clinician, (c) a view which recognizes the teacher's therapeutic role and the importance of mental health in the classroom, and (d) the view supported by the main thrust of the article, which describes the teacher as also a therapist. It rests upon the notion that typical psychotherapy, counseling and guidance, are common learning processes and both the therapeutic process and the learning process are evaluated in terms of behavioral outcomes. This thesis is extended and documented. (36 ref.)—H. Roemmich.

5641. Tuckman, Bruce W., Forman, Norman, & Hoy, Wayne K. (Rutgers State U.) Teacher innovativeness: A function of teacher personality and school environment. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 527-528.—Teachers who submitted proposals to the New Jersey State Department of Education to obtain a migrant for an innovative classroom project and were

funded were classified as innovative; those not funded were classified as noninnovative. These 2 groups completed the Organizational Climate Descriptive Questionnaire describing the environment or climate of their school as open or closed, and the Interpersonal Topical Inventory, a measure of the abstractness of their personality structure. As hypothesized, innovative teachers in open climates were more abstract than innovative teachers in closed climates while the reverse held true for noninnovative teachers. This supports Lewin's interactive model of behavior prediction.—Author abstract.

5642. Valencia, Silvia M. (U. California, Los Angeles) Anxiety cued verbal responses in student teachers. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3358.

5643. Westbrook, Arlen. (Northeastern New York Speech Center, Inc., Albany) Teachers' recognition of problem behavior and referrals of children to pupil personnel services. *Journal of Educational Research*, 1970(May), Vol. 63(9), 341-344. Analyzed the questionnaire responses of 104 teachers in an upstate New York suburb. Ss rated the seriousness of 43 behavior items on a 4-point rating scale. The items indicated 4 types of behavior problems: (a) withdrawn and recessive personality, (b) aggressive and acting-out behaviors, (c) learning problems, and (d) other. Mean score for the entire inventory was 2.54, for withdrawn items 2.31, for aggressive items 2.50, and for learning items 2.95. Referrals for these groups to other agencies were 41, 63, and 232, respectively. Results are considered as paralleling an earlier study by E. K. Wickman in 1928 and indicate the growing recognition of learning problems. Implications for teacher training in mental hygiene and the need for expanded services are discussed.—Journal abstract.

5644. Wilson, Beverly D. (Ohio State U.) Self-perception and peer perception of a group of college women physical educators. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3326.

5645. Witmer, J. & Berinden, F. (U. Florida) Perception of school climate: Comparison of black and white teachers within the same schools. *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(1), 1-7.—The entire faculties of 10 representative recently integrated public elementary schools in Florida (163 white and 46 Negro) responded to the Survey of Interpersonal Relationships. No differences were found between group means on the categories of Teacher vs. Principal and Teacher vs. Students in General. Statistically significant differences were found on the remaining 4 categories. On the Teacher vs. Self, Negro teachers perceived more self-conflict; on Teacher vs. Teacher, white teachers perceived less conflict; on Teacher vs. Nonteaching Personnel, Negro teachers perceived a better relationship with the nonacademic staff; and on Teacher vs. Different Type Students, Negro teachers perceived a better relationship and less conflict with this type student.—S. M. Amatori.

SCHOOL LEARNING & ACHIEVEMENT

5646. Beattie, Clive C. (Ball State U.) Chronological entrance age as it relates to primary school achievement and personal and social development of the student. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3328.

5647. Beilin, Lois A. (Columbia U.) An analytic-

empirical study of sequence in curriculum development. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3329.

5648. Blai, Boris. (Harcum Jr. Coll.) "Success" of "calculated risk" students at Harcum Junior College. *Psychology*, 1971(Feb), Vol. 8(1), 19-23.—Based on statistics from 2 groups of provisional students at a junior college (Ns=46 and 124), it is concluded that these "risk" students "have been 'successful' both in their educational and vocational aspirations... suggesting that such academically marginal students can and do persist and achieve satisfactorily as do non-provisional" students. The results suggest "that additional research must be undertaken to ascertain what factors, intellectual or others, can reliably differentiate between college applicants who may be expected to 'succeed'; (i.e. graduate), and those who may be expected to fall by the wayside."—S. Knapp.

5649. Boardman, Dorris E. (U. California, Los Angeles) The effect of students' advanced knowledge of behavioral objectives on their achievement in remedial chemistry. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3286.

5650. Burke, Ronald J. (U. Minnesota) Some preliminary data on the use of self-evaluations and peer ratings in assigning university course grades. *Journal of Educational Research*, 1969(Jul), Vol. 62(10), 444-448.—Presents results of 3 investigations with 113 undergraduates of attempts to increase university student participation in the determination of their final course grades. Increased participation took the form of (a) self-evaluations, and (b) peer ratings. Data from 2 experiments indicate that Ss were unable to assign their own grades realistically. This was shown by low agreement between self-evaluations and peer ratings, and self-evaluations and instructor ratings. Self-ratings were always more favorable than peer and instructor ratings when disagreements occurred. Although many Ss felt that peers were performing at C and D levels, no S believed that he deserved less than a B grade. The 3rd experiment showed that peer ratings yielded (a) a more typical grade distribution, (b) a high degree of internal consistency, and (c) good agreement with instructor ratings.—*Journal abstract*.

5651. Capie, William R. (U. Houston) The development of a psychological hierarchy for learning density principles. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3332.

5652. Child, Dennis. (U. Bradford, School of Education, England) Some aspects of study habits in higher education. *Educational Sciences*, 1970(May), Vol. 4(1), 11-20.—Designed and administered an interview schedule relating to general study methods to 74 6th form, 55 college of education, and 52 technological university students. It was found that (a) Ss prefer to work in the weekday evenings, (b) an average study session lasts from 1-2 hr., (c) libraries are not popular places for study, (d) Ss claim to read beyond their set work, (e) university and college of education science Ss thought they devoted too much time to writing up practical notes, (f) Ss have developed their own study styles by trial and error without external guidance, (g) examination review begins about the 6th wk. before the 1st paper, (h) most Ss select a portion of the syllabus for detailed review, (i) science Ss tend to review the entire syllabus, (j) 70% find that personal problems interfere with normal study, (k) 75% claim that the relationship

between themselves and tutors has an important bearing on their study attitudes in a particular subject, (l) over 80% collaborate with fellow students in arriving at the group norm for work assignments, and (m) 60% admitted that the output of teachers could be influenced by a variety of direct and indirect strategies. (French & German summaries)—*Journal abstract*.

5653. Chopra, Sukhendra L. (Lucknow U., India) Cultural deprivation and academic achievement. *Journal of Educational Research*, 1969(Jul), Vol. 62(10), 435-438.—Reports that in a sample of 433 15-17 yr. old students randomly selected from 16 boys' secondary schools in Lucknow, India, the mean marks scored by Ss in the higher socioeconomic group were significantly higher than those of Ss from middle and lower socioeconomic groups. The differences between the middle and the lower socioeconomic groups, however, did not reach the level of significance. There was positive relationship between socioeconomic background and achievement in English, mathematics, and science, but achievement in Hindi, biology, and art was relatively free from the influence of background. The pattern of relationship between background and achievement was the same at all 3 intellectual ability levels. (19 ref.)—*Journal abstract*.

5654. De, Bimaleswar & Singh, Ramadhar. (Patna U., Inst. of Psychological Research & Service, India) Home adjustment as a determinant of academic motivation. *Indian Educational Review*, 1970(Jul), Vol. 5(2), 52-58.—Focuses on the relationship between academic motivation and certain aspects of home environment: home adjustment, size of family, number of siblings, and birth order. Ss were 222 8th-11th graders (age range, 12-17 yr.). The Hindi versions of the Aberdeen Academic Motivation Inventory and the items measuring home maladjustment in the student form of the Bell Adjustment Inventory were administered in a classroom situation. A significant negative correlation was found between home maladjustment and academic motivation. Family size, number of siblings, and birth order were found to have no significant relationship with academic motivation. The results suggest that home adjustment contributes to the development of strong academic motivation. (38 ref.)—K. C. Panda.

5655. Elovson, Allana C. (U. California, San Diego) The effect of penalty and information on error. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 549-550.—Errors committed by 100 2nd and 3rd graders while learning a 20-item, 4-choice verbal task were followed by penalty (P), information (I), or penalty plus information (PI). Correct responses received either reward or confirmation. 3 trials were given. Errors which were only penalized were repeated as often as initially correct responses which had been rewarded or confirmed, and significantly more often than errors followed by either I or PI. Significantly more correct responses followed errors receiving I or PI than followed initially correct responses which were rewarded or confirmed. Information alone produced more corrects than did PI.—*Author abstract*.

5656. Entwisle, Doris R. & Greenberger, Ellen. A survey of cognitive style in Maryland ninth-graders: III. Feelings of control over academic achievement. *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Aug), No. 78, 34 p. As part of a survey of cognitive style variables in Maryland

9th graders, sense of control in 312 boys and 352 girls was measured by the Crandall Intellectual Achievement Responsibility Questionnaire. Feelings of control over success were greater than those over failure for both sexes. Results disagree with previous work in 4 ways: (a) control beliefs did not predict school achievement, (b) middle-class girls expressed lower feelings of control than comparable boys, (c) positive association between IQ and control was manifest only for boys, and (d) relationships between social class and control beliefs were the opposite of those found previously with lower-class Ss expressing higher control beliefs. Explanations for the divergent results are proposed. (21 ref.)—*Journal abstract.*

5657. Entwistle, Doris R. & Webster, Murray A. **Raising children's expectations for their own performance.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U., 1970(Nov), No. 87, 26 p.*—Reports an experiment which shows that most children's expectations for their own performance, measured by their rate of volunteering, can be increased. 188 white middle-class 1st-4th grade suburban children participated in a story-telling task. A white adult acted to increase expectations of a single S (experimental group), while 3 other Ss (control group) received a comparable treatment except for the expectation-raising component. 1st grade Ss showed a positive, but nonsignificant increase. There was a significant increase for Grades 2-4. Results for 3rd and 4th graders are compared with results from an earlier experiment with black inner city and rural white children. (15 ref.)—*Journal abstract.*

5658. Evans, James D. (Geneva Coll.) **The relationships of three personality scales to grade point average and verbal ability in college freshmen.** *Journal of Educational Research, 1969(Nov), Vol. 63(3), 121-125.*—Studied the relationships between the Ac, Ai, and Ie scales of the CPI and 3 criteria—GPA, verbal ability, and quantitative ability—with 6 groups of 102 college freshmen. Each group differed from the others in 1 or both of the following characteristics: (a) sex, and (b) enrollment in a psychology-of-adjustment course. The obtained Ac-GPA and Ie-GPA correlations were nonsignificant for all groups used in the current investigation. Ai was significantly related to GPA of the total psychology-of-adjustment and the male psychology-of-adjustment groups. While all 3 scales were generally unrelated to quantitative ability, Ai and Ie were somewhat related to verbal ability, especially for male freshmen.—*Journal abstract.*

5659. Farley, Frank H. & Mealiea, Wallace L. (U. Wisconsin) **Individual differences in the Zeigarnik effect.** *Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6(Pt. 2), 543-544.*—On the basis of previous research and theoretical considerations, the recall of completed and incomplete items in an examination situation was studied as a function of individual differences in repression-sensitization tendencies and resultant achievement motivation (RAM; need-for-achievement minus fear-of-failure). Ss were 78 female undergraduates. The Zeigarnik effect, i.e., the greater recall of incomplete over completed tasks, was found to be significantly more frequent in high RAM Ss than low RAM Ss, but no difference was found between repressors and sensitizers in this effect. Results support Atkinson's theoretical analysis of achievement motivation and task recall but

do not support a repression analysis. No significant level-of-aspiration differences were obtained between high and low RAM Ss or repressors and sensitizers.—*Author abstract.*

5660. Feldhusen, John F., Thurston, John R., & Benning, James J. (Purdue U.) **Longitudinal analyses of classroom behavior and school achievement.** *Journal of Experimental Education, 1970(Summer), 38(4), 4-10.*—3rd-, 6th-, and 9th-grade teachers in Wisconsin county-nominated 982 children as consistently displaying socially approved behavior and consistently displaying aggressive-disruptive behavior in the classroom. 5 yr. after the original nomination, teacher grades in English, science, mathematics, social studies; rank in graduating class for original 3rd graders; and Sequential Tests of Educational Progress scores were obtained. Analyses of covariance were run with IQ as the covariate, and behavior, grade, sex, and home location as the independent variables. Results indicate clearly that the Ss whose behavior was consistently aggressive and disruptive in the classroom achieved significantly lower levels than their socially approved peers. (17 ref.)—*Journal abstract.*

5661. Gallacher, Clarence D. (Brigham Young U.) **The effects of selected personality variables on concept formation with programmed instructional tasks.** *Dissertation Abstracts International, 1971, Vol. 31(7-A), 3335.*

5662. Gokul Nathan, P. P. (Dibrugarh U. India) **Social class and educational achievement in relation to achievement motivation measured by an objective test.** *Indian Journal of Psychology, 1970, Vol. 45(1), 67-74.*—Data were collected from 100 postgraduate students (40 males and 60 females) belonging to a higher intelligence group and coming either from the same cultural milieu. The tools used were Mukherjee's Sentence Completion Test, a modified version of Kuppaswamy's social class scale, and various examination results of the students. The test showed insignificant correlations between social class, achievement and educational achievement. There was a significant correlation between social class and need for achievement. However, social class and educational achievement showed a high correlation of .898 ($p < .001$). Comparing the Scholastic Aptitude Test with SAT, it was found that the Sentence Completion Test in its present form did not seem to be a valid test for measuring the generalized need for achievement.—*B. Ro.*

5663. Hafner, Lawrence E., Weaver, Wendell W., & Powell, Kathryn. (U. Georgia, Coll. of Education) **Psychological and perceptual correlates of reading achievement among fourth graders.** *Journal of Reading Behavior, 1970(Fall), Vol. 2(4), 281-290.*—Some correlations between selected perceptual and (a) reading comprehension, (b) word knowledge, and (c) pronunciation of printed words using 67 4th graders. The relative effectiveness of letters and configuration clues to the pronunciation of words was also examined. Some major conclusions are drawn having practical instructional value.—*W. L. Chovan.*

5664. Iannotti, Mary M. (Fordham U.) **The relationship between certain noncognitive factors and the academic achievement of junior college women.** *Dissertation Abstracts International, 1971(Jan), 31(7-A), 3271.*

5665. Jurgemeyer, Frederick H. (U. Oklahoma) **The**

effect of color and graphic form as stimulus factors in paired-associate learning. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3170.

5666. Kaminisky, Mildred (Wayne State U.) A study of the status of conservation ability in relationship to arithmetic achievement. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3341.

5667. Khan, S. B. (Dept. of Measurement & Evaluation, Toronto, Ontario, Canada) Development of mental abilities: An investigation of the "differentiation hypothesis." *Canadian Journal of Psychology*, 1970(Jun), Vol. 24(3), 199-205.—Attempted to determine the extent to which verbal, numerical, spatial, and perceptual speed abilities will be differentiated as a function of differing amounts of classroom learning. The hypothesis was tested that verbal and numerical abilities will be differentiated earlier than perceptual speed and spatial abilities, because learning requires the former types of abilities. It is emphasized quite early in the school program, 3 groups (111 7th graders, 95 9th graders, and 75 11th graders) were given the tests measuring verbal, numerical, perceptual, and spatial-scanning abilities from the Kit of Reference Tests. The factor analyses of the correlation matrices yielded 4 factors for each sample associated with eigenvalues greater than 1. The verbal and numerical factors were identifiable at the Grade 7 level but none of the other 2 was easily interpretable. The spatial-scanning factor emerged at the Grade 9 level and a 4-factor pattern distinctly defined at the Grade 11 level. Results support the hypothesis that mental abilities become differentiated as a function of increased learning experiences. (French summary)—*Journal abstract*

5668. Kulkarni, S. S. & Saldu, C. A. (National Inst. of Bank Management, Bombay, India) Mathematics achievement related to students' socio-economic and attitude variables: A pilot study. *Journal of Educational Psychology*, 1970(Mar), Vol. 45(1), 53-66. Sixteen (68) students from 113 high schools. The tools used were several mathematics tests and a questionnaire to collect information mainly on: (a) socioeconomic status of the family, the parents' occupation and education, the extent of exposure about the facilities provided for education, and the students' attitude towards mathematics as a subject and its role in the modern civilization, and (b) the school environment, and school education in general and mathematics in particular. The socioeconomic index constructed from (a, b, and c) and other factors did not suggest any high correlation with mathematics achievement, whereas observations on the socioeconomic factors in the teaching-learning process to attain the stated objectives in the educational system.

5669. Leeds, Ralyn D. (L. Rochester) The effects of immediate and delayed knowledge of results on immediate and delayed retention. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3443.

5670. Lovitt, Tom C. & Eyvold, Karen A. (U. W.) The relative effects on math performance of single- versus multiple-ratio schedules: A case study. *Journal of Applied Behavior Analysis*, 1970(Win), Vol. 3(4), 261-270.—This study of 1 ex-perimental group to assess the comparative effects of multiple- vs. single-ratio schedules on a 12-year-old boy responding to mathematics materials. In 1 experiment alternated between single- and multiple-ratio conditions, revealed that during the latter phase the S

responded at a higher rate. Similar findings were revealed by Exp. II. Exp. III, which compared frequency of reinforcement ratios, also revealed that the alternation had a minimal effect on the S's response rate. Exp. IV, designed to assess further the effects of changing ratios, revealed that ratios in those of Exp. I and II. *Journal abstract*

5671. Mackworth, Norman H. (Stanford U.) Seven cognitive skills in reading. *Psychological Bulletin*, 1971, Vol. 78 Pt. 2, 509-510. The results of 1-yr study of extent to which 7 cognitive skills in reading are necessary, logical factors in the reading process. Identified 7 cognitive skills: (a) matching words and pictures, (b) matching words and pictures in sequence, (c) matching words and pictures in a sequence, (d) matching words and pictures in a sequence, (e) matching words and pictures in a sequence, (f) matching words and pictures in a sequence, (g) matching words and pictures in a sequence. A model of the reading process is presented. —*Author abstract*

5672. Maxwell, Merle L. (San Western Research U.) A study of the effects of teacher expectations on the IQ and academic performance of children. *Journal of Educational Psychology*, 1970, Vol. 62, No. 4, 334-344.

5673. Meyer, Mary & Meyer, C. F. (U. Southern California) Memory factors and school success of average and special groups of sixth-grade boys. *Journal of Educational Psychology*, 1970, Vol. 62, No. 4, 345-354. In this study of 100 sixth-grade boys, 50 average and 50 special, memory factors were identified as being related to school success. Factors identified included: (a) auditory memory, (b) visual memory, (c) verbal memory, (d) spatial memory, and (e) memory for sequences. Factors identified as being related to school success included: (a) memory for sequences, (b) memory for sequences, (c) memory for sequences, (d) memory for sequences, (e) memory for sequences, (f) memory for sequences, (g) memory for sequences, (h) memory for sequences, (i) memory for sequences, (j) memory for sequences, (k) memory for sequences, (l) memory for sequences, (m) memory for sequences, (n) memory for sequences, (o) memory for sequences, (p) memory for sequences, (q) memory for sequences, (r) memory for sequences, (s) memory for sequences, (t) memory for sequences, (u) memory for sequences, (v) memory for sequences, (w) memory for sequences, (x) memory for sequences, (y) memory for sequences, (z) memory for sequences. Factors identified as being related to school success included: (a) memory for sequences, (b) memory for sequences, (c) memory for sequences, (d) memory for sequences, (e) memory for sequences, (f) memory for sequences, (g) memory for sequences, (h) memory for sequences, (i) memory for sequences, (j) memory for sequences, (k) memory for sequences, (l) memory for sequences, (m) memory for sequences, (n) memory for sequences, (o) memory for sequences, (p) memory for sequences, (q) memory for sequences, (r) memory for sequences, (s) memory for sequences, (t) memory for sequences, (u) memory for sequences, (v) memory for sequences, (w) memory for sequences, (x) memory for sequences, (y) memory for sequences, (z) memory for sequences.

5674. Mueller, Ruth G. (San Western Research U.) Selected personality attributes and teacher training as they relate to pupil cognitive skill development in critical reading study. *Journal of Educational Psychology*, 1970, Vol. 62, No. 4, 355-364.

5675. Sandoz, Mary J. (U. Southern California) The relationship between perception of college environment and scholastic achievement for students enrolled in a community college. *Journal of Educational Psychology*, 1970, Vol. 62, No. 4, 365-374.

5676. (Meyer, John W. & Meyer, C. F.) The psychological principles of instructional sequence: An experiment in second language learning. *Journal of Educational Psychology*, 1970, Vol. 62, No. 4, 375-384. This study of 100 second-grade boys, 50 average and 50 special, memory factors were identified as being related to school success. Factors identified included: (a) auditory memory, (b) visual memory, (c) verbal memory, (d) spatial memory, and (e) memory for sequences. Factors identified as being related to school success included: (a) memory for sequences, (b) memory for sequences, (c) memory for sequences, (d) memory for sequences, (e) memory for sequences, (f) memory for sequences, (g) memory for sequences, (h) memory for sequences, (i) memory for sequences, (j) memory for sequences, (k) memory for sequences, (l) memory for sequences, (m) memory for sequences, (n) memory for sequences, (o) memory for sequences, (p) memory for sequences, (q) memory for sequences, (r) memory for sequences, (s) memory for sequences, (t) memory for sequences, (u) memory for sequences, (v) memory for sequences, (w) memory for sequences, (x) memory for sequences, (y) memory for sequences, (z) memory for sequences.

enrolled in 1st-yr Spanish. All measures tended to confirm the hypothesis, and it is suggested that informational sequence can enhance the learning of even very small samples of foreign language material. (French & German abstracts)—*Journal summary*.

5677. Piland, Joseph C. & Lemke, Elmer A. (Lincoln Trail Junior Coll., Robinson, Ill.) **The effect of ability grouping on concept learning.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 209-212.—Investigated effects upon training and transfer of: ability grouping, intelligence, sex, and temporal test. 96 3rd grade pupils were trained in homogeneous or heterogeneous groups on a thematic concept learning board. Ss were subsequently tested individually under an immediate or delay transfer condition. Results indicate that (a) ability grouping had no significant effect on concept learning under any of the effects of the variables of the experiment, and (b) high ability Ss were better able to attain thematic concepts than medium or low ability Ss. The nonsignificant effect of ability grouping is seen as a significant finding in light of its present emphasis in the school setting.—*Journal abstract*.

5678. Postlethwaite, Neville. **School organization and student achievement: A study based on achievement in mathematics in twelve countries.** Stockholm, Sweden: Almqvist & Wiksell, 1967. 146 p.

5679. Prien, Erich P. & Woodley, Kathryn. (Memphis State U.) **Note on reliability of peer ratings of classroom performance.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 89-90.—Reports the duplication of a study by E. Prien and R. Lee (see PA, Vol. 39:8591) of the change of internal consistency and temporal reliability of peer ratings of classroom performance as related in increasing amounts of interpersonal exposure time. 29 undergraduates served in 5 groups as part of a 6-wk course in industrial psychology. Peer ratings were obtained on Days 3, 4, and 5 of the 1st wk., Days 2 and 4 of the 2nd wk. and on Day 5 of the 3rd-6th wk. Interjudge consistency increased appreciably as interpersonal exposure time increased but there was also considerable variability between rating sessions.—*Journal abstract*.

5680. Sabatino, David A. & Hayden, David L. (Pennsylvania State U.) **Psycho-educational study of selected behavioral variables with children failing the elementary grades: I.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 40-47.—Administered a psychoeducational test battery to 472 children failing in the elementary grades in a county school system. Information-processing behaviors associated with learning and related to the multiple causes of failure were studied. The major premise was that perceptual and cognitive behavioral disability is a more concise basis for the prevention and treatment of school failure than other frequently quoted theories, especially regarding the individual child. Data show that failing Ss had specific language and perceptual information-processing behavioral problems appearing as receptive, central, and expressive language, auditory perceptual, auditory and visual perceptual memory, and perceptual integrative difficulties. Ss did not seem to have perceptual copying, motor, laterality, or directionality difficulties. Teacher ratings and academic achievement did not provide a basis for understanding why failure occurs.—*Journal abstract*.

5681. Sabatino, David A. & Hayden, David L. (Pennsylvania State U.) **Psycho-educational study of selected behavioral variables with children failing**

the elementary grades: II. *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 48-57.—Administered a psychoeducational assessment of the information-processing behaviors related to learning to 472 children who were failing in the elementary grades in a county school system. The mean age was 9.6 yr. Ss were divided at the mean age into a -9.6 group and a +9.6 group. Data were treated for means, standard deviations, and *t* tests between the 2 age populations. Data show that similar factorial clusters appeared for both S groups, but that the levels of loading were different. Difference between groups occurred for perceptual and not language behaviors. It is suggested that prescriptive teaching techniques should be selected on the basis of both the age and compensatory behavioral strengths of the Ss.—*Journal abstract*.

5682. Salamon, Jenő & Kalmár, Magda. (Eötvös Lóránd U., Budapest, Hungary) **A cselekvései matematikaoktatás hatása alsó tagozatosok elemi konstruáló tevékenységére.** [The influence of mathematics through action on the elementary constructing activity of primary school children.] *Pszichológiai Tanulmányok*, 1968, No. 11, 271-286.—Describes experiments which assess the influence of teaching mathematics through action on the development of thought processes that manifest themselves in pupils' constructing activity. Both experimental and control groups were given the same elementary constructing task, but $\frac{1}{2}$ of each group had to solve it on the basis of a model, while the other $\frac{1}{2}$ had to work according to a photo. It is assumed that solutions based on the model involve close transfer, and those based on the photo distant transfer. The experimental group, consisting of 2nd graders who had had the new mathematics, solved the task involving thoughtful activity when working on the basis of the model with better results after a slightly heightened preliminary orienting activity. Experimental Ss working on the basis of the photo also solved the task with better results than the controls, but solution was preceded by more thorough preliminary orienting activity, and by an increase in the repetition of inadequate operations constituting part of the trial and error strategy. Positive results in teaching new mathematics to the 7-8 yr. old Ss are to be attributed partly to the fact that teaching had been started from a lower level than is customary and to activating the perceptual processes. In this way greater attention is paid to age characteristics than to traditional teaching. (Russian summary) (22 ref.)—*English summary*.

5683. Schild, Gili. **The influence of games on school achievement abilities and attitudes.** *Center for the Study of Social Organization of Schools Report*, Johns Hopkins U., 1971(Jan), No. 92. 16 p.—Selected 524 9-13 yr. old Israeli schoolchildren to investigate the relationships of game-playing with school achievement, family background, and several psychological variables. Results indicate that game-playing was not directly related to school achievement when abilities and attitudes were controlled. However, the playing of certain types of games was related to certain attitudes and abilities which in turn were related to school achievement. These relationships were nonlinear and appeared to represent threshold effects.—*Journal abstract*.

5684. Schiltz, Jack H. (Columbia U.) **Level of aspiration of high and low motor ability children in a failure task preceded by successful and unsuccessful pretask conditions.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3351.

5685. Sgan, Mathew R. (Brandeis U.) **Letter grade**

achievement in pass-fail courses. *Journal of Higher Education*, 1970(Nov), Vol. 41(8), 638-644.—Evaluated the letter grades of a random sample of 60 students in each undergraduate class taking courses on a pass-fail basis. Analysis of GPAs by class level indicates no differences for the senior Ss. The average GPAs in all other classes were significantly ($p < .01$) higher than the average GPAs in the pass-fail courses. Freshmen failed at a rate of 10% under pass-fail, whereas the rate for all freshmen was 4-5%. Factors affecting the poorer performance by all but the senior Ss are discussed in terms of courses taken, the ability of the students, and misconceptions about the nature of the pass-fail system. It is concluded that "a shift in emphasis from the nature of the student to the nature of the discipline as the basis of a pass-fail system might well be in order." An example of such a system is presented and discussed.—S. Knapp.

5686. Shuert, Keith L. (Wayne State U.) **A study to determine whether a selected type of cognitive style predisposes one to do well in mathematics.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3352-3353.

5687. Sinha, N. C. (Gaya Coll., India) **Need for achievement and academic attainment.** *Indian Educational Review*, 1970(Jul), Vol. 5(2), 59-63.—Investigated the relationships between need for achievement and academic achievement of 400 10th and 11th grade boys (age range, 12-16 yr.) equally divided among high and low achievers. 2 consecutive school final examination scores provided the basis for their grouping into high (55% or more) and low (below 30%) achievers. McClelland's n Achievement test was administered to the groups under neutral instructional set. Results show that McClelland's test was significantly and positively correlated with academic achievement. The obtained phi coefficient, .41, was significant at the .01 level. The findings suggest that an intensive study of need for achievement under different experimental conditions should be made to find out the criterion for predicting academic achievement.—K. C. Panda.

5688. Smith, I. Leon. (U. Cincinnati) **IQ, creativity, and the taxonomy of educational objectives: Cognitive domain.** *Journal of Experimental Education*, 1970(Sum), Vol. 38(4), 58-60.—Based on the assumptions of the *Taxonomy of Educational Objectives: Cognitive Domain* and its definitions of cognitive processes, it was hypothesized that the 1st 4 taxonomic levels are related to intelligence alone, but that performance on the upper 2 levels would require creative and intellectual abilities. The Lorge-Thorndike Intelligence Test, 2 creativity tests, and taxonomic tests were administered to 141 11th graders. Multivariate stepwise regression procedures were employed to determine the contributions of IQ and creativity to variation on the taxonomic tests. Results support the hypotheses. Implications are discussed in relation to B. S. Bloom's model of mastery learning and the teaching for creativity.—*Journal abstract.*

5689. Soares, Anthony T. & Soares, Louise M. (U. Bridgeport) **Expectancy, achievement, and self-concept correlates in disadvantaged and advantaged youths.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 561-562.—In measuring the relationship of aspirational level, academic achievement, and self-concept of disadvantaged youths, it was found that disadvantaged boys indicated a higher expectation as to final grades than advantaged boys but lower achievement. They also

had a significant discrepancy between expected and actual grades, while advantaged boys were more realistic in terms of aspiration and achievement although significantly lower in self-concept.—*Author abstract.*

5690. Solomon, Daniel; Houlihan, Kevin A., Busse, Thomas V., & Parelius, Robert J. (Inst. for Juvenile Research, Chicago, Ill.) **Parent behavior and child academic achievement, achievement striving, and related personality characteristics.** *Genetic Psychology Monographs*, 1971(May), Vol. 83(2), 173-273.—Indices of academic achievement, achievement-related behavior, behavior with parents, and personality characteristics were obtained for 72 lower-class Negro 5th graders in several school settings and in a home problem-solving session in which the behavior of their parents, who participated and helped with a series of tasks, was also observed. Numerous relationships were found between parent behavior and child achievement and related personality characteristics. In addition, there were several combined relationship sets in which child personality and behavior variables appeared to serve intervening functions between parent behavior and child achievement. (43 ref.)—*Author abstract.*

5691. Tennyson, Robert D. (Brigham Young U.) **Instructional variables which predict specified learner concept acquisition and errors.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 551-552.—2 experiments were conducted to investigate variables which predict learner response patterns in concept acquisition. In Exp. I, the independent variables were: (a) relationship of exemplars with nonexemplars, (b) probability ratings of exemplars and nonexemplars, and (c) relationship of exemplars to each other. For Exp. II, no nonexemplars were included. The manipulation of the variables hypothesized 4 dependent outcomes: (a) correct classification, (b) overgeneralization, (c) undergeneralization, and (d) misconception. 7th graders from 3 school districts were selected as the 260 Ss. The predicted outcomes for Exp. I were significant at $p < .01$. Exp. II Ss had random response patterns on the posttest instead of predicted errors.—*Author abstract.*

5692. Toma, Roberta J. (Fordham U.) **The efficiency of auditory and visual discrimination tasks in the reading process.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3357.

5693. Velikanič, Ján. (Comenius U., Faculty of Pedagogy, Trnava, Czechoslovakia) **Množstvo vedomostí či rozvoj myslenia?** [Quantity of knowledge or development of thinking?] *Jednotná Škola*, 1969(Jun), Vol. 21(6), 481-486.—Considers the vast quantity of scientific knowledge and the problem of selecting that which is indispensable to the pupil and an instrument for thinking and acquiring further knowledge. This problem is reflected in the theories of material and formal learning. Development in pedagogical thinking is described as mastering the extremes of both theories. Potential "formativity," i.e., the measure in which knowledge contributes to the formation of general and more lasting mental qualities, is considered as the determiner of selection. The relationship between phase development and selection of knowledge, the question of the internal structure of the teaching matter, and the sense and aim of the pupil's learning in school are discussed. (Russian summary) *English summary.*

5694. Weems, James L. (U. Idaho) **The relative effects of induced success and induced failure on achievement test performance.** *Dissertation Abstracts*

International, 1971 (Jan), Vol. 31(7-A), 3283.

5695. West, Charles K., Lee, J. Frank, & Anderson, Thomas H. (U. Illinois) **The influence of test anxiety on the selection of relevant from irrelevant information.** *Journal of Educational Research*, 1969(Oct), Vol. 63(2), 51-52.—Tested 58 6th and 8th graders with the Test Anxiety Scale for Children and 1 of 2 forms of an achievement test. 1 form of the achievement test (selectivity high) contained no irrelevant information, and the other form contained irrelevant information in each item (selectivity low). Analysis of variance indicates a significant effect for selectivity forms of the test ($p < .01$) and an interaction between selectivity and test anxiety ($p < .05$).—*Journal abstract*.

Prediction

5696. Biggs, Donald A. & Tinsley, Diane J. (U. Minnesota) **Student-made academic predictions.** *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 195-197.—Describes a measure of student-made academic predictions, and examines the relationships between these predictions and measures of college aptitude and college freshman grades. Predictions were measured using the College Opinion Survey (COS), an adaptation of the Michigan State General Self Concept of Ability to Learn Scale. COS is an 8-item inventory including both academic self-acceptance and self-evaluation ratings. Individuals respond in terms of various academic reference groups. Information was collected on 2 freshman samples ($N = 134$) and 1 sophomore sample ($N = 118$). Findings indicate that student-made predictions as measured by the COS are related to college achievement even when differences in college aptitude are controlled.—*Journal abstract*.

5697. Binder, Dorothy M., Jones, John G., & Strowig, R. Wray. (St. Xavier Coll.) **Non-intellective self-report variables as predictors of scholastic achievement.** *Journal of Educational Research*, 1970(Apr), Vol. 63(8), 364-366.—Compared 2 studies with a total of 335 male and 328 female 12th graders. The utility of 2 non-intellective variables, self-expectations and self-concept of ability, as predictors of scholastic achievement was examined. Because of its established predictive potential, academic aptitude was included as an independent variable in the multiple regression equations. Results show no significant differences in the 2 female samples. A significant difference was found in the coefficients of the 2 male samples. The sheer magnitude of the multiple correlations was noteworthy. When the nonintellective variables were added to the regression equations, a sizeable gain in explaining variance in scholastic achievement was made over that usually reported.—*Journal abstract*.

5698. Borgen, Fred H. **Differential expectations? Predicting grades for black students in five types of colleges.** *National Merit Scholarship Corporation, Research Reports*, 1971, Vol. 7(2), 8 p.—Compared the precollege characteristics and college performance of 477 male and 837 female black students who had been nominated by their high schools for participation in the 1st annual National Achievement Scholarship Program. Ss returned a questionnaire following their freshman year and were grouped according to their attendance at 5 types of colleges: predominately black—public or private; predominately white—high, moderate, or low selectivity. Statistically significant correlations were

found between scores of the National Merit Scholarship Qualifying Test (NMSQT) and freshman grades. Several of the relationships were modest, particularly for the highly selective colleges. An inverse relationship was found between GPAs and average NMSQT scores at the black and white colleges. It is concluded that the college performance of the average black student is a joint function of his level of educational development (e.g., NMSQT) and the type of college he attends.—*Journal abstract*.

5699. Bradley, Richard W. & Sanborn, Marshall P. (Southern Illinois U.) **Using tests to predict four-year patterns of college grade point.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(2), 138-142.—Employing a developmental approach based upon improvement, decline, variation, and consistency of high-school grades, 354 university students participated in a study to determine the predictability of their college GPA. The 4 content areas used as predictor measures were abstract reasoning, quantitative, reading, and verbal. Results indicate that the null hypothesis could not be rejected. Thus, patterns of post-high-school academic performance cannot be predicted from longitudinal high school test performance.—R. H. Mueller.

5700. Bruininks, Robert H. & Lucker, William G. (U. Minnesota) **Change and stability in correlations between intelligence and reading test scores among disadvantaged children.** *Journal of Reading Behavior*, 1970(Fal), Vol. 2(4), 295-305.—Reports correlations between intelligence and reading test scores using a longitudinal approach. 36 elementary-aged Ss, mostly Negro, were used. Increments in correlations between IQ and reading test scores from the 1st to the 4th grades were found. Results suggest that vocabulary ability becomes highly associated with reading performance as the child advances through school. IQ scores are good predictors of later reading performance but are poor predictors of early reading performance. Test-retest reliability coefficients on the Stanford-Binet and Peabody Picture Vocabulary tests were high enough to indicate that the IQ scores are relatively stable with disadvantaged children. Several explanations are given for the rise in correlations between IQ and reading scores with age.—W. L. Chovan.

5701. Dawes, Robyn M. (Oregon Research Inst., Eugene) **A case study of graduate admissions: Application of three principles of human decision making.** *American Psychologist*, 1971(Feb), Vol. 26(2), 180-188.—Reports that 3 principles of human judgment apply to the decisions of a graduate admissions committee. The 1st of these principles is that a linear combination of the variables considered by the committee does a better job of predicting graduate success than does the committee; the 2nd principle is that the committee's judgment may itself be represented "paramorphically" by a linear combination of these variables, and the 3rd that this paramorphic representation is superior to the committee in predicting graduate success. (42 ref.)—*Author abstract*.

5702. Jones, John G. & Grieneeks, Laurabeth. (U. Oklahoma) **Measures of self-perception as predictors of scholastic achievement.** *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 201-203.—Certain non-intellectual variables recently have been developed and have proven to have meaningful relationships to academic achievement. These instruments were administered to 411 female and 466 male undergraduates. The

nonintellectual measures employed were the Identity Rating Scale, Self-Concept of Ability, and Self-Expectations Inventory. These, along with a measure of scholastic aptitude, were used to predict scholastic achievement. All variables were positively associated with achievement and all, with the exception of self-expectation and scholastic aptitude were positively associated with each other. It was inferred that, at this developmental period, self-perception appears to be the most accurate predictor of academic achievement. —*Journal abstract.*

5703. **Keefer, Karl E.** (U. Tennessee, Memphis) **Self-prediction of academic achievement by college students.** *Journal of Educational Research*, 1969(Oct), Vol. 63(2), 53-56.—At the beginning of 4 grading periods of a school year, 154 undergraduates predicted their grades. Self-predicted GPAs (SP GPA) were correlated with achieved GPAs (Ach GPA)—the criterion—for each grading period. These were compared with correlations using the composite standard score on the American College Test (ACT) and the high school total GPA (HS GPA) in place of the SP GPA, and with correlations between Ach GPAs at consecutive grading periods. SP GPA yielded significantly higher ($p < .01$) correlations than ACT or HS GPA at the 2nd and 4th grading periods. Previous Ach GPA yielded significantly higher ($p < .01$) correlations than all other predictors. When correlations were computed by academic classification, SP GPA maintained its stability regardless of classification. Correlations using HS GPA or ACT tended to decrease after the freshman year. Correlations using Ach GPAs remained consistently high for all classifications. —*Journal abstract.*

5704. **Lewis, Vern C.** (Biola Coll.) **Prediction of academic performance from adolescent attitude-press organizations.** *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 204-208.—Attempted to produce nonintellective variables from adolescent attitude-press organizations that would combine with IQ and other known predictor variables to increase the predictability of academic performance in mathematics and English. This study was based on a phenomenological theory of cognitive consistency stipulating that the higher a student's score on scales of attitude-press items toward given subjects, the more likely it would be that he is or would be doing well in that subject. The attitudes of students toward the perceived academic presses emanating from parents and peers were obtained from a sample of 227 high school juniors. Results demonstrate that the attitude-press variables made a significant contribution to the increased prediction of academic performance in each area. —*Journal abstract.*

5705. **Merenda, Peter F. & Reilly, Raymond.** (U. Rhode Island) **Validity of selection criteria in determining success of graduate students in psychology.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 259-266.—Validated a set of 6 predictor variables against a discrete criterion measuring success in graduate study in psychology. The predictors were: (a) total undergraduate GPA, (b) GPA in psychology courses, (c) the 3 Graduate Record Examinations (GREs), and (d) a rating of the college in which the baccalaureate degree was earned. The criterion was trichotomized into: 2 success-level categories and a failure category. Multiple discriminant analysis of the data, based on a sample of 77 students who had been admitted to graduate study in psychology, yielded a statistically significant value of D^2 ($p < .001$).

The greatest weight in providing the maximum separation among the 3 criterion groups was assumed by total GPA, GRE-Advanced score, and the grades in undergraduate psychology courses. —*Journal abstract.*

5706. **Miller, Robert E.** (Lackland Air Force Base, Personnel Research Div., Tex.) **Predicting first year achievement of Air Force Academy cadets, class of 1968.** *USAF AFHRL Technical Report*, 1968(Jul), No. 68-103, 14 p.—Candidates for admission to the Air Force Academy are required to demonstrate their qualifications on a battery of selection tests. Successful candidates, upon admission to the Academy, are administered a battery of experimental tests as part of a program for the development of officer selection and classification instruments. The experimental tests are not used in making decisions affecting cadets, but both the selection and experimental batteries are validated against criteria which become available at the end of the 4th class (freshman) yr. The criteria used for the validation study in the class of 1968 were the Academic Standard Score, Military Rating, Extracurricular Activities Standard Score, Composite Standard Score, and Early Motivational Elimination. Selection tests common to the classes of 1967 and 1968 tended on the whole to be slightly less valid in the class of 1968. However, the nonacademic selection tests were somewhat more valid in the class of 1968 as predictors of the Military Rating. All criteria were validly predicted by 1 or more of the experimental tests, but no set of experimental tests was found which contributed uniquely and validly to prediction of the Academic Standard Score or Extracurricular Activities Standard Score in the context of the selection tests. The highest multiple correlations with these criteria were .60 and .41, respectively. Sets of experimental tests were found which contributed uniquely and validly to prediction of the Military Rating and Early Motivational Elimination in the context of the selection tests. The highest multiple correlations with these criteria were .54 and .25, respectively. The Composite Standard Score, because of its high correlation with the Academic Standard Score, was not used in any multiple regression analysis. The best predictor of this criterion was the Academic Composite, composed of selection tests. Its validity was .51. —*USAF AFHRL.*

5707. **Molnar, George E., DeLauretis, Robert J., & LeBold, William K.** (Purdue U.) **Discriminant and regression models of college persistence and vocational decisions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 519-520.—Examined the efficiency of precollege data, 1st-semester GPA, and interest scores in predicting the 7th-semester classification of 904 students who originally enrolled in a freshman engineering department. The statistical method used was multiple discriminant analysis. Ss were classified with regard to both university status and specific field of study. The percent of correct classifications ranged from 51-82. The most dominant predictor was 1st-semester GPA, although the interest scores consistently demonstrated statistical significance. Also, the comparability of multiple point-biserial correlation to simple linear discriminant function was shown empirically. —*Author abstract.*

5708. **Speedie, Stuart; Hobson, Sandra; Feldhusen, John, & Thurston, John.** (Purdue U.) **Evaluation of a battery of noncognitive variables as long-range predictors of academic achievement.** *Proceedings of the Annual Convention of the American Psychological*

Association, 1971, Vol. 6(Pt. 2), 517-518.—Attempted to answer the following questions: (a) Which of a battery of biographical, interview, attitudinal, and projective variables are significant long-range predictors of academic achievement? (b) What are the multiple correlations of the optimum batteries of these predictors with 4 indices of academic achievement? Predictor data were secured on 265 3rd, 6th, and 9th graders, and their academic achievement was assessed 8 yr. later. Multiple Rs up to .64 were found. The best long-range predictors were a measure of aggressive traits and the Kvaraceus Delinquency Proneness subscale for items related to school.

Author abstract

5709. Tseng, M. S. & Sonstegard, M. A. (West Virginia U.) Identifying preschool children with learning problems. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 563-564.—A longitudinal project beginning with preschool and extending through Grade 10 was designed to study child behavior in the school for the purpose of identifying variables which inhibit social and academic adjustment and to establish criteria for the identification of preschool children with learning problems. 17 personal characteristics rated by 6 professional Os and 7 measures acquired from parents through interview at the kindergarten year were examined as determinants of the children's educational development during the subsequent years (Grades 1-10). Among the significant correlates ($p < .05$) of academic development found were general attitude, self-confidence, attention span, cooperativeness, discouragement, parents' handling of children's hassles, and parents' attitude toward children. Results of a 1-way analysis of variance conducted to compare underachievers and achievers are also presented, and the possible impact on preschool education is discussed.—*Author abstract*.

5710. Wiggins, Nancy; Blackburn, Margaret, & Hackman, J. Richard. (U. Illinois) Prediction of first-year graduate success in psychology: Peer ratings. *Journal of Educational Research*, 1969(Oct), Vol. 63(2), 81-85. Compared a variety of measures in predicting 1st-yr GPA in graduate school in psychology. The predictors included standard ability measures, e.g. the Graduate Record Examination, biographical characteristics, peer ratings on intellectual and personality variables, and scales from the Opinion, Attitude, and Interest Survey. The samples involved 46 psychology 1st-yr students in 1965 and 58 students in 1966. Results indicate that among all predictors only the peer ratings demonstrated predictive validity of 1st-yr grades (19 ref.)—*Journal abstract*.

Overachievement & Underachievement

5711. Bachtold, Louise M. (U. California, Davis) Personality differences among high ability underachievers. *Journal of Educational Research*, 1969(Sep), Vol. 63(1), 16-18.—Studied personality characteristics of 227 achieving and underachieving bright 5th grade students with the Children's Personality Questionnaire. Underachievers were grouped on the basis of (a) low grades, (b) low achievement test scores, and (c) both low grades and achievement scores. Credulity, self-confidence, and self-control were components in successful female achievement; emotional stability, seriousness, and sensitivity were components in successful male achievement. Underachievers differed in personality factors according to type of underachievement. Under-

achieving female groups differed in credulity, self-confidence, self-control, and excitability. Underachieving male groups differed in emotional stability, cheerfulness, and sensitivity. Remediation should consider variation in need as related to sex and type of underachievement.—*Journal abstract*.

5712. Kirkendall, Don R. & Gruber, Joseph J. (U. Kentucky) Canonical relationships between the motor and intellectual achievement domains in culturally deprived high school pupils. *Research Quarterly*, 1970(Dec), Vol. 41(4), 496-502.—Utilizing canonical correlation analysis, the multivariate relationship between selected measures of motor performance and intellectual achievement was studied on 91 high school pupils. The Ss were culturally deprived students who had been achieving well below their expected capacity. A significant relationship was found between the intellectual achievement and motor performance domain. Also, significant relationships were found between the intellectual achievement domain and both subdomains of fitness and coordination. Results are compared with the univariate analyses in a previous study. It is concluded that when the degree of relationship between 2 domains is desired, canonical correlation analysis may be of more value than the usual univariate procedures. (25 ref.)—*Journal abstract*.

5713. Mehta, Prayag & Dandia, P. C. (Indian Inst. of Mass Communication, New Delhi) Motivation training for educational development: A follow-up study of bright underachievers. *Indian Educational Review*, 1970(Jul), Vol. 5(2), 64-73.—Reports the findings of a follow-up study of teachers and pupils who were earlier identified as bright underachievers in Grade 9, about 1 yr. after they were given motivation training. Pupils who had received training in achievement motivation 1 yr. before continued to show stable and significantly higher gains in need for achievement than those who did not. The additional treatment of classroom goal-setting ceased to give extra benefit to the pupils as far as the gains in need for achievement were concerned. However, pupils who were given either training in achievement motivation or in classroom goal-setting showed more significant scholastic achievement than pupils who received both the training and/or no training. Teachers continued to maintain their gains in need for achievement 9 mo. after they had completed teaching the achievement motivation course to their pupils and 1 yr. after their own training. K C Panda.

5714. Reisel, Arthur. (Rutgers State U.) A comparison of group and individual factors in scholastic underachievement. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3350.

5715. Schmidt, Børge H. (School-Psychological Counseling Office, Tårnby, Denmark) Børns alder ved skolestart: I. pædagogisk belysning. [Age when school starts: I. pedagogic explanation.] *Skolepsykologi*, 1970, Vol. 7(2), 106-112. Lower-age children profit from school as well as mean-age children. The critical problem is not age but socioeconomic level and sex. Boys from low levels dominate as failures after starting school.—P. Mylov.

5716. Smith, Leland. (U. Kentucky) A 5-year follow-up study of high ability achieving and non-achieving college freshmen. *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 220-222.—Describes a 1966 follow-up study investigating the present status and significant differences between 50 high ability achieving

and nonachieving male college students of a 1960 study. Ss had scored in a percentile range of 95-99 on the College Qualification Tests. The psychosocial data were collected by means of a questionnaire, and significant differences were determined through the chi-square method of statistical analysis. The resulting profiles indicate the possibility that many high ability non-achievers might achieve if they were given early guidance and were allowed the opportunity to change their academic programs.—*Journal abstract.*

CURRICULUM & PROGRAMS

5717. Asbury, Charles A. (Fayetteville State U.) **Some effects of training on verbal mental functioning in Negro pre-school children: A research note.** *Journal of Negro Education*, 1970(Win), Vol. 39(1), 100-103.—20 4-6½ yr. old preschool children enrolled in a private church-related kindergarten were administered the Primary Mental Abilities test, Form K1. After the pretest Ss were "blocked" and randomly assigned to an experimental and a control group. Experimental group Ss received teaching from the Peabody Language Development Kit for 45 min/day for 15 days. Controls received "normal" kindergarten routine. Using the t test for correlated samples, results indicate that there were no significant differences between groups on the posttest. It is concluded that specialized training of Negro preschool children for a short period of time does not result in improved verbal ability.—*W. E. Sedlacek.*

5718. Berke, Melvyn A., Johnson, Edward E., & Stabler, John R. (Myers Child & Adolescent Center, Dallas, Tex.) **Children's discrimination learning as a function of type of reinforcement and amount of preschool experience.** *Psychology*, 1971(Feb), Vol. 8(1), 54-57.—Studied performance on a discrimination learning task as a function of 4 reinforcement conditions and amount of preschool experience. Children enrolled in a Head Start program for either 1-3 mo. or 10-12 mo. learned faster than matched non-Head Start children. Generally, no incentive effects were obtained, but non-Head Start children required more trials to criterion under promised reward conditions than under immediate reward conditions. Results were interpreted as evidence that there are beneficial consequences associated with attending Head Start.—*J. A. Blazer.*

5719. Bersoff, Donald N. & Ericson, Colleen R. (Ohio State U.) **A precise and valid measure of behavior and behavior change.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 555-556.—Suggests a method for the direct and continuous observation of behavior as it occurs in the naturalistic environment (classroom) as an alternative to individual testing and other observational techniques, especially those which use predetermined time segments and chart behavior in percentages. The method—behavior rates—using a base of movements/min is seen as increasing the information obtained/unit of assessment time and providing daily accurate feedback concerning the efficacy of a behavioral strategy. A case report employing the method is used for illustration.—*Author abstract.*

5720. Bressi, Elizabeth. (Columbia U.) **A study of the painting of six educationally disadvantaged children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3442.

5721. Calfee, Robert C. (Stanford U.) **Information-processing models and curriculum design.** *Educa-*

tional Technology, 1970(Apr), Vol. 10(4, Pt. 1), 30-38.—Considers "(a) the relation of theoretical analyses of learning to curriculum design, (b) the role of information-processing models in analyses of learning processes, and (c) selected examples of the application of information-processing models to curriculum design problems." A decision model for recognition tests, an additive-factor model, and response-dependent teaching strategies are discussed. (27 ref.)—*S. Knapp.*

5722. Craig, Bruce P. (North Texas State U.) **The interacting effects of anxiety levels, task complexity, and warm-up conditions on learning a serial type motor task.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3316.

5723. Deterline, William A. (Deterline Assoc., Los Altos, Calif.) **A curriculum is a set of specifications of which of the following: A. stimuli, B. responses, C. both A and B, D. neither A nor B.** *Educational Technology*, 1970(Apr), Vol. 10(4, Pt. 1), 48-49.—Discusses the fact that curriculum design and development have traditionally been stimulus oriented, with teaching materials constituting "a package" of such stimuli. It is felt that problems of effective teaching will not be resolved until the curriculum becomes more response oriented around the student. Some of the objections to this more response-oriented curriculum are described.—*S. Knapp.*

5724. Ducette, Joseph & Wolk, Stephen. (Temple U.) **The limitations of the interaction hypothesis in regard to ability grouping.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 525-526.—Focuses on the question of an interaction over time between ability grouping and personality variables, and examined pertinent data from 260 female high school students. 2 standardized personality instruments (Test Anxiety Questionnaire and the Mehrabian scale measuring need to avoid failure and need for achievement), in addition to several scales designed by the Es, were administered to students of the upper and lower ability tracks in a Catholic high school. Grades 9 and 12. Ss in the lower track were found to have a lower need for achievement, a higher need to avoid failure, and a higher average score of test anxiety than Ss in the upper track. The effects of ability grouping did interact with grade level for a correlate of personality, level of aspiration. Relative to Ss in the upper track, lower track Ss experienced a reduction in level of aspiration over time. Both future directions of associated research and educational practices are discussed within the context of the present findings. *Author abstract.*

5725. Dunn, John P. (Texas A & M U.) **The relationship between strength and selected social and personality factors.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3318.

5726. Eisenman, Russell. (Temple U.) **Complexity-simplicity, experience, and ratings of a textbook.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 958.—Investigated the effects of a personality measure, preferences for polygons varying in complexity-simplicity, and 1 background index, i.e., number of semester hr. in psychology. Ss were 60 psychology students who rated their text, Shaffer and Shoben's *The Psychology of Adjustment* on a 1-7 scale. Results suggest that the text may be inappropriate for advanced students and that a personality and background index are related to an aspect of student preference.—*P. Herzberg.*

5727. Entwisle, Doris R., Grafstein, David; Kervin,

John, & Rivkin, Marian. Giant steps: A game to enhance semantic development of verbs. *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Sep), No. 81, 36 p.—Describes a game "Giant Steps," designed to aid in the semantic development of verbs. It can be made suitable for children in all the elementary grades by changing the story base. An experimental evaluation of the game conducted with 45 3rd grade inner city children demonstrates that the game does foster the desired kind of development. Results are discussed in the context of current research on reading.—*Journal abstract.*

5728. Epps, Edgar G. (Tuskegee Inst.) **Interpersonal relations and motivation: Implications for teachers of disadvantaged children.** *Journal of Negro Education*, 1970(Win), Vol. 39(1), 14-25.—Describes the relationship between interpersonal relations and development of personality traits and attitudes associated with academic success or failure of disadvantaged students. It is concluded that: (a) the same socialization practices that lead to high achievement motivation also lead to low anxiety, (b) parents, siblings, and peers are responsible for the child's learning to value academic skills, and (c) the development of a strong sense of personal competence requires a history of interpersonal relationships with reward skill. In discussing implications for education, it is pointed out that: (a) parents should be involved as much as possible in the early school years, (b) racially integrated classes heterogeneous in socioeconomic distribution are likely to result in increased academic motivation for disadvantaged youngsters, (c) the child who tries should be rewarded regardless of how he performs, (d) success breeds success, and (e) pupils learn what teachers expect them to learn.—*W. E. Sedlacek.*

5729. Gájer, Samo. (Comenius U., Bratislava, Czechoslovakia) **Skúmanie postupov tvorby písomného záznamu o telocvičnom pohybe.** [Written recording of gymnastic movements.] *Studia Psychologica*, 1970, Vol. 12(4), 271-281.—Discusses a descriptive movement process where physical exercise is described in special gymnastic terminology in order to expedite the learning process. 2 description schemes were tested on 30 14-15 yr. old students in a sports school and 28 undergraduates in physical training. Achievement in mental processing of a written text was rated by a nonstandard test and a mathematical model. It is concluded that (a) the word-order arrangement of a grammatical-logical structure affects the course of perception of processing of written information; and (b) the most successful word arrangement follows the order of place, starting position, movement, and final position. (Russian summary) (30 ref.)—*English summary.*

5730. Geis, George L. (U. Michigan) **Premature instruction.** *Educational Technology*, 1970(Apr), Vol. 10(4, Pt. 1), 24-30.—Proposes that in the design and development of any instructional system, the problem of how to teach should be approached only after one has examined the question of when and what to teach. The 1st concern of the instructional designer should be the definition and demonstration of goals and needs at the societal level. Solutions to problems created by the needs may involve changing human behaviors. Furthermore, only those elements of the solution which do involve behavior change are likely to require instructional systems. No system should be developed until an inventory of relevant constraints and available resources is constructed and a plan for maintaining learned

behavior is devised. The decision to design and develop new instruction (or improve the old) should be arrived at cautiously, only after excluding all other alternatives. The instructional systems that finally do emerge from this decision process will be undeniably relevant and must, inescapably, become efficient.—*Journal summary.*

5731. Golin, Sanford. (U. Pittsburgh) **Project self-esteem: Some effects of an elementary school black studies program.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 733-734.—The development of a negative self-concept has been viewed as beginning early in the life of the Negro child. This report presents results of a project whose goal it was to develop "black consciousness" in Negro elementary schoolchildren. 200 students participated in activities designed to develop racial awareness and pride through the 5th and 6th grades. A measure of emotional adjustment was given to project children and a comparable control group at the beginning and end of the project. Results indicate that the project had a significant positive effect on the mental health of male children.—*Author abstract.*

5732. Guthrie, John T. **Learnability versus readability of texts.** *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*, 1970(Sep), No. 80, 29 p.—Distinguishes between the learnability and readability of text materials. Learnability is defined as the extent to which new learning results from reading a passage, and readability as the extent to which a passage is comprehended. The prediction of new learning with a variety of text variables was examined. 62 6th grade Catholic schoolchildren read 11 passages ranging from 2nd to 12th grade difficulty. Learning scores were based on 2 types of pre- and posttests. Results of stepwise regression analyses of text characteristics on learning scores reveal that the same characteristics, including word difficulty and sentence length, which predict comprehension also predict new learning. However, more than 1 text characteristic in a multiple regression equation did not significantly improve the predictability over the 0 order correlation. It is concluded that the classic readability formulas may be used to estimate the learnability as well as the readability of text materials.—*Journal abstract.*

5733. Hanson, Deanna S. (U. California, Los Angeles) **The effect of a concentrated program in movement behavior on the affective behavior of four year old children at university elementary school.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3319.

5734. Harris, Ruth W. (New York U.) **The effects of learning to relax differentially on the subsequent learning of a gross motor skill.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3320.

5735. Hatfield, Darrell J. (Utah State U.) **A three-year study of the effect of an individualized learning center on students' attitude and achievement.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3166.

5736. Johnson, Dale L. & Johnson, Carmen A. (U. Houston) **Comparison of four intelligence tests used with culturally disadvantaged children.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 209-210.—Compared the responses of 29 5-yr-old Head Start children on 3 brief intelligence tests (the Peabody Picture Vocabulary Test, the Draw-a-Man Test, and the Slosson Intelligence Test for Children and Adults) with those on the Revised Stanford-Binet Intelligence Scale (S-B). Correlations

with the S-B ranged from .79-.64. The Slosson was judged the best brief substitute for the S-B in that it correlated .79 with the S-B and its mean IQ was virtually the same as the S-B mean.—*Journal abstract.*

5737. Knecht, Harry G. (U. California, Berkeley) **Relationship between kinesthetic abilities and gross motor task performance with increasing practice for sixth and seventh grade boys.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3321.

5738. Lénárd, Ferenc. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A képességek fejlesztésének problémái iskolai kísérleti tanítás alapján.** [Some problems in developing human abilities on the basis of experimental teaching at school.] *Pszichológiai Tanulmányok*, 1967, No. 10, 177-183.

5739. Manly, David E. (Columbia U.) **The student's search for self-identity: A study-abroad program proposal for State University College, Geneseo, New York.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3297.

5740. Manning, Jean B. (North Texas State U.) **The influence of a short-term program to improve the self-concept of selected Negro children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3174.

5741. Meerdink, Robert C. (U. South Dakota) **The accuracy and sources of information concerning sex concepts of junior high school students, and their self-ratings of their knowledge of the concepts.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3177.

5742. Moffitt, P. & Nurcombe, B. (U. New South Wales, Kensington, Australia) **Action research: A pre-school for rural aborigines and Europeans.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 243-248.—Describes the establishment of a preschool kindergarten involving the active participation of aborigines and Europeans in a rural area of New South Wales. About 45 4 yr. olds were enrolled in 1970. 1/2 the Ss were being exposed to conventional preschool kindergarten activities, involving free play in an environment enriched with appropriate equipment. The other 1/2 were in a more structured classroom situation, stressing direct language stimulation. The 2 programs were compared for effectiveness in terms of IQ and language gains. It is concluded that of great importance was attention to differing cultural values. The success of the program was evaluated in terms of its acceptance by the majority of families who enrolled their children, including aborigine families.—*H. Roemmich.*

5743. Nedler, Shari & Sebera, Peggy. (Southwest Educational Development Lab., Commodore Perry Hotel, Austin, Tex.) **Intervention strategies for Spanish-speaking preschool children.** *Child Development*, 1971(Mar), Vol. 42(1), 259-267.—Compared 3 strategies of early intervention designed to increase the language and communication skills of disadvantaged 3-yr-old Mexican-American children. Treatment Group 1 (T₁) included 16 Ss in a planned Bilingual Early Childhood Educational Program. Group T₂ included 16 Ss who were indirectly involved in a Parental Involvement Program. Group T₃ was composed of 14 Ss in a traditional day-care center. Before and after a 9-mo intervention period, all Ss were tested with the Leiter International Performance Scale and the Peabody Picture Vocabulary Test in English and Spanish. On all measures, T₁ made significantly greater gains than T₂ or T₃, indicating the greater effectiveness of the planned Bilingual Early

Childhood Education Program.—*Journal abstract.*

5744. Nurcombe, B. & Moffitt, P. (U. New South Wales, Kensington, Australia) **Cultural deprivation and language defect: Project Enrichment of Childhood.** *Australian Psychologist*, 1970(Nov), Vol. 5(3), 249-259.—Describes 1 of 4 Aboriginal ways of life, the fringe-dwellers. Traditional Aboriginal folkways have been supplanted in this way of life by a culture of poverty. Attitudes harbored by these people and their way of life are described. The area of preschool education is noted as a special problem area, and various approaches to this problem are described. An experimental program under the auspices of the University of New South Wales is reported. An evaluation of this program is included. (16 ref.)—*H. Roemmich.*

5745. O'Connor, Colleen. (Texas Technological Coll.) **Effects of selected physical activities upon motor performance, perceptual performance and academic achievement of first graders.** *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 703-709.—Effects of 2 treatments, traditional physical education and physical activities suggested by N. C. Kephart, showed a significant difference in favor of the Kephart activities on measures of motor ability and internal lateral awareness. Ss were 59 male and 64 female 1st graders, randomly assigned to experimental and control groups. No significant difference was found between treatments on measures of academic achievement, external lateral awareness, lateral preference, or ability to draw geometric forms.—*Journal abstract.*

5746. Orring, Jonas. **Potenciál vzdelania: Skúsenosti z organizácie práce v švédскеj základnej škole.** [Potential of learning: Experience from the organization of work in Swedish elementary schools.] *Jednotná Škola*, 1969(Jun), Vol. 21(6), 487-500.—Reports an analysis of the experience and organization in the new Swedish elementary school. The demands of the scientific-technological revolution are seen as providing the necessity for the reorganization of the school system. At the present time an individual must expect to change his profession 2 or 3 times within his productive life. The old educational system is described as inadequate to meet these conditions. Scientific surveys have shown that intelligence is not a static phenomenon, and that the ability to acquire knowledge depends considerably on the will to learn. Social conditions also play a considerable role in the process and can determine the measure of the students' success in study. The new Swedish educational system, therefore, attempts to do away with all social, economic, and geographical obstacles, and to reduce the number of young people excluded from education. Technological innovations in the teaching in the new schools are described. (Russian summary)—*English summary.*

5747. Paonessa, John J. & Paonessa, Mary W. **The preparation of boys for puberty.** *Social Casework*, 1971(Jan), Vol. 52(1), 39-44.—Discussions with groups of high school and college students revealed that boys lacked instruction concerning sexual maturation. *M. W. Linn.*

5748. Paschal, Billy J. & Williams, Richard H. (Ball State U.) **Some effects of participation in a summer Upward Bound program on the self-concept and attitude of the disadvantaged adolescent.** *Journal of Negro Education*, 1970(Win), Vol. 39(1), 34-43.—31 15-18 yr. old adolescents, consisting of 15 girls and 16 boys (21 Negroes, 6 Caucasians, 3 Cubans, and 1

But among enrolled in an Upward Bound program were administered: (a) the Maryland Self Concept as a Learner Scale (SCAL), (b) the Operation Head Start Workers Attitude Scale (WAS), and (c) the Depression Scale (depression) and after a two-month program during 1968 Using L. Wilcoxon and Mann-Whitney U tests, results indicate that Negro Students achieved only higher (0.05 level) on the Maryland sub-scale of the SCAL on both the pretest and gain scores. It is reported that Negro boys showed a "more favorable" pretreatment score pattern on the WAS than Negro girls, and Negro girls showed positive gain scores on all variables but data are not presented. Upward Bound programs are recommended. —H. J. Sussman.

5743. Pilon, Barbara. (Indiana U.) Stimulating creative writing through literature. *Review of the Society of American Teachers*, 1970(Sep), Vol. 48(6), 33-61.—The selected bibliography plus numerous references are intended as a "starter kit" for teachers who want to read and use creative self-expression and to develop writing in their students. —H. J. Sussman.

5744. Prigoff, Ira. Dialogue House, New York, N.Y.) Toward a depth humanistic psychology. *Journal of Humanistic Psychology*, 1970(Mar), Vol. 10(2), 121-130.—This address was delivered to mark the inauguration of the California Graduate Institute program in depth humanistic psychology. The institute provides a place for studying man "not as a bundle of muscles and reflexes to be controlled, but as a human being who possesses creative and spiritual potentialities." Depth humanistic psychology is the study of learning as a perspective and method to enable modern man to move through growth transitions, "entering again and again into the core cycles of death and rebirth, and emerging each time upon a new plateau of being." A new type of curriculum to replace the traditionally pathological curriculum is presented, as a transition from a "P. Sussman."

5745. Quane, William L. (Michigan State U.) The relationship of visual perceptual capabilities as measured by the Perception of Traffic Hazards Test and behavioral categories as measured by the Mann Inventory. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3182.

5746. Scheraga, Ursula C. (New York U.) The effect of group study on individual academic achievement and individual study orientation in two-year higher technical education. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3182.

5747. Smith, Alfred S. (State U.) The importance of attitude in foreign language learning. *Modern Foreign Languages*, 1970(Sep), Vol. 23(3), 185-188.—The author discusses the role of attitude of the teacher, other school personnel, parents, and students. The author states that when a student enters the classroom he arrives with a set of attitudes. Among the negative attitudes toward the foreign language are: (a) the course is irrelevant and to be endured only for utilitarian reasons; (b) the foreign language is a barrier; (c) the fact that although the material is "new" it is presented in the same old way; (d) the feeling which Lambert calls "anomic," or hostility toward the foreign language; and (e) the feeling of being a failure. In order to cope with these negative attitudes and to develop a positive attitude, the nature of motivation and attitude itself. It is useful to

study the highly motivated student and see of him the same or better results. —H. J. Sussman.

J. Frymier, "The best teachers are those who comprehend the great mass of personal factors operating within the classroom, then observations and exacting methods, construct experiences which will be congruent with and the same direction as their pupils' expectations."

5754. Suciak, Robert F. (San Francisco) Self-selection and special educational program. *Journal of Higher Education*, 1970(Nov), 607-617.—Examined whether experimental involve a degree of self-selection large enough their outcome as part of a 4-yr study on the educational process on personality attitude and opinion survey were administered to students who volunteered for the Experimental Program and a similar group who did not. Students who volunteered differed significantly from those who did not in being relatively independent, having broader intellectual interests, and being personally more expressive, and aware of themselves. Data from while in college on attitudes toward the programs further support the differences between groups and the relative homogeneity of the group, despite widely differing views of the factor of self-selection in the development of experimental programs is discussed, and suggestions for counteracting two extreme self-selection are presented. —S. Anspach.

5755. Sullivan, Edmund V. (Ontario Inst. in Education, Toronto, Canada) The issue of design in the design and organization of the curriculum: A historical perspective. *Curriculum Inquiry*, 1970(Apr), Vol. 1(4, Pt. 1), 39-47.

The concept of curriculum design as a prescription for curriculum programming, the conception of mind and the theory of learning, and knowledge acquisition are examined in relation to historical precedents for this linkage. Explanations (emphasizing environmental, emphasizing intrinsic structures), and approaches (organism-environment interaction, historical and with reference to theory. The use of psychometry in determining curriculum design is discussed.

5756. Swain, Richard E. (North Texas State U.) Arousal responses to specific structured repetitive activities and events as determined by telemetry. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3367.

5757. Taylor, Janet K. (California State U.) The effect of instruction in computer programming on the deductive reasoning of junior high school students. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3367.

5758. Thorpe, John M. (U. Kansas) Does classical conditioning make functional distinctions between teaching and evaluation objectives? *Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 557-558.—The findings of the 1966

and the functional physical conditioning

and dependent variable effects on a single set of
to test these counterbalanced requirements in
factorial design

1. Introduction

2. Theoretical background and the importance of
the study of the physical conditioning of the
human body

3. Methodology and results, comparing the
two groups but does not reason with the results
of the physical conditioning and reflects the latter than
the former. The results of the physical conditioning
are not discussed in the context of the study
the negative and positive effects of the physical
conditioning on the study

evaluation of physical conditioning 7. A. W. Jones

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Teaching Methods & Teaching Aids

10. Teaching Methods & Teaching Aids

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conditioning on the study

manifest anxiety. *Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6(Pt. 2), 541-542.*—Investigated the possibility of differential relationships between manifest anxiety and a teacher-centered vs. a student-centered mode of college classroom instruction. Results indicate disordinal interactions with 2 different subject matters and with 4-wk intervals between the administration of the anxiety and criterion measures. The student-centered approach was shown to be optimal for students low in manifest anxiety, while the converse was indicated for those high in manifest anxiety. While predictions of optimal mode were limited to those high in manifest anxiety, it is concluded that these variables disordinally interact.—*Author abstract.*

5769. Edling, Jack V. (Oregon State System of Higher Education, Monmouth) **A basic reference shelf on instructional media research.** *ERIC-Stanford, Calif., Series 1, 1967(Nov), 10 p.*—Presents an introductory research bibliography on instructional media categorized for (a) identification of significant research questions, (b) completed research, (c) measurement methodology, (d) research design considerations, (e) analysis of data, and (f) proposal and report writing. (28 ref.)—*S. Knapp.*

5770. Fleming, Malcolm I. (Indiana U., School of Education, Div. of Instructional Systems Technology) **Perceptual principles for the design of instructional materials.** *Bulletin of the School of Education, Indiana U., 1970(Jul), Vol. 46(4), 69-200.*—Intended for those who "design instructional materials or teach others to do so," this report translates the "findings and generalizations from perceptual research" and media studies into "guidelines applicable to the practical problems" of materials design. "Topics in the report include attention; perception of objects, pictures, words; perceptual processing and capacity; perceptual distinguishing and organizing; perception of size, depth, space, time, motion; perception and cognition." The emphasis, for the instructional message designer, is on vision and audition. (43 ref.)—*J. Linnick.*

5771. Francois, William F. (Marshall U.) **Programed instruction of news writing skills.** *Journalism Quarterly, 1968(Win), Vol. 45(4), 735-738.*—Programed instruction was shown to be an effective method for teaching news writing skills. Furthermore the method offers a systematic way of continuing to improve news writing instruction.—*J. A. Kline.*

5772. Gadorné-Donáth, Blanka & Hegedűs, Gyuláné. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **A tanulók aktívizálhatóságának kérdése egy novellátételekani vizsgálat tükrében.** [Procedures for eliciting active participation of pupils during classes. An educational-psychological survey.] *Psychologiai Tanulmányok, 1968, No. 11, 185-198.* Reports an educational-psychological experiment with 5th and 6th graders in the course of 2 school yr. Signaling by Ss during their Hungarian literature classes was elicited by questions drawn up in advance and released at a particular moment during class. Recordings of signaling were made in 5 distinct and psychologically well prepared periods: 1 at the beginning of each school yr. to assess the unmanipulated, spontaneous activity of the Ss; and 3 later recordings when results had been influenced by previous preparation. Previous preparation included theoretical tasks on active preparation, psychological talks on individual problems and inviting subgroups of the youth organization to compete in active participation. Analysis of results indicates that any exhortation

of the educator and attempt at holding the Ss induced the activity of 25% of the group. About all the Ss appeared to be susceptible to prompting. The most striking changes from the psychologist's interview with the inhibited passive Ss. No significant differences were found between girls and boys with respect to their activity during the grammar and literature classes. (J. summary)—*English summary.*

5773. Gallagher, Paul D. (Florida State U.) **An investigation of instructional treatments and learning characteristics in a computer-managed instruction course.** *CAI Center Technical Report, Florida State U., 1970(Jul), No. 12, 94 p.*—Investigated 4 computer-managed instructional treatments to find which produced the most efficient and effective learning in graduate students. Sequencing was either S-paced or computer assigned while evaluation was conducted by instructor or by means of an S x Computer interaction. No differences were found among the 4 instructional treatments on any of 4 dependent measures: (a) pretest score, (b) final product score, (c) time to complete course, and (d) system time. Further analysis of the relationship between specific learner characteristics and course success. Ss who proved most successful in the course indicated that they liked it to be a self-paced learning situation, admitted to few feelings of anxiety, and expressed positive attitudes toward computer-managed instruction. A relationship between anxiety state and performance on task quality was found. (56 ref.)—*Journal abstract.*

5774. Glaser, Robert & Marino, Mary L. (IBM, Burgh, Learning Research & Development Center) **A basic reference shelf on programmed instruction.** *ERIC-Stanford, Calif., Series 1, 1968(Jun), 8 p.*—Presents an annotated bibliography covering instructional materials, programmed instruction, manuals for the programmer, user guides and information, and reference materials. (ref.)

5775. Hagerty, Nancy K. (Florida State U.) **Development and implementation of a computer-managed instruction system in graduate training.** *CAI Center Technical Report, Florida State U., 1970(Jul), No. 13, 10 p.*—Tested the feasibility of developing and implementing a graduate level course in computer-managed instruction (CMI) using 59 graduate students. Various approaches to both the management and the individualization of instruction were studied. The instructional logic included a motivational component. Ss bid points on his estimate of how well he would perform on a unit test. The investigation of CMI in Student x Terminal interaction was used to reduce the high cost of conventional computer-assisted instruction (CAI). This approach minimized student cost, yet incorporated the best aspects of CAI: individualized pursuit of goals, self-paced learning, immediate feedback, with automatic record keeping. (ref.)—*Journal abstract.*

5776. Hall, R. Vance; Crisler, Connie; Crandall, Sharon S., & Tucker, Bonnie. (U. Kansas) **Teachers and parents as researchers using multiple baseline designs.** *Journal of Applied Behavior Analysis, 1970(Win), Vol. 3(4), 247-255.*—2 teachers and 2 parents used 3 basic multiple baseline designs to study the effects of systematic reinforcement and extinction procedures in the classroom and at home. A single teacher concurrently measured the same behavior

teams as a technique for improving instructional achievement and efficiency. 54 9th-12th grade students were divided into 18 pairs and 18 individuals, where paired Ss were selected by mutual choice. Both groups took a 5-lesson Boolean algebra program consisting of a basic introduction to logic, set theory, and switching networks. No significant differences were found between the 2 groups on final examination scores, time variables, error rates, number of practice problems solved, criterion frame scores, or daily quiz scores. It is concluded that with 2 students at each computer-assisted learning terminal, educational costs may be substantially reduced and system efficiency increased. (32 ref.)—*Journal abstract.*

5787. Lucas, Nancy C., Harless, William G., & Thies, Roger E. (U. Oklahoma, Medical Center) **Computers in behavioral science: An experiment in learning behavior using computer-assisted instruction.** *Behavioral Science*, 1970(Sep), Vol. 15(5), 447-451.—Applies the attributes of computer-assisted instruction (CAI) to a behavioral experiment in verbal concept learning. The hypothesis states that giving the student freedom to acquire information according to his own cognitive style will facilitate his learning. 24 freshman medical students were randomly assigned to 2 groups. The control group was shown definitions of 11 physiological terms in a set order, while the experimental group was allowed to select, or structure, the order in which they saw the terms defined. The groups were carried to a criterion of correctly recalling each term 1 time. $\frac{2}{3}$ of the Ss in the experimental group showed a desire to structure the terms. However, the 2 groups showed no statistically significant differences in either the mean number of trials to criterion or in their mean scores on a retention test. Ss in the experimental group may not have been adequately motivated to become deeply involved in the organizational phase of the learning task. Ss' freedom to choose the sequence for presentation of a series of terms apparently did not result in increased efficiency during the rehearsal task. Consequently, CAI tutorial sessions might be more effective if they encourage freedom during the material integration phase rather than during initial acquisition of a rehearsal task.—*Journal abstract.*

5788. Majer, Kenneth; Hansen, Duncan, & Dick, Walter. (Indiana U., Inst. for Child Study) **Note on effects of individualized verbal feedback on computer-assisted learning.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 217-218.—Investigated the effects of 5 conditions for verbal feedback on 75 high school students in a computer-assisted instruction program. Various conditions of verbal praise used as feedback for correct answers were not significantly related to terminal performance. However, lack of positive verbal feedback significantly increased time to complete the task.—*Journal abstract.*

5789. Merrill, Paul F. (U. Texas) **Interaction of cognitive abilities with availability of behavioral objectives in learning a hierarchical task by computer-assisted instruction.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3345-3346.

5790. Merrill, Paul F. & Towle, Nelson J. (Florida State U.) **Interaction of abilities and anxiety with availability of objectives and/or test items on computer-based task performance.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 539-540.—Investigated the effects of behavioral objectives and/or criterion test

items on the learning process. The 123 Ss were randomly assigned to either an example-only, an objective-only, or an objective-test-example group. Objectives significantly increased the amount of time Ss spent studying the example displays. A significant Ability \times Treatment interaction revealed that display latency had a negative relationship to reasoning ability for Ss in the test-example and objective-test-example groups, but was not related to reasoning ability in the example-only and objective-example groups. Differential relationships between state-anxiety and treatment were also observed.—*Author abstract.*

5791. Meyen, Edward L., Frank, Alan R., & Rodvick, Myron. **Special class teachers as field testing evaluators.** *Training School Bulletin*, 1971(Feb), Vol. 67(4), 198-205.—Examines the feasibility of using special education teachers as evaluators of instructional materials. 19 junior high teachers were given instructional packages to use in their classrooms with directions to evaluate each lesson as well as the total unit. It was determined that teachers were able to make very useful comments in redesigning materials before final publication.—*Journal abstract.*

5792. Politzer, Robert L. (Stanford U.) **Toward individualization in foreign language teaching.** *Modern Language Journal*, 1971(Apr), Vol. 55(4), 207-212.—Briefly discusses the convergence of trends causing the present renewed and intensified interest in individualization in foreign language teaching: (a) reactions against a curriculum that tends to neglect individual differences; (b) present tendencies in learning theory which stress the role of the learner rather than the role of the teacher; (c) emergence of the "new style" psychological research which studies treatment aptitude interaction rather than the differential results of different treatments; (d) greater flexibility in the administrative framework; (e) technological advances, especially in the utilization of the computer for instructional purposes; and (f) the abandoning of foreign language requirements as part of general education. "Individualization of instruction seems the best response which Foreign Language Education can make in the present situation. It represents a challenge that must be met. Foreign Language Education is to continue to make an important and worthwhile educational impact."—*ILR abstract.*

5793. Puryear, Ruby H. (Columbia U.) **The effect of direct teaching on representational categorization in disadvantaged Negro kindergarten children.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3349-3350.

5794. Reibel, David A. (U. York, England) **Language learning analysis.** *IRAL: International Review of Applied Linguistics*, 1969(Nov), Vol. 7(4), 283-294. Discusses the principle that a "course designer must write his teaching material on the basis of a detailed analysis of various parameters of texts of the target language e.g., frequency, usefulness, business, or productiveness of lexical or structural items." It is unnecessary for the teacher to control the selection and sequencing of lexical, phonological, or grammatical elements. Instead the learner should receive materials that represent real language being used in real situations. (French & German summaries) (37 ref.)—*M. West.*

5795. Reinert, Harry. (Edmonds School District, Wash.) **Practical guide to individualization.** *Modern Language Journal*, 1971(Mar), Vol. 55(3), 156-160.—Presents a plea for individualization—the development

of courses which have flexibility and significance to students in foreign language programs. It is emphasized that individualization does not mean independent study or programmed learning. The term is more closely related to attitudes than to methods. A description of an improved foreign language program in Edmonds, Washington, mapping its conversion from a traditional course to an individualized one, shows that the new program is beginning to have an impact toward creating more positive attitudes among students and teachers alike toward foreign language study. *JLBA*

5296. **Rusner, Jerome.** (U. Pittsburgh, Learning Research & Development Center) **Phonic analysis training and beginning reading skills.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 533-534. Phonic analysis skills correlate highly with reading ability. This study probed (a) the possibility of training such skills with beginning 1st graders, and (b) the effect of the training upon reading performance. 16 illiterate 1st graders with equivalent analysis skills were stratified according to IQ and randomly sorted into 2 groups. All were given reading instruction. 1 group only was given 49 training sessions. Posttest scores show significant differences between groups in phonic analysis skills ($p < .005$), reading words drawn from their instructional material ($p < .008$), and reading unfamiliar words constructed from familiar graphemes ($p < .0005$). Educational implications are discussed. *Author abstract*

5297. **Rothkopf, Ernst Z.** (Bell Telephone Lab., Inc., Murray Hill, N.J.) **Towards a conceptual model of learning from written discourse: A review of experimental findings on the mathemagenic effects of adjunct questions.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 507-508. Presents a review of the experimental literature and a theoretical discussion of the conditions under which testlike events such as adjunct questions influence learning from written instructional materials. 2 roles of adjunct questions—rehearsal and the control of mathemagenic activities—are discussed. The review of the factors that influence the rehearsal role of adjunct questions includes trace consolidation mechanics and alteration of the effective discriminative stimulus. Mathemagenic effects are considered in terms of entering behaviors of students, distribution of relevant sentences in the text, nature and frequency of adjunct questions, question source, question placement, and relationship to inspection rate. *Author abstract*

5298. **Russell, Josiah J.** (U. Southern California) **Comparative effects of seven verbal-visual presentation modes upon learning tasks.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(2-A), 3425.

5299. **Scanland, Francis W.** (Florida State U.) **An investigation of the relative effectiveness of two methods of instruction, including computer-assisted instruction, as techniques for changing the parental attitudes of Negro adults.** *CU Center Technical Report*, Florida State U., 1970(Jul), No. 13, 74 p. Investigated the possibility of applying computer-assisted instruction to the task of changing attitudes of Negro parents toward the value of education for their children. The study was based on the theory that more positive attitudes would aid in solving the social problem of low educational achievement of Negroes in the South. A program of achievement was written, and, after translation into Coursewriter II computer language, entered in an IBM

1440 computer. A remote terminal located in a rural school was used by 22 Negro parents of schoolchildren. Concurrently the same material was given to 23 Ss by lecture discussion method, and a 3rd group of 22 Ss received no instruction. All Ss were administered pre- and posttests designed to measure attitudes toward education and related matters as well as an achievement test following the instruction phase. Results indicate that Ss attitudes were significantly and positively changed by the computer-assisted instruction and were not changed significantly by the lecture discussion instruction. It is concluded that computer-assisted instruction is a technique with high potential for application to adult education. (63 ref.) *Journal abstract*

5800. **Senour, Robert A.** (Wayne State U.) **A study of the effects of student control of audio tape learning experiences (via the control functions incorporated in the instructional device).** *Dissertation Abstracts International*, 1971(Jun), Vol. 11(7-A), 3381-3382.

5801. **Shulman, Lee S.** (Michigan State U.) **Psychological controversies in the teaching of science and mathematics.** *Science Teacher*, 1968(Sep), Vol. 35(6), 34-38, 89-90. Compares 2 major approaches to the understanding of learning in education: (a) learning by discovery as presented by J. S. Bruner, and (b) guided learning and instruction as developed by R. M. Gagne. The manner in which these 2 approaches may be applied to the teaching of a particular topic is presented. The 2 positions are compared with respect to instructional objectives and styles, readiness for learning, and transfer of training. Implications of this controversy for instruction in science and mathematics are examined. *P. McMillan*

5802. **Snow, Richard E.** (Stanford U.) **Research on media and aptitudes.** *Unpublished*, 1970(Sep), Vol. 166/1, 63-89. Aptitude-treatment interaction (ATI) research in education attempts to ascertain "in what manner do the characteristics of learners affect the extent by which they attain the outcomes from each of the treatments that might be considered." Or, considering a particular learner, which treatment is best for him? With respect to media research then, a prime task is to define some initial stimulus and person characteristics. Their extent can be assessed for ATI hypothesis and the final question is then laid for the design of ATI research on media. It is concluded that there is a need for new conceptions of general intelligence and aptitudes to understand the differences in learning based on the new forms of instruction. (21 ref.) *J. L. Loeck*

5803. **Solomon, Leonard.** **Innovazioni nei metodi di insegnamento delle scienze sociali e di comportamento.** *Unpublished* in teaching methods in the social and behavioral sciences. *Il Risveglio in Italia*, 1968, No. 58, 40-52. (1) Explores the T-group approach. (2) Explores the T-group as a new group training method in sociology and psychology. The T-group is a nonstructured group of 10-15 persons. The purpose of the group is the question of the means to achieve an authentic communication, which is possible by means of a deep understanding of one's self and of others. The T-group can be considered a micro-society with person-to-person communication. One can resolve conflicts concerning the interpersonal influences, one's understanding in communication, and one's attitude toward group authority. The T-group is organized as a course offered in universities, modeled by a sociologist or a psychologist. Each T-group member goes through a

phases of development: (a) the problem of truly belonging to the group, (b) the problem of leadership and influence, and (c) the problem of spontaneity and expression. "What seems necessary in the light of these teaching methods is the transformation of the classroom into a stage where the students are the actors, the teacher initially acts as director," but the presentation follows the lines of the modern theatre of art.—A. M. Farfaglia.

5804. Spielberg, Charles D. The effects of anxiety on computer-assisted learning. *CAI Center Technical Report, Florida State U., 1970(Jun), No. 7, 47 p.*—Examines the nature of anxiety in historical perspective, and discusses the concept of trait and state anxiety. Methods for measuring these constructs are described. Hypotheses about the effects of anxiety on learning were formulated in terms of Spence-Taylor drive theory and Spielberg's trait-state anxiety theory. 2 experiments with undergraduates tested the effects of anxiety on computer-assisted learning. It was found that state anxiety was a better predictor of performance than trait anxiety, and that performance was an interactive function of anxiety state and task difficulty. Some important implications for the classroom teacher of research on anxiety and learning are discussed. (34 ref.)—*Journal abstract.*

5805. Spielberg, Charles D., O'Neil, Harold F., & Hansen, Duncan N. Anxiety, drive theory, and computer-assisted learning. *CAI Center Technical Report, Florida State U., 1970(Sep), No. 14, 67 p.*—Investigated the effects of anxiety on computer-assisted learning. 4 studies with 7th grade and undergraduate males and females are reported. Ss were tested with the State-Trait Anxiety Inventory before and after being presented with science and mathematics materials by an IBM 1500 CAI system or in a laboratory setting. Results are discussed in terms of their implications for trait-state anxiety theory and drive theory. Findings support trait-state anxiety theory in affirming the importance of the conceptual distinction between anxiety trait and anxiety state, and in the prediction that high anxiety trait Ss will show greater elevations in anxiety state than low anxiety trait Ss in a learning situation in which the S's personal adequacy is evaluated, or which pose a threat to self-esteem. Findings also support the drive theory, although sex differences were noted which need further evaluation. (39 ref.)—*Journal abstract.*

5806. Spollen, Joseph C. (Fordham U.) The effect of individualization of instruction on cognitive and perceptual functioning of kindergarten children with a developmental lag. *Dissertation Abstracts International, 1971(Jan), Vol. 31(7-A), 3355.*

5807. Sporborg, Anthony. (New York U.) An experimental study of the effect of programmed productive thinking materials on the divergent and convergent test scores of sixth grade students in a suburban school system. *Dissertation Abstracts International, 1971(Jan), Vol. 31(7-A), 3355.*

5808. Thomas, David B. Two applications of simulation in the educational environment. *CAI Center Technical Memorandum, Florida State U., 1971(Feb), No. 31, 27 p.*—Discusses 2 simulations which provide a laboratory-like means for student involvement with complex quantitative models in the context of an individualized learning environment. STATSIM, exercises in statistics, permits the student to explore simulated representations of descriptive and inferential

statistics relating to sampling distributions, the concepts of Type I and Type II errors, and the sequential nature of hypothesis testing. The simulation of mathematical learning models provides a student laboratory for investigation of associative learning. An experiment using 23 graduate students investigated student control of instructional sequence with simulations employed as learning materials. Results suggest that naive students may show increased performance when permitted learner control over instructional sequence. (18 ref.)—*Journal abstract.*

5809. Torrance, E. Paul. (U. Georgia) Small group behavior of 5-year-old children under three kinds of educational stimulation. *Journal of Experimental Education, 1970(Sum), Vol. 38(4), 79-82.*—Investigated differential effects on the small group behavior among 5-yr-old children of 3 alternative approaches to educational stimulation. Ss were 48 children in a "traditional kindergarten approach," 48 children under the "creative-aesthetic approach," and 96 children under the "cognitive-structured approach." Ss were assigned to 4-person groups to function in teams to match correctly 12 sets of twin faces on plaques. The E oriented entire classes (15-25 Ss each) to the concept of team behavior and an O was assigned to each 4-person group. There were no statistically significant differences among the 3 sets of groups on amount of time required to complete the task. The behavior of the "traditional kindergarten" groups could be characterized as alert, cooperative, enthusiastic, organized, and friendly. That of the "creative-aesthetic" Ss could be described as bickering, fighting, absorbed, and enthusiastic. That of the "cognitive-structured" could be characterized as somewhat apathetic, inattentive, low in friendliness, and lacking in organization.—*Journal abstract.*

5810. Torrey, Jane W. & Silverman, Linda. (Connecticut Coll.) Teaching standard English grammatical morphemes to speakers of another dialect. *Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6(Pt. 2), 531-532.*—The grammar of nonstandard Negro English permits omission of certain grammatical morphemes that are required in standard English. Previous research had shown that Negro 2nd graders increased their use and understanding of the possessive "is" ending and the contracted "is" but not of the singular verb "s" after drills that gave practice with each morpheme separately without reference to other grammatical knowledge. In the present experiment (N = 24 2nd graders in a special summer program for children who needed extra schoolwork) the verb inflection was taught through a program that built upon the speakers' existing knowledge of tense inflections and the "is-are" distinction. Prompted verbal responding, writing, and understanding of the singular inflection were improved.—*Author abstract.*

5811. Wasik, Barbara H. & Simmons, Joyce T. (North Carolina, Chapel Hill) Management of small group behavior within a first grade classroom. *Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6(Pt. 2), 667-668.*—Management procedures were successfully employed to decrease the frequency with which 1st graders were leaving small work groups. Each group of 5-6 Ss were leaving small work groups. Each group of 5-6 Ss rotated daily through 5 activity times. During a modification condition, a special activity time was introduced

If no member of a group had left the group setting during the day that group had access to the entire activity time. The frequency of leaving the centers quickly decreased during the modification condition, increased during Base-Line II, decreased during Modification II. During the modification conditions appropriate behaviors within the groups increased and teacher time spent in managing behavior decreased. *Author abstract.*

5812. Zahorik, John A. (U. Wisconsin, Milwaukee) **Teacher verbal feedback and content development.** *Journal of Educational Research*, 1970(May), Vol. 63(9), 419-423. Examined the use of 16 types of feedback during the medial and terminal phases of ventures in general and in relation to 4 types of ventures: 8 3rd and 7 6th grade teachers taught 1 current events discussion lesson based on the same content for each grade level. Analysis of tape recordings indicate that teacher verbal feedback is not independent of phase and type of venture. Significant differences were found between the types of feedback used during the medial and the terminal phase. Significant differences were also found in relation to both medial and terminal feedback among the 4 types of ventures. The value of these feedback behaviors is considered.—*Journal abstract.*

PERSONNEL & INDUSTRIAL PSYCHOLOGY

5813. Askren, William B. & Newton, Richard R. **Review and analysis of Personnel Subsystem Test and Evaluation literature.** *USAF AFHRL Technical Report*, 1969(Jan), No. 68-7, 382 p. Reviews and analyzes 95 documents related to Personnel Subsystem test and evaluation. Reports are divided into 2 groups: system tests and related research material. Each report is abstracted and then analyzed further in terms of 11 categories: (a) scope and relation to personnel subsystem elements, (b) test objectives, (c) data requirements and test criteria, (d) data collection methodology, (e) support requirements, (f) reducing and analyzing data, (g) significant test results, (h) communicating and using test results, (i) factors in planning a test program, (j) factors in conducting a test program, and (k) other problems (95 ref.).—*USAF AFHRL.*

5814. Avelsen, Thorbjørn. (U. Oslo, Inst of Psychology, Norway) **Psykologisk arbeid og forskning innen bedriften: Uktast til en kritisk vurdering.** [Psychological work and research in production plants: Draft for a critical discussion.] *Nordisk Psykologi*, 1969, Vol. 21(5), 320-334.—Presents an outline for a critical discussion of psychological work and research in production plants. It is considered important that such an analysis must be carried out on a level embracing the entire social system and the functions of the psychologist. Such an analysis will expose possible dysfunctions connected with the role of the psychologist. To carry out the analysis, the author has drawn on 2 sources: (a) other analyses of the functions of psychologists are noted and (b) some psychological findings are transformed to a more concrete language illustrating other possible dysfunctions in such a setting. The analysis shows that the role of the psychologist in the production plant may involve troublesome aspects. Since few psychologists in Norway currently work in this field, there will still be

opportunities for discussing and influencing the development of this kind of profession. It is concluded that psychologists in the production plants, as well as most other psychologists, may be much better off by wanting to do such system analyses themselves.—*English summary.*

5815. Gitter, A. George & Altavella, Julie. (Boston, U.) **Components of selected occupational statuses.** *CRC Report*, Boston U., 1969(Apr), No. 40, 82 p.

5816. Gitter, A. George & Baron, Norman. (Boston U.) **Gilding: Perception of occupational statuses.** *CRC Report*, Boston U., 1969(May), No. 38, 41 p.

Explored 1 aspect of "gilding" (communicative behavior intended by the communicator to falsify what he actually believes to be true). Ss were 95 white female undergraduates. A 3 x 29 correlated matrices design investigated the effects of ethnicity of occupational status incumbent and nature of occupation on gilding ascribed to the various incumbents. Significant differences were found among (a) the 29 occupations, the supervisory and nonsupervisory levels of occupations, and (c) white Anglo-Saxon Protestants as compared with Jewish and black incumbents (18 ref.).—*Journal abstract.*

5817. Hodos, Tibor. (National Inst of Labor Hygiene) **A munka- és muszáki pszichológiai kutatások módszertani fejlődésének néhány kérdéséről.** [Developments in the methodology of industrial and technical psychology in the Soviet Union.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 285-291.

Presents 2 characteristic problems of Soviet industrial and technical psychology with respect to methodological development. Soviet methods employed in the study of mental fatigue are considered. EEG, EMG, and GSR being the most effective. The central problem of technical psychology concerns the reliability of the human operator of modern control systems. While discussing various approaches attempted by different researchers, 1 of the most important theoretical and methodological principles of Soviet industrial psychology is stressed: the study of man who is the subject of cognition work and communication. (Russian summary) (4 p. ref.).—*English summary.*

5818. Hyman, Aaron, Sternberg, Jack J., & Banks, James H. **Human performance experimentation in night operations. Technology and instrumentation for field research.** *US Army HNS&L Technical Research Note*, 1970(Jan), No. 22, 22 p. Presents a

description and evaluation of the effectiveness of the instrumentation system developed. The Human and Systems Research Laboratory Night Vision Data Acquisition and Recording System consists essentially of 3 basic hardware methods: animal device, photometer control console, and test power unit. Physiological characteristics of the various components of the system are described in detail. Major capabilities of the instrumentation system, established on the basis of field evaluation, are discussed.—*J. J. Drucker.*

5819. Lawrence, Paul R. (Harvard Business School) **How to deal with resistance to change.** *Harvard Business Review*, 1969(Jul), Vol. 47(4), 4-6. What workers resist is not simply resistance to change but social change. Group performance in social systems may or may not occur on the basis of relationships at work will be disturbed by the change.—*C. F. Youngberg.*

5820. Metzger, H. (Washington, U.) **Industrial pay-**

chology in "Psychological Abstracts," 1927-1969. *Journal of Psychology*, 1971(May), Vol. 78(1), 125-137.—Investigated productivity in industrial psychology as indicated in *Psychological Abstracts* from the time of its inception in 1927 until 1970. The findings may be summarized as follows: (a) There has been a large increase in the number of articles reported over the years. (b) There are peak and lean years. (c) Productivity considered in terms of output/person has generally gone down with increase in membership in Division 14. (d) The skewed distribution for industrial psychology resembles the skew found in other areas of psychology. (e) The productivity and status of psychology compares relatively favorably with that of other sciences whose research output has been studied. (21 ref.)—*Author abstract*.

5821. Perczel, József. (Ganz- MÁVAG, Psychology Lab., Budapest, Hungary) A tudományos kutatómunka eredményeinek gyakorlati felhasználása a Ganz-MÁVAG Mozdony-, Vagon- és Gépgyár Pszichológiai Laboratóriumában. [Practical application of scientific research results in the psychology laboratory of the Ganz-MÁVAG Locomotive and Railway Carriage manufacturers mechanical engineers.] *Pszichológiai Tanulmányok*, 1967, No. 10, 453-459.

5822. Smith, Robert G. (HumRRO, Alexandria, Va.) A manpower delivery system: Implications for curriculum development. *HumRRO Professional Paper*, 1970(Jun), No. 19-70, 6 p.—Presents a simplified and abstract model of a manpower delivery system. The relationships among the functions of occupational demands, guidance activities, placement work, occupational barriers, and interests of the job-seeker are discussed. The model points out to educational and training planners the principal aspects to consider when conducting a system analysis for vocational or professional education.—*HumRRO*.

5823. Strub, Michael H. Perception of military event patterns in a two-alternative prediction task. *U.S. Army BESRL Technical Research Note*, 1970(Feb), No. 221, 20 p.—In a study of perception of military event patterns, research effort was focused on the recognition of complex cues to enemy action. An attempt was made to determine the role of (a) different forms of 2nd-order patterns, (b) 2nd-order strength, (c) continuity, and (d) experience as factors in the recognition of 2nd-order patterns. 48 enlisted men participating in 2 experimental sessions, each consisting of 5 100-trial periods with 10-min interval breaks, indicated which of 2 enemy activities, attack or rest, was likely to follow each of 2 previous events. Each man worked individually, was self-paced, and also responded to indicate confidence in his decisions. Findings showed that given a pattern of events occurring with high frequency (80% of the time) and sufficient experiences with the patterns, the decision-maker learned to predict the 3rd sequential event as often as it occurred. When pattern occurrence was less frequent (68% of the time), recognition did not occur. Confidence in predicted decisions was affected by increase in experience and pattern form, but not by pattern strength or continuity.—*A. J. Drucker*.

VOCATIONAL CHOICE & GUIDANCE

5824. Čáp, Jan. (Charles U., Prague, Czechoslovakia) Pedagogickopsychologická hlediska v profesniografických metodách. [Educational psychology

concern with regard to methods of occupational psychology.] *Psychologie v Ekonomické Praxi*, 1970, No. 4, 191-209. Discusses educational psychology with regard to the methods of occupation selection. The need for investigating occupational psychology premises and their outer (psychology of experience) as well as inner (psychology of conduct) aspects is emphasized. In gathering occupational data, the results of the following are analyzed: (a) man-man, (b) man-working tool, and (c) man-environment interactions during the apprenticeship and occupation in biological as well as social connections. The critical points of the occupation (e.g., stress, difficulties) and their relations to the genesis of psychological premises are discussed. (English, German, & Russian summaries) (38 ref.)—*M. Lescinsky*.

5825. Csirzka, János. Foglalkozásismeret az egyéni fogalomkincs tükrében. [Students' knowledge about the vocation they want to choose as reflected in their individual vocabulary.] *Pszichológiai Tanulmányok*, 1968, No. 11, 393-407.—Describes an inquiry into the ideas about occupations as conceptualized by 150 pupils about to graduate from Budapest secondary schools. It was found that both boys and girls had more or less adequate ideas about the most popular occupations, e.g., physician, teacher, engineer, electrician, motor mechanic, precision mechanic, and hairdresser. Any kind of critical approach, however, was lacking—drawbacks of the occupations in question were only minimally considered. Ss ideas of occupations are 1-sidedly materialistic; concepts involving the personal traits of the candidate, pleasure in achievement, professional ideals, and working morale are rare. Differences between Ss in this respect are considerable. It is suggested that vocational guidance should include preparatory instructions dealing with the issues involved. (Russian summary)—*English summary*.

5826. Hawley, Peggy. (San Diego State Coll.) What women think men think: Does it affect their career choice? *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 193-199.—Attempted to find an empirical data-base appropriate to women's careers. It was hypothesized that men's views play an important although often unrecognized part in the careers women choose. Women may be influenced by what they believe men think is appropriate female behavior. This supposition was supported by 2 findings in a study of 86 women: (a) women's perceptions of male views of the feminine ideal differed significantly depending upon the career group in which they belonged, and (b) their perceptions differed according to whether or not they were married. Women in traditionally feminine occupations tended to think men view behavior in a sex-linked way, as appropriately male or female. Women outside the feminine career group did not perceive men making sex the basis for the behaviors described. (18 ref.)—*Journal abstract*.

5827. Johansson, Charles B. & Rossmann, Jack E. (Macalester Coll.) Interest patterns among economists. *Journal of Counseling Psychology*, 1971(May), Vol. 18(3), 255-261.—Compared the vocational interest patterns of 99 PhD male economists on the SVIB with data from 91 non-PhD economists and 4 other groups of PhD behavioral scientists. The interests of PhD economists most closely resembled those of psychologists and to a lesser extent those of political scientists, sociologists, and anthropologists. An economists' scale was developed for the SVIB and 105 male occupations were scored on the

scale—the highest scoring groups were the behavioral scientists and the lowest included policemen, salesmen, and farmers. Contrasting PhD and non-PhD economists indicates that the non-PhDs had similar interests, but they were not as strongly committed to those interests as the PhDs.—*Journal abstract.*

5828. **Kostolanský, Rudolf.** (Komenský's U., Inst. for the Psychology of Professional Development, Bratislava, Czechoslovakia) **Posudzovanie vhodnosti pre povolanie psychologickými testami.** [Judging the suitability of professions through psychological tests.] *Jednotná Škola*, 1969(Dec), Vol. 21(10), 913-925. -Proposes that psychological tests be used to help the individual decide what professions are available to him and which he should enter. In estimating the suitability of a profession, social and psychological data are considered necessary. The level, possibilities, and aims of the social background are important factors in the selection of a profession. Psychological data are intended to help the advisor to determine the educational level the client is able to reach, what special aptitudes are needed for the successful exercise of a preferred profession, and what group of people in professional life the client resembles. Several categories of useful tests are distinguished: intelligence, special aptitude, performance, interest, and personality tests. The limitations of the tests and the need for tact and prudence in advising the client of results are discussed. (Russian summary)—*English summary.*

5829. **Maxon, Lloyd M.** (North Texas State U.) **The relationship of certain mental factors, reading factors, aptitudes, and situational factors to achievement in selected Air Force technical courses.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3437.

5830. **Rókuszalvy, Pál.** (Hungarian Academy of Sciences, Inst. of Psychology, Budapest) **Kérdőívek alkalmazása a munkamagatartás és a személyiségvonások értékelésére.** [Use of questionnaires for evaluating work-attitude and personality traits.] *Pszichológiai Tanulmányok*, 1968, No. 11, 357-376. Aims at increasing the diagnostic value of evaluative questionnaires, and refining research methods directed at revealing vocational effectiveness. Although objective criteria of vocational effectiveness (output of products, proportion of rejects, casualties, etc.) are of basic importance in establishing the prognostic value of a vocational test system, they do not furnish information on the personal constituents of vocational effectiveness. Therefore, a new evaluative questionnaire has been drawn up based on the recommendations of H. Dirks, W.M. O'Neil and W. Tschanz, to report on the personality of the testee. It is a situational, specific, multiple choice method. 1st, Ss were evaluated from 1 definite viewpoint. Then by referring to the normal distribution, the examiners were able to avoid giving an average. Evaluation is based on parameters gained from ability tests for the requirements of the vocation chosen. Evaluative criteria including the parameters are graded along a 5-point scale, and each category in the scale is situationally defined. These situational value categories are exposed in random order. In the final section of the questionnaire, complementary questions eliciting data for free characterization are included. Independent reports on every S are asked from 2 of his superiors. Up to now 3 versions of the questionnaire have been elaborated and employed to test (a) female assemblers in

precision mechanics, (b) railway personnel, and (c) apprentices in the clipping trade. Experience has shown that the questionnaire is of considerable value in (a) improving test systems for vocational fitness, (b) training apprentices and increasing their vocational effectiveness, and (c) follow-up service of vocational guidance. (Russian summary)—*English summary.*

SELECTION & PLACEMENT

5831. **Bale, Ronald M. & Waldeisen, Lewis E.** (U.S. Naval Aerospace Medical Inst., Pensacola, Fla.) **The relationship of the Objectively Scoreable Apperception Test (OAT) to success in naval aviation training.** *USN AMI*, 1969(Jun), No. 1076, 6 p.—The Objectively Scoreable Apperception Test (OAT) was administered to 725 naval aviation officer candidates during their 1st wk. of training to examine the potential of the OAT as a supplement to the primary selection system. Multiple correlations were first determined by using only the scores from existing primary selection variables: the criterion was completion vs. separation from flight training. With a 2nd set of multiple correlations the dimension scores of the OAT combined with those of the primary selection variables were used. Results of the experimental analysis revealed that inclusion of the OAT scores significantly augmented the multiple correlation; however, under cross-validation the inclusion of those scores did not result in a significant increase in predictive validity. It is concluded that, although the OAT as it presently exists is not suitable for inclusion in the Pensacola student prediction system, the evidence obtained with the experimental sample indicates the feasibility of developing a similar device geared specifically toward a naval aviation population. *USN AMI*.

5832. **Einhorn, Hillel J. & Bass, Alan R.** (U. Chicago, Graduate School of Business) **Methodological considerations relevant to discrimination in employment testing.** *Psychological Bulletin*, 1970(Apr), Vol. 75(4), 261-269. Test discrimination can be defined as an over- or underprediction of criterion scores for different subgroups of job applicants. It is shown in the present study that differences between subgroups with respect to test-criterion correlations, criterion means and variances, and differences in standard errors of estimate must be taken into account to avoid unfair discrimination. Utility assumptions, which play an important part in any selection strategy, are considered with respect to test discrimination. A method is developed which utilizes all the relevant information concerning differences between groups to arrive at a nondiscriminatory procedure for selection (15 ref.) *Journal abstract.*

5833. **Evans, John T.** **Preliminary report on a test of mechanical comprehension.** *USN AMI*, 1970(Mar), No. 1103, 4 p.—Describes a display board with 4 knobs, variably geared on the back. The postulated task involves a perceptual recognition of the direction and degree of rotation of the 3 knobs as 1 of them is turned. After this determination is made a projection then must be made to the gearing that must be present on the back of the board to explain the direction and degree of rotation as perceived. Solutions to the problems were recorded either on an answer sheet or by laying blank gears in the desired configuration on the desk. 3 phases successively controlled time of observation and amount of rotation allowed.—*USN AMI.*

5834. Froehlich, Dean K. (HumRRO, Alexandria, Va.) **Military advisors and counterparts in Korea: II. A study of personal traits and role behaviors.** *HumRRO Technical Report*, 1970(Sep), No. 70-13, 89 p.—To develop successful selection procedures, training materials, and management policies for Military Assistance Program advisors, the conditions under which they work were analyzed, including identifying the culturally determined preferences counterparts have for the people with whom they wish to work, and the extent to which advisors and counterparts satisfy what each regards as critical role behaviors of the other. United States Army advisory personnel assigned to the United States Army Advisory Group, Korea and counterparts in the Republic of Korea Army were surveyed. Through rating scales and questionnaires, observations were made of the kinds of personalities with whom advisors and counterparts most preferred to work. In addition, advisors and counterparts judged one another in terms of a large number of role behaviors previously identified as important.—*HumRRO*.

5835. Gregg, George. **The effect of maturation and educational experience on Air Force Officer Qualifying Test scores.** *USAF AFHRL Technical Report*, 1968(Jul), No. 68-107, 12 p.—It is known that maturation and education have an elevating effect on Air Force Officer Qualifying Test (AFOQT) scores. Since the AFOQT is administered at different educational levels for the several commissioning programs, differences which are largely spurious exist between the programs with respect to their score distributions. To evaluate the extent of differences produced by maturation and education, the AFOQT was administered experimentally to 415 AFROTC cadets in 32 institutions near the end of their senior yr. Scores were compared with those obtained for the same group when they were tested as freshmen or sophomores for selection by the AFROTC program. For the experimental group as a whole, the Officer Quality score showed an increase of approximately 30 percentile points over the national mean for AFROTC applicants. The increase was greatest for cadets in rated categories (IP and IN) and in the scientific-technical category (II). Because of statistical artifacts, the increase was greater for those whose initial scores were low than for those whose initial scores were high. The increase in Pilot scores for the total group was about 20 percentile points, with the greatest increase (30-50 points) occurring in the categories which received light plane training as part of the AFROTC curriculum. The increase in Navigator/Technical scores amounted to about 6 points for the total group, but it approached 30 points for Category II cadets whose initial scores were below the 75th percentile. Category II cadets had initial scores about 30 points higher than cadets in nonscientific programs (Category III), and this difference persisted in the final testing. Data supported the additional finding that the known stable rank-ordering of institutions with respect to AFOQT scores of freshmen and sophomores applies also to AFOQT scores of seniors. The data also permitted determination of test-retest reliabilities and intercorrelations of AFOQT scores.—*USAF AFHRL*.

5836. Nash, Allan N. (U. Maryland) **Modification of forced-choice format for use in personnel selection and appraisal.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 108-110.—Discusses implications of a "mixed triad" format for forced-choice scales on the acceptability and validity of such scales in selection and

appraisal instruments. Results of a pilot study ($N = 15$) which is interpreted as supporting the use of the suggested format for such instruments are presented.—*Journal abstract*.

5837. Perczel, J. & Perczel, T. **Description and measurement of personality traits by a projective technique and an auto-definition questionnaire with production engineering inspectors.** *British Journal of Projective Psychology & Personality Study*, 1969(Jun), Vol. 14(1), 27-29.—Describes 2 tests as being predictive of occupational suitability in 2 groups of production engineering inspectors. The Lavoegie self-characterization test predicted suitability in a group of 39 inspectors. The Rosenzweig Picture-Frustration Study predicted success on the job in a group of 43 inspectors. A combined grading system, using both tests, was used with a group of 30 inspectors. (15 ref.)—*B. Beulahmami*.

5838. Schircks, A. & Laroche, J. L. (Inst. National pour la Formation des Adultes, Nancy, France) **Etude des opérations intellectuelles chez des adultes de la promotion supérieure du travail.** [Study of mental operations in adults working toward technical promotions.] *Travail Humain*, 1970(Jan), Vol. 33(1-2), 99-112.—Ss were adults (average age, 23 yr.) with only elementary education, who were striving for higher positions. They were given reasoning tests based on Piaget's theory and clinical methods. There was a large spread of scores, and it is suggested that training goals should be set on the basis of these test findings.—*R. W. Husband*.

5839. Šlédř, Jiří. (Charles U., Psychological Div. Prague, Czechoslovakia) **Koncepcie psychologického výběru pracovníků.** [System of psychological employee selection.] *Psychologie v Ekonomické Praxi*, 1970, No. 4, 218-224.—Discusses factors affecting the labor productivity and harmony between the occupation demands of a job and personal occupation premises of employees. The general principles and the procedure of employee selection are described. Psychologists (a) inform the firm representative about the possibilities of psychological selection and agree on the requirements of the selection and (b) find the mental aspects of the employee and on that basis determine the method of selection. Selection is carried out on: (a) general intelligence, (b) special ability, and (c) personal ability levels. The unreliability of the short-term investigation is to be reduced by: (a) the tests carried out individually as well as in groups at different times, (b) the test which enables results to be checked, (c) the order of the examinations, and (d) the results which are compared with available data. The psychologist's responsibility in employees' selection is conceived of as his responsibility to society and to the individual (English, German, & Russian summaries) *M. Lescinsky*.

5840. Walker, Elaine & Markham, S. J. (Sydney Technical Coll., New South Wales, Australia) **Computer programming aptitude tests.** *Australian Psychologist*, 1970(Mar), Vol. 5(1), 52-58.—Investigated the International Business Machines' Revised Programmer Aptitude Test (RPAT) and the International Computers and Tabulators Computer Programming Aptitude Test (ICT) in relation to the selection of students for computer programming courses. 86 applicants were administered the RPAT and the Otis Quick-Scoring Mental Ability Tests, Higher Form B; 297 applicants were administered the RPAT and the ICT. Means and

standard deviations of various tests and product-moment correlations between various test scores and high school certificate examinations were computed. It is concluded that (a) Australian norms appeared necessary since the Australian applicants for computer jobs differed considerably from the American population, and (b) neither the RPAT nor the ICT correlated highly; consequently no differential selection of applicants were possible with 1 test as compared to the other.—H. Roemmich.

5841. Walker, James W. (Indiana U.) **Forecasting manpower needs.** *Harvard Business Review*, 1969(Mar), Vol. 47(2), 152-164.—Describes the initial steps toward improved models for manpower planning. Sound theory and careful research are needed to develop forecasting techniques which managers can use in planning personnel strategies.—C. F. Youngberg.

5842. Want, R. L. **The history of psychology in the Royal Australian Air Force.** *Australian Psychologist*, 1970(Mar), Vol. 5(1), 2-8.—Describes the introduction and utilization of psychological testing in screening for training and selection for promotion in the Royal Australian Air Force. The results are described as positive and both training and promotional procedures have been improved.—H. Roemmich.

TRAINING

5843. Ammerman, Harry L. (HumRRO Div. No. 5, Fort Bliss, Tex.) **Systematic approaches for identifying and organizing content for training programs.** *HumRRO Professional Paper*, 1970(Jun), No. 20-70, 15 p.—Discusses 2 aspects in the development of curriculums for technical training: (a) the identification of curriculum content for specific courses of study, and (b) the organization of such content in training programs. Use of a word-association technique in a military radar maintenance course revealed that many procedural questions need exploring before this approach can become an operational tool of curriculum designers. Effort being expended in making instructional decisions should be directed toward more complete determination of the performance requirements.—HumRRO.

5844. Berry, Gene A., Prather, Dirk C., & Jones, Gerald L. (U.S. Air Force Academy, Colorado Springs, Colo.) **The effect of prompting and feedback on the learning of a perceptual skill.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 589-590.—40 Air Force cadets were randomly assigned to 2 groups and were trained on a range estimation task. 1 of the groups was trained by a trial-and-error method involving feedback only. The other group was trained by a combination of 3 heavily prompted trials and 6 trial-and-error trials. After the 4th and 5th training trial the trial-and-error Ss' performance was superior ($p's < .1$ and $< .05$). Following training each group was compared on performance under the conditions of transfer and stress. On transfer the difference in performance favored the trial-and-error Ss ($p < .1$), but the stressful condition produced no significant differences. *Author abstract*

5845. Caro, Paul W. (HumRRO, Ft. Rucker, Ala.) **Equipment-device task commonality analysis and transfer of training.** *HumRRO Technical Report*, 1970(Jun), No. 70-7, 30 p.—Developed procedures to enable training personnel systematically and objectively to determine the potential utility of training devices for teaching how to perform missions in operational equip-

ment. The procedures allow comparison of operational task stimulus and response elements with corresponding elements in synthetic training equipment. On the basis of such information, training programs consistent with the psychological principles underlying transfer of training may be developed. The procedures may be applied to the potential use of training equipment in a training situation other than that for which it was designed, or in determining the applicability of "off-the-shelf" training devices to specific training requirements. The procedures, termed Task Commonality Analysis, were developed in connection with an Army rotary wing instrument flight training program. In an application of the procedures in that program, transfer of training predictions were generally consistent with empirical evidence collected earlier.—HumRRO

5846. Crawford, Meredith P., et al. (HumRRO, Alexandria, Va.) **HumRRO research in training technology.** *HumRRO Professional Paper*, 1970(Jun), No. 21-70, 35 p.—Records 4 presentations on research and development in educational technology made by members of the HumRRO staff. The presentations describe research under Work Unit IMPACT, Prototypes of Computerized Training for Army Personnel; research activities on individual training with low aptitude personnel under Project 100,000; and research in aviation training and aviation training devices.—HumRRO

5847. Faconti, Victor; Mortimer, Charles P., & Simpson, Duncan W. **Automated instruction and performance monitoring in flight simulator training.** *USAF AFHRL Technical Report*, 1970(Feb), No. 69-29, 365 p.—Documents research in the area of automated instruction and performance monitoring conducted to develop modular approaches to implementing 8 individual automated training capabilities in flight simulators. Several approaches to each area were identified and investigated. 2 integrated systems were designed. Selection of the components for each of the systems was made by assigning levels of relative complexity to each approach in each area. System 1 was designed by using the lowest complexity approach in each area while System 2 consisted of the highest. Several methods of implementation, in relation to the computer complex, are presented. Estimated implementation costs are given for the 2 systems for each selected computer configuration and 2 display system options (System 2). (18 ref.) *USAF AFHRL*

5848. Gebhard, Richard M. (HumRRO, Alexandria, Va.) **Development of a training program and job aids for maintenance of electronic communication equipment.** *HumRRO Technical Report*, 1970(Dec), No. 70-19, 71 p.—Developed the JOBTRAIN IV to produce a combination of training and manuals (job aids) that would require less training time than the standard course for the 294.1 Carrier Equipment Repairman. The methods developed were those of an equipment malfunction analysis for producing content for special manuals and methods of course construction which introduced theory as the student needed it to solve practical maintenance problems. 22 students graduating from an 11-wk JOBTRAIN course were tested on the same job performance test as 19 graduates of the 28-wk standard course. Ss from the 2 groups were matched and each was individually tested for 22 hr during a 6-day period. There were no statistically significant differences in performance. It is concluded that the combination of JOBTRAIN training and job aids is as effective as

conventional school training and manuals and that a 50% reduction in academic hours can be achieved by this combination.—*HumRRO*.

5849. Hallström, Arne G. *Stridens psykiska verkningar. Ett försök till modell för kvantitativ uppskattning: I.* [Psychological effects in combat. An attempt at shaping a model for evaluating by quantity: I.] *MPI B-Rapport*, 1969(Oct), No. 35, 51 p.—Considers that psychological effects in combat are due to the troop's morale. An attempt is made to replace the concept of morale by measurable auxiliary concepts. The theoretical background is described of investigations aiming to predict likely performance in the field on the basis of the troop's performance in military training in peacetime. (Swedish summary) (23 ref.)—*English summary*.

5850. Matheny, W. G. & Wilkerson, L. E. (Life Sciences, Inc., Ft. Worth, Tex.) *Functional requirements for ground-based trainers: Helicopter response characteristics.* *HumRRO Technical Report*, 1970(Oct), No. 70-17, 108 p.—Studied helicopter response characteristics using 44 experienced helicopter pilots. Analyses were made of (a) characteristics of each dimension of control, (b) interaction among the dimensions, (c) effect of external forcing functions, and (d) information the pilot receives by kinesthetic feedback from the controls. A measure of man-machine system characteristics was postulated—the "effective-time constant," the time it takes for the displayed output of the system to rise above the pilot's threshold of perception. Dealing with the effects of interaction among the controls proved to be 1 of the most difficult pilot tasks; of the single dimensions, pitch control is the most difficult. The characteristics of the system were identified for quantitative variation in research on task difficulty and transfer of training. (38 ref.)—*HumRRO*.

5851. McClelland, William A., et al. (HumRRO, Alexandria, Va.) *HumRRO research on officer training.* *HumRRO Professional Paper*, 1970(Sep), No. 24-70, 40 p.—Records 4 presentations on officer training and education research programs made by members of the HumRRO staff. The presentations provide information about selected HumRRO research projects, summarizing the work, describing progress to date, and giving a forecast of future demands to be placed on military leaders and advisors. (25 ref.)—*HumRRO*.

5852. McHugh, William T. (U. Oregon) *A study of the differences in self-concept and occupational role concepts of young women and middle-aged women in occupational training programs.* *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-B), 3273.

5853. Mullins, Cecil J. & Usdin, Eugene. (Southwestern Computing Service, Tulsa, Okla.) *Estimation of validity in the absence of a criterion.* *USAF AFHRL Technical Report*, 1970(Oct), No. 70-36, 23 p.—In a training situation, standard procedures to predict performance entail a long delay between the request for a prediction instrument and its delivery. In this study, methods were developed for constructing prediction instruments at the time of request, rather than requiring the necessary time elapse for maturation of criterion data. The prediction systems developed by these methods were about as effective as instruments developed by the classical methods. The synthetic methods utilized estimates of performance made by experts in the training area as substitutes for actual performance. These

methods, therefore, can be used before a course has even been given for the 1st time. *USAF AFHRL*.

5854. Osborn, William C. *An approach to the development of synthetic performance tests for use in training evaluation.* *HumRRO Professional Paper*, 1970(Dec), No. 30-70, 6 p.—Describes an approach to the selection of inexpensive alternatives to fully job-relevant performance tests. Based on the concept of content validity, the approach is to utilize the skill and knowledge required of the trainee as a criterion for assessing the cost and job-relevance of fabricated alternatives to performance tests. 2 job tasks are analyzed to illustrate the concept.—*HumRRO*.

5855. Ozkaptan, Halim, et al. (U.S. Naval Personnel Research & Development Lab., Washington, D.C.) *Investigation of required television parameters for simulation of the pilot's visual world.* *NAVTRADEVCECEN Technical Report*, 1969(Dec), No. 68-C-0153-1, 137 p.—Describes a series of tests designed to investigate resolution and target recognition performance under conditions of direct viewing and TV mediated viewing of appropriate test stimuli. The study, using ex-military pilots as Ss, utilized resolution bar charts and simple target forms, varying in target-to-background contrast. It was found that under idealized viewing conditions the same visual relationships generally apply between direct and TV viewing. Under normal TV resolution limitations, an increase in target image size and/or contrast is required to permit visual resolution equivalent to that of direct viewing. It is concluded that the specific delineation of TV simulation requirements will be a function of target complexity, with TV resolution and video signal-to-noise ratio playing a different role as target complexity increases. (22 ref.)—*NAVTRADEVCECEN*.

5856. Schumacher, Robert A., Brand, Brigitta; Gilliland, Maurice G., & Sharp, Werner H. (General Electric Co., Apollo Systems, Daytona Beach, Fla.) *Study for applying computer-generated images to visual simulation.* *USAF AFHRL Technical Report*, 1969(Sep), No. 69-14, 131 p.—Describes the results of a system design study for applying digital image generation techniques to visual simulation for pilot training. Digitally generated scenes overcome many of the shortcomings associated with more conventional approaches but have had limited application because of the difficulty of computing enough image detail. The impact of recent developments in this area on the design of an image generating system is assessed. The conceptual design of an image generator is described. The principles of operation, the system configuration, operational characteristics, and feasible methods of implementation with presently available hardware are examined. An estimate of the hardware complexity is given.—*USAF AFHRL*.

5857. Sidorsky, Raymond C. & Simoneau, George R. (General Dynamics Corp., Electric Boat Div., Groton, Conn.) *Decision-making study final report: An Experimental Evaluation of TACTRAIN: An approach to computer-aided tactical decision-making training.* *NAVTRADEVCECEN Technical Report*, 1970(Jun), No. 1329-4, 93 p.—Presents summaries of 3 previous technical reports and the final report of a study of generalized decision making skills. The purpose of this project was to identify through both analytic and experimental means, the decision making skills required for effective performance in AAW and ASW tactical situations. The results of an experimental evaluation of a

new decision-making trainer, TACTRAIN, are presented. Results demonstrate the feasibility and utility of TACTRAIN as a developer of basic decision-making skills. The hardware and software of the prototype system are described. The system was assembled to demonstrate that a relatively small computer (4096 24-bit words) and a computer-controlled CRT display system are sufficient to provide a fairly complex training situation. Use of the device as an adjunct to computer-aided instruction in the usual instructor-controlled training situation is discussed. (22 ref.)—NAVTRADEVEN.

5858. Taylor, John E., Montague, Ernest K., & Hauke, Robert. (HumRRO, Presidio Monterey, Calif.) **The interrelationships of ability level, instructional system, and skill acquisition.** *HumRRO Professional Paper*, 1970(Dec), No. 29-70, 5 p.—Describes an assessment of the impact of aptitude differences on the learning performance of Army recruits. As a result of these tests, instructional strategies are being developed to make efficient training programs for men of differing aptitude levels. Observations were that the high level group (N = 180) did better when left without a structured training program; that the middle range (N = 190) was also able to work at its own speed. Low aptitude groups (N = 350), however, required a complete structured program in which the instructional sequence was kept down to small steps presented on an elementary language level.—HumRRO.

5859. Thompson, J. W. & Evans, W. W. (Michigan State U.) **Behavioral approach to industrial selling.** *Harvard Business Review*, 1969(Mar), Vol. 47(2), 137-151.—After the basic principles of selling were extracted from the literature of the behavioral sciences they were converted to a manual of marketing techniques. The sales force of Carborundum Company was divided into training groups and several hundred instructional cases were developed for small group discussions. Management, salesmen, and distributors were enthusiastic about the program.—C. F. Youngberg.

5860. Weber, R. Jack. (Dartmouth Coll.) **Effects of videotape feedback on task group behavior.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 499-500.—1 relatively unexplored approach to group development which avoids the encapsulation of training implicit in residential laboratory education involves the periodic provision of videotape feedback to ongoing task groups of their own recent functioning. 56 students in a course in business administration served as Ss in a 3 x 5 repeated-measures factorial experiment with 3 levels of videotape feedback and 5 weekly meetings. A factor analysis of Bales' interaction process analysis scores showed that groups receiving videotape feedback experienced significant long-run increases in positive emotional behavior and decreases in negative emotional behavior, and significant short-run increases in questions and decreases in assertions compared to temporal changes in the control groups.—Author abstract.

5861. Wheaton, George R., Mirabella, Angelo, & Farina, Alfred. (American Inst. of Research, Silver Spring, Md.) **Trainee and instructor task quantification: Development of quantitative indices and a predictive methodology.** *NAVTRADEVEN*, 1971(Jan), No. 69-C-0278-1, 116 p.—An exploratory study was undertaken, as part of a program to develop quantitative techniques for prescribing the design and

use of training systems. As a 1st step in this program, the present study attempted to: (a) compile an initial set of quantitative indices, (b) determine whether these indices could be used to describe a sample of trainee tasks and differentiate among them, (c) develop a predictive methodology based upon the indices, and (d) assess that methodology using studies in the literature. The compilation included the display-evaluative index, a set of panel layout indices, and a set of task rating scales. These indices were applied to task analytic data, collected on sonar operator trainers. Application of the indices proved feasible, and differentiation among 3 training devices, and within 4 trainee subtasks (set-up, detection, localization, classification) was possible. The predictive method which was generated was an adaptation of the standard multiple regression model. Mean task scores replaced the usual individual criterion scores, and quantitative task index values were used as predictor scores. This adaptation was tested using data from published studies on tracking. Significant multiple correlations using task indices were found for criterion data obtained during early stages of practice. A combination of task and training indices did predict later performance. This result supported the contention that a prescriptive method must include "training" as well as "task indices" in order to account for advanced levels of proficiency.—NAVTRADEVEN.

TASK & WORK ANALYSIS

5862. Engel, John D. (HumRRO, Ft. Knox, Ky.) **An approach to standardizing human performance assessment.** *HumRRO Professional Paper*, 1970(Oct), No. 26-70, 9 p.—Presents an approach to standardizing performance assessment that concentrates on 2 critical areas and the relationship between them: (a) a task classification system; and (b) a performance measure, or criterion classification system. An example is presented that illustrates some preliminary research related to the use of a performance measure classification system, involving a 4-day proficiency test administered to 38 organizational mechanics.—HumRRO.

5863. Geréb, György. (Teacher Formative Coll., Szeged, Hungary) **Intenzív igénybevételt jelentő tevékenység és egyhangú cselekvés kölcsönhatásának pszichológiai vizsgálata.** [Psychological investigation of interaction between operations requiring intensive involvement and monotonous activities.] *Pszichológiai Tanulmányok*, 1968, No. 11, 335-355.—Performed experiments to determine how an operation requiring maximum concentration influences a monotonous activity following it, or to what extent monotonous activity affects degree of concentration, level of divided attention, and efficiency of manuality. Ss were given ball-sorting practice until bored with it. Achievement was mechanically recorded. The task requiring great concentration was partly the Düker-Lienert Concentration Achievement Test and partly the recorded information derived from a "stereometer." On the basis of arrhythmic programming, 5 disks were moved for 60 sec. According to the program, 1 or more disks would stop simultaneously, and the Ss were asked to release these disks again by pressing certain buttons placed in front of the disks. The amount of information the computer was able to produce and the rank order of the handling achievement was made. Achievement was greatest in the middle range and poorest at both extremes. Monotonous activity was

highly influenced by intensive concentration. Intensity of the preceding and succeeding activity weakens the monotony. (Russian summary) (46 ref.)—*English summary*.

5864. Hammerton, M. & Tickner, A. H. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **The effect of temporary obscuration of the target on a pursuit tracking task.** *Ergonomics*, 1970(Nov), Vol. 13(6), 723-725.—Describes an experiment with 8 groups of 6 Royal Naval ratings each, in which Ss performed a continuous tracking task with the moving target temporarily obscured during part of its course. It is concluded that (a) S's pursuit was very poor during the obscured interval; but (b) recovery of the target was very rapid thereafter. These conclusions held with both positional and velocity control systems. (French & German summaries)—*Journal abstract*

5865. Hammerton, M. & Tickner, A. H. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Structured and blank backgrounds in a pursuit tracking task.** *Ergonomics*, 1970(Nov), Vol. 13(6), 719-722.—Describes an experiment with 22 Naval ratings in which Ss moved a sighting device to keep a graticule on a moving target. Both realistic and blank backgrounds for the target were used; and S performances in the 2 conditions were compared. It was found that the blank and structured backgrounds were subjectively apprehended by Ss as providing entirely different types of control problem. Performance was inferior with a blank background, and it is suggested that training simulators for this type of control should always feature as realistic a background as possible. (French & German summaries)—*Journal abstract*.

5866. Kopstein, Felix F. (HumRRO, Alexandria, Va.) **Rational vs. empirical approaches to job/task description for COBOL programmers.** *HumRRO Professional Paper*, 1970(Jun), No. 18-70, 11 p.—Suggests the differences in the information to be gained from rational and empirical approaches to job/task analysis. Job analysis establishes what a representative sample of incumbents do on the job. Task/equipment analysis deduces the behavioral requirements for its operators and maintainers from the functional characteristics of equipment, or from task situations that do not yet exist in actuality. The empirical approach develops a set of behavioral capabilities together with associated frequencies of occurrence, but cannot guarantee that the required set of behavioral capabilities will be exhaustively enumerated. The rational approach will develop an exhaustive set of behavioral capabilities requisite for certain job or task constellations, but will provide no good way of establishing their probabilities of occurrence. Therefore, a combined approach seems desirable. This is illustrated in the context of a COBOL programmer's job. The uses of data from combined rational and empirical job/task analyses for statistical models of job families is discussed. The use of these models in training design is also discussed.—*HumRRO*.

5867. Maxey, Jeffery L. & Caviness, James A. (HumRRO Div. No. 4, Ft. Benning, Ga.) **Target detection in the field.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 583-584.—A factorial experiment was designed to determine if a negative exponential target detection model was adequate for describing the detection of moving human targets by stationary Os, and if the O's detection behavior was affected by (a) target

speed, (b) target-to-O range, and (c) the terrain in which the target appeared. 90 17 26 yr. old male enlisted men detected moving human targets. Analysis revealed that the negative exponential model did not adequately describe the Ss' detection behavior, but that target speed, target-to-O range, and the terrain in which the target appeared significantly affected the Ss' detection times.—*Author abstract*.

5868. McCormick, Ernest J., Jeanneret, P. R., & Mecham, Robert C. (Purdue U.) **Application of a structured job analysis procedure.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 501-502.—A structured job analysis questionnaire called the Position Analysis Questionnaire (PAQ) was used in 2 sets of factor analyses. 1 of these consisted of job data for a sample of 536 jobs, and the other of the rated attribute requirements of the 179 job elements. Experimental application of data based on the PAQ indicates that job requirements (expressed in terms of test scores) can be established by a synthetic job analysis procedure without conventional aptitude test validation procedures. Likewise, PAQ data are highly predictive of job values, thus, suggesting that conventional job evaluation systems might be eliminated.—*Author abstract*.

5869. Mead, Donald F. **Continuation study on development of a method for evaluating job difficulty.** *USAF AFHRL Technical Report*, 1970(Nov), No. 70-43, 12 p.—Describes the development of a multiple regression equation which satisfactorily predicted the difficulty level of 250 jobs from the Vehicle Maintenance Career Ladder. The correlation between the predicted values and the criterion values assigned the jobs by Air Force supervisors was .93. The research design was a replication of one used earlier with jobs from the Medical Materiel Career Ladder. The results obtained in this study support the major findings of the earlier investigation. The same basic predictor variables combined to form the most effective prediction equation in both investigations. The primary factors reflected in the job difficulty evaluation policy were number of tasks in the job description, difficulty level of tasks performed, and time spent performing the tasks. These findings provide support for the hypothesis that there are common factors which influence supervisors' judgments of job difficulty in all Air Force career ladders.—*ASAF AFHRL*.

5870. Mead, Donald F. **Development of an equation for evaluating job difficulty.** *USAF AFHRL Technical Report*, 1970(Nov), No. 70-42, 10 p.—This is the 1st in a series of studies designed to produce a method for evaluating the difficulty levels of Air Force enlisted jobs. In this particular study, 250 job descriptions in the Medical Materiel Career Ladder were ranked on difficulty by supervising personnel, using a complex partitioning system. Computation of interrater agreement for these rankings yielded an r of .93. 21 variables were defined which might have entered into the judgments made by supervisors, and regression analyses subsequently identified 3 variables which predicted the job difficulty rankings with an R of .95. These 3 predictor variables were Number of Tasks Performed, Difficulty of Tasks Performed per Unit Time, and Number of Tasks Performed, Squared. Application of a shrinkage correction formula to test for chance errors resulted in a negligible correction to the obtained R . Developing weights for the 3 predictor variables in

separate samples and cross-applying to predict the difficulty level of jobs in the opposite group yielded an R of .94 in both cross-applications. Comparisons of the rank-order positions of the criterion jobs using predicted and rated difficulty values revealed nonsignificant differences. Results indicate that the difficulty level of jobs within the Medical Materiel Career Ladder can be adequately determined using the derived 3-variable regression equation.—USAF AFHRL.

5871. Noël, W. K. A pilot study of the validity of ratings done on first-line supervisors. *Studies in Personnel Psychology*, 1970(Apr), Vol. 2(1), 48-61.—Test measures of the intellectual aptitude, personality, and interests of 30 French-speaking 1st-line supervisors were correlated to supervisor ratings on 12 factors including job knowledge, analytical ability, originality, judgment, risk-taking, administrative ability, communication, leadership, quality of work, quantity of work, general evaluation, and total score. 14 of 18 significant correlations were negative indicating that the relationship between test performance and rated performance is in the opposite direction from that usually found. Test validity, rating validity, and test-rating compatibility are discussed as explanations for the dissonance between test scores and ratings. (French abstract)—J. G. Tiedemann.

PERFORMANCE & JOB SATISFACTION

5872. Adam, Everett E. (Indiana U., Graduate School of Business) An experimental analysis of the change in performance quantity and quality on a routine, repetitive task. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3097.

5873. Beatty, Richard W. (U. Colorado) First- and second-level supervision and the job performance of the hard-core unemployed. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 479-480.—This study of the relationship between certain supervisory qualities and the job performance of the hard-core unemployed found no significant correlations at the 2nd-level of supervision. The study indicated, however, that the immediate supervisor, when perceived as considerate, influenced performance positively and, when perceived as initiating structure to a high degree, influenced performance negatively. This negative relationship with structure appeared to be linear, but the relationship between consideration and performance was best described as curvilinear; for a majority of the trainees a positive relationship existed but at the extremes, for both high and low performers, the relationship was negative.—Author abstract.

5874. Brightman, Harvey J. (U. Massachusetts) Individual behavior and the small work group: A simulation study. *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3098-3099.

5875. Hendrick, Hal W. (U.S. Air Force Academy, Colorado Springs, Colo.) A comparison of negative transfer of training effects for experienced and inexperienced subjects on a reversed polarity tracking task. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 591-592.—10 Air Force Academy cadets and 10 pilots with over 1000 hr. of single-engine jet flying time performed a realistic complex tracking task in the C-11 (F-80) jet trainer. The polarity of the control stick was then reversed and Ss again performed the tracking task.

Both groups of Ss had significantly larger heading and altitude errors under the reversed polarity condition, but the pilots' performance was grossly poorer.—Author abstract.

5876. Horváth, László G. (Inst. for Career Aptitudes, Budapest, Hungary) A személyiség és a szituáció szubjektív viszonya a munkapszichológiailag kutatások problematikájában. [The subjective relation between personality and situation in industrial psychology.] *Pszichológiai Tanulmányok*, 1970, Vol. 12, 223-233.—Work activity is considered to be the active behavior of a person whose main endeavor is to maintain the labor situation, to modify it, or to escape from it. The behavior of the worker depends on his attitude toward an active labor situation: normal or abnormal. In both the normal and abnormal situation, the worker may relate to his job adequately or inadequately. In the 1st case the worker has undertaken work he understands and is able to accomplish on an average level. If his performance is above average this will enhance his self-regard, self-respect, positive relations to his surroundings, and his assurance of belonging, of being part of society. A worker who undertakes a task he does not understand may relate inadequately to his work. This will affect his whole behavior, influence his relations with his coworkers, and diminish his self-regard. In an abnormal labor situation involving dangerous or heavy work calling for great physical or mental effort, it is still possible for the worker to react adequately or inadequately. Therefore special attention should be devoted to the psychological study of personality in order to assess why the worker has the experience of success or failure, and why the number of workers abandoning their jobs is increasing in the latter case. (Russian summary)—English summary.

5877. Jones, Ruel E. & Pederson, Darhl M. (Brigham Young U.) Human performance in a three-axis tracking problem using two distinct hand controller configurations. *Journal of Psychology*, 1971(May), Vol. 78(1), 31-37.—32 male, advanced Air Force ROTC cadet volunteers served as Ss. Ss were divided into 2 groups and then trained and tested on identical tasks using both controller configurations. Only the order of controller configuration used 1st differentiated the 2 groups. The task required the Ss to keep a simulated 3-axis artificial horizon in a straight, level, and on-heading condition while programed error signals were introduced. The dual controller configuration was found to be easier to use.—Journal summary.

5878. Kaufman, H. G. (Polytechnic Inst., Brooklyn, N.Y.) Effect of cognitive and motivational factors on the maintenance of professional competence among engineers. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 491-492.—This longitudinal study focused on the relative effects of cognitive and motivational factors, exhibited by engineers at the outset of their careers, on the maintenance of professional competence in their subsequent careers. Results indicate that initial cognitive level was the strongest single predictor of later professional competence. However, motivation appeared more limited in its effects, both individually and in interaction with cognitive level. It is suggested that it is primarily for the maintenance of competence in the most difficult activities, later in the career, that motivation becomes important, particularly in interaction with the cognitive dimension.—Author abstract.

5879. Klockhaus, Ruth. (13 Westorgraben, Nürnberg, W. Germany) **Führungsverhalten und Effektivität.** [Leadership behavior and effectiveness.] *Psychologie und Praxis*, 1970(Oct), Vol. 14(4), 145-160.—Discusses the question of how far the effectiveness of interacting worker groups can be influenced. Basis for the discussion is recent experimental data, generated by the Fiedler model. No original experimental data is presented. Since the least preferred co-worker score value, representing the sum of items on a semantic differential, can be interpreted in different ways, alternate possibilities for the increase in effectiveness is explored (e.g., task relevant variables).—R. F. Wagner.

5880. Levine, Edward L. & Katzell, Raymond A. (New York U.) **Effects of variations in control structure on group performance and satisfaction: A laboratory study.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 475-476.—Attempted to clarify the operation of 2 aspects of control structure indicated as relevant by organizational theory and research. Hypotheses tested include the following: (a) The higher the total amount of control of group members over decision-making and the more equally the members share this control, the better the group's problem-solving performance and the higher the satisfaction. (b) These effects may be partly accounted for by more positive socioemotional interaction within those groups with higher amounts and more equal distributions of control. 16 groups of undergraduates were used in each of 4 sets. Results generally support the hypotheses. The methodology, organizational simulation using controlled role-playing behaviors, seems promising.—Author abstract.

5881. Mase, Howard S. **The effects of interpersonal expectancy upon learning achievement in an industrial setting.** *Dissertation Abstracts International*, 1970(Dec), Vol. 31(6-B), 3744.

5882. McCarrey, Michael W. & Edwards, Shirley A. (Public Service Commission of Canada, Personnel Psychology Center, Ottawa, Ontario) **Hierarchies of scientific need referents: Their subject and performance correlates.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 493-494.—Analysis of the perceived importance of 9 job characteristics or need referents relevant to job satisfaction of 71 research biologists revealed 2 distinct hierarchies. A majority of scientists gave greatest importance to a number of personal and professional achievement factors and to recognition secondarily. In contrast, recognition in various forms was given primary importance by a minority subgroup. Analysis of the correlates of need referent importance indicated the recognition orientation was related to quantity of published output but that achievement orientation was related to quality of published work.—Author abstract.

5883. Moreland, Stephen & Barnes, John A. **Exploratory study of pilot performance during high ambient temperatures/humidity.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Mar), No. 6-70, 90 p.—Measured performance changes in 4 fully qualified Army pilots, wearing complete operational combat flight clothing and equipment. Ss flew a light observation helicopter during periods of high ambient temperature and humidity. Important relationships were found between physiological changes and crew station environment. An equation

is presented to quantify a hypothetical relationship between performance, environment, and physiological changes. (17 ref.)—Journal abstract.

5884. Paul, J. P., Robertson, K. B., & Herzberg, F. **Job enrichment pays off.** *Harvard Business Review*, 1969(Mar), Vol. 47(2), 61-78.—Reports on a series of studies in various British firms which are attempting to determine how Herzberg's concept of job enrichment might profitably be applied. The experiments in the main yielded positive results and this approach to employee motivation is highly recommended.—C. F. Youngberg.

5885. Pennings, Johannes M. (U. Michigan, Inst. for Social Research) **Work-value systems of white-collar workers.** *Administrative Science Quarterly*, 1970(Dec), Vol. 15(4), 397-406.—Attempted to ascertain to what degree structural factors might explain variance in the work-value systems of white-collar workers. Herzberg's dual-factor theory of job satisfaction is challenged by relating value systems of white-collar workers to the promotion rates of their organization. Findings indicate that the importance attributed to intrinsic work aspects varies with promotion rates. (20 ref.)—A. J. Kabany.

5886. Sloan, S. & Johnson, A. C. **New context of personnel appraisal.** *Harvard Business Review*, 1968(Nov), Vol. 46(6), 14-29. Due to various deficiencies, the trait approach is declining in popularity and being replaced by complex quantitative techniques. Considering the central importance of performance evaluation, management should support behavioral science research in this area.—C. F. Youngberg.

5887. Stewart, C. P. (Public Service Commission of Canada, Ottawa, Ontario) **Motivating the employee.** *Studies in Personnel Psychology*, 1970(Apr), Vol. 2(1), 89-93.—Summarizes the work being done by R. Ford of the American Telephone and Telegraph Company to reduce employee dissatisfaction, turnover, grievances, and loss of productivity. Ford's approach was based on F. Herzberg's job satisfaction theory. 7 ways of "improving" the job of women who answer complaint letters and telephone calls were introduced at a rate of 1/wk to an experimental group whose turnover, productivity, promotions, and attitudes were compared with a control group. The experimental group showed significant improvement over 6 mo., thus supporting the "job improvement" approach to employee motivation. (French abstract)—J. G. Tiedemann.

5888. Tosi, Henry. (Michigan State U.) **Effect of the interaction of leader behavior and subordinate authoritarianism.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 473-474. 488 managers responded to questionnaires containing measures of boss tolerance for freedom, their authoritarianism, influence, role conflict, role ambiguity, job satisfaction, and job threat and anxiety. Performance measures were also collected. A 2 x 2 analysis of variance using authoritarianism and boss tolerance for freedom as independent variables was performed. Performance was related to neither of the independent variables. Participation and job satisfaction were highest for a high authoritarian working for a low tolerance for a freedom boss and lowest for a low authoritarian under a high tolerance for freedom boss. Role conflict and job anxiety were highest under high tolerance for freedom bosses. They were not affected by authoritarianism.—Author abstract.

5889. Vineberg, Robert; Taylor, Elaine N., & Caylor, John S. (HumRRO, Monterey, Calif.) **Performance in**

five Army jobs by men at different aptitude (AFQT) levels: I. Purpose and design of study. *HumRRO Technical Report*, 1970(Nov), No. 70-18, 33 p.—Describes the rationale, research design, and general chronology of research events in a study of the performance and characteristics of effective and ineffective marginal personnel in the Army. 1800 men with experience ranging up to 20 yr. in 5 military occupational specialties were studied. The sample included a comparison group of men in the same jobs but coming from the upper (nonmarginal) part of the Armed Forces Qualification Test distribution. Performance was measured by intensive job sample tests, job knowledge tests, and supervisor ratings. Information about background, personal characteristics, and military experiences was obtained through biographical questionnaires, a battery of published and experimental tests, and Army records. —*HumRRO*.

5890. Vineberg, Robert; Taylor, Elaine N., & Sticht, Thomas G. (HumRRO, Monterey, Calif.) Performance in five Army jobs by men at different aptitude (AFQT) levels: II. Development and description of instruments. *HumRRO Technical Report*, 1970(Nov), No. 70-20, 286 p.—Continues the study by R. Vineburg, E. N. Taylor, and J. S. Caylor on the performance and characteristics of effective and ineffective marginal personnel in the Army. Information about background, personal characteristics, and military experiences was obtained through biographical questionnaires, a battery of published and experimental tests, and Army records. The data collection instruments, their development and administration, are described. —*HumRRO*.

5891. Weinstein, Alan G. & Srinivasan, V. (Carnegie-Mellon U.) Prediction of managerial compensation. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 483-484.—Annual compensation of 136 alumni of Carnegie-Mellon University Graduate School of Industrial Administration (GSIA) was predicted using years of work experience, graduate grades, and data obtained prior to admission to GSIA. Stepwise multiple regression analyses indicated that work experience was highly predictive of staff but not line compensation. After adjusting for the effect of work experience, graduate grades significantly predicted line but not staff earnings. Some pregraduate academic variables were also significant predictors. Of special interest were the ratings on social activity and ratings on sports activity which predicted staff and line adjusted compensation, respectively. Results support the ability to predict managerial compensation prior to career entry. —*Author abstract*.

5892. Wiley, Llewellyn N. & Cagwin, Leland P. Comparing prediction of job performance ratings from trait ratings for aircraft mechanics and administrative airmen. *USAF AFHRL Technical Report*, 1968(Oct), No. 68-108, 26 p.—Supervisors in all commands rated aircraft mechanics on overall job performance and on 65 work-related traits. Of 1290 rates, there were 852 who were rated by each of 2 supervisors. Trait predictions of overall performance yielded R^2 s ranging from .78 to .94, and cross-validation R^2 s from .33 to .86. Interpretations involved comparisons with previous findings obtained from ratings on administrative airmen. The analyses added confirmation in a different career ladder of most of the administrative ladder findings and suggested that there are some areas where the interpretations cannot be generalized from 1 work

situation to another. It is concluded that any supervisor should be able to make this type of rating if given an opportunity to observe the man. Particular attention should be given to the opportunity of supervisors to observe men. —*USAF AFHRL*.

5893. Wood, Donald A. (Indiana U., Graduate School of Business) Enhancing attitude-performance relationships by degree of job involvement. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 494-496.—Examined differential effects of low and high job involvement on job performance-job satisfaction relationships for female machine operators in a small nonunion packaging plant. All satisfaction items measuring 4 intrinsic and 5 extrinsic areas related insignificantly to both actual productivity scores and paired-comparison ratings averaged across 1st- and 2nd-line supervision. However, those low on job involvement expressed significantly greater extrinsic satisfaction with wages and the company as actual productivity scores increased while those high on job involvement indicated significantly greater dissatisfaction with intrinsic areas of recognition and advancement. Performance appraisal was more reliable for the high job involvement group, but only the performance levels in the low job involvement group were significantly predicted by 4 different ability tests. The accentuation of certain attitude-performance relationships was shown to be greatly facilitated through involvement moderation. —*Author abstract*.

MANAGEMENT & ORGANIZATION

5894. Barth, Richard T. & Ace, Merle E. (U. British Columbia, Vancouver, Canada) Relationships between the urgency and attainment of various environmental factors relevant to engineers and scientists. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 489-490.—Investigated the relationship between the perceived attainment (rather than satisfaction) of 68 intergroup climate factors and the urgency these elicit with respect to improving the perceived actual intergroup climate to the preferred ideal for 256 engineers and scientists representing 10 research and development organizations. Results indicate: (a) an inverted V shaped distribution between attainment and urgency; (b) a positive correlation between low attainment and urgency, but a negative correlation between high attainment and urgency; and (c) factors of extreme attainment or lack of attainment are rated less urgent than factors of moderate attainment. —*Author abstract*.

5895. Brown, Julius S. (Loyola U., Los Angeles, Calif.) Risk propensity in decision making: A comparison of business and public school administrators. *Administrative Science Quarterly*, 1970(Dec), Vol. 15(4), 473-481.—Compared the risk propensity of business and public school administrators on qualitative and realistic decision problems. Each problem was combined with a quantitative decision matrix to make it consonant with the expected value of utilities concept of decision theory in economics. Relevant organizational and personality variables were measured. Business administrators were found to be greater risk takers than public school administrators. (28 ref.) 4 J. Kahany.

5896. Carroll, Stephen J., Cintron, Dennis, & Toul, Henry L. (U. Maryland, Behavioral Science Div.) Factors related to how superiors establish goals and

review performance for their subordinates. *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 497-498.—Attempted to identify the characteristics of the superior and of the situation which were related to how the superior established goals and reviewed performance. Data collected from 112 managers in a national industrial firm were used in the analysis. A number of factors were found to be related to types of goals established, procedures used to establish goals, and how frequently goal performance was reviewed. These include: how the superior's boss established goals and reviewed performance with him, the superior's personality, his perceptions of higher management support for the Management by Objectives program, and the subordinate's competence.—*Author abstract*.

5897. Ghorpade, Jaisingh. (San Diego State Coll.) **Assessment of organizational effectiveness: Issues, analysis, and readings.** Pacific Palisades, Calif: Good-year, 1971. x, 255 p. \$4.95(paper).

5898. Greenhaus, Jeffrey H., Gavin, James F., & Korman, Abraham K. (City Coll., City U. New York) **Organizational correlates of achievement, aggression, and acceptance of change.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 1), 477-478.—Investigated the relationship between dimensions of organizational climate and relevant organizational criterion behaviors. 1st-line managers of a major airline participated in the study. 7 empirically derived climate factors were correlated with (self-reported and supervisory-rated) measures of achievement, aggression, and acceptance of change. The dimensions of organizational climate were most consistently related to acceptance of change and degree of intergroup conflict, and to a lesser extent with achievement motivation. Self-reports and supervisory ratings appeared to be equally related to organizational climate.—*Author abstract*.

5899. Korman, Abraham K. (New York U.) **The prediction of managerial performance: A preview.** *Studies in Personnel Psychology*, 1970(Apr), Vol. 2(1), 4-26.—Reviews and evaluates "research literature pertaining to the usefulness of various procedures in the prediction of leadership behavior in formal organizations in a selection context." The theoretical significance and contributions of the research reviewed to the psychological characteristics involved in leadership and to practical implications for selection and development procedures are discussed. The studies reviewed are grouped into 5 predictor categories: cognitive ability, personality and interest inventories, personal history data, peer ratings, and superior and faculty ratings. The investigators, description of the sample and study, N, predictors, criterion, and results of the studies reviewed are presented along with conclusions on the relative merits of each predictor category. (54 ref.)—J. G. Tiedemann.

5900. Kraut, Allen I. (IBM, Armonk, N.Y.) **Use of managers' peer ratings to predict executive success.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 485-486.—Examined the validity of managers' peer ratings in industry. Unlike raters in earlier research, managers in this study were led to believe the ratings would affect decisions about their careers (although they were kept just for research). For middle managers, peer ratings predicted promotional success, but not per-

formance appraisals. Among higher level (but slower moving) executives, ratings did not predict promotions but did predict appraisals. Peer ratings which reflect an individual's prominence were more predictive than ratings of his tactfulness. Correlations reached into the high 30s, despite the highly select nature of the groups. Results indicate that the use of managers' peer ratings is likely to select more successful executives. *Author abstract*.

5901. Larson, Raymond L. (U. Oregon) **A behavioral investigation of the pricing of intra-company transfers and the operation of the industrial firm organized under the profit center concept.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3094

5902. Lee, James A. **Developing managers in developing countries.** *Harvard Business Review* 1968(Nov), Vol. 46(6), 55-69.—Attempts at developing managers in the emerging countries must give consideration to the limited sources of managerial potential, intellectual deprivation, economic attitudes, concepts of what a manager is and does, and resistance to face-to-face criticism.—C. F. Youngberg.

5903. Narver, John C. (U. Washington, Graduate School of Business Administration) **Rational management responses to external effects.** *Academy of Management Journal*, 1971(Mar), Vol. 14(1), 99-115.—Discusses the external or side effects of business and rational responses to the external effects for profit-maximizing firms. It has been suggested that the rational response for the profit-maximizing firm is to do nothing about its external effects until required by law. This study, however, argues that the rational response is to take action. The meaning of externalities, of which pollution is a fundamental type, and the phases of a solution to such problems are discussed. Rational responses for the profit-maximizing firm regarding its externalities, are presented, in which many aspects of the popular arguments against the rationality and the practicability of independent corrective action by a firm are examined. (18 ref.) *Journal abstract*.

5904. Neubauer, Walter F. (Linz Coll. Social & Economic Science, Inst. for Psychology, Austria) **Studie zur Messung der individuellen Einstellung gegenüber dem Vorgesetzten in der Industrie.** [Study on the measurement of individual attitudes towards the manager in industry.] *Psychologische Rundschau* 1971(Jan), Vol. 22(1), 1-16.—108 16-60 yr. old employees evaluated their immediate managers on 15 category scales. The same scales were also used in deriving the profile of an ideal manager. Since the ideal profile was nearly concordant both in the group that showed the greatest deviations between the actual and ideal manager, and the group that showed the smallest deviation, it can be taken as a standard and the deviation from this standard as a measure of manager's evaluation.—W. J. Koppitz.

5905. Noë, W. K. **The relative importance of ten aspects of executive ability.** *Studies in Personnel Psychology*, 1970(Apr), Vol. 2(1), 44-47.—This is 4 of a series of studies on the dimensions of executive ability in the Public Service of Canada. The relative importance of 10 traits thought to be related to executive success was determined by 101 members of several Career Assessment Program courses using the pair-comparison method. Results indicate 4 clusters of traits from most important to least important: (a) leadership and judgment; (b) communication, analytical ability, quality

work, and administrative skills; (c) originality, knowledge, and risk-taking; and (d) quantity of work. (French abstract)—J. G. Tidemann.

5906. Pollay, Richard W. (U. British Columbia, Vancouver, Canada) **The structure of executive decisions and decision times.** *Administrative Science Quarterly*, 1970(Dec), Vol. 15(4), 459-471.—Doubt is thrown on the direct relationship between the difficulty of a decision problem and decision time. A formal theory is proposed, hypothesizing that decision-makers take longer to choose from 4 alternatives when 2 of the alternatives are easily rejected than when all 4 alternatives are equal. The results of laboratory experiments support this hypothesis, and suggest that decision behavior is related to personality factors. (17 ref.)—A. J. Kahany.

5907. Rowe, David K. (Macke Co., Cheverly, Md.) **Industrial relations management for profit and growth.** New York, N.Y.: American Management Assn., 1970. xii, 337 p. \$21.50.

5908. Tosi, Henry. (Michigan State U.) **Organization stress as a moderator of the relationship between influence and role response.** *Academy of Management Journal*, 1971(Mar), Vol. 14(1), 7-20.—Examines some aspects of the role-taking model proposed by R. L. Kahn et al. (see PA, Vol. 39 8866) Role conflict as measured by a questionnaire distributed by mail to 537 branch managers—is significantly related to job satisfaction and job threat and anxiety, but not to an effectiveness measure. Under different levels of organization stress, influence is not differentially related to the responses of job satisfaction, job threat, and anxiety. There is a slight relationship between influence and effectiveness in low stress situations, but not under high stress.—*Journal abstract*.

5909. Turney, John R., Rosen, Ned A., & Conklyn, Elizabeth D. (Cornell U.) **Early identification of managerial potential in a technical-professional organization.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 481-482.—This longitudinal study focuses on a number of paper-and-pencil measures and group interaction indices as possible predictors of managerial emergence in a relatively unstructured organization. The criterion was number of promotions during a 3-yr period. The data indicate 2 different patterns characteristic of managerial emergence depending on whether an employee is young or old. Successful young employees are characterized as aggressive or forceful; successful old employees as agreeable or passive. Successful young employees are rated more technically competent by their superiors than successful old employees. Data are discussed in terms of their implications for organizational effectiveness.—*Author abstract*.

5910. Witz, Klaus & O'Brien, Gordon. (U. Illinois) **Collaboration indices in structural role theory.** *Journal of Mathematical Psychology*, 1971(Feb), Vol. 8(1), 44-57.—Defines a central aspect of organizational structure—interposition collaboration—using the concepts of structural role theory. 4 indices for measuring different forms of structural collaboration are defined; 2 of these have been used in several empirical studies. The problem of finding maxima for 2 of the indices under suitable conditions is detailed. Ways in which the indices could be used to investigate the relationships between collaboration and organizational processes are discussed.—*Journal abstract*.

SPECIAL ENVIRONMENTS

5911. Collins, William E. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Effective approaches to disorientation familiarization for aviation personnel.** *FAA Office of Aviation Medicine Report*, 1970(Nov), No. 70-17, 19 p.—Discusses techniques for providing familiarization of aviation personnel with disorientation problems. The procedures are spelled out in detail. Methods of modifying existing equipment as well as an evaluation of available commercial equipment are presented. The techniques have been used with notable success both at the Civil Aeromedical Institute and in the field. They are relatively inexpensive, effective both for participants and Os, and are readily accepted by fliers as pertinent to the aviation situation. (27 ref.) *Author abstract*.

5912. Jones, R. Douglas. **Effects of thermal stress on human performance: A review and critique of existing methodology.** *U.S. Army Human Engineering Laboratories Technical Memorandum* 1970(May), No. 11-70, 71 p.—A critical review of the literature provides the basis for an analysis of the effects of thermal stress on human performance. Research in this area to date reflects a wide divergence of opinion regarding the magnitude, direction, and significance of performance changes occurring under conditions of high temperature, humidity, solar radiation, etc. An attempt to resolve major conflicts in experimental findings leads to a detailed examination of such factors as thermal stress indices, exposure times, and acclimatization. The role of the S in thermal stress research is discussed with emphasis on the contribution of such psychological variables as personality and motivation to performance change. Recommendations for future research are advanced.—*Journal abstract*.

5913. Mathieu, M. & Hadni, J. Cl. **La relation medecin-pilote.** [The relationship between physician and pilot.] *Information Psychosociologie*, 1970(Jan), Vol. 10(37-38), 61-83.—Discusses the motivation to fly military aircraft, flying accidents, and fears of accidents and their treatment. It is suggested that the best treatment is provided by physicians who are fliers themselves. S. G. Vandenberg.

5914. Simmons, William W. & Ambler, Rosalie K. **Isoniazid prophylaxis as an aviation risk. Preliminary report.** *USAFM*, 1969(Nov), No. 1093, 7 p.—Studied the question of the advisability of aviation personnel continuing in duties involving the actual control of aircraft while taking prophylactic isoniazid. Specifically, adverse side effects of the drug were looked for both subjectively and objectively while 8 personnel continued aviation duties. 15 aviation personnel were studied with clinical, laboratory, and psychometric examinations for a total of 862.5 person-hrs. of drug ingestion. No significant adverse side effects which were thought to constitute a hazard to the safe performance of flying duties were detected. Although the expected incidence of adverse drug effects from isoniazid is small and no significant effects were detected for this small sample, it is suggested that a large number of Ss be studied prior to formulating a statement of policy on this regard. Meanwhile, aviation duties for personnel undergoing 300 mg. remantel therapy are judged to be allowable provided the flight surgeon maintains close scrutiny over such men. The long duration of the

isoniazid therapy makes it economically desirable to continue personnel in a flight status.—*USN AMI*.

ADVERTISING & CONSUMER PSYCHOLOGY

5915. Andrews, I. R. & Valenzi, E. R. (Simon Fraser U., Burnaby, British Columbia, Canada) **Combining price, brand, and store cues to form an impression of product quality.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 649-650.—50 Ss rated consumer products on the basis of price, brand, and store information. Despite several significant interactions among cues, combined cue judgments were predicted with a high degree of accuracy by a simple weighted average of single cue responses. It is concluded that cue combination processes for consumer products are similar to those previously reported in research on personality impression formation. For the 2 products used in this study, product quality judgments were influenced much more by price information than by brand or store information.—*Author abstract*.

5916. Davis, Barbara J. (Northwestern U.) **Five variables and their association with consumer purchase behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3099-3100.

5917. Friedman, Monroe P. (Eastern Michigan U.) **Consumer price comparisons in the supermarket: Role of packaging and pricing factors and the case for a new informational display.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 647-648.—Consumer spokesmen have recently questioned whether present conditions in the American marketplace permit accurate consumer comparisons of the prices of packaged retail products. The present study examined this question by testing 499 customers of an inner-city supermarket and 526 customers of a suburban supermarket on 6 sets of price-comparison problems. A 2×3 factorial design was utilized to explore packaging and pricing variables which were hypothesized to affect problem difficulty. Results support the hypotheses and suggest that the adoption by supermarkets of a new information display, called dual-price labels, would yield substantial reductions in difficulty level for many price-comparison problems.—*Author abstract*.

5918. Fromkin, Howard L., Olson, Jerry C., Dipboye, Robert L., & Barnaby, David. (Purdue U.) **A commodity theory analysis of consumer preferences for scarce products.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 653-654.—Several recent advertising campaigns emphasize that the product is scarce or available only in limited quantities. An organized formal statement of the notions implied in these advertising strategies is provided by Brock's commodity theory which posits that a commodity will be valued to the extent that it is perceived to be unavailable. This hypothesis was tested for nylon hose, under 2 levels of availability (low and high) and 2 levels of expectations of obtaining the product (possession and nonpossession). Tentative support was obtained for the hypothesis of increased valuation under conditions of perceived scarcity.—*Author abstract*.

5919. Geller, E. Scott; Wylie, Ruth G., & Farris, John C. (Virginia Polytechnic Inst.) **An attempt at applying prompting and reinforcement to pollution control.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 701-

702.—Studied the effectiveness of a procedure which combined prompting and reinforcement principles to modify behavior relevant to environmental pollution. During treatment customers entering a grocery store were handed a circular which urged them to buy drinks in returnable bottles (i.e., prompting); after making a purchase, customers were given social approval if they purchased drinks in returnable bottles (i.e., reinforcement). The ABA design indicated that beverage-buying behavior at 1 grocery store was markedly influenced by the treatment procedure; for 2 other markets, treatment effects were not pronounced. An explanation for the differential success of the prompting-reinforcement method is discussed.—*Author abstract*.

5920. Grass, Robert C., Winters, Lewis C., & Wallace, Wallace H. (E. I. du Pont de Nemours, Wilmington, Del.) **Communication effectiveness of advertising: A method of pretesting.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 656-660.—Describes a technique of pretesting print advertising (the method is also applicable to TV commercials) which involves independent measures of (a) the ability of an advertisement appearing in its natural environment to attract the attention of the target audience, and (b) the ability of the advertisement to teach the prescribed message to members of the target audience who read the advertisement under conditions of maximum (motivated) attention. These measures of attention level and teaching ability are then used in a mathematical model of communication effectiveness which predicts the performance of the advertisement in communicating its message objectives in the "real world."—*Author abstract*.

5921. Jacoby, Jacob. (Purdue U.) **Brand loyalty: A conceptual definition.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 655-656. While clear conceptualizations of phenomena ought to precede and shape measurement approaches rather than vice versa, the brand loyalty literature contains 8 varieties of operational definitions but no precise conceptual definition. Brand loyalty is conceptually defined in terms of 6 necessary and sufficient conditions as: (a) biased (i.e., nonrandom), (b) behavioral response, (c) expressed over time, (d) some decision-making unit, (e) with respect to 1 or more brands out of a set of such alternative brands, and (f) a function of psychological (decision-making, evaluative) processes. Each definitional element is discussed in some detail.—*Author abstract*.

5922. Moynour, Reza. (Ohio State U.) **An empirical investigation of multidimensional scaling and multidimensional unfolding to predict brand purchasing behavior.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3109-3110.

5923. Olshavsky, Richard W. & Miller, John A. (Indiana U.) **Effects of expectation and product performance on perceived product quality.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 651-652.—An experimental laboratory investigation of the effects of disconfirmation of expectancies in both directions (negative and positive, for a single product was performed. The hypothesis, stemming from dissonance theory, that overstatement of a low performance product will produce favorable product evaluation was confirmed. The hypothesis, also stemming from dissonance theory, that understatement of a high performance

product will produce unfavorable product evaluation was also confirmed. Results support the common belief that a little exaggeration in promotion of a complex multidimensional product has desirable effects.—*Author abstract.*

5924. Olson, Jerry C. & Jacoby, Jacob. (Purdue U.) **A construct validation study of brand loyalty.** *Proceedings of the Annual Convention of the American Psychological Association*, 1971, Vol. 6(Pt. 2), 657-658.—Operational definitions of brand loyalty abound, yet the reliability, interrelationship, and factor structure of these measures remains to be determined. 12 specific brand loyalty measures were administered to 177 undergraduates, with 32 Ss receiving a 2nd administration 3 wk. later. Results: (a) 10 of the measures possessed adequate stability; (b) all 12 measures were positively intercorrelated (coefficient alpha = .85 for the set); and (c) the optimal factor analytic solution explained 67% of the variance and yielded 4 factors—behavioral brand loyalty, attitudinal brand loyalty, multi-brand-loyalty, and general brand loyalty tendencies. These findings support a multidimensional conceptualization of brand loyalty and militate for richer and more complex brand loyalty measures.—*Author abstract.*

5925. Shuford, Harry L. (Yale U.) **Subjective variables in economic analysis: A study of consumers' expectations.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3127.

5926. Stratton, David R. (U. Texas) **An analysis of consumer behavior toward pricing as related to education and income groups.** *Dissertation Abstracts International*, 1971(Jan), Vol. 31(7-A), 3113.

ENGINEERING PSYCHOLOGY

5927. Dudek, Richard A., et al. (Texas Tech U., Lubbock) **Standardization of tasks and measures for human factors research.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Mar). No. 19-70, 106 p.—Summarizes the proceedings of a conference held at Texas Tech University in March, 1970. The Center of Biotechnology and Human Performance is conducting a research program titled "Performance, Recovery and Man-Machine Effectiveness." This program's goals include measurement of man's ability to perform for long periods of time and his ability to recover from such performance. Environmental, task, and organizational variables affecting a variety of conceptualized man-machine systems are being studied. Means of sustaining performance and/or speeding recovery are being investigated and fundamental data on human performance and recovery will be used to evolve criteria for insuring efficient performance in small military units. (82 ref.)—*Journal abstract.*

5928. Mills, Robert G. **Use of contingent status information in diagnostic performance and related aspects for information design.** *USAF AMRL Technical Report*, 1968(Dec), No. 68-135, 22 p.—Investigated the ability of Os to use stimulus relationships in making predictive or diagnostic decisions, and considers implications of this area of research for application to man-machine systems. Os were required to make predictive estimates of the state of a system based on observations of sequentially presented qualitative subsystem status information. The status information was derived from 4-cell contingency tables containing event

frequencies and quantified by a correlation coefficient which varied from approximately 1 to -1. Results indicate that: (a) Os' estimates appear to be based on the relative frequency of cell events as opposed to a correlation solution, (b) there is greater accuracy when estimates are based on positive relationships, and (c) Os are capable of only very gross discrimination between various levels of relationship. Conclusions generally considered how these results might be used in "designing" the information structure of man-machine systems such that an operator's decision performance would be facilitated. (21 ref.)—*USAF AMRL.*

5929. Nikoiforov, G. S. (Leningrad State U., USSR) **Problém spoľehlivosti človeka-operátora v inžinýrské psychológii.** [Reliability problem and operation in engineering psychology.] *Psychologie v Ekonomické Praxi*, 1970, No. 4, 210-217.—Discusses the problem of operator reliability within the framework of engineering psychology. Machine reliability, man-machine connection, and the effect of a man in the control system are defined. Terminological questions concerning the theory of reliability of an operator are discussed. The definitions of operator's reliability, operator's failure, levels of the failure, and working efficiency are given. The survey of methods (mathematical theory of man reliability, medico-biological methods) for the evaluation of operator's reliability is presented. The micro (inner dimensions of a man) and the macro (black-box) methods of operator's reliability are compared. (English, German, & Russian summaries) (22 ref.)—*M. Lescinsky.*

Displays & Controls

5930. Strizeneč, Michal. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Prediction of parametre changes in a simulated control system: II.** *Studia Psychologica*, 1970, Vol. 12(4), 249-257.—Tested factory operators by the same methods as those employed with apprentices and undergraduates in a preceding study. Essentially the same correlations were found. These groups of Ss were compared and the most important parameters of panel performance (number of correctly predicted steps, duration of prediction and size deviation) were determined. There is a correlation of statistical significance between performance and difficulty of rule, profession of apprentices, intelligence level, and work achievement. (Czech & Russian summaries)—*Journal abstract.*

DRIVING & SAFETY

5931. Biehl, B. & Fuhrmann, J. (Traffic Psychology Inst., Vienna, Austria) **Einfluss verschiedener Arten der Geschwindigkeitkontrolle auf die Geschwindigkeitwahl.** [Influence of various types of speed controls upon the driver's selection of speed.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit*, Vienna, 1969(Jan), No. 7, 29-33.—Studied the influence of various types of speed controls upon actual speeds. The speeds of 1367 4-wheel vehicles were measured at 6 sites with a speed limit of 50 km/hr. The measurements were made in part with well concealed radar devices and with a light barrier measuring device, unseen by the driver. The 5 different types of measuring conditions had significant influence upon the speeds driven. Therefore no statement about speeds irrespective of fact and kind

of measurement by radar can be made. (French summary)—*English summary*.

5932. Biehl, B., Fuhrmann, J., & Seydel, U. (Traffic Psychology Inst., Vienna, Austria) **Untersuchungen zur Wahrnehmbarkeit und Lesbarkeit von unterschiedlich gestalteten Kennzeichentafeln.** [Investigation into the ability to recognize and read various types of differing license plates.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 45-57.—Studied various questions relating to human ability to recognize, read, and retain the symbols on vehicle license plates. The combination found to be best of all symbol combinations studied consisted of 2 groups—3 letters and 3 figures. In a further test, the various types of reflecting license plates were tested regarding their lightness, legibility, and influence upon the estimation of distance as compared to vehicle licenses made of nonreflecting material. There were significant differences, necessitating an exact evaluation of the materials. (French summary)—*English summary*.

5933. Biehl, B. & Seydel, U. (Traffic Psychology Inst., Vienna, Austria) **Beeinflussung des Fahrverhaltens durch einen Medium-Tranquillizer.** [Influence of a medium tranquilizer on driving behavior.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 80-90.—Administered mesoridazine in various dosages and in various periods of medication to 85 Ss and its influence upon driving ability was studied. With short application and high dosages, a significant reducing effect upon the stress capacity of reaction behavior and an effect upon sensorimotor coordination were observed. With longer application and lower dosages, a reduction of RT for optical single signals, a factor which is of relatively small importance in driving behavior, was observed. Results suggest that mesoridazine in the recommended dosage of 5 mg. 3 times daily does not reduce the driving ability. Higher dosages are not recommended for drivers. With a medication period of 7 days there were no cumulative effects observed. (French summary)—*English summary*.

5934. Biehl, B. & Seydel, U. (Traffic Psychology Inst., Vienna, Austria) **Psychopharmaka und Verkehrstüchtigkeit.** [The importance of pharmacopsychology for traffic safety.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 67-79.—Discusses the importance of pharmacopsychology for traffic safety and the basic problems regarding experimental research on the effect of different drugs and combinations on driving. Statistical studies on the influence of drugs on accident frequency and accident risk are cited. Recommendations for operational measures are made. The simulator is considered to be the most useful device for recording the influence of drugs on driving. An order system of psychopharmaca with an empirical base is required. (French summary) (23 ref.)—*English summary*.

5935. Biehl, B., et al. (Traffic Psychology Inst., Vienna, Austria) **The measurement of fluency of driving.** *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 61-66.—Describes an apparatus for measuring fluent driving which is also suitable for driver-training. The apparatus gives optical and/or acoustical information on variations in fluency of driving due to centrifugal force as well as sudden acceleration or deceleration. Experiments compared the fluency of driving between groups of people, distinguished by stage of training and driving experience

and being trained with and without V-Gerät. The reason for the significantly more fluent driving after instruction with the V-Gerät is the "feed-back" stressed by indication of errors leading to faster and more intensive learning. A further survey investigated items of driver behavior which are essential for fluent driving. (French & German summaries)—*Journal summary*.

5936. Fuhrmann, J. (Traffic Psychology Inst., Vienna, Austria) **Prüfung einer Methode zur Erfassung des Verhaltens von Kraftfahrzeugen und Fussgängern an Überwegen.** [Applicability of a method for measuring driver and pedestrian behavior at crossings.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 21-28.—Studied the use of a counting method for comparative tests of different types of pedestrian crossings. There were significant differences on the 3 types of pedestrian crossings marked differently, regarding their effect upon the behavior of drivers and pedestrians. (French summary) (16 ref.)—*English summary*.

5937. Gheri, M. (Traffic Psychology Inst., Vienna, Austria) **Unterschiede im Erkennen von Verkehrszeichen in Abhängigkeit von deren Bedeutung.** [Differences in the recognition of traffic signals depending upon their meaning.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 34-44.—The time for recognizing traffic signs exposed by tachistoscope was tested in a group of drivers and a control group of nondrivers. There were significant differences in faster recognition due to the type of traffic signal and driving practice. The differences did not depend upon personal characteristics, e.g., extroversion and neuroticism. A further survey investigated the effect of penalty in connection with a certain traffic sign. Recognition of the sign did not restrain, but enforced Ss' perception of the signs. (French summary) (17 ref.)—*English summary*.

5938. Johansson, G. & Backlund, F. (Uppsala U. Sweden) **Drivers and road signs.** *Ergonomics* 1970(Nov), Vol. 13(6), 749-759.—Investigated the function of the road sign system as an information channel for car drivers. Data were gathered from more than 5000 car drivers stopped after passing a road sign on a Swedish highway. Results are as follows: (a) the overall probability of a road sign being noticed on passing was not higher than about .5; (b) the different signs studied formed a scale of recording probability of perception extending from a low group with a probability of being perceived of about .25 up to a group with probabilities between .60-.75; and (c) results verify the outcome of a previous investigation by G. Johansson and K. Rumar. It is concluded that the road sign system to a high degree does not achieve its purpose. (French & German summaries)—*Journal abstract*.

5939. Klehelsberg, D. (Tübingen U., Psychological Inst., W. Germany) **Zum Begriff des normvernünftigen des Kraftfahrers.** [About the notion of the motorist's standard way of acting.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969*(Jan), No. 7, 5-8.—The notion of standard behavior in the sense of a prevalent way of acting on the part of motorists, as well as in the sense of a way of acting as determined by the traffic rules, are related to the notion of "limiting value" in the physical sense. The relations between these notions are discussed in view of optimum feasibility of influence the manner of driving. (French summary)—*English summary*.

5940. Klinger, P. (Traffic Research Dept., Vienna, Austria) *Das V-Gerät, seine Wirkungsweise und Anwendungsmöglichkeiten.* ["V-Gerät": Technical operation and applicability.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969* (Jan), No. 7, 58-60.—Describes the physical characteristics and technical details of operation of a device which permits an exact definition of the critical values on smooth, wet, or sandy pavement. (French summary)—*English summary*

5941. Lombroso, Daniel. (Israel Inst. of Technology, School of Industrial Engineering, Haifa) *La valeur diagnostique du P.M.K. pour la détection des chauffeurs professionnels accidentés.* [Diagnostic value of the P.M.K. test in the detection of accident-prone professional drivers.] *Revue de Psychologie Appliquée, 1970, Vol. 20*(2), 81-100.—Reports results from administering Mira y Lopez' Myokinetic Psychodiagnostic test to a control group of 50 safe drivers and 2 experimental groups of 50 drivers each who had numerous accidents. It is concluded that differences between safe and unsafe drivers reside essentially in transitory states relative to the period of the accidents. Personality traits of the unsafe drivers are strong inhibitions, e.g., deficient nervous equilibrium, poor self-control, and very great anxiety. A neurosis syndrome among the accident-prone is discussed. The auto accident is seen as a phase of recidivism, a new symptom among other symptoms, and the expected behavior of a neurotic in a hopeless situation. (22 ref.)—*K. J. Hartman*

5942. Schuster, D. H. (Iowa State U.) *Two-year follow-up of official action taken against problem drivers.* *Proceedings of the Annual Convention of the American Psychological Association, 1971, Vol. 6*(Pt. 2), 505-506.—Evaluated the effectiveness of official action, such as probation or suspension of driver's license, on problem drivers. Official action was manipulated by randomly assigning more or less restriction of driving privilege than normally would have been given to a

problem driver at an individual driver improvement interview. 3 criteria of driving records in the subsequent 24 mo. were used in the nonlinear multiple regression analyses, number of moving violations, number of driving accidents, and amount of official action. The manipulated variable of interview action was found to interact significantly with measures of previous driving record in predicting follow up driving record.—*Author abstract*

5943. Seydel, U. (Traffic Psychology Inst., Vienna, Austria) *Die Beeinflussung des Fahrverhaltens durch Leit- und Randlinien auf Freilandstrassen: In Zusammenarbeit mit dem Verkehrstechnischen Dienst des KIV.* [The influence of middle and edge markings upon driving behavior.] *Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Vienna, 1969* (Jan), No. 7, 9-20.—Attempts to obtain the actual effect of middle and edge markings using the distance of a vehicle from the edge of the road measured under 12 different test conditions. The distance from the edge of the right side of the road was measured for 4800 vehicles. The following results were obtained: (a) After dark more drivers tend to use the part of the road nearer the middle provided the road is unmarked, whereas 10.8% drive beyond the middle and move to the opposite lane, possibly because of poor marking of the road edges; (b) After the installation of the middle markings there is a more uniform manner of driving, i.e., most drivers use the left part of the right lane. It seems that a middle line without an edge marking leads to an overestimation of the guiding function of the middle marking. This observation was made during daylight only. (c) If there are both middle and edge markings, the guiding effect of the middle marking is decreased to some extent; the combination of both markings creates a "field of tension" which leads potential "middle line drivers" who are accident prone back to the right lane. It is concluded that a combination of both middle and edge markings has a positive effect upon the behavior of drivers. (French summary)—*English summary.*

Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may conveniently find them by matching the numbers found under the two or more headings that specify his particular interest.

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| 4175 | 4177 | 4179 | 4179 | 4179 | 4179 | 4179 |
| 4179 | 4179 | 4179 | 4179 | 4179 | 4179 | 4179 |
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| 4179 | 4179 | 4179 | 4179 | 4179 | 4179 | 4179 |
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- | | | | | | | |
|------|------|------|------|------|------|------|
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- Alcohol
- | | | | | | | |
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| 4175 | 4177 | 4179 | 4179 | 4179 | 4179 | 4179 |
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| 4179 | 4179 | 4179 | 4179 | 4179 | 4179 | 4179 |
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- Alcoholism
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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

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A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

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Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

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The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

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The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan.), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.).—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

5d—Text of the abstract.

6—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper)

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

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6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams" (5) (See (5a) PA, (5b) Vol 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

Abbreviations appearing in this issue include along with units of measurement (e.g., in., inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
¢ = cents
CA = chronological age
cc = cubic centimeter
CE.R = conditioned emotional response
CFP = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

db. = decibel
DC = direct current
DL = differential lumen
DNA = deoxyribonucleic acid
DRL = differential reinforcement of low rates

F = experimenter
FCS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

F = Fahrenheit
ft-c = foot-candle
ft-l. = foot-lambert

g = gravity
gm. = gram(s)
GPA = grade-point average
GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
im = intramuscularly
ip = intraperitoneally
IQ(s) = intelligence quotient(s)
ITI = intertrial interval
iv = intravenously

kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz

LD = lethal dose
LSD = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma. = milliamperce
MA = mental age
MAO = monoaminoxidase
mL. = millilambert
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NREM = nonrapid eye movement

O = observer

p = probability
% = percent

PM = post meridiem
pps = pulses per second
PRE = partial reinforcement effect
PSE = point of subjective equality
psi = pounds per sq. in.

r = product-moment correlation
r = roentgen
REM = rapid eye movement
rms = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time

S = subject
SEU = subjectively expected utility
SPL = sound pressure level

TV = television

UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency

V = volt
VHF = very high frequency
vs. = versus

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
California F Scale (Fascism)
CMA scale = Children's Manifest Anxiety scale
CPI = California Psychological Inventory
CTMM = California Test of Mental Maturity
EPSS = Edwards Personal Preference Schedule
MA scale = (Taylor) Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MPI = Mandelkern Personality Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university

Ave. = avenue
Bldg. = building
Blvd. = boulevard
Ct. = court
Dr. = drive
Ft. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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GENERAL

OBITUARIES

HISTORY

5944. Adorno, Theodor W. *Die Freudsche Theorie und die Struktur der faschistischen Propaganda.* [Freudian theory and the pattern of fascist propaganda.] *Psyche, Stuttgart*, 1970(Jul), Vol. 24(7), 486-509.

5945. Erikson, Erik H. *On the nature of psycho-historical evidence: In search of Gandhi.* In D. A. Rustow (Ed.), "Philosophers and kings: Studies in leadership." (See PA, Vol. 46:Issue 4) 33-68.

5946. Gottheld, Rene. (Cuyo National U., Mendoza, Argentina) *Historia de la psicología en la Argentina: I.* [History of psychology in Argentina: I.] *Revista Latinoamericana de Psicología*, 1969, Vol. 1(1), 13-33.—Psychology in Argentina during the times of the Spanish colonial period was mainly a scholastic discipline, taught at the universities. In the era of independence there were 3 periods: (a) the ideology period, during which Lafinur, Fernandez de Agüero, and Alcorta made important contributions to psychology; (b) the romantic period, centered more in action than in ideas; and (c) the eclectic period, with Amadeo Jacques. *English abstract.*

PHILOSOPHY

5947. Gray, Paul D. (Ohio State U.) *A defense of P. F. Strawson's theory of self.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4837.

5948. Ornstein, Jack H. (U. California, San Diego) *A critique of the mind-brain identity theory and a defense of a multi-aspect theory of the mind.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4842-4843.

PARAPSYCHOLOGY

5949. Moss, Thelma & Gengerelli, J. A. (U. California, Center for the Health Sciences, Los Angeles) *ESP effects generated by affective states.* *Behavioral Neuropsychiatry*, 1970(Dec), Vol. 2(9-10), 8-12. Replication was attempted of a laboratory study where telepathy seemed to occur between 2 people, isolated from each other, when "transmitter" (T) was emotionally aroused and "receiver" (R) was relaxed. In the present study 72 T-R teams were divided into 3 groups: LSP, non-LSP, and HSP? (according to expressed beliefs), and the dependent variable was a forced choice by Rs (rather than the matching of protocols by judges). Significant results ($p = .003$) were obtained only with the ESP group. Post-hoc regrouping of teams into "artists" and "nonartists" gave highly significant results ($p = .000005$) for "artists."—*Journal abstract.*

THEORY & SYSTEMS

5950. Ardila, Rubén. *Desarrollo de la psicología latinoamericana.* [Development of Latin American psychology.] *Revista Latinoamericana de Psicología*, 1969, Vol. 1(1), 65-71.—Describes the development of Latin American psychology as a science and as a profession, and emphasizes the social forces which shaped its present state. Today, psychology is taught in 16 Latin American countries, 13 countries have professional associations of psychologists, and 42 psychological journals are published in Latin America (19 ref.)—*English abstract.*

5951. Bannister, D. (Ed.) (Bexley Hosp., England) *Perspectives in personal construct theory.* London, England: Academic Press, 1970. xii, 273 p. \$11.50.

5952. Goble, Frank G. *The third force: The psychology of Abraham Maslow.* New York, N.Y.: Grossman, 1970. xii, 201 p. \$7.95.

5953. Wallach, Isaac. (Duke U.) *Implications of recent work in philosophy of science for the role of operational definition in psychology.* *Psychological Reports*, 1971(Apr), Vol. 28(2), 583-608.—Reports that philosophers of science have recently shown that not only extreme operationism but any operationist position faces very serious difficulties. Psychology has tended to take for granted that only "data language" or "observation terms" have direct empirical meaning, and that the empirical meaning of all other terms is given by their operational definitions. Strong arguments are outlined which indicate both that such "observation terms" are impossible to distinguish and that there are other indirect sources of empirical meaning besides operational definitions. If these arguments are correct, 2 conclusions follow: (a) it can no longer be maintained that psychological concepts must be "reconstructed" in terms of operational definitions, and (b) there is no longer any basis for failing to require the justification of operational definitions used in psychological research. (2 p. ref.)—*Journal abstract.*

5954. Walsh, Anthony A. (U. New Hampshire) *Contributions to the history of psychology: XIII. Bibliographia phrenologica.* *Psychological Reports*, 1971(Apr), Vol. 28(2), 641-642.—Presents a description of a bibliographic listing of 383 items concerned with phrenology and available from the American Society for Information Science. Some research underway is mentioned. (23 ref.)—*Journal abstract.*

EDUCATION & TRAINING

5955. Leah, Terry V. (U. Lethbridge, Alberta, Canada) *Zen meditation and the development of empathy in counselors.* *Journal of Humanistic Psychology*, 1970(Spring), Vol. 10(1), 39-74. 39 graduate students enrolled in counseling courses participated in an experiment designed to learn if practicing zazen could assist counselors to improve their empathic abilities.

Experimental Ss, who volunteered for meditation, practiced zazen 30 min. each weekday over 4 wk. Of 2 control groups, which did not meditate, 1 consisted also of volunteers for zazen and 1 of meditation refusers. Tests of affective sensitivity (empathy), of openness to experience, and of self-actualization were administered to all Ss before and after treatment. Experimental Ss improved their empathic abilities significantly: control Ss did not. The effect is greatest in persons with low initial abilities. Both openness to experience and self-actualization are positively related to empathic ability. Depth of concentration reached in zazen is positively related to openness to experience. (50 ref.) *P. Swartz*

PROFESSIONAL DEVELOPMENTS

5956. Brozek, Josef. (Lehigh U.) *Psicología estadounidense y psicología soviética en 1971*. [American psychology and Soviet psychology in 1971.] *Revista Latinoamericana de Psicología*, 1971, Vol. 3(1), 51-72.—Discusses barriers to scientific communication between the United States and the Soviet Union, and describes for each country undergraduate and graduate psychology curricula, degrees and diplomas awarded, research institutions, and relations to the neighboring fields. (23 ref.)—*English abstract.*

5957. Hyams, Lyon. (Rutgers State U., Medical School) *The practical psychology of biostatistical consultation*. *Biometrics*, 1971(Mar), Vol. 27(1), 201-211. Beginning with the premise that consultations with biological scientists are frequently characterized by communication difficulties, an attempt is made to provide insights into their etiology through the consideration of the seemingly different expectations and behaviors of consultants and clients. General issues and interpersonal problems are brought into focus by stereotypic characterizations. Suggestions for upgrading the consulting relationship are advanced that depend on the empathetic understanding of the client's position and a more realistic self-appraisal.—*R. L. McCornack.*

5958. Miller, George A. (Rockefeller U.) *On turning psychology over to the unwashed*. *Psychology Today*, 1969(Dec), Vol. 3(7), 53-55, 66-74.—Nonpsychologists are suspicious of the goals of psychology. Since control of behavior is emphasized, laymen want to know who will decide what behaviors should be reinforced. "Understanding and prediction are better goals for psychology than is control—better for both psychology and for the promotion of human welfare—because they lead us to think, not in terms of coercion by a powerful elite, but in terms of the diagnosis of problems and the development of programs that can enrich the lives of every citizen." Every effort should be made to pass on the principles of psychology to the public rather than depending on either professional psychologists or industrialists and politicians to apply psychology. *E. J. Posavac.*

INTERNATIONAL PSYCHOLOGY

5959. Benbeniste, Narciso & Read, Maria C. *Nivel psicológico*. [True psychology.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 25-40. Argues for a definition of psychology characterized by "interaction." Pointing out the need for a science to be defined with respect to other disciplines studying the same general phenomena, the notion is developed that psychology may be conceptualized as a study of the interaction of organisms with their environment, as opposed to a study

of the reactions of the same organisms. The evolutionary emergence of complex, hierarchically organized structures is discussed, and they are shown to require complex rather than reductionist study. Similarly, an argument is made for approaches within psychology which will, for example, look at affective as well as cognitive factors in development, and consider the joint effects of these on the person. It is pointed out that the statistically derived conceptions of normality are of little value without a full understanding of the multiple factors which, in interaction with one another, affect a person's adjustment to his environment.—*S. M. Halpin.*

5960. Dukov, Aleist V. *Vvedenie v sudebnuyu psikhologiyu*. [Introduction to the forensic psychology.] Moscow, USSR: Yuridicheskaya Literatura, 1970. 158 p. 57 K.

5961. Krantz, David L. & Wouters-Koster, Lia. (Lake Forest Coll.) *Publication patterns in Dutch psychology*. *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Jan), Vol. 26(1), 52-59.—The American research machine has been described as being high-speed, hard-working, well-supported, sets its own goals, spirals from 1 project to another, and is conditioned not to incorporate foreign materials. European research, however, is more extended in time and stresses the qualitative and theoretical with emphasis on fundamental issues. With reference to Dutch research in psychology, it was found that 90% of all publications are written in Dutch for local consumption to improve local conditions. 18% of the psychologists published 75% of all the pages published. The majority of the scientific papers in psychology are published by a small core of members from the doctoral class. The low productivity in publications by the doctorandus class is explainable by its heavy burden in teaching. Also the limited opportunity for employment for a doctor-professor has reduced the motivation for publication among the members of the doctorandus class.—*A. J. Ter Keurst*

GENERAL BOOKS & REFERENCE WORKS

5962. Beigel, Hugo G. *Dictionary of psychology and related fields: German-English*. New York, N.Y.: Frederick Ungar, 1971. 256 p. \$9.

5963. Marienfeld, Horst. *Dokumentation: II. Biowissenschaften-biotechnik: Bibliographien 1960-1968*. [Documentation: II Biosciences-biotechnology: Bibliographies 1960-1968.] Don Mills, Ontario, Canada: GRS Control Systems & Simulation Engineering, 1969. 142 p. \$4.60(paper).

METHODOLOGY & RESEARCH TECHNOLOGY

5964. Kulyutkin, Yuvenalii N. *Evrlisticheskiye melody v strukture reshenii*. [Heuristic methods in the structure of solutions.] Moscow, USSR: Pedagogika, 1970. 230 p. 79 K.

5965. Lukaszewski, Wieslaw. *Niezgodność informacji i aktywność*. [Incomptability of information and activity II.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 35-59. Considers fundamental forms of information incompatibility between coded information and information input. A model is proposed which stands for the system of coded information and defines the organism's normal states and relations to his environ-

ment. 2 model types are distinguished: those generally conveyed to the organism and those taught. The features of information incompatibility and the degree of consolidation of the model are considered decisive for the organism's selection of methods to eliminate incompatibilities. Small and excessively great incompatibilities do not evoke tendencies to self-elimination (an area of lack of activity). Medium degrees of incompatibility provoke the organism to (a) changes in input information, (b) partial changes in both systems of information, or (c) a change of models. Several hypotheses derived from these considerations are considered. (Russian summary) (45 ref.).—*English summary*.

5966. Reid, Richard A. (Ohio State U.) **An evaluation of a methodology for the analysis of time series behavioral data.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5438.

MODELS & MATHEMATICAL MODELS

MATHEMATICS & STATISTICS

5967. Baird, John C. & Stein, Timothy. (Dartmouth Coll.) **When power functions fail: A theoretical explanation.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 415-425.—When the simple power function fails to describe psychophysical results, it is necessary to add or subtract a constant from either the stimuli or responses in order to reinstitute a power function. It is suggested that this failure results from the nonlinearity of the function between the Weber fraction and stimulus intensity. Computer simulation experiments were conducted which support this contention. (20 ref.).—*Journal abstract*.

5968. Breidenkamp, J. (U. Heidelberg, W. Germany) **Über Masse der Praktischen Signifikanz.** [Measures of practical significance.] *Zeitschrift für Psychologie*, 1970, Vol. 177(3-4), 310-318.—Discusses 8 different measures of practical significance. All measures can be reduced to the basic equation $(\text{Var}(t) - \text{Var}(e))/\text{Var}(f)$. The practical significance is always equal to the relative part in the total variance which can be explained by a variation of conditions. The 7 variance analyses with a fixed factor can be reduced to 2 basic measures: one expressing the practical relevance of the spot-check result; and the other expressing the practical significance in the population. When the independent variable of the examination is a change factor, the practical significance can be estimated by calculating the intraclass correlation.—*P. von Toal*.

5969. Joe, George W. (Texas Christian U., Inst. of Behavioral Research) **Comment on Overall and Spiegel's "Least squares analysis of experimental data."** *Psychological Bulletin*, 1971(May), Vol. 75(5), 364-366.—Discusses the model employed by J. Overall and D. Spiegel (see PA, Vol. 44:1534) in their design matrix in the use of a multiple regression technique to the problem of analysis of variance.—*Journal abstract*.

5970. Oslipov, L. V. (Leningrad State U., USSR) **O veroyatnostyakh bol'shikh uklonenii diya summ nezavisimyykh sluchainyykh velichin.** [Probabilities of large deviations for sums of independent random values.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 196(5), 1020-1023.—*L. Zusne*.

5971. Sandell, Rolf G. (Institutet för Konsumtionsforskning, Stockholm, Sweden) **Note on choosing between competing interpretations of cross-lagged panel correlations.** *Psychological Bulletin*, 1971(May),

Vol. 75(5), 367-368.—Considers the possibilities of drawing causal inferences from cross-lagged panel correlations. Assuming that the effects of a causal state vanish with time, and assuming 3-wave panel data, certain patterns of cross-lagged correlations are open to causal interpretations.—*Journal abstract*.

5972. Sullins, Walter L. (U. Maryland) **Monte Carlo sampling distributions of internal consistency reliability estimates for tests with sequentially dependent and independent items.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3975.

Factor Analysis

5973. Brogden, Hubert E. (Purdue U.) **Further comments on the interpretation of factors.** *Psychological Bulletin*, 1971(May), Vol. 75(5), 362-363.—Discusses the suggestion of C. Harris (see PA, Vol. 46:Issue 4), concerning a paper by H. E. Brogden, that the matrix of weights on the latent test vectors which reproduce the factors is 1 among many matrices that might be used for factor score estimation and that one must choose among these. After clarification of certain features of the paper (see PA, Vol. 44:1536), a distinction is made between factor score estimation and factor interpretation. It is suggested that weight matrices appropriate for estimation may not be appropriate for interpretation. It is concluded that Harris's comments do not seem to be relevant to the earlier paper on factor interpretation.—*Journal abstract*.

5974. Harris, Chester W. (U. California, Santa Barbara) **On Brogden's interpretation of factors.** *Psychological Bulletin*, 1971(May), Vol. 75(5), 360-361.—Discusses the interpretations of factors proposed by H. E. Brogden (see PA, Vol. 44:1536) which provides weights for application to the (generally unavailable) common parts of the data and not to the data themselves. If the weights are applied to the data themselves, the result is 1 of several possible estimates of common factor scores. These weights are not, in general, proportional to the factor pattern. It is suggested, however, that this proportionality can be achieved if the final oblique solution is developed by means of the C. Harris and H. Kaiser (see PA, Vol. 39:9008) independent cluster algorithm. Such a solution guarantees proportionality of 2 sets of weights: those to estimate the variables from the factors, and those that might be used, following Brogden, to estimate factor scores from the variables.—*Journal abstract*.

5975. Zwirner, Walter W. (Stanford U.) **The Procrustes model in factor analysis: Evaluation of two alternative criteria.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3978.

COMPUTERS & PROGRAMING

5976. Healey, C. T. & Sparks, D. L. (U. Alabama) **A method of interfacing a small computer with psychological experiments.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 403-404.

5977. Kraizmer, L. P. (Ed.) **Khranenie informatsii v kiberneticheskikh ustroystvakh.** [Storage of information in cybernetic installations.] Moscow, USSR: Sovetskoe Radio, 1969. 312 p. 91 K.

5978. Marshall, Clifford & Maguire, Thomas O. (U. Alberta, Edmonton, Canada) **The computer as social pressure to produce conformity in a simple perceptual task.** *AV Communication Review*, 1971(Spring), Vol. 19(1), 19-28.—In a study to determine the effect of

the computer as an authority with the effects of simulated social pressure in bringing about individual agreement in a simple perceptual task, 98 Ss were exposed to a standard IBM 1500 computer-assisted instruction (CAI) system. The task consisted of the presentation of a single vertical line on the image projector for 3 sec. S was then asked to choose which of 5 alternative lines which subsequently appeared matched the stimulus line. 7 groups were used: (a) 3 groups received simulated social pressure of varying forms; (b) 3 groups received pressure from the computer to choose either the correct, a larger, or a smaller line, respectively; and (c) a no-pressure control group. Results indicate that computer pressure can produce the same type of results as true social pressure. Perceptual judgments can be manipulated by false information presented in a CAI situation.—*D. E. Anderson.*

5979. Skorohod'ko, Eduard F. *Lingvistichni osnovi avtomatizatsii informatsiinogo poshuku.* [Linguistic bases of automatization of informational investigation.] Kiev, USSR: Vishcha Shkola, 1970. 242 p. 73 K.

5980. Slack, Warner. (U. Wisconsin) **Computer-based interviewing system dealing with nonverbal behavior as well as keyboard responses.** *Science*, 1971(Jan), Vol. 171(3966), 84-87.—Describes a digital computer program designed to conduct a medical interview while simultaneously monitoring the heart rate and keyboard response latency of the respondent for each question frame. The program can branch to new frames contingent upon the heart rate and response latency values, as well as the keyboard responses, and thus alter the course of the interview on the basis of this nonverbal information. The program is presented as a technique for studying the use of nonverbal respondent behavior in automated, clinical interviews.—*Journal abstract.*

5981. Timble, Michele & Coombs, Don. **An interactive information retrieval system: Case studies on the use of DIALOG to search the ERIC document file.** *ERIC-Stanford, Calif.*, 1969(Dec), 87 p.

5982. Ursul, Arkadii D. *Informatsiya i myshlenie.* [Information and thought.] Moscow, USSR: Znanie, 1970. 48 p. 9 K.

TESTING

5983. Lourens, P. J. (National Inst. for Personnel Research, Johannesburg, South Africa) **Die aard, funksies en tekortkominge van sielkundige meting.** [The nature, functions and shortcomings of psychological measurement.] *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 149-172.—Describes the scientific task as the collection, rational processing, and communication of information concerning empirical entities. Scientific standards deduced from this formulation include coverage, comprehensiveness of implications, reliability, and contribution to understanding. A definition of measurement is presented, following a review of instances of measurement. Measurement is compared with other general procedures which are (in principle) available to the scientist, e.g., intuition, verbal formulation, simulation. It is concluded that measurement has important advantages; however, if used without due consideration of all relevant factors, it can give rise to misleading or erroneous results. Exclusive reliance on measurement may exclude important areas from scientific scrutiny. The concept of a psychological test is defined and a "typical" psychometric situation is analyzed in detail.

The relationship of reliability to validity, the relation between test definition and validity, the question of whether all tests have to be validated, and the heterogeneous nature of psychological investigations are discussed. (29 ref.)—*English summary.*

Construction & Validation

EXPERIMENTATION & OBSERVATION

5984. Bootzin, Richard R. (Northwestern U.) **Expectancy and individual differences in experimenter bias.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 303-312.—2 experiments, involving a total of 35 Es (male volunteer undergraduates) and 205 Ss (undergraduates), were performed to determine whether E's expectancy mediates E bias and to identify personality correlates of E bias. E's predictions of S's performance were employed as a convergent measure of expectancy along with the usual induced expectancies. The experimental task was the standard Rosenthal person-perception task. In both experiments the E's expectancy (as represented by the E's predictions) was a determinant of S performance while the induction was not. There was some support for the hypothesis that the dominance and self-confidence of the E is related to the magnitude of the induced expectancy effect obtained.—*Journal summary.*

5985. Pereboom, A. C. (Louisiana State U.) **Some fundamental problems in experimental psychology: An overview.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 439-455.—The application of the experimental approach to a multidimensional discipline presupposes that it will work, that control and analysis will generate explanations which will lead to a unified theory for a restricted behavior domain, and that there will be a fundamental basis for our concepts, scales, and methods which will justify the measurable generalization of that theory. Yet little of this appears to be happening. It is suggested that, in the name of basic research, more effort be directed toward fitting our empirical approach to the subject matter rather than attempting to do the reverse. This may mean less control, greater descriptive generality, and more tolerance for diverse theoretical positions. (3 p. ref.)—*Journal abstract.*

APPARATUS

EXPERIMENTAL PSYCHOLOGY

5986. Anan'ev, B. G. (Ed.) **Eksperimental'naya i prikladnaya psikhologiya.** [Experimental and applied psychology.] Leningrad, USSR: Leningrad U., 1970. 112 p. 51 K.

5987. Colotla, Victor A. & Gallegos de Colotla, Xochitl. (Alcoholism & Drug Addiction Research Foundation of Ontario, Psychological Lab, Toronto, Canada) **Un glosario de términos del análisis experimental de la conducta en el idioma español.** [A glossary of terms of the experimental analysis of behavior in the Spanish language.] *Revista Latinoamericana de Psicología*, 1971, Vol. 3(1), 37-50.—Stresses the importance of the experimental analysis of behavior in contemporary psychology. It is noted that Latin American psychologists do not show, with the exception of isolated instances, interest in this new area of modern psychology. Presented is a glossary of suggested Spanish translations in the field of the experimental analysis of behavior, in the hope that it will contribute to the arousal of interest in

this area among Spanish-speaking psychologists. (31 ref.)—*English abstract.*

5988. Ough, C. S. & Amerine, M. A. (U. California, Davis) **Effect of subjects' sex, experience, and training on their red wine color-preference patterns.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 395-398.—11 experienced adult Ss and 98 inexperienced undergraduates had essentially the same preference patterns for red table wine color, showing a tendency to prefer the middle brightness and the red hue (compared to orange or purple). Male and female undergraduates had very similar preference patterns. There was a slight tendency for the male Ss to prefer the wines with lower brightness. The 9 highly trained Ss tended to prefer the wine colors with decreasing brightness. The over-dark, purple wine was distinctly disliked by the adult and student Ss and the preference was split for the experts. The danger of using a highly trained panel to predict preference of an inexperienced group is evident.—*Journal abstract.*

PERCEPTION

5989. Ellis, Newton C. (Texas A & M U.) **Using proximities analysis in the quantification of stimulus similarity.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 403-406.—Experimental questions were: (a) can the psychological space implied by judgments of similarity be recovered and represented metrically; and (b) will it approximate the preconstructed physical space of the stimuli, and if so, what are the implications? Complex, physically similar stimuli were constructed according to rules of circumplex analysis; similarities judgments were obtained using the complete method of triads, and judgment data were examined by proximities analysis. Results demonstrate that the psychological space was recoverable and closely resembled the physical similarity of the stimuli.—*Journal abstract.*

5990. Guilford, Arthur M. (U. Michigan) **A study of dichotic and dichoptic bisensory performance in a normal population.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5056.

5991. Hester, Gene A. (U. Texas, Medical School, San Antonio) **Effects of active movement on body-part size estimates.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 607-613.—Obtained body-part size estimates of 20 male 19-29 yr. old undergraduates under normal room illumination and under 3 basic conditions: (a) active movement of a joint-bounded body part prior to making an estimate of that part, (b) active movement of a different body part prior to making an estimate of a joint-bounded and non-joint bounded body parts as well as familiar nonbody objects; and (c) no movement prior to making an estimate of joint-bounded and non-joint-bounded body parts as well as nonbody objects. Results do not support the hypotheses that induced muscular tension or increased attention to the estimating task creates an enhancing effect upon size judgments from pictorial memory of body or nonbody stimuli. Other findings, e.g., overestimation of the head width and variability in estimation of the waist, were consistent with previous studies. (16 ref.)—*Journal abstract.*

5992. Hill, John W. (Stanford Research Inst., Menlo Park, Calif.) **Processing of tactual and visual point stimuli sequentially presented at high rates.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 340-348.—Investigated the differences between tactile and visual localization and temporal ordering ability using a

sequential presentation of 4- and 6-point stimuli in a 3×8 matrix of stimulators, 1 at a time, at onset intervals of 10-200 msec. The visual and tactile experiments were made as similar as possible by using analogous displays, identical experimental procedures, and the same 2 undergraduate Ss. Results show (a) that ordering a large number of points required considerably larger onset intervals than ordering a smaller number, (b) that ordering tactually presented points was more difficult than ordering the same number of visually presented points, and (c) that the ability to localize the points reached a minimum with a 50-msec onset interval. Tests show that this dip in performance with onset interval was not due to spatially dependent masking. (17 ref.)—*Journal abstract.*

5993. Koen, Frank. (U. Michigan) **Verbal mediators in cross-modal form discrimination.** *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 103-110.—Studied (a) the direction in which cross-modal discrimination is better (from vision to touch or vice versa), and (b) the nature and function of the mechanisms involved. Ss were 20 undergraduates in a pretest, and 40 undergraduate and graduate students in the main experiment. 2 sets of stimulus items differing in the degree to which they elicited verbal labels were used. The independent variables were perception and discrimination modalities, stimulus "nameability," and label use. On the basis of total error scores, perception modality, label use, nameability, perception \times discrimination, and perception \times label use were significant effects. The pattern of errors, however, indicates that verbal factors may be more strongly associated with false negatives than false positives, and more important as intramodal than as cross-modal mediators. Label use may either facilitate or depress performance, depending on the perceptual-cognitive operations that precede label "attainment." (French summary)—*Journal abstract.*

Illusion

5994. Howard, Roger B. (U. Michigan) **Perceived-length modification of briefly presented lines.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5026.

5995. Kosliski, N. & Dewar, R. (U. Calgary, Alberta, Canada) **Tactile and kinesthetic influences on visual figural aftereffects.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 399-402.—Presented 12 18 28 yr. old and female college students with a bent line inspection (I) figure followed by a straight line test (I) figure under 4 different conditions in order to produce a figural aftereffect (IAE) of a bent line. In the visual condition S saw the I figure and then the I figure. In the tactile condition S held a curved bar and viewed the I figure simultaneously. The 2 kinesthetic conditions required S feel a straight or curved bar and view the I figure simultaneously. In both the kinesthetic and tactile curved-bar conditions, Ss showed a strong tendency to perceive the visual I figure as curved. In the other conditions Ss perceived the I figure as bent (the usual effect produced by this combination of I and I figures). Results demonstrate the influence of kinesthetic and tactile stimulation on visual FAE.—*Journal abstract.*

Time

5996. Baron, Jonathan M. (U. Michigan) **The thresh-**

old for successiveness. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5013.

5997. Pettit, Tupper F. (New York U.) **Judgment and the concept of time.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5004-5005.

5998. Terstenjak, Antun. **K vprašanju interakcije med zaznavo svetlobe in časa.** [The perception of time under conditions of darkness and moderate illumination.] *Revija za Psihologiju*, 1970, Vol. 1(1), 27-31.—2 groups of 12 males each were asked to reproduce time intervals of 2, 4, and 8 min. 1 group was in total darkness and the other under illumination of 350 lux. The 8-min interval was significantly overestimated in darkness but underestimated in the light condition. 2- and 4-min intervals were underestimated under both conditions, the greatest underestimation being for the 2-min interval under the light condition.—*English summary*.

VISION

5999. Blake, R. Randolph; Fox, Robert, & McIntyre, Curtis. (Vanderbilt U.) **Stochastic properties of stabilized-image binocular rivalry alternations.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 327-332.—Conducted an experiment which consisted of a stochastic analysis of rivalry alternations produced by stimuli retinally stabilized by the method of enduring afterimages to determine whether the source of the random effect resided in a central mechanism or could be attributable to peripheral receptor variables, e.g., eye movements. The patterns of stabilized-image rivalry of 3 trained male Os were analyzed by a runs test, autocorrelation, and by fit to a theoretical gamma distribution. Analyses reveal that the successive durations were sequentially independent random variables similar to the pattern found for unstabilized rivalry. These data demonstrate that the source of the random effect must reside within a central mechanism and cannot be due to peripheral receptor variables. (15 ref.)—*Journal abstract*.

6000. Ernest, John T. (Walter Reed Army Medical Center, Inst. of Research, Washington, D.C.) **Night vision testing.** *Military Medicine*, 1971(Apr), Vol. 136(4), 381-382. Describes a psychophysical method for the demonstration of night vision defect simulation. This method could be used in distinguishing between a patient reporting false negatives and a person with completely subconscious hysterical amblyopia. Those individuals with hysterical amblyopia manifest a rapid fatigueability and after reaching an absolute visual threshold they show a slow elevation of this threshold as the examination progresses.—*G. A. Clum*.

6001. Ginsburg, Norman. (Lakehead U., Thunder Bay, Ontario, Canada) **Flicker fusion bibliography, 1953-1968.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 427-482. A list of 1293 references brings up to date C. Landis' bibliography on flicker fusion. CODEN abbreviations, periodical titles, and subject index are included.—*Journal abstract*.

6002. Heinemann, Ludwig G. (Missouri Inst. of Psychiatry, St. Louis) **Visual phenomena in long sensory deprivation.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 563-570.—In order to study the spontaneous production of visual patterns without structured input under the condition of several days of sensory deprivation the observations of a 32-yr-old male physician over 108 and 128 hr were tape recorded; one study including immobilization, the other acoustical isolation. The phenomena depended on illumination and

on time from start. Very bright light suppressed imagery, bright daylight was associated with moving bright commas, average daylight in the room produced irregular patterns of darker circles, later multiple apparent objects composed of circular elements, often in geometrical arrays. There was a different style of phenomena with closed eyes: colored spots, later showing textural qualities, movements of elements and areas, flickering brightness changes, jumping white lines, and pictures with dark backgrounds. Phenomena are interpreted as randomly arising events of dark-perception, inhibition, color perception, and as patterns arising from complex functions that have been studied in constancy phenomena.—*Journal abstract*.

6003. Scott, David E. (Ohio State U.) **A test of the validity of simplistic models of visual discrimination.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5199-5200.

6004. Seaman, Nancy J. (U. Maryland) **Effect of adaptation of photopic visual acuity.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5039.

6005. Veldman, Donald J. (U. Texas, Austin) **Correlates of visual acuity in college freshmen.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 551-558.

44% of 1362 males and 52% of 959 females wore glasses. The study was based on data collected for purposes other than the study of visual abnormalities, therefore, careful screening of Ss was not carried out. Male glasses wearers were slimmer in body build and less ambitious than non-glasses wearers; the reverse was true among females. Glasses-wearers of both sexes reported more illnesses and lower somatic but higher cognitive self-esteem. Their grades and Scholastic Achievement Test scores on the College Board aptitude tests were superior, and this was traced directly to their larger vocabularies.—*Journal abstract*.

6006. Woo, George C. (Indiana U.) **The basis for Panum's area.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5684-5685.

Perception

6007. Canon, Lance K. (U. Washington) **Directed attention and maladaptive "adaptation" to displacement of the visual field.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 403-408.—24 male undergraduates, wearing binocular, 30-diopter prisms inducing lateral displacement of the visual field, tracked a moving target during a 10-min exposure period. The experimental group received simultaneous visual and auditory stimuli from this target, but was instructed to attend to, and localize exclusively in terms of, the visual stimuli available. 2 control groups operated with (a) similar instructions but with only visual stimuli available, or (b) localized the target on the basis of either visual or auditory cues that were successively but never simultaneously presented. As predicted, only postexposure shifts in auditory localizations developed, and these occurred only in the experimental condition, where the exposure circumstances provided intermodality inconsistency of input regarding the spatial locus of the target. (15 ref.)—*Journal abstract*.

6008. Demko, Donald. (Ohio State U.) **Perception and preference structures with respect to spatial choices.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5417.

6009. Farné, Mario. (U. Bologna, Italy) **Induced**

motion in three dimensions. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 426.—Describes the experimental arrangement for inducing motion in 3 dimensions, using 10 naive medical students who described how they perceived 2 white lines which were continuously oscillated over 45° in a fronto-parallel plane. The phenomenon of induced motion is caused by the apparent movement.—P. Hertzberg.

6010. Feeney, William R. (U. California, Irvine) **Judgments about moving forms: A study of the visual perception of objects in motion.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5019.

6011. Flaherty, Thomas B. (Tulane U.) **Interstimulus interaction as a determinant of perceptual latency.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5659.

6012. Kleinhans, John L. (Rutgers State U.) **Perception of spatial orientation in sloped, slanted and tilted visual fields.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5028-5029.

6013. Lindauer, Martin S. (State University Coll. New York, Brockport) **Effect of clues in perceiving the "good figure."** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 588.—Investigated the perception of the good figure (one organized according to balance, simplicity, and symmetry) with 2 groups of randomly assigned Ss, 27 in each. 1 group received instructions for a preference task, the other did not. A positive effect for instructions was found. Results suggest that an unaided response to a shape does not lead to an awareness of good figure and that test guidance can assist aesthetic judgment.—P. Hertzberg.

6014. Merikle, Philip M., Lowe, Douglas G., & Coltheart, Max. (U. Waterloo, Ontario, Canada) **Familiarity and method of report as determinants of tachistoscopic performance.** *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 167-174.—Presented 168 7-letter sequences, representing either 1st- or 2nd-order approximations to English, for 150 msec. and masked them immediately after presentation. For 2 different groups of 14 undergraduates each, performance was evaluated by either a partial-report (PR) or a full-report (FR) procedure. In general, 2nd-order approximations were better recalled regardless of the method of report, and the overall magnitude of the familiarity effect was approximately the same under both PR and FR procedures. The different methods of report, however, led to quite different accuracy functions across the letter rows. Results indicate that familiarity, as defined by differences in sequential redundancy, has its effect during processing but that left-to-right sequential processing may not necessarily be involved. (French summary)—*Journal summary*.

6015. Miller, Leon K. (U. Illinois) **Methodological note on masking effects in vision.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 582.—Examined identification rates of tachistoscopically presented discrete stimuli for 10 undergraduates with normal vision in each of 2 groups. Lower levels of performance were found when targets were followed by patterned stimulation, performance being more sensitive to difference among Ss. Results suggest methodological difficulties which may occur when comparing the effect of various posttarget fields upon performance, i.e., variance persisted even when equivalent levels of performance of various poststimulus conditions were found.—P. Hertzberg.

6016. Moyer, Robert S. (Stanford U.) **On the possibility of localizing visual memory.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5034.

6017. Shulman, Harvey G., & Greenberg, Seth N. (Human Performance Center, Columbus, O.) **Perceptual deficit due to division of attention between memory and perception.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 171-176.—Administered a perceptual recognition task to 16 male undergraduates and a comparative judgment task to 16 male and 16 female undergraduates. Performance was studied as a function of the information storage demands made by a concurrently performed short-term memory task. Performance on the perceptual tasks was inversely related to memory load both when recognition rate was the dependent variable and when RT was measured under conditions of nearly errorless performance.—*Journal abstract*.

Size & Distance & Depth Perception

6018. Baird, John C., Romer, Daniel, & Stein, Timothy. (Dartmouth Coll.) **Test of a cognitive theory of psychophysics: Size discrimination.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 495-501.—The cognitive theory of psychophysics proposed in an earlier paper by J. C. Baird claims that the ratio of exponents obtained in the method of magnitude estimation for 2 stimulus attributes is equal to the ratio of information transmitted in the method of absolute judgment for those attributes. This theoretical prediction was tested experimentally for visual length and area. 40 university summer school students were Ss and served independently in 4 conditions, judging the attribute of length and of area with the method of absolute judgment and of magnitude estimation. Results partially support the prediction, inasmuch as the ordinal relations among exponents (length higher than area) was the same as the ordinal relation among information measures. However, in 1 instance, the exact quantitative relationship was significantly different from the predicted value. *Journal abstract*.

6019. Birnbaum, Michael H., Parducci, Allen, & Gifford, Robert K. (U. California, Los Angeles) **Contextual effects in information integration.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 158-170.—Category judgments of the average lengths of sets of lines are inconsistent with context-independent models of information integration: the effects of any particular line upon the judgment of average length varies inversely with the lengths of the other lines within the same set. This interaction, obtained in 5 separate experiments with a total of 211 undergraduates, was similar to that previously reported for auditory intensities. The judgments reflect (a) within-set effects, in which the judgment of the set varies directly with the range of values within the set; and (b) between-set effects, in which the apparent interaction between the stimuli within a set depends upon the context provided by the different sets. The context between sets is postulated to affect only the response scale; when the responses are rescaled to allow for the between-set context, the integrated impression is dependent upon both the mean and the range of components within the set. (18 ref.)—*Journal abstract*.

6020. Fineman, Mark B. (Yeshiva U.) **The interaction of relative size and disparity in depth per-**

ception. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5658-5659.

6021. Ton, William H. (Colorado State U.) **Perception of motion in depth.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5688-5689.

• Color Vision

6022. Letourneau, Jacques & Zeidel, Neil S. (U. Montreal, School of Optometry, Quebec, Canada) **The effect of sound on the perception of color.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Feb), Vol. 48(2), 133-137. Results of an experiment with 6-18-30-yr old experimentally naive men and 6 women indicate that sensitivity to white and green light increased under the influence of a pure sound of 1000 cps given at the intensities of 50, 70, and 90 db. Sensitivity to red light diminished only when the intensity of the sound had reached 70 db. Increase in sound intensity did not produce a proportional increase in the sensitivity to white and green light, but did decrease visual sensitivity to a certain extent in the case of red light. A control group of 3 Ss demonstrated that time alone had no effect upon the visual thresholds. —*Journal abstract.*

Form & Pattern Discrimination

6023. Dodwell, Peter C. (Queen's U., Kingston, Ontario, Canada) **Visual pattern recognition.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. x, 276 p.

6024. Noton, David & Stark, Lawrence. (U. Colorado) **Scanpaths in eye movements during pattern perception.** *Science*, 1971(Jan), Vol. 171(3968), 308-311.—1 male and 3 female undergraduates learned and recognized patterns which were marginally visible, requiring them to fixate directly each feature to which they wished to attend. Fixed "scanpaths," specific to subject and pattern, appeared in their saccadic eye movements, both intermittently during learning and in initial eye movements during recognition. A proposed theory of pattern perception explains these results. —*Journal abstract.*

Eye Movement

6025. Bakan, Paul. (Michigan State U.) **The eyes have it.** *Psychology Today*, 1971(Apr), Vol. 4(1), 64-67, 96.—While pondering a question humans tend to look up and either to the left or to the right. Men tend to exhibit more of a preference for 1 direction than women do. The direction predominantly chosen is related to personality differences and may be related to cerebral hemisphere dominance. Many conceptions of behavior (e.g., primary and secondary processes) can be interpreted in terms of cerebral hemisphere dominance. —*E. J. Posavac.*

6026. Laddin, Laurence H. (State U. New York, Buffalo) **Optokinetic nystagmus in humans: An analysis of unitary and independent input.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5667-5668.

Brightness & Contrast Discrimination

6027. Goldstein, Elie. (New York U.) **Masking: Effects of transient visual adaptation and spatio-temporal interactions on luminance detection.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5021.

6028. Stanley, Gordon; Finlay, David C., & Bartlett, W. K. (U. Melbourne, Victoria, Australia) **Regions of brightness and darkness in the sequential presentation of partially overlapping straight lines.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 314-318.—2 male and 2 female undergraduates made estimates of the location of regions of brightness and darkness with respect to a reference code when 2 partially overlapping illuminated rectangles of 80x6 mm. were presented sequentially at 0- or 50-msec interstimulus interval. Stimuli were presented in a left-right or right-left order for durations of either 25 or 50 msec. under conditions of 20-, 30-, or 40-mm overlap. Results indicate that with increasing stimulus-onset-asynchrony (SOA), there was a shift of greatest brightness from the overlapped region toward the leading edge of the 2nd rectangle presented. Darkness judgments also shifted from 2 bands flanking the overlapped region at 25-msec SOA toward a single region in the area of overlap at greater SOAs. Results are discussed in terms of G. von Békésy's concept of brightness funneling. —*Journal abstract.*

AUDITION

6029. Cohen, Michael J. & Johnson, Harold J. (Bowling Green State U.) **Effects of intensity and the signal value of stimuli on the orienting and defensive responses.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 286-288.—Maximized the chances for the occurrence of both orienting and defensive responses by manipulating signal value and intensity of auditory stimuli. A 2x2 design was used generating 4 groups of 10 female undergraduates each. Intensity was manipulated by presenting 60- or 100-db tones. Signal value was manipulated by having Ss (a) make a frequency discrimination and an overt response under the signal condition, and (b) simply listen under the nonsignal condition. 2 different measures of both cephalic and digital vasomotor activity were used. Neither of the cephalic responses was sensitive to any of the experimental manipulations. The digital responses basically reflected changes in stimulus intensity. Results do not support V. Sokolov's theory with respect to cephalic responding. —*Journal abstract.*

6030. Fulgosi, Ante (Inst of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Informacijska vrijednost slušnih ritmova.** [Information value of auditory rhythms.] *Revija za Psihologiju*, 1970, Vol. 1(1), 11-13. 9 Ss were presented with 22 different auditory rhythms. The rhythms varied between 40-208 bpm with a constant increase of 8 bpm. Rhythms were presented in random order. Information value of this set was 4.46 bits. Amount of information transmitted was 2.3 bits (median value), a value quite similar to the amount of information transmitted by loudness and pitch. Each rhythm was presented 60 times. A separate analysis of transmitted information in the 1st and the last 15 presentations of each stimulus was made. Median values were 2.23 and 2.36 bits, respectively. On the basis of this, it is concluded that training does not affect the amount of information transmitted by these stimuli. (English abstract)—*A. Fulgosi.*

Perception

6031. Clement, Jack R. (Stanford U.) **Minimal**

perceptible differences in decay rates of aperiodic signals. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5054.

6032. Gerber, Sanford E. & Goldman, Phyllis. (U. California, Santa Barbara) **Ear preference for dichotically presented verbal stimuli as a function of report strategies.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 2), 1163-1168. —Investigated lateral asymmetries in the perception of dichotic synthetic verbal stimuli in a group of 24 normal-hearing right-handed Ss. Ss were tested under the following reporting conditions: (a) free recall, in which S reported the stimuli in any order; (b) ordered before, in which S was instructed which ear to report 1st before the presentation of stimuli; and (c) ordered after, in which S was instructed which ear to report 1st after the presentation of the stimuli. It was found that a significant right-ear preference for dichotically presented verbal stimuli existed regardless of the report strategy employed. In all 3 reporting conditions, the right ear showed a significant superiority of accuracy of response. (24 ref.)—*Journal abstract*.

6033. Jeffress, Lloyd A. & McFadden, Dennis. (U. Texas) **Differences of interaural phase and level in detection and lateralization.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 2), 1169-1179. —By employing the same narrow band of noise (50 Hz. wide, centered at 500 Hz.) as both masker and signal, and by introducing a phase-shifting network between the masking and signal channels, it is possible to control the phase angle, α , between the 2. For a given signal-to-noise ratio, controlling the phase angle controls the relative magnitudes of the interaural phase (time) difference and the interaural difference in level between the stimuli at the 2 ears. When α lies between 0 and 90° and the signal is reversed at 1 ear relative to the other, the interaural time and level differences favor the same ear. However, when α is between 90 and 180°, the ear that leads in phase or time will receive the weaker stimulus, thus putting time and intensity into opposition as cues to the lateralization of the stimulus. Data on both detection and lateralization were obtained in 2 experiments with 7 Ss, using the single-interval forced-choice procedure. Large masking-level differences were found at all values of α , and good detection was exhibited even at those values of α where time and intensity were in opposition, and where performance in lateralization was very poor. Substantial individual differences in the relative importance of time and intensity as cues were found among the Ss.—*Journal abstract*.

6034. Leshowitz, Barry & Wightman, Frederic L. (Arizona State U.) **On-frequency masking with continuous sinusoids.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 2), 1180-1190. —Examined the detectability of brief, 1000-Hz sinusoids added in phase or in quadrature to a continuous tonal masker (pedestal) of the same frequency as the signal in the presence of a continuous wide-band noise. Ss were 3 the undergraduates, serving in each of 2 experiments. The effects of signal duration, shape of the signal's energy-density spectrum, SPL of the pedestal, and noise spectrum level were investigated. For conditions in which the background noise level was low, 2 unusual phenomena were noted: (a) a complete absence of the customary trading relation between signal power and duration, and (b) an extremely shallow masking function relating signal SPL and pedestal level. These departures

from the law of temporal integration and Weber's law are consistent with a simple filter model of the ear in which it is assumed that the location of the auditory filter is altered in response to changes in the parameters of the signal and masker. A basic assumption of the model is that the location of the filter is changed in order to maximize the ratio of signal energy to masker energy at the output of the filter. For detection of a tonal signal in the presence of another sinusoid, it appears that Os can listen at frequencies far removed from that of the signal, where signal energy is as much as 40 db. down from the peak. (17 ref.)—*Journal abstract*.

6035. Madigan, Robert J. (U. California, Los Angeles) **On the consistency of auditory judgments in signal detection.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5031.

6036. McFadden, Dennis & Pulliam, Kenneth A. (U. Texas) **Lateralization and detection of noise-masked tones of different durations.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 2), 1191-1194. —On different blocks of trials, 3 Ss either detected or lateralized a monaurally presented signal in a binaurally presented noise masker. 8 values of signal duration, ranging from 50-800 msec., were used for both detection and lateralization. The psychometric functions for lateralization and those for detection differed in form, but, despite this difference, both were displaced toward greater signal levels at about the same rate as signal duration decreased. That is, the difference between lateralization and detection was approximately the same for all signal durations. Signal: 400 cps. Masker: wide-band noise, 45 db. SPL/cycle. Method: single-interval forced choice.—*Journal abstract*.

6037. Taylor, M. M. & Clarke, D. P. (Defence Research Establishment Toronto, Ontario, Canada) **Monaural detection with contralateral cue (MDCC): II. Interaural delay of cue and signal.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 2), 1243-1253. —In a monaural detection with contralateral cue task, Ss detect a masked signal presented monaurally. A cue containing information relevant to the signal is presented to the other ear. In the present study with 2 Ss, a burst of noise was used as the signal and the same noise burst delayed or advanced by up to 2400 μ sec. as the cue. For most Ss, performance was best when the cue and signal were approximately simultaneous. When the cue led by about 800 μ sec., performance dropped sharply to levels below those obtained without the cue, recovering to the uncued level for yet longer disparities. When the signal led the cue, performance dropped smoothly as a function of timing disparity, and for signal lead greater than about 1000 μ sec., the cue had little effect on performance. It is concluded that, although the task subjectively is one of judging the apparent lateralization of the cue, the lateralization mechanism is not by itself the detecting mechanism.—*Journal abstract*.

6038. Yost, William A. (Indiana U.) **Tone-on-tone binaural masking.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5685-5686.

Speech Discrimination

6039. Blache, Stephen E. (Ohio U.) **An exploratory investigation of the use of multidimensional scaling in the perception of phonemic stimuli.** *Dissertation*

Abstracts International, 1971(Feb), Vol. 31(8-B), 5014-5015

Audiometry

CHEMICAL SENSES

SOMESTHESIA

6040. Allen, D. B. & Rudy, K. P. (San Jose State Coll.) **Perception of simple figures drawn upon the body surface.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 369-370.—Examined 103 12-48 yr. old Ss' perceptions of finger drawings on the forehead and back of the head in order to test a hypothesized sex difference and the effect of locus in the degree of congruence with the Frontal Plane Hypothesis (FPH): "Symbols drawn upon anterior or posterior surfaces of the body are perceived as if they were drawn and viewed by S upon 1 common, transparent 2-dimensional surface projected out in front of S." 4 symbols were traced on the foreheads and backs of heads of 103 Ss. Results indicate that the FPH does account for a majority of perceptions of finger drawings. No significant sex difference was obtained, but there was significantly greater congruence in the posterior locus.—*Journal abstract*.

6041. Ek, Richard N. (U. Massachusetts) **Labyrinthine contribution to static equilibrium.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5657.

6042. Waterland, Joan C. & Shambes, Georgia M. (U. Wisconsin) **Biplane center of gravity procedures.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 511-514. Describes biplane center of gravity procedures which determine the vertical projection of the line of gravity in any 2 planes. The triangular center of gravity platform provides a means to study various biomechanical and physiological mechanisms operable during relatively "static" postural conditions. *Journal abstract*.

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

6043. Cartwright, Rosalind; Rechtschaffen, Allan, & Rhodes, John. (U. Illinois) **Abstracts of papers presented to the 10th annual meeting of the Association for the Psychophysiological Study of Sleep.** *Psychophysiology*, 1970(Sep), Vol. 7(2), 293-358.—Includes abstracts of papers on the following topics: extra sleep, information processing, need for REM sleep, eye movements, ecology and phylogeny, rhythms, neurophysiology, unit activity, neurochemistry, serotonin, hormones and enzymes, dream content and recall, psychophysiology of dreams, need for dreams, methods and measurements, sex and sleep, ontogeny, insomnia and its treatment, addictive drugs, pathology, stimulus effects, response processes, and sleep under unusual conditions.

6044. Fancher, Raymond E. & Strahan, Robert F. (York U., Toronto, Ontario, Canada) **Galvanic skin response and the secondary revision of dreams: A partial disconfirmation of Freud's dream theory.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3),

308-312.—Monitored the GSRs of 15 female undergraduates while they tape-recorded accounts of their dreams. After 5 min Ss were asked to rerecord accounts of the same dreams. Passages from the 1st dream accounts that were told simultaneously with the occurrence of GSRs were significantly less likely than non-GSR control passages to be omitted from the 2nd accounts. GSR and control passages were equally likely to undergo substitutions in the 2nd accounts. Results are interpreted as being in partial disagreement with Freudian dream theory, which asserts that 1st-account passages that arouse anxiety are more likely than emotionally "indifferent" passages to undergo changes in the 2nd dream accounts.—*Journal abstract*.

6045. Hobson, J. Allan. (Massachusetts Mental Health Center, Boston, Mass.) **Sleep: Physiologic aspects.** *New England Journal of Medicine*, 1969(Dec), Vol. 281(24), 1343-1345.—Reviews sleep cycle stages and comments on current theories regarding the mechanism and function of sleep. Results of investigations recording localization of control mechanisms appear to agree on the pontine brainstem, however, findings are inconclusive regarding the actual function served by brainstem cells during the sleep cycle. Experiments in man support the theory that neural excitability regulation might be connected to the desynchronized phase of the sleep cycle. The theory that information processing is facilitated by desynchronized sleep is currently being tested. Clinical implications involved in control or suppression of desynchronized sleep (i.e., control of nocturnal asthma and anginal attacks) are discussed. (15 ref.)—B. A. Stanton.

6046. Krippner, Stanley & Hughes, William. (Maimonides Medical Center, Brooklyn, N.Y.) **Dreams and human potential.** *Journal of Humanistic Psychology*, 1970(Spr), Vol. 10(1), 1-20. Dreaming is an active, integrating, creative event, not compensatory or reactive. Whatever instinctoid pressures and traumatic or wish materials are reflected in dreams "combine with the evolutionary developmental, programming, data processing, problem-solving, and even paranormal aspects of an event which becomes an integrated whole." Contemporary interest in states of altered consciousness bodes well for all fields endeavoring to produce "full-blown human beings." (59 ref.)—P. Swartz.

HYPNOSIS & SUGGESTIBILITY

6047. Arnold, Jay. (Valdosta State Coll.) **Effects of hypnosis on the learning of two selected motor skills.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 1-6.—60 male college students (45 highly traceable and 15 nontraceable) served as Ss in an effort to determine whether posthypnotic suggestion of a positive involving nature, or positive involving suggestion without hypnosis could be used to improve the learning of a fine and a gross motor skill, e.g., mirror tracing and ball bouncing, respectively. A 2nd problem investigated was whether individuals at the 2 ends of the traceability scale were affected differently by positive involving suggestion in the learning of the 2 motor skills utilized in this study. Results indicate no significant differences at the .05 level for either of these 2 problems. *Journal abstract*.

6048. Easton, Zelda F. (Louisiana State U., Agr. cultural & Mechanical Coll.) **Relationship of hypnotic susceptibility to personality variables as shown by**

MMPI and California Q-set scores. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5618-5619.

6049. Fordham, Michael R. (U. Utah) **Biographical information and hypnotic susceptibility.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4990.

6050. Gandolfo, Ronald L. (County Dept. of Mental Health, Fresno, Calif.) **Role of expectancy, amnesia, and hypnotic induction in the performance of posthypnotic behavior.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 324-328.—Studied posthypnotic behavior in 54 female undergraduates. Except for controls, Ss were instructed to resist a posthypnotic suggestion along with either a positive or negative expectation that they would be successful. Ss were given the suggestion either immediately before or after a hypnotic induction. Ss' responses to the suggestion were significantly ($p < .05$) determined by what expectations they had regarding their ability or inability to resist the suggestion. Ss reporting amnesia were more responsive to the suggestion. Whether or not Ss received the suggestion during trance appeared to be of little importance. Ss' responsiveness to suggestions is explained in terms of role enactment. (22 ref.)—*Journal abstract*.

6051. Gandolfo, Ronald L. (Louisiana State U., Agricultural & Mechanical Coll.) **The role of expectancy, amnesia, and hypnotic induction in the performance of posthypnotic behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5621.

6052. Gibbons, Don. (West Georgia Coll.) **Directed-experience hypnosis: A one-year follow-up investigation.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 206-207.—A follow-up investigation revealed that differences in posttest scores on the Mandler-Sarason Test Anxiety Questionnaire produced by directed-experience hypnosis persisted over the course of a 1-yr period.—*M. V. Kline*.

6053. Ham, Martin W. & Edmonston, William E. (Medfield Foundation, Mass.) **Hypnosis, relaxation, and motor retardation.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 329-331.—Assigned 30 male undergraduates scoring 4 or better on the Barber Suggestibility Scale to 3 groups: (a) alert hypnotic induction, (b) relaxation hypnotic induction, and (c) relaxation control. RT of the alert group was significantly faster than that for the other 2 groups, which did not differ from one another. A significant increase in RT over trials was manifested by the latter 2 groups. Results are discussed in relation to the altered state of consciousness concept of hypnosis.—*Journal abstract*.

6054. Mordey, Theobald R. & Denike, Douglas. (U. Southern California) **Enhancement of achievement motivation by posthypnotic and waking suggestion.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 198-205.—Results indicate that both posthypnotic and waking motivating suggestion are effective in raising achievement motivation in hypnotizable Ss.—*M. V. Kline*.

6055. Starr, Fay H. (Southern Illinois U., Edwardsville) **The remarriage of multiple regression and statistical inference: A promising approach for hypnosis researchers.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 175-197.—Describes a multiple linear regression computer program as a general purpose procedure for the testing of hypotheses in hypnosis research.—*M. V. Kline*.

6056. Van Nuys, David W. (U. Michigan) **Hypnotic susceptibility and individual differences in attention.**

Dissertation Abstracts International, 1971(Feb), Vol. 31(8-B), 5009-5010.

MOTIVATION & EMOTION

6057. Atkinson, John W. & Birch, David. (U. Michigan, Survey Research Center) **The dynamics of action.** New York, N.Y.: John Wiley 1970. x, 380 p. \$11.95.

6058. Crandall, James E. (U. Idaho) **Relation of epistemic curiosity to subjective uncertainty.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 273-276.—Examined the relation between epistemic curiosity and subjective confidence, or uncertainty. 21 male and 19 female undergraduates attempted to answer a number of factual multiple-choice questions, rated how interested they were in learning the answers, and finally rated their confidence in the answers they had given. Curiosity was nonmonotonically related to subjective uncertainty, with the greatest curiosity occurring at intermediate levels of confidence.—*Journal abstract*.

6059. Deci, Edward L. (Carnegie-Mellon U.) **The effects of externally mediated rewards on intrinsic motivation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4262.

6060. DuPont, Thomas D. (Purdue U.) **Stimulus similarity and pupillary adaptation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5017.

6061. Hare, Robert; Wood, Keith; Britain, Susan, & Frazelle, Janice. (U. British Columbia, Vancouver, Canada) **Autonomic responses to affective visual stimulation: Sex differences.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 14-22.—Recorded physiological responses while 25 male and 25 female undergraduates viewed a random series of colored slides of homicide scenes, nude females, and ordinary objects. Responses given by both sexes to each type of slide were those generally considered to be part of an orienting response—increased skin conductance, cardiac deceleration, and digital vasoconstriction. In addition, stimulus presentation was accompanied by cephalic vasoconstriction and by a sharp reduction in eyeblink rate. Females had higher tonic heart rates but lower levels of electrodermal activity than did the males. There were no significant sex differences in the overall magnitude of cardiac deceleration and vasomotor responses elicited. However, the males gave larger initial electrodermal responses than the females. In addition, the cephalic vasomotor response given by the males was less complex (monophasic constriction) than that given by the females. There were several sex differences in the type of slide eliciting the largest response. For the males, the largest cardiac response was elicited by the homicide slides, while the largest electrodermal and vasomotor responses were elicited by the nude slides. The opposite was true of the females. (16 ref.)—*Journal abstract*.

6062. Himle, David P. (U. Michigan) **The effects of instructions on an autonomic response.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4263-4264.

6063. Luginbuhl, James E. (U. North Carolina, Chapel Hill) **The effects of choice and outcome on feelings of success, competence, and desire for originship.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4972.

6064. Lushene, Robert E. (Florida State U.) **The effects of physical and psychological threat on the**

- autonomic, motoric, and ideational components of state anxiety. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5630.
6065. Mansueto, Charles S. & Desiderato, Otello. (Catholic U. of America) **External vs self-produced determinants of fear reaction after shock threat.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 30-36.—Studied changes in fear level immediately after the threat of shock. Heart rate and skin conductance indices of fear were monitored while 80 female undergraduates awaited a single shock expected at the end of a specified time interval. 20 Ss were assigned to each of the following groups: (a) a threatened group which watched an accurate clock, (b) a threatened group which had no clock, and (c) a threatened group which watched a clock deliberately altered to run slow. 20 nonthreatened Ss in a control group watched an accurate clock. Results indicate that fear increased with the passage of time, in accordance with external time cues provided by the clock, terminating beyond the level produced by the initial threat instructions. However, only if Ss received external time cues indicating the imminence of shock, did emotionality increase. In the no-clock group, fear dropped to base-line level after threat, and remained there. The nonthreatened control group showed no increase in emotionality over time.—*Journal abstract*.
6066. Osterlund, Blair L. (U. Missouri) **Reinforcement and arousal.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3882.
6067. Peterson, Lawrence E. (U. Pittsburgh) **Vocal behavior in conflict as a function of type of conflict and drive level.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5035-5036.
6068. Ray, Rose E. (Baylor U.) **Autonomic and self-report correlates of guilt responses to visual erotic stimuli.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5673.
6069. Unikel, Irving P. (U. Georgia) **Effects of changes in stimulation upon preference for stimulus complexity.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 246-250.—Presented series of lights representing given levels of complexity for approximately 30 min. to 84 junior college students. Then, for 50 trials, Ss chose to observe the same level of complexity that had been experienced or a newly introduced level. Ss tended to prefer the more complex level in all experimental conditions, suggesting that, over this range of stimulus complexity, there is a preference for greater and greater complexity. Ss also showed a highly significant relative preference for any newly introduced level of complexity, i.e., for change. Implications for motivation theory and further research are discussed.—*Journal abstract*.
6070. Warwick, Robert J. (U. Nebraska) **A bi-factor theory of the relationship between drive level and skin conductance.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5043.
6071. Wood, Gene H. (U. South Carolina) **The effects of cognitive appraisal and defensive disposition on stress response in the natural habitat.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5648-5649.

ATTENTION & EXPECTANCY & SET

6072. Blaylock, Barbara A. (U. Illinois, Urbana-

Champaign) **Some antecedents of directional fractionation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9 B), 5653.

6073. Ferguson, James G. (U. North Carolina, Chapel Hill) **Stimulus judgment: An inquiry into the effects of motion, commitment, and attribution.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4969.

6074. Gerald, Glen G. (U. Tennessee) **An experimental comparison of four methods for suggesting increased concentration on skilled performance tasks undertaken in a distracting situation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5602-5603.

6075. Gordon, Ian E., Dulewicz, Victor, & Winwood, Meg. (U. Exeter, England) **Irrelevant item variety and visual search.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 295-296.—In a series of cancellation tasks, 40 6th form boys searched through printed lists containing relevant and irrelevant uppercase letters. An earlier finding, that the variety of irrelevant items influences search difficulty, was confirmed with displays formed using randomizations of from 3-24 different irrelevant items.—*Journal abstract*.

6076. Krković, Anđelko & Bočkal, Zlatko. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Utjecaj položaja tijela motrioca na detektiranje rijetkih signala i na elektroencefalogram.** [Vigilance performance, electroencephalogram, and posture of the human monitor.] *Revija za Psihologiju*, 1970, Vol. 1(1), 15-18.—Investigated the efficiency of detecting rare auditory signals (2 equally long sequences of beats) using 12 Ss under conditions of lying, sitting, and standing. EEG activity and number of detections in different phases of monitoring were registered. No significant differences in detections were found in different postures. EEG activity was markedly different in standing from the EEG activity in the other 2 postures. These results are contrary to the expectations which could be derived from activation theory of vigilance. (English abstract)—*A. Fulgosi*.

6077. MacKay, Donald G. (U. California, Los Angeles) **How does language familiarity influence stuttering under delayed auditory feedback? Perceptual & Motor Skills**, 1970(Apr), Vol. 30(2), 655-669.—Attempted to determine how language familiarity affects stuttering under delayed auditory feedback (DAF). In 1 condition DAF interference was compared in 21 German-English bilingual students speaking their more and less familiar languages. A language familiarity effect was found: the bilinguals spoke faster and stuttered less under DAF when speaking their more familiar language. This effect was independent of both delay time and language spoken. Moreover, the slower rate in the less familiar language could not explain the language familiarity effect since instructing Ss to slow down their rate of speech decreased rather than increased their stuttering. A 2nd condition showed that the language familiarity effect was not due to paying more attention to feedback in the less familiar language. Rather, practice or experience in producing the motor organization of speech seemed to underlie the effect of language familiarity. (25 ref.)—*Journal abstract*.

6078. Mewhort, D. J., Thio, Harriet, & Birkenmayer, A. C. (Queen's U., Kingston, Ontario, Canada) **Processing capacity and switching attention in dichotic listening.** *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 111-129.—Describes 4 experiments with 82

undergraduates which indicate that (a) switching attention in a dichotic listening task requires processing capacity, and (b) increasing encoding difficulty reduces the amount of switching in a free recall dichotic listening task. Results are discussed in terms of a limited capacity processor model which contends that switching attention, encoding, and sustaining material all require processing capacity and that the S's strategy regarding switching attention is determined by the capacity available after capacity requirements for encoding are met. (French summary) (23 ref.)—*Journal summary*.

6079. Schwartz, Murray. (U. Waterloo, Ontario, Canada) **Competition in dichotic listening.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5677-5678.

6080. Shapiro, Don E. (New York U.) **An experimental attempt to increase sensitivity to implied meaning by priming non-discursive listening.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5009.

6081. Shulman, Harvey G., Greenberg, Seth N., & Martin, JonPaul. (Human Performance Center, Columbus, O.) **Intertask delay as a parameter of perceptual deficit in divided attention.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 439-440.—Examined the perceptual deficit reported by H. Shulman and S. Greenberg as a function of the delay between presentation of a memory task and a perceptual task. Ss were 36 undergraduates. The speed of perceptual processing decreased as a function of memory load, and this effect was present at delays of 2, 5, and 8 sec. Results support the conclusion that 2 distinct information-processing functions (information storage and perceptual processing) will behave in a nonindependent fashion when one or the other makes heavy demands on processing capacity.—*Journal abstract*.

6082. Soward, John B. & Moss, Stanley M. (U. Massachusetts) **The effects of value ratio shifts on item processing in a visual search task.** *Journal of General Psychology*, 1971(Apr), Vol. 84(2), 291-302.—Ss were differentially rewarded for correctly reporting briefly exposed stimuli that were designated as high or low valued. 3 groups of 24 undergraduates each were originally trained under different ratios of payoff associated with the high and low valued stimuli (2:1, 4:1, or 8:1). 8 Ss from each group were then shifted to the remaining 2 value ratios with 8 Ss (controls) staying at the value ratio at which they were originally trained. Ss increased their response rates relative to the control condition when there was a large upshift (2:1/4:1) and depressed their responding with a large downshift (8:1/4:1). The data also suggest that a downshift produced an increase in accuracy whereas an upshift produced a decrease in accuracy. These results were interpreted as supporting a mutual interference hypothesis of item processing in short-term memory.

Journal summary.

6083. Šverko, Branimir. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Vjerojatnost detekcije rijetkih slušnih signala u funkciji veličine intervala od prethodne reakcije.** [Probability of signal detection in an auditory vigilance task as a function of interval duration since the last response.] *Revija za Psihologiju*, 1970, Vol. 1(1), 23-25.—In investigations of the relationship between the intersignal interval and the probability of detection, the intersignal interval is usually defined as (a) the time from the last signal (regardless of

whether it was detected or not), or (b) the time since the last detection. Both investigation methods neglect, however, the possible effect of false responses on the probability of detection. In this study false responses were included in computing intersignal intervals. Data from an auditory vigilance study were grouped according to the time which elapsed between the last response (regardless of whether it was a false alarm or a correct detection) and the appearance of a new signal. The results show that the probability of detection is low immediately after the response and low after long intervals. The probability of detection was highest after intervals of medium duration. (English abstract)—A. Fulgosi.

6084. Whalen, Frank D. (U. Pittsburgh) **Psychophysical judgments of the probability of occurrence of stimulus events as a function of method of presentation, stimulus pattern and specific event probability.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5044.

MOTOR PERFORMANCE

6085. Barnsley, Roger H. & Rabinovitch, M. Sam. (McGill U., Montreal, Quebec, Canada) **Handedness: Proficiency versus stated preference.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 343-362. Reports an investigation of performance factors of developed hand preference. Measurements taken from both the preferred and nonpreferred hands of 50 17.3-34.1 yr old males and 50 17.9-27.4 yr old females yielded scores on 61 dependent variables from 32 tests. Factor analyses of the scores produced 9 interpretable factors of hand performance. Each factor was common to male and female and to preferred-nonpreferred performance. However, preferred hand performance was superior on almost all tasks. Results indicate that questionnaires of stated hand preference cannot adequately represent the range of handedness or degree of differential manual proficiency. It is suggested that preferred hand performance is characterized by "automatization" of the skills involved in hand performance. (30 ref.)—*Journal abstract*.

6086. Briggs, Peter F. & Tellegen, Auke. (U. Minnesota) **Further normative data on a Frostig subtest, eye-hand coordination.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 640-642. Scores on the eye-hand coordination subtest of the Marianne Frostig Developmental Test of Visual Perception for 360 3-39 yr old males and females confirmed the Frostig standardization scores through age 7.—*Journal abstract*.

6087. Carron, Albert V. (U. Saskatchewan Saskatoon, Canada) **Intra-task reliability and specificity of individual consistency.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 583-587. Reanalyzed the data of D. Q. Martin in order to examine the relationship of consistency of motor response among the component responses of a single motor task 120 15-18 yr old high school Ss were tested on a special task the rho. A single trial on this motor task can be logically separated into 3 component motor responses: RT, a short circular movement, and a short linear movement. Results indicate that consistency of motor response was moderately reliable within the response components but tended to be response-component specific. Further, both the reliability and specificity of motor-response con-

sistency were independent of the size of the mean performance scores. (15 ref.)—*Journal abstract.*

6088. Danev, S. G., et al. (Netherlands Inst. for Preventive Medicine, TNO, Leiden) **Psychophysiological assessment of information load.** *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Jan), Vol. 26(1), 23-39.—Assessed the different demands imposed on individuals by a sensorimotor task under 2 levels of information load. The measured psychophysical parameters were heart and respiratory rates and their variability. The performance was measured in terms of RT, misses and mistakes and performance on a secondary task. 6 male students responded to 2 conditions: punching the correct button when either of 2 lights appeared and, similarly, when 8 lights appeared. The secondary task was a simple addition problem to be solved before the button was pressed. Analysis of variance indicated that RTs, mistakes and misses and performance on the secondary task discriminated best between the 2 conditions. Different Ss reacted differently to the 2 conditions in their cardiac and respiratory functioning. The relation between RT and various phases of the cardiac and respiratory cycle and the length of time the button was pressed in response to signals was significantly related to the information load.—A. J. Ter Keurst.

6089. Semjén, András. (Hungarian Academy of Sciences, Inst. of Psychology, Budapest, Hungary) **Célmozgások programjának szakaszos szerveződése: A Mozgás "akcióküszöbe," irányának és amplitúdójának programozása.** [Phase organization of amplitude-regulated movements: The "action threshold" of movement; the programming of its direction and amplitude.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 355-369.—In a discrete step-tracking situation 2 different types of time intervals were employed between the successive movements of the target. The long interval enabled the S to terminate his correctional move before the target was moved again. When the short interval (100-140 msec.) was employed, the 2nd move of the target always took place before the overt motor response was started; consequently it may have played the role of a signal for modifying the original motor task. Based on the motor response amplitude-indices and RT data, the following conclusions are drawn: (a) latency time of amplitude-regulated movements is more affected by the uncertainty pertaining to the direction of the movement to be performed than by the amplitude; movements with different amplitudes but identical directions have, to a certain extent, the same value with regard to preparation for that movement; (b) uncertainty associated with the amplitude of the movement to be performed involves an increase in the spread of movement amplitudes; it may be assumed that movements with different amplitudes, if they can be performed in a given direction, do not constitute entirely discreet response categories; (c) in the course of central organization in amplitude regulated movements, the psychological refractory period does not prevail in such a form as might be deduced from the single-channel mechanism hypothesis; and (d) on the basis of the foregoing it may be assumed that a certain phase structure prevails in the organization of amplitude-regulated movements, i.e., the primary decision bears on the direction of the movement to be made; programming of amplitude in the movement to be performed takes place at a later stage of the process. (Russian summary)—*English summary.*

REACTION TIME

6090. Hinrichs, James V. & Craft, John L. (U. Iowa) **Verbal expectancy and probability in two-choice reaction time.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 367-371.—Examined the probability effect (PE) in 2-choice RT studies. 40 male and 40 female undergraduates were assigned to 1 of 5 experimental groups varying the levels of probability differences between the more and less frequent stimuli: 50-50, 60-40, 70-30, 80-20, and 90-10. In 1 condition, Ss were required to predict the stimulus presentations. A regression analysis of the prediction condition showed 3 factors to be significant contributors to the PE: (a) the conditional PE which is observed when Ss' predictions are taken into account, (b) the difference in RT to correct and incorrect stimulus anticipations, and (c) the relative proportion of correct and incorrect stimulus anticipations.—*Journal abstract.*

6091. Kohfeld, David L. (Southern Illinois U., Edwardsville) **Simple reaction time as a function of stimulus intensity in decibels of light and sound.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 251-257.—Compared simple auditory and simple visual RTs on the same scale by presenting psychophysically equivalent response signals. In Exp. I with 60 soldiers, mean RT for both auditory and visual signals at 90 and 60 db. was the same; for the 30-db comparison, RT was longer for the visual than for the auditory signal. Exp. II with 3 naive and 1 experienced S, indicates that the light-tone difference at 30 db. was attributable to latency differences between reception at photopic and scotopic visual levels. The common assumption that auditory RT is shorter than visual RT is reconsidered. (17 ref.)—*Journal abstract.*

6092. Wallace, Richard J. (U. Oregon) **S-R compatibility and the idea of a response code.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 354-360.—Conducted 2 experiments with 6 male and 6 female undergraduates each in which Ss pressed 1 of 2 keys placed to their left or right when 1 of 2 stimuli were presented. A stimulus could occur on the left or right, or above or below a fixation point. Ss performed with their hands uncrossed or crossed. Compatibility effects were found to hold between the position of the stimulus and that of the response key whether or not the hands were crossed. Thus the effects did not depend on the relation between a stimulus and a particular motor output. It was hypothesized that the positions of both the stimulus and the responding hand were related to a spatial code, and the outcome of a comparison between their representations in this code was responsible for the differences in compatibility. Results of Exp. II suggest that there were both facilitation and interference in the compatible and incompatible situations, respectively.—*Journal abstract.*

6093. Williams, John D. (Ohio State U., Human Performance Center) **Memory ensemble selection in human information processing.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 231-238.—Investigated human information processing in a choice RT task requiring 15 male and 15 female undergraduates to use memory information organized in subsets or ensembles which were characterized by color. Results indicate that S performed 2 serial memory-search operations in order to classify a stimulus as a member of the memory set: (a) selected the appropriate ensemble for processing by conducting a serial, exhaustive scan of

a memory set of ensemble-defining colors; and (b) serially scanned the selected ensemble. Equations were derived reflecting stimulus-encoding and response-decoding time, ensemble-selection rate, and the rate of scanning of the selected ensemble. Results demonstrate that S could reduce his processing load by scanning a single memory ensemble instead of his entire memory set.—*Journal abstract.*

LEARNING

6094. Bruckner, Nanette J. **Approach and avoidance generalization gradients and pregeneralization response strength.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5015-5016.

6095. Eckert, Helen M. (U. California, Berkeley) **Learning curves for delayed static and dynamic visual feedback.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 14-20.—Randomly assigned 60 female Ss to 20 initial trials of blind maze tracing under conditions of delayed static or dynamic visual feedback. The alternate condition was completed during the 2nd series of 20 trials 1 wk. later. The amount of delay (10 sec.) was the same for all trials, and the maze remained the same for all trials. For static visual feedback, Ss were allowed to view their previously completed tracing for 10 sec., whereas for dynamic feedback they saw a replay of their taped action in tracing the maze. Significant learning occurred over the 2 series of trials for both S groups and within each feedback condition for Group B. There was no significant difference between the 2 feedback conditions.—*Journal abstract.*

6096. Hall, James N. (U. North Dakota) **Information extraction and incidental learning as functions of locus of control, motivation, and sex.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5662.

6097. Keats, John B. (Florida State U.) **The effect of serial position on the early trials of the two-choice probability learning situation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4550.

6098. Lakota, Robert A. & Madison, Harry L. (U. Wisconsin, Milwaukee) **Luminance and reinforcement delay in probability learning.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 277-278.—6 groups of 26 undergraduates each predicted occurrences of reinforcing lights of either equal or different luminances, with either long or short reinforcement delays. No overall significant effects of luminance were obtained, failing to confirm the findings of J. Nazzaro and J. Todorov (see PA, Vol. 40:6304). Results suggest that the brighter of 2 reinforcing lights may have both reinforcing and aversive properties. Reinforcement delay had no significant effect.—*Journal abstract.*

6099. Majeres, Raymond L. (U. Nebraska) **Cognitive control and learning: Interactive effects of cognitive control, motivation, and cue selection in color-word paired-associate learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5031-5032.

6100. Melnick, Merrill J. (U. Utah) **Effects of overlearning on the retention of a gross motor skill.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 60-69.—4 groups of 20 male freshmen each practiced the skill of balancing on a stabilometer to a learning criterion and then received 0, 50, 100, or 200% overlearning practice. $\frac{1}{2}$ of the Ss in each of the groups returned for retention testing after 1 wk. while the other $\frac{1}{2}$ returned after 1 mo. Absolute and relative retention scores were calculated

for each S and then statistically analyzed. Results show that immediate recall of the skill following the 2 retention intervals was facilitated by overlearning, 50% overlearning proving, in most instances, as effective as 100 and 200%. Relative retention scores were not significantly better after 1 wk. and 1 mo. for those Ss receiving 50 and 100% overlearning; however, the Ss who received 200% overlearning had significantly better retention than the Ss who had 0% overlearning following the 1-mo retention interval. Further analysis of retention scores reveals that differential warm-up decrement effects may have partly accounted for the retentive superiority of the groups that received "extra practice."—*Journal abstract.*

6101. Schmidt, Richard A., Zuckerman, Jerome; Martin, Helen A., & Wolfe, Kurt F. (U. Michigan) **A novel discrete gross motor learning task: Modifications of the Bachman ladder.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 78-82.—Proposes a modification of the Bachman ladder climb task which eliminates the speed vs. height trade-off by scoring the task as a discrete task. Performance curves for 20 female undergraduates and 18 male undergraduate and graduate students are presented, and the advantages of the modified task are discussed.—*Journal abstract.*

Conditioning

6102. Goodman, Alan S. (Florida State U.) **The effects of instructions, response cost, and reinforcement availability discriminative stimulus on human operant behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5603.

6103. Lanning, Alan W. & Yaremko, R. M. (Coll. of DuPage) **Resistance to extinction in GSR conditioning: Effects of postpeak CR training and preextinction rest.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 433-435.—4 groups of 10 undergraduates each received paired tone-shock classical GSR conditioning trials, differing in the number of training trials beyond peak CR amplitude (2 or 16), and the presence or absence of a 5-min preextinction rest interval. 4 additional groups of 10 Ss each received unpaired tones and shocks matched in number to Ss in the experimental groups. Results indicate that conditioning groups without rest displayed an inverse relationship between the number of postpeak training trials and resistance to extinction, while the introduction of rest reversed this relationship. It is concluded that recent studies of postpeak GSR conditioning produced results which are modifiable when appropriate inhibition-reducing operations are employed and that these operations will produce strong resistance to extinction.—*Journal abstract.*

6104. Lloyd, Andree J. & Leibrecht, Bruce C. (Headquarters U.S. Army Medical Research Lab., Ft. Knox, Ky.) **Conditioning of a single motor unit.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 391-395.—Injected 17-18-24 yr. old males with bipolar fine-wire electrodes into the tibialis anterior muscle. A start light indicated the onset of a trial. If Ss activated a single motor unit, a correct light appeared. With no additional feedback, Ss learned to isolate and control a single motor unit within 500 trials and demonstrated significant improvement during a relearning series.—*Journal abstract.*

6105. Ohman, Arne. (U. Uppsala, Sweden) *Inter-*

action between instruction-induced expectancy and strength of unconditioned stimulus in GSR conditioning. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 384-390.—Administered 12 long interstimulus interval GSR conditioning trials to 50 draftees. Ss were then instructed about increases or decreases in the intensity of the shock that was used as the UCS. The actual shock was changed in strength in the same or opposite direction. For a control group, the shock was not mentioned in the instruction and was not changed. On the trial immediately following instruction, the magnitude of the CS and pre-UCS responses were found to be manipulable in an upward but not in a downward direction through the instruction. On the 2nd and 3rd trials, the pre-UCS response was largest when there was a conflict between the instruction and the actual shocks, whereas the CS response was primarily determined by shock intensity. The UCR was smallest when the instruction about changes in shock intensity was in agreement with the actual changes. Results support a preparatory set explanation of the UCR attenuation phenomena in classical conditioning of the GSR. (20 ref.)—*Journal abstract*.

6106. Rees, Janet F. (U. Cincinnati) **A test of the TSD model in human eyelid conditioning: Instructional and experimental design manipulations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5036-5037.

6107. Schell, Anne M. (U. Southern California) **UCR diminution as a function of ISI.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5675-5676.

6108. Silver, Avrum I. (Ohio U.) **Processes of response decrement during classical conditioning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5040-5041.

6109. Trimble, Ralph W. (Brooks Air Force Base, School of Aerospace Medicine, San Antonio, Tex.) **Applications of the vicious circle paradigm to human subjects.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 23-29.—Vicious circle behavior was operationally defined as greater resistance to extinction under punishment extinction than under regular extinction, following avoidance conditioning. Using 56 and 104 18-20 yr. old female undergraduates, respectively, as Ss, 2 studies employed factorial designs involving these 2 types of extinction along with 2 levels of shock and 2 levels of similarity between the avoidance conditioning and extinction situations. Vicious circle behavior was obtained in both studies; shock level differentially influenced responding in neither study; and a condition of low similarity suppressed responding under the punishment extinction condition of Exp. II. Results suggest possible applicability of the vicious circle paradigm to humans and encourage further study of this maladaptive type of behavior. (17 ref.)—*Journal abstract*.

6110. Unikel, Irving P. & Strain, G. S. (U. Georgia) **Type of reinforcement and generality in verbal operant conditioning.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 495-500.—Randomly assigned 48 undergraduates to 1 of 3 reinforcement conditions: (a) social approval, (b) correctness, and (c) noncontingent reinforcement control. Extinction trials were conducted either by the same or a different E. 5 male graduate student Es, randomly selected from 10 available, generally were assigned 2 Ss in each of the resulting 6 conditions. The 2 types of reinforcement appeared to be equally effective with respect to effects on verbal operant

conditioning ($p < .001$), but social approval resulted in less generality than reinforcement for being correct. Ss receiving social approval exhibited significantly more rapid extinction in an altered stimulus situation with a different E ($p < .05$). Results suggest why numerous previous verbal conditioning studies which typically use social approval have failed to yield generalizable effects (17 ref.)—*Journal abstract*.

6111. Yelen, Donald R. (Washburn U.) **The acquisition and extinction of superstitious behavior.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 1-6.—In Exp. I with 26 undergraduates as Ss, an attempt was made to establish and to control superstitious verbal responses. A verbal operant conditioning task, modified by pacing the Ss' rate of responding and by delaying the appearance of the reinforcer, was used. The response measures—percentage occurrence of responses, number of reinforced responses, and postconditioning verbal reports indicated that specific superstitious responses were established. Exp. II replicated Exp. I, and also investigated the effects of shifts in reinforcement schedule on the extinction of superstitious verbal responses. 52 undergraduates were Ss. After training with a delay in reinforcement schedule, Ss in Exp. II were shifted to either a no delay in reinforcement schedule, or an extinction condition. Results indicate that the extinction condition does not affect the superstitious responses, and that the frequency of superstitious responses was reduced under the no delay in reinforcement schedule.—*Journal abstract*.

Verbal Learning

6112. Cramer, Phebe. (Williams Coll.) **Can semantic generalization occur without CS presentation?** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 380-383.—Conducted 2 experiments with 40 and 32 undergraduates. Ss' responses to a semantic generalization test list were compared following a training list in which the critical stimuli (CSs) were or were not presented. Results indicate that responses to the test list were determined by the relationship of test-list to training-list CS words, and not by some extraneous characteristics of the test words themselves.—*Journal abstract*.

6113. Hughes, Madeleine J. (U. Georgia) **Biadata subgroup differences in serial verbal learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5026.

6114. Kayson, Wesley A. **A study of strategies in serial learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5027-5028.

6115. Paul, Hadassah. (Hofstra U.) **Ratio of correct to incorrect alternatives: A test of the frequency hypothesis of verbal discrimination learning.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 285-286.—Reports 2 studies with 50 and 36 Ss in which the manipulated frequency ratios of correct (C) to incorrect (I) alternatives of a verbal discrimination (VD) pair were either 4:1, 2:1, or 1:1. Rate of acquisition of a VD list was predicted to vary directly with the size of C:I ratio, in accordance with the frequency hypothesis of VD learning. Results are generally consistent with the theory.—*Journal abstract*.

6116. Rogers, Pamela W. (U. Arizona) **Effect of alliteration on acquisition and retention of mean-**

ingful verbal material. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 671-675. Studied the effect of degree of alliteration on verbal learning using 4 groups of 90 undergraduates each. 4 degrees of alliteration and 3 retention intervals were used. Alliteration alone had no effect on retention. With the addition of an attentional cue (capitalization or instructions), alliteration had a significant facilitative effect on retention.—*Journal abstract*.

6117. Rowe, Edward J. & Paivio, Allan. (U. Western Ontario, London, Canada) Word frequency and imagery effects in verbal discrimination learning. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 319-326.—Varied frequency (F) and imagery (I) values of words factorially over 2 levels in 4 verbal discrimination learning experiments with a total of 56 undergraduates. High-I pairs were significantly easier than Low-I pairs under both mixed- and unmixed-list conditions, with the effect being restricted to High-F words. Variation in F produced a significant effect in 2 experiments, the difference being specific to Low-I pairs in a mixed-list design. Investigation of learning strategies show that imagery was reported as the preferred strategy for High-I pairs, while repetition occurred more frequently for Low-I pairs. A postlearning test of associative recall produced fewer errors for High-I than for Low-I pairs when both were High-F. Results are discussed in relation to the frequency theory of verbal discrimination. (19 ref.)—*Journal abstract*.

6118. Uleman, James S. & VandenBos, Gary R. (Michigan State U.) Generalized verbal conditioning: Some effects of the meaning and delay of reinforcement on awareness and conditioning. *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 49-56.—Reported 2 Taffel-type verbal conditioning experiments. In Exp. I with 218 undergraduates, Ss were told that reinforcements were equivalent to more power in a future small group task. In Exp. II with 2 groups of 45 Ss each, reinforcements were interpreted as a measure of verbal ability. Exp. I, but not Exp. II, produced awareness and conditioning. In Exp. I, short reinforcement delay yielded more awareness and conditioning, apparently through controlling Ss' attention. Minor effects of S sex and of E were also found. Virtually any reinforcement or signal interpretation is possible with this paradigm. Its potential in studying cognitive and motivational factors in verbal conditioning is noted. (20 ref.)—*Journal abstract*.

6119. Winzenz, David J. (Stanford U.) Group structure and coding in serial learning. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5044.

Verbal Paired Associate Learning

6120. Arbuckle, Tannis Y. (Sir George Williams U., Montreal, Quebec, Canada) Mediational instruction, stage of practice, presentation rate, and retrieval cue in paired-associate learning. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 396-402.

Examined the effect of instructions to form mediators on paired-associate (PA) learning for 2 presentation rates, 2 stages of practice, and 2 sets of noun-noun pairs—abstract (A)-concrete (C) noun pairs with the A noun as the test cue (A-C/A) and the reverse C-A/C pairs. 120 male and female undergraduates learned 2 mixed lists of A-C/A and C-A/C pairs under 6 combinations of rate and instructions. Trials to learn

were significantly reduced by mediational instructions, the slow rate, the 2nd list, and the C-A/C pairs. Mediational instructions affected both stages of practice similarly, although the effect was less marked with the 2nd list. Instructions reduced the difference between C-A/C and A-C/A pairs while the efficiency of the fast rate relative to the slow one increased from the 1st to the 2nd list. Data are discussed in terms of the hypothesized role of mediators in PA learning. (21 ref.)—*Journal abstract*.

6121. Calfee, Robert C. & Anderson, Rita. (Stanford U., School of Education) Presentation rate effects in paired-associate learning. *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 239-245. Combined presentation rate, trigram meaningfulness, stimulus-response pairing, and intralist similarity in a factorial study of the effect of rate on paired-associate learning of digit and trigram combinations. 480 undergraduates served as Ss. Rate had a significant effect on criterion performance when trigrams were used as stimuli with digit responses, more so for high intralist similarity materials. Optimal intervals fell in the range of 2-4 sec. Rate was not a significant variable for digit-trigram pairs. Efficiency of association and stimulus differentiation appears to depend on presentation rate, but response integration does not. (20 ref.)—*Journal abstract*.

6122. Henry, Anna I. (U. Pittsburgh) On the operation of a suppression mechanism during learning. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5024.

6123. Hewitt, Charles W. (St. Louis U.) Meaningfulness dimensions in verbal learning: Racial and order effects. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5024.

6124. Mayromatis, John. (U. Pittsburgh) Meaningfulness and interference in paired-associates learning. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5032.

6125. Munson, John C. (New Mexico State U.) The optimal instruction of mediated associations. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4556.

6126. Soho, Robert L. (Loyola U., Chicago, Ill.) Stimulus selection among triaxially stimuli. *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 289-291. Used triaxially stimuli composed of 3 levels of meaningfulness in a paired-associate task. Following acquisition, 70 undergraduates were given a transfer task in which a fraction of the original stimulus appeared. Results indicate that stimulus selection is a function of the relative meaningfulness of stimuli within triaxialities. Selection tendencies and pattern learning are discussed. *Journal abstract*.

6127. Yarmey, A. Daniel & Ure, Gail. (U. Guelph, Ontario, Canada) Incidental learning, noun imagery-concreteness and direction of associations in paired-associate learning. *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 91-102. Examined the effect of imagery-concreteness pairs in incidental learning. In Exp. I with 96 undergraduates, intentional learning was superior to incidental learning. Recall of concrete-concrete noun pairs was significantly better than recall of all other pairs, while concrete-abstract and abstract-concrete nouns did not differ from each other but did differ from abstract-abstract recall. In Exp. II with 64 Ss, instructions to use imagery during the orientation task resulted in similar performance for

incidental and intentional learning Ss. Concreteness yielded a greater effect on the stimulus side than on the response side of pairs, particularly for stimulus-response recall. Associative directionality had no reliable effects in either experiment. Results are discussed in terms of A. Paivio's conceptual peg hypothesis and 2-process theory of verbal and imaginal memory (French summary) (17 ref.).—*Journal abstract.*

Reinforcement

6128. Braun, Stephen H. (U. Missouri) Effects of schedules of direct or vicarious reinforcement and discriminative modeling cues on behavior in extinction. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5015.

6129. Overbaugh, Thomas E. (U. California, Los Angeles) The effects of delay and schedule of punishment on the suppression of verbal behavior. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5035.

6130. Sager, Eric B. (Ohio U.) Relative reinforcement effectiveness of general and specific referential words. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5059-5060.

MEMORY

6131. Dever, John J. (U. Delaware) An examination of serial and parallel memory search with one and two probes. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5656.

6132. Dooling, D. James & Lachman, Roy. (Kent State U.) Effects of comprehension on retention of prose. *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 216-222.—Manipulated comprehension of metaphorical passages by prior presentation or non-presentation of a short title reflecting their theme or main idea. Word order was varied independently by presenting the material in 1 of 3 forms: (a) random words, (b) random phrases, and (c) prose. In Exp. I with 120 undergraduates, both variables facilitated free recall performance with no interactions. In Exp. II with 240 undergraduates, a paced binary-recognition test followed the same input conditions. Ss who understood the theme performed better only with those words prejudged as thematically relevant, indicating a true semantic effect and a process of matching test words to an internally stored thematic surrogate. Results suggest that an abstract representation of a passage's central meaning is used as a mnemonic device in the retention of prose.—*Journal abstract.*

6133. Elliott, Orletha A. (U. Cincinnati) The investigation of instructed mental imagery in short and long term recall as a function of visual and auditory interpolated tasks. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5657-5658.

6134. Fox, Paul W. & Dahl, Peter R. (U. Minnesota) Aided retrieval of previously unrecalled information. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 349-353. Trained 100 undergraduates to a 30% criterion on a paired-associate (PA) list, tested for PA recall, and then tested again for the unretrieved items under special probe and prompting conditions. Storage of response information was demonstrated by prompted recall of new retrievals considerably in excess of that

expected on the basis of normative free association probabilities. The availability of associative information was revealed by Ss' ability to match previously unretrieved PA responses with the appropriate stimuli. Results support the view that Ss' store of information is not exhausted by an unprompted test of PA recall. In addition, the original PA stimuli were found to play no functional role in the prompted generation of new retrievals. Several processes by which prompts may work to cue retrieval are discussed.—*Journal abstract.*

6135. Frost, Nancy. (Center for Perceptual & Cognitive Research, Eugene, Ore.) Clustering by visual shape in the free recall of pictorial stimuli. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 409-413.—Hypothesized that if visual memory (for pictures) is searched during recall of picture names, then recall should be organized according to visual similarities. Stimuli were 32 drawings of common objects, drawn so that they clearly fell into 4 shape categories. Stimuli were randomly presented to 45 undergraduates who then gave free recall of the objects' names. Recall was scored for clustering according to the shape categories. 15 additional Ss were presented the written names of the objects, and their free recall, scored according to the shape categories, was used as a control. Experimental Ss clustered by shape during free recall, while control Ss did not. No evidence was found to differentiate the performance of Ss who were led to expect a verbal task (recognition of names) from that of Ss who expected a visual task (recognition of drawings).—*Journal abstract.*

6136. Hintzman, Douglas L. & Block, Richard A. (U. Oregon) Repetition and memory: Evidence for a multiple-trace hypothesis. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 297-306.—Tested 2 hypotheses concerning the effect of frequency on memory: (a) that repetition increments the cumulative strength of a single memory trace; and (b) that repetition results in multiple traces, each identifiable by its "time tag." Results from 3 experiments with a total of 112 paid volunteers support the multiple-trace hypothesis. When words were presented twice in a single list, subsequent judgments of serial position showed that the effects of the 2 repetitions could be discriminated in memory. A combined frequency judgment and list-discrimination task demonstrated that Ss could differentiate between recent and remote frequencies of the same word. It is concluded that the internal representation of frequency is one in which the identities of individual repetitions are preserved. Implications for the frequency theory of verbal discrimination learning are discussed. (22 ref.)—*Journal abstract.*

6137. Johnson, Ronald E. (Purdue U.) Differential meaningfulness and isolation effects. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 376-379.—Studied the influence of differential meaningfulness in producing isolation effects in a 3×3 factorial experiment. Background lists of low, medium, or high meaningfulness (m) contained a single embedded syllable of either low, medium, or high m. 243 undergraduates received 15 serial learning trials on 1 of the 9 types of lists. Recall of the embedded syllable was best when the background lists were of higher m. Performances on isolates of higher m were superior to isolates of lower m, but genuine isolation effects occurred only for isolates of low m.—*Journal abstract.*

6138. Kendler, Howard H. & Ward, James W. (U. California, Santa Barbara) Memory loss following

discrimination of conceptually related material. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 435-436.—Investigated the memory loss of a specific word when it is learned as an instance of a conceptual category. 108 undergraduates were trained to discriminate between 2 sets of conceptually related words under conditions of different stimulus-exposure and response-delay periods as well as different amounts of practice. Results suggest the locus of the memory loss was in the strength of the association between an individual word and its conceptual category response, and not in either the exposure or delay periods.—*Journal abstract*.

6139. Keppel, Geoffrey; Bonge, Dennis; Strand, Bonnie Z., & Parker, Janat. (U. California, Berkeley) **Direct and indirect interference in the recall of paired associates.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 414-422.—Reports 3 experiments with a total of 312 undergraduates which studied interference effects operating on forward and backward associations. Evidence was found for direct and indirect interference in 4 transfer paradigms (A-B, A-D; A-B, C-B; A-B, D-A; and A-B, B-C). The failure of previous studies to find indirect interference is attributed to the use of a high degree of original learning. The difficulty of the principle of associative symmetry to accommodate certain outcomes of the 3 experiments is discussed. (20 ref.)—*Journal abstract*.

6140. Peterson, Margaret J. (Indiana U.) **Imagery and the grammatical classification of cues.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 307-313.—Varied the imagery ratings and grammatical classification of words in word pairs to study the effects upon cued and free recall. Words were selected that function as nouns only, as nouns and noun modifiers without change of form, and as adjectives only. The basis of imagery classification (ratings of the pairs, of the nominal words, or of the adjectival words) also was investigated. The imagery ratings of the words was the only variable that significantly affected recall in 36 undergraduates. The recall of the whole pair was higher when conditionalized upon high-imagery than upon low-imagery words in all analyses of both free and cued recall.—*Journal abstract*.

6141. Shiffrin, Richard M. (Indiana U.) **Forgetting: Trace erosion or retrieval failure?** *Science*, 1970(Jun), Vol. 168(3939), 1601-1603.—Describes 3 experiments with 111 undergraduates in which a series of lists of random words was presented. Following each list, the S attempted to recall the words of the list prior to the list just presented. It was found that recall probability for a given word depended on the length of the list in which it was embedded, not on the length of the list intervening between presentation and test. Results indicate that forgetting is a failure in the memory search during retrieval rather than a degradation of the memory trace occurring between presentation and test.—*Journal abstract*.

6142. Sussman, Harvey M. & Smith, Karl U. (U. Wisconsin) **Sensory-feedback modes as determinants of learning and memory.** *Journal of Educational Research*, 1970(Oct), Vol. 64(2), 64-66.—Investigated the role of sensory feedback factors in determining learning and memory in 12 Ss, 4 different modes of movement control of sensory input on memory of stimulus patterns were used: (a) visual tracking of the pattern without manual control, (b) parallel pursuit tracking of the

pattern with a hand-controlled visual cursor, (c) opposed pursuit tracking of the stimulus pattern with a hand-controlled visual cursor, and (d) compensatory negative feedback tracking in which S observed only the error of tracking the stimulus pattern. Results indicate that mode of sensory feedback control of sensed input of stimulus patterns during learning determined immediate memory, and that memory was superior for modes of feedback control in which the pattern of stimulation and of movement could be compared. It is concluded that the processes of active and passive learning and their role in determining learning and memory are specifiable and predictable as variable forms of movement-controlled sensory feedback.—*Journal abstract*.

6143. Walker, Howard J. (State University Coll. New York, Oswego) **Interaction of imagery, associative overlap, and category membership in multitrail free recall.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 333-339.—Hypothesized that the relationship between word imagery (I) and free recall would be diminished in lists containing verbally based internal structure. 3 groups of 30 undergraduates each received 3 different word lists for 4 free recall trials. Each list contained an equal number of high- and low-I words. In 1 list, no attempt was made to build in any interword relationships. The 2nd list contained pairs of associatively related words, while the 3rd list contained word pairs which were associatively related and shared membership in common conceptual categories. As predicted, the advantage of high-I over low-I words in amount recalled decreased as the degree of list structure increased. (16 ref.)—*Journal abstract*.

6144. Winograd, Eugene; Conn, Charles P., & Rand, Joyce. (Emory U.) **Superiority of complete presentation to single-item presentation in recall of sequentially organized material.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 223-230.—Reports 2 experiments on free recall in which the method of complete presentation was compared with the typical single-item (1 word at a time) presentation procedure. Total time was held constant. In Exp. I with 112 undergraduates, there was no difference between methods for either unrelated word or categorized lists. In Exp. II with 40 Ss, lists varying in approximation to English were presented, and higher recall was obtained with complete presentation for contextually constrained lists. Results are discussed in terms of facilitation of the usage of optimal units (chunks) with the method of complete presentation. (16 ref.)—*Journal abstract*.

6145. Yaroush, Rita; Sullivan, Michael J., & Ekstrand, Bruce R. (U. Colorado) **Effect of sleep on memory: II. Differential effect of the first and second half of the night.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 361-366. Tested 3 groups of 16 undergraduates for recall after a 4-hr retention interval of a paired-associate list. In Group A, the retention interval was defined over the 1st 4 hr. of a night's sleep; for Group B over the last 4 hr. of the night, and Group C learned in the daytime with the retention interval defined over a 4-hr period of wakefulness. Results show Group A to be consistently superior to the other 2 conditions on several measures of recall. Groups B and C did not differ on any of the measures. Results are discussed with respect to various conceptions of long-term forgetting and a modified consolidation interpretation is proposed to account for these and other effects of sleep on memory.—*Journal abstract*.

Short Term & Immediate Memory

6146 Beasley, Daniel S. (U. Illinois, Urbana-Champaign) **Auditory analysis of time-varied sentential approximations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5651-5652.

6147 Berlá, Edward P. (U. Cincinnati) **Inter- and intra-list interference and repetition effects in short-term memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5652-5653.

6148 Deutsch, Diana. (U. California, Center for Human Information Processing, San Diego) **Tones and numbers: Specificity of interference in immediate memory.** *Science*, 1970(Jun), Vol. 168(3939), 1604-1605. Reports that recognition of the pitch of a tone was severely disrupted by the incorporation of 6 other tones during a 5-sec retention interval, even though the intervening tones could be ignored. However, the requirement for Ss to recall 6 numbers spoken at equal loudness during the identical retention interval produced only a minimum decrement in the same pitch recognition task. Further, the requirement to remember the tone produced no decrement in recall of the numbers. It is concluded that immediate memory for pitch is subject to a large interference effect which is highly specific in nature and which is not due to some limitation in general short-term memory capacity or to a distraction of attention.—*Journal abstract*.

6149 Elliott, Maxwell C., Hoyenga, Katharine B., & Hoyenga, Kermit T. (Western Illinois U.) **Cueing and scoring procedures in STM.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 437-438.—Compared 2 different methods for cueing for immediate recall in short-term memory (STM). A 7-item list of CVCs was given to 54 undergraduates, and the retention of the list item was tested. It was found that the use of a cueing method that introduced appreciable delay between presentation and recall could result in misleading conclusions. The scoring method of J. Wright (see PA, Vol. 42:313) was compared with the common all-or-none scoring method. The 2 different analyses implied the same conclusions in all cases.—*Journal abstract*.

6150 Johnson, David A. (Oklahoma State U.) **Pupillary responses during a short-term memory task with instruction to forget.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5026-5027.

6151 Kirsner, Kim & Craik, Fergus I. (Drayton House, Medical Research Council Developmental Psychology Unit, London, England) **Naming and decision processes in short-term recognition memory.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 149-157.—Presented serially a list of 8 words to 16 students at a 1-sec rate, followed after 2 sec. by a test word for (a) item recognition, or (b) renaming as rapidly as possible. It was argued that subtracting naming latency (NL) from decision latency (DL) yielded a relatively pure measure of comparison times in memory. The "corrected DL" values showed strong recency effects. Recency effects were also present in the NL measures, demonstrating a short-term priming effect in word naming. Manipulating input modality yielded faster NL and corrected DL values when the presentation series and test word were both given auditorily. Since this facilitation was present over all serial positions, it is concluded that both naming and decision processes were speeded by the presence of relatively long-lasting auditory information in memory. Implica-

tions for models of recognition memory are discussed. (18 ref.) *Journal abstract*.

6152 Levy, C. Michael & Jowaisas, Dennis. (U. Florida) **Short-term memory: Storage interference or storage decay?** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 189-195.—168 undergraduates were given 42 trials in each of which a different consonant trigram or 3-digit number was visually presented for 1 sec. and followed by an interpolated shadowing task. The interpolated materials were either similar or dissimilar to the target items and were presented for 3-18 sec. Recall was inversely related to the similarity and the number of the interpolated items. A stimulated recall procedure required Ss to provide 1, 2, or all 3 elements of the target item to differentiate empirically between storage interference and storage decay. Results suggest a greater influence of interference than trace decay processes in storage. (17 ref.)—*Journal abstract*.

6153 Scheirer, C. James. (State U. New York, Binghamton) **Effect of cueing, modality, and effective contiguous time on response latency in short-term memory.** *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 429-432.—Examined the effect of various manipulations, which are generally considered to be associated either with storage or with retrieval aspects of memory on the recall of verbal materials. The dependent variables were error frequency and latency of correct responses. Each item of a pair of words was presented to 96 undergraduates either auditorily or visually, for an effective duration of either 1 or 4 sec. Ss were required to recall either the stimulus or the response item of the pair and the required item was either cued (the nonrequired item was presented at time of recall) or not cued. It was found that, in general, storage variables had an effect only upon error frequency, while the retrieval variable, cueing, had an effect only on latency.—*Journal abstract*.

6154 Steinhilber, Frederick H. (U. Cincinnati) **Phonemic distinctive feature encoding from visual information storage.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5041-5042.

6155 Zvonarevic, Mladen & Spitek, Vlasta. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Neposredno pamćenje kao indikator interesa.** [Immediate memory as an indicator of interests.] *Revija za Psihologiju*, 1970, Vol. 1(1), 33-35.—A list of 32 book titles was presented twice to the same 74 Ss. The 1st time the titles were read to Ss and they were requested to memorize as many titles as they could. 1 wk. later the same list was presented as a classical test of interest. On this occasion Ss were asked to select the titles from the list according to their interests. The results of the 1st and the 2nd occasion were compared. On the basis of the differences, it is concluded that memory could be a better indicator of interests than the results obtained by classical tests of interests.—*English summary*.

THINKING

6156 Checkosky, Stephen F. (State U. New York, Buffalo) **Speeded classification of multidimensional stimuli.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5655.

6157 Dooling, D. James. (State U. New York, Buffalo) **Some context effects in the speeded com-**

prehension of sentences. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5656-5657.

6158. Holzman, Philip S. & Rousey, Clyde. (U. Chicago) Disinhibition of communicated thought: Generality and role of cognitive style. *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 263-274. —Studied the effects on thought functioning in 80 male and 80 female adults of vocal occlusion by white noise masking (WNM). The interruption of vocal feedback did not change performance on either a cognitive task (a reading test) or on a visual-motor test (digit substitution) when no vocal activity was involved. For men there was a slight but significant performance decrement on the reading test when oral reading was involved. For all Ss, WNM produced an increase in impulse-related themes and a decrease in defensive themes on the TAT. Findings suggest that (a) hearing oneself as one speaks is necessary for modulating impulse and affect and for smooth reality testing in general; and (b) for men, the disinhibition effects of WNM tend to occur in the setting of a leveling cognitive style. Results are discussed in terms of their relevance to defensive organization and the need for vocal feedback in maintaining the stability of defense. (38 ref.)—*Journal abstract*.

6159. Katzer, Jeffrey H. (Michigan State U.) A theoretical model of human language processing. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4970.

6160. Pellow, Rita B. (U. Pittsburgh) The roles of arousal, introversion-extraversion and repression-sensitization in the "incubation of anxiety" effect. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5671.

Problem Solving

6161. Crombag, H. F. (State U., Leiden, Netherlands) Probleemoplossen: Protokollen en programma's. [Problem solving: Protocols and programs.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Nov), Vol. 25(10), 650-663.—Describes the thought process in problem solving to proceed as a stream of thought determined by a perceptual set, consisting of a linear sequence of "operational transformations" about the problem data. The protocol of problem solving is defined as the written report of the "thinking aloud" during the introspective process. The program of problem solving is defined as the report of the protocols about a specific problem. As illustrated by a block-design problem, there is frequently a substantial difference between the protocol of an S who has had prior knowledge of the design of a similar problem and that of an S who is naive in solving such a problem. It is hypothesized that basing the program of procedures in problem solving on various previous protocols is an unnecessary requirement. The ruling by a skilled jurist about the ownership of a stolen article is used to illustrate the concept that a problem solver who knows the program can produce a protocol which is isomorphic with that program.—A. J. Ter Keursi.

6162. Khatena, Joe. (Marshall U.) A second study training college adults to think creatively with words. *Psychological Reports*, 1971(Apr), Vol. 28(2), 385-386.—Randomly assigned 105 undergraduates to 4 treatment groups. Ss were exposed to 5 creative thinking strategies for 240 min. or twice the training time used in an earlier study. The longer training significantly increased the probability of the occurrence of original

responses as measured by 2 tests of originality. Results support the use of training procedures and increased training time.—*Journal abstract*.

6163. Krause, W. (Humboldt U., Berlin, E. Germany) Untersuchungen zur Komponentenanalyse in einfachen Problemlösungsprozessen: Der Einfluss von Hypothesen, Strategien und Gedächtniskomponenten auf die Lösungsfindung in nichtkomplexen Problemsituationen. [Component analysis examinations of simple problem-solving processes: Effects of hypotheses, strategies, and memory components for the solving of noncomplex-problem situations.] *Zeitschrift für Psychologie*, 1970, Vol. 177(3-4), 199-249.—Treated the prediction of events of periodic symbol sequences as a simple problem-solving process. Partial components of the process, e.g., hypothesis and strategy formations, are analyzed. For the partial components, a formal representation is given. It is shown that, with the aid of mathematical representations and under certain conditions, it is possible to make a prediction at each step for any desired starting-symbol sequences. It is further shown that the use of determined strategies is a relevant method for the patient, at least in parts. (4 p. ref.)—P. von Toal.

6164. Maspfuhl, B. & Metz, A. (Humboldt U., Berlin, E. Germany) Veränderungen im Elektromyogramm bei der Beurteilung perzeptiver Muster unterschiedlicher Schwierigkeit. [Changes in the electromyogram in diagnosing perceptive patterns of differentiated difficulty.] *Zeitschrift für Psychologie*, 1970, Vol. 177(3-4), 286-309. Attempts to determine the psychophysical activity level in view of its importance in solving problems of industrial psychology. With increasing industrial automatization, bodily physical efforts are more and more superseded by superintending and controlling activities. The resulting psychic processes of an emotional character can be determined by their physiological reaction courses. The registration of the biological activity of muscles, appearing with every reflex reaction, is recorded via an EMG. An explanation of the physiological concomitant phenomena of psychic processes is attempted, and the experimental method used is explained. It is demonstrated that the variability in the physiological parameter is much higher than the time of recognition of the task on hand. It is assumed that the variability in the time of recognition is dependent on the variability of the time of activity. (37 ref.)—P. von Toal.

6165. Ollendick, Thomas; Balta, David, & Zigler, Edward. (Purdue U.) Expectancy of success and the probability learning of retarded children. *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 275-281.—Tested 23 male and 22 female institutionalized retarded children who had previously experienced either a success, failure, or control precondition on a probability learning task designed to assess expectancy of success. Ss were matched for CA, MA, IQ, and length of institutionalization. The following measures were also collected as S variables: Locus-of-Control Scale, Cottage Rating Scales, school rating, and Reading and Arithmetic subscales from the Metropolitan Achievement Test. The preconditions were found to have many of the expected effects on the cognitive strategies employed in the learning task. Ss in the failure condition showed the greatest avoidance of failure (maximizing strategy), while Ss in the success condition tended to show more success striving (lose-shift strategy). Males were found to exhibit more failure-avoiding strategies than females. The

overall pattern of results is interpreted as providing support for the hypothesis that a low expectancy of success in retarded children can be modified. (19 ref.)—*Journal abstract.*

6166. Sydow, H. (Humboldt U., Berlin, E. Germany) **Zur metrischen Erfassung von subjektiven Problemzuständen und zu deren Veränderung im Denkprozess: I.** [Metric comprehension of subjective problem conditions and their changes in the thinking process. I.] *Zeitschrift für Psychologie*, 1970, Vol. 177(3-4), 145-198.—Attempts to perform a problem-solving process in such a way that a comprehensive presentation of (a) the interaction of memory perceptions, (b) components of concept formations, and (c) complex recognition processes is possible, permitting at the same time the making of associations for a larger class of problems and problem-solving processes. Methodological considerations concerning the chosen level of description are stated. Terms for the various aspects of the thinking process are suggested, based on the work of Duncker and on present situation programs. A survey is made of experimental-psychology work, which was carried out with the "Tower of Hanoi" at the Institute of Psychology at the Humboldt University of East Berlin, and a model is described for the processing of the problem-solving process.—*P. von Tost.*

Concepts

6167. Chatfield, Douglas C. (Ohio State U.) **Dimension selection and memory in concept identification.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5654-5655.

6168. Getty, Vesta S. (Ohio State U.) **Information processing load in concept identification.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5600.

6169. Helgeson, Richard L. (Washington State U.) **An investigation of concept learning as a function of cognitive style, stimulus characteristics, and training procedure.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4995.

6170. Pozzoff, W. Glen. (Arizona State U.) **Intra-dimensional and extradimensional concept shifts as a function of anxiety level and number of irrelevant dimensions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5634.

6171. Taplin, John E. (U. Adelaide, South Australia) **Effect of initial instance on attribute identification of concepts using a selection procedure.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 177-181. Conducted an experiment with 104 undergraduates to investigate the effect of the type of instance presented at the start of an attribute-identification problem in which a selection procedure was employed. Concepts involving 1 of 4 conceptual rules were identified from an initial positive or initial negative instance. Results indicate that, for all conceptual rules, there was a significant tendency to select instances of the same type as the initial instance. The informativeness of the initial instance was seen to be a good predictor of performance for conjunction and conditional, but not for inclusive disjunction and biconditional. The order of increasing difficulty of rules was found to interact with the nature of the initial instance.—*Journal abstract.*

6172. White, Raymond M., Richards, Diana L., & Reynolds, Richard. (Miami U.) **Number of pretraining**

problems and type of instructions in concept identification. *Psychological Reports*, 1971(Apr), Vol. 28(2), 643-649.—Gave 0, 1, 2, or 3 pretraining problems to 40 male and 40 female undergraduates prior to administration of an experimental concept problem. Instructions were either simply descriptive of the stimulus population and response requirements or elaborated such that S was told the rule defining problem solution and given a sample problem. Analyses show a significant inverse relationship between number of pretraining problems and trials to criterion. Presolution data indicate that Ss changed problem-solving strategies both as a function of number of pretraining problems and type of instructions. Implications for theories of concept learning are discussed.—*Journal abstract.*

DECISION & CHOICE BEHAVIOR

6173. Gordon, Lawrence R. (U. North Carolina, Chapel Hill) **Effects of capital size in computer-controlled multistage betting games.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5022.

6174. Lovelace, Eugene A. & Snodgrass, Robert D. (U. Virginia) **Decision times for alphabetic order of letter pairs.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 258-264.—Conducted 3 experiments with 90, 38, and 40 undergraduates in which Ss had to indicate by a binary motor response whether a pair of letters was in proper or reversed alphabetic order. The times required to make such decisions were (a) shorter with greater separation of the 2 letters in the alphabet, (b) shorter for letter pairs in proper order than for reversed pairs, and (c) more affected by order of the pair at small than at large separations. Decision times were also systematically related to position of the letters in the alphabet, times generally increasing from the beginning to the end of the alphabet.—*Journal abstract.*

6175. Reed, Stephen K. (U. California, Los Angeles) **Decision processes in pattern classification.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5036.

PHYSIOLOGICAL PSYCHOLOGY

6176. Braud, William G. (U. Houston) **The goldfish as a subject for psychological and physiological research.** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 61-64. Describes the goldfish as an organism possessing an unusually large number of assets as an experimental S for psychological and physiological research. A variety of practical, theoretical, and methodological advantages are discussed, including low cost; ease of maintenance; good learning and sensory abilities; ease of shock administration; skeletal immobility; and intracranial injections; drug tolerance; suitability for autoradiographic studies; regeneration; and feeding behavior. (25 ref.)—*Journal abstract.*

6177. Farell, Paul B. (U. California, Los Angeles) **Long-lasting habituation in spinal frogs.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5018-5019.

6178. Galluscio, Eugene H. (Louisiana State U., Agricultural & Mechanical Coll.) **Retrograde amnesia induced by electroconvulsive shock and carbon dioxide anesthesia: An attempt to stimulate recovery.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5659.

6179. Heller, Horace C. (Yale U.) **Altitudinal zonation of chipmunks (*Eutamias*): Interspecific aggression, water balance, and energy budgets.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4510.

6180. Kalyushnaya, Rakhil' A. & Serdyukovskaya, Galina N. **Roľ biologicheskikh i sotsial'nykh faktorov v formirovaniĭ rastushchego organizma.** [Role of biological and sociological factors in the formation of growing organisms.] Moscow, USSR: Meditsina, 1969. 72 R 23 K.

6181. Stanley-Jones, D. (Full Circle Foundation for Education & Research, Hayle, England) **Kybernetics of mind and brain.** Springfield, Ill.: Charles C Thomas, 1970. xviii, 174 p. \$10.75.

6182. Zuckerman, Marvin. (U. Delaware) **Physiological measures of sexual arousal in the human.** *Psychological Bulletin*, 1971(May), Vol. 75(5), 297-329.—Reviews the physiological methods and findings of research on sexual arousal. The role of and changes in the CNS, autonomic nervous system, hormones, electrodermal potentials, cardiovascular system, respiration, penile erection, scrotum and testes, vaginal blood flow, uterine contractions, temperature, pupillary response, evoked cortical response, and biochemical determinations are discussed. Methodological difficulties in the selection of stimuli and in the assessment of subjective arousal, stimulus-response specificity, habituation, shifting base lines, and the general effect of the experimental situation on results are considered. (79 ref.)—S. Knapp.

NEUROLOGY

6183. Committee on Brain Sciences, National Research Council. **IBRO survey of research facilities and manpower in brain sciences in the United States.** Washington, D.C.: National Academy of Sciences, 1968. vi, 314 p.

6184. Marks, Neville. (New York State Inst. for Neurochemistry & Drug Addiction, New York) **Some neurochemical correlates of axoplasmic flow.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 5 13.—Discusses research on axoplasmic flow which support the concept that some neurohormones are formed in the nerve cell body and are transported down the axon. Transport velocity is considered to be dependent on the experimented technique and precursor materials used. On the basis of the influence of breakdown processes on neural economy, studies of proteolytic enzymes in different nerve preparations are reported. Theories of axoplasmic flow phenomena that support the concept of nerve tissue turnover and renewal are considered to have important possibilities for the target areas of many psychoactive drugs. (25 ref.)—P. Hertzberg.

6185. Narikashvili, S. P. (Inst. of Physiology, Tbilisi, USSR) **Vzaimodeistvie mezhdu koroi bol'shikh polushariĭ i nekotorymi podkorkovymi obrazovaniyami.** [Interaction between the cerebral cortex and some subcortical structures.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 128-162.—Presents a short account of research conducted in the Laboratory of Cortico-Subcortical Interrelationships for 1958-1965: (a) corticopetal influences from the brainstem reticular formation, thalamic nuclei, and caudate nucleus; (b) corti-

cifugal influences from thalamic nuclei, brainstem reticular formation, and caudate nucleus; (c) interaction between corticopetal and corticofugal influences; (d) relationships between ascending and descending influences of the reticular formation; and (e) projection of various afferent systems in the mesencephalic reticular formation. It was shown that corticopetal influences, ascending from the caudate nucleus, specific and nonspecific thalamic nuclei, and reticular formation, have a considerable effect on cortical neurons, facilitating their excitatory and inhibitory activity. Interaction of these ascending influences at the cortical level affects (a) the intensity of the response activity of the cortical neurons, and (b) the level of excitatory rhythmic assimilation, the regular emergence of excitatory rhythms, the rhythm of periodic oscillation of cortical responses, and the greater or lesser synchronization of activity of the cortical neurons. The ways in which these influences are mediated were investigated through stimulation of various subcortical structures. Conversely, the cerebral cortex exerts a constant facilitative and inhibitory influence on these structures through direct connections and indirectly through the reticular formation. The cerebral cortex participates in establishing and maintaining ascending activation. (English summary) (3 p. ref.)—I. D. London.

6186. Tummons, John L. (Rutgers State U.) **Nervous control of heart rate in the domestic fowl.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4962 4963.

6187. Zavodskaya, I. S. & Kucherenko, R. P. (Inst. of Experimental Medicine, Moscow, USSR) **Strukturnye i funktsional'nye izmeneniya v medial'noi zone perednego hipotalamusa pri nanesenii zhlivotnym chrezvychainogo razdrazheniya i vvedenii doka.** [Structural and functional changes in the medial zone of the anterior hypothalamus of animals under extraordinary stimulation and the administration of dopa.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 197(3), 732-733.—White rats were immobilized and subjected for 3 hr. to 7-V, 50-Hz electric pulses of 10-msec duration by way of electrodes implanted under the skin of the forepaws. Ss were then sacrificed and the preoptic region of the anterior hypothalamus examined under an electron microscope. Numerous degenerative changes in the ultrastructure of the neurons were observed. The mitochondria, Golgi apparatus, endoplasmic reticle, synaptic endings, nuclear membranes, and the nucleolus showed breaks, vacuolation, lysis, and other signs of disintegration. Some neurons showed focal points of disintegration and the formation of numerous lysosomes. In addition, noradrenaline content of the region studied dropped from .67 to .10 umg/gm. If, however, injections of 300 mg/kg of dopa were administered to the Ss 1 hr. before treatment, none of the degenerative changes could be observed and the noradrenaline content was normal.—L. Zusne.

Neuroanatomy

6188. Campain, Robert F. (U. Denver) **Quantitation of the human auditory cortex.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5053 5054.

LESIONS

6189. Bregvadze, I. A. (Inst. of Physiology, Tbilisi,

USSR) *Izucheniye khoda pryamykh afferentnykh putei zritel'nogo analizatora lokal'nym povrezhdeniem setchatki glaza.* [Study of the course of the direct afferent pathways of the visual analyzer by local lesion of the retina of the eye.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 309-314.—By local lesion of the retina (area of the lesion: .75 mm.²) of 21 white rats, it was possible to trace afferent connections with not only different layers of the visual cortex, but also the lateral geniculate body, thalamic nuclei, and the anterior corpora quadrigemina. Unilateral lesion of the ventral and dorsal parts of the retina displayed a similar extent of fiber degeneration within the visual cortex of both hemispheres; similarly for the visual tract. The character of degeneration of the direct centripetal nervous pathways, when different regions of the retina were destroyed, was attributed to the weak development of the visual analyzer in white rats whose retina is homogeneous in structure and is composed of only rods. (English summary)—*J. D. London.*

6190. Pavlov, B. V. (Pavlov Inst. of Physiology, Leningrad, USSR) *Izmeneniya v vysshel' nervnoi deyatel'nosti sobak pri simpaticheskoi denervatsii nadpocheknikov.* [Changes in higher nervous activity of dogs in sympathetic denervation of the adrenals.] In E. N. Speranskii (Ed.), "Tsepuve neurogornonal'nye reaktsii i simpato-adrenalovaya sistema" (See PA, Vol. 43:373) 141-146.—18 dogs with different typological traits were used to study the character of the changes in CR activity (salivation), UCRs, and general behavior after partial and complete desympathization of the adrenals by removal of the abdominal sympathetic chains and bilateral section of the splanchnic nerves. The phasic changes in higher nervous activity (depression of CR activity replaced after 10-30 days or more by a prolonged period of its exaltation) did not display a direct connection with the typological traits of the Ss. These data and those pertaining to the catecholamine content in the blood, following sympathetic denervation of the adrenal cortex, confirm the presence of adaptive-trophic influences upon the cerebrum. (19 ref.)—*J. D. London.*

Brain Lesions

6191. Bachrach, Henry. (U. Pennsylvania) *Effects of endbrain lesions on visual discrimination learning in pigeons.* *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 730.—Investigated the roles of the hyperstriatum and an accessory hyperstriatum in visual discrimination (VD) learning by training 12 adult male pigeons to 90% criterion for 50 trials on 2 consecutive days to make pattern, intensity, and color discriminations. Ss were then divided into 4 surgical groups (unilateral and bilateral lesions for each area) and retested. Results suggest that deficits in VD were more a function of the extent of the lesion rather than its locus. It also appears that the magnitude of the deficit was, in part, a function of difficulty in original learning and inherent problem difficulty rather than the specific type of problem.—*P. Hertzberg.*

6192. Carlson, Neil R. & Norman, Robert J. (U. Massachusetts) *Enhanced go, no-go single-lever alternation of mice with septal lesions.* *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 508-512.—Trained 11 normal male HS mice and 9 male HS mice with septal lesions in a go, no-go

discrete-trial alternation task with a single retractable lever presented for 9 sec., and withdrawn for 10 sec. Responses on odd-numbered trials resulted in lever retraction and food reinforcement, whereas responses on even-numbered trials resulted in neither food nor retraction of the lever. Lesioned Ss learned the task faster than normals, responding on more reinforced trials and fewer nonreinforced trials. Results are incompatible with the hypothesis that the septum is involved in response inhibition. It is suggested that the septal lesions produced an enhanced cue value for food reward.—*Journal abstract.*

6193. Fog, Rasmus; Randrup, A., & Pakkenberg, H. (Set. Hans Hosp., Psychopharmacological Lab., Copenhagen, Denmark) *Lesions in corpus striatum and cortex of rat brains and the effect on pharmacologically induced stereotyped, aggressive and cataleptic behaviour.* *Psychopharmacologia*, 1970, Vol. 18(4), 346-356.—Large bilateral lesions affecting 30-90% of the corpus striatum inhibited stereotyped behavior in 58 white male Wistar rats injected subcutaneously with amphetamine, but did not prevent rage reactions induced by injection of an MAO inhibitor followed by injection of L-dopa. The stereotyped phase normally following this rage reaction was, however, absent in the operated Ss. Small bilateral lesions in the corpus striatum (5-20%) caused a modified amphetamine stereotypy and prevented the usual cataleptic behavior produced by subcutaneous injection of a neuroleptic drug (perphenazine). Additional ablation of the overlying dorsal cortex enhanced these behavioral effects without qualitative changes. Both amphetamine and neuroleptics seem thus to mediate their behavioral effects through dopaminergic mechanisms in the corpus striatum. (32 ref.)—*Journal abstract.*

6194. Forward, Edna M. (Stanford U.) *Effects of perisensorimotor cortex ablation on sequential task performance in monkey: A study of apraxia.* *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5020.

6195. Gandelman, Ronald; Zarrow, M. X., Denenberg, Viktor H., & Myers, Michael. (U. Connecticut) *Olfactory bulb removal eliminates maternal behavior in mouse.* *Science*, 1971(Jan), Vol. 171(3967), 210-211.—Describes 2 experiments with 20 albino and 41 adult virgin female Rockland-Swiss mice, and 20 C57BL/10 Gin multiparous pregnant mice. Olfactory bulb removal eliminated maternal behavior in both lactating and virgin Ss. Results are in contrast to the generally accepted concept of multisensory control of mammalian maternal behavior.—*Journal abstract.*

6196. Hamilton, Charles R. & Lund, Jennifer S. (Stanford U.) *Visual discrimination of movement: Midbrain or forebrain.* *Science*, 1970(Dec), Vol. 170(3965), 1428-1430.—Tested 4 monkeys (Macaca mulatta) whose optic chiasm and forebrain commissures had been sectioned and 4 control monkeys, with only the optic chiasm cut, for interocular transfer of discrimination based on direction of movement. Only the controls showed transfer to the untrained eye, which suggests that discrimination of movement, like pattern, is a function strongly dependent on the cortex. (19 ref.)—*Journal abstract.*

6197. Krasnegor, Norman A. (U. Maryland) *The effects of telencephalic lesions on auditory discrimination in pigeons.* *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5029.

6198. Macphail, Euan M. (U. Sussex, England) **Hyperstriatal lesions in pigeons: Effects on response inhibition, behavioral contrast, and reversal learning.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 500-507.—Studied the effects of bilateral hyperstriatal lesions in 7 pigeons (*Columba livia*), in comparison with 4 sham-operated and 4 unoperated controls. Exp. I measured the effect of these lesions on performance in negative and positive components of a successive discrimination, using free-operant techniques. Compared with controls, lesioned Ss were significantly impaired in their ability to inhibit responding in negative components; however, behavioral contrast, measured in positive components, was not reduced. In Exp. II, lesioned Ss were impaired over a series of 6 reversals of a simultaneous position discrimination, but not on its acquisition. It is concluded that hyperstriatal lesions in pigeons cause a general deficit in the ability to withhold responses as a consequence of nonreward, but that this deficit is probably not the result of a reduced emotional response to nonreward.—*Journal abstract*.

6199. Moorcroft, William H. (Princeton U.) **Ontogeny of behavioral inhibition by forebrain structures in the rat.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5033.

6200. Norton, Thomas T. (U. California, Los Angeles) **Visually guided behavior and movement detection following bilateral ablation of superior colliculus in kittens and adult cats.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5035.

6201. Pereira, Walter C., da Rocha, Tania L., & Timo-laria, Cesar. (U. São Paulo, Medical School, Brazil) **Evolução do comportamento e da atividade elétrica cortical do rato com lesões crônicas da formação reticular mesencefálica.** [Behavioral and electrographic studies on rats after chronic lesion of the midbrain reticular formation.] *Arquivos de Neuro-Psiquiatria*, 1970(Dec), Vol. 28(4), 311-323.—Subjected albino rats to either unilateral (N = 11) or bilateral (N = 7) electrolytic destruction of the midbrain reticular formation. A complete unilateral or bilateral interruption of the ascending activating system was achieved. The electrocorticographic pattern of synchronized sleep occurred in both unilaterally and bilaterally lesioned Ss as soon as the S recovered from the surgical trauma, when slow waves still predominated. Such findings support the hypothesis that activating systems other than the midbrain reticular activating system exist whose functional block during sleep furthers the synchronization of the cortical electrical activity. An increasing recovery of desynchronization and motor activity as a function of time was shown by all Ss. Recovery occurred earlier and more quickly in the S with unilateral lesions. Physiological sleep evolved with all phases by the 4th or 5th day after the lesion was made. It seems that desynchronization of the paradoxical phase of sleep does not involve any particular structure arising from and/or passing through the midbrain. (31 ref.)—*English summary*.

6202. St. John, Walter M. (U. North Carolina, Chapel Hill) **Pneumotaxic center and the neurogenesis of normal respiratory rhythmicity.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4960-4961.

6203. Winocur, Gordon & Mills, John A. (U. Saskatchewan, Saskatoon, Canada) **Spontaneous activity**

in septal and hippocampal-lesioned rats. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 483-492.—Assigned 30 naive male albino Wistar rats in equal numbers to control, hippocampal, and septal groups. Ss were observed in a novel situation for 3 15-min sessions with 24 hr. between sessions, and measures taken of their sniffing, walking, and grooming rates. The most important difference occurred in the 3rd session when it was found that the type of lesion exerted control over the habituation of different responses. In walking, there was a tendency for Ss in the hippocampal and control groups to decrease their rate over time, while septal-lesioned Ss tended to increase their rate. Both septal and control groups decreased their sniffing rate, whereas the hippocampal group did not. In grooming, neither the hippocampal nor the septal group showed an increase in rate, whereas the control Ss did. Results of the septal-lesioned Ss are regarded as consistent with a conventional response-inhibition hypothesis while the data of the hippocampal group suggests a deficit in attentional mechanisms. (16 ref.)—*Journal abstract*.

Brain Hypothalamic & Hippocampal Lesions

6204. Gambaryan, L. S. (Armenian SSR Academy of Science, Erevan) **O roli palliduma i gippokampa v formirovani funktsional'noi sistemy dvigatel'nogo povedeniya.** [The role of globus pallidus and hippocampus in the establishment of the functional system of motor behavior.] *Doklady Akademii Nauk SSSR*, 1971, 196(4), 984-986.—Cats were conditioned to bar press left at the sound of a bell and to bar press right at the sound of a metronome. Reacquisition of these responses was measured after partial or total ablation of globus pallidus or of the hippocampus. Lesions in either structure had no marked effects on the motor components of the CR. The association of the CS with the right or left side, however, was severely impaired. Total destruction made it impossible to retrain the Ss to select sides, even when intensive training was conducted over a 3-mo period.—*L. Zusne*.

BRAIN STIMULATION

6205. Huston, Joseph P. (Tufts U.) **Effect of glucose on threshold of intracranial reinforcement.** *Psychopharmacologia*, 1971, Vol. 19(2), 105-113. Threshold of reinforcing hypothalamic stimulation in male Long-Evans rats was shown to increase as a result of intragastric loading of 10 cm³ of 50% glucose. Thresholds increased steadily up to between 50 and 80 min. after glucose injection before they began to decline. Intragastric water loads had no effect on thresholds. To measure thresholds of reinforcement, a new technique was used, which involved a base-line fixed-ratio schedule concurrent with CRF schedule. Increasing and decreasing the magnitude of the CRF caused the fixed-ratio postreinforcement pauses to disappear and reappear, providing a method of limits criterion for threshold of reinforcement. Of 11 Ss tested, 6 completed the experiment. (26 ref.)—*Journal abstract*.

Chemical Stimulation

6206. Grunden, Lee R. (U. California, San Francisco) **Studies on the central action of epinephrine.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4895-4896.

6207. Levitt, Robert A. & Buerger, Peter B. (Southern Illinois U.) Interactions between cholinergic mechanisms and the salt arousal of drinking. *Learning & Motivation*, 1970(Aug), Vol. 1(3), 297-303.—77 adult male hooded rats received injections of chemicals into parts of the limbic system in combination with a subcutaneous injection of 1 or 3 ml. of a 15% salt solution. Injections of carbachol into cholinergic drinking sites increased water intake above that to salt alone. However, the increase was greater in Ss stimulated with 1 ml. of salt. Brain injections of either atropine (bilateral) or carbachol in combination with atropine (into contralateral sites) reduced water intake below that to the salt injections alone. These reductions were similar in size for both doses of salt solution.—*Journal abstract.*

6208. Lipscomb, William T. (U. Kentucky) Neurophysiological studies of the superficial medullary chemosensitive areas for respiration. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4958.

6209. Montgomery, R. B., et al. (Macquarie U., School of Behavioural Sciences, North Ryde, New South Wales, Australia) The effects of intrahypothalamic injections of desmethylinipramine on food and water intake of the rat. *Psychopharmacologia*, 1971, Vol. 19(1), 81-86.—Examined the effects on eating and drinking of injections of desmethylinipramine (DMI) into the lateral hypothalamus of naive male Wistar rats under 4 conditions of food- and water-deprivation: food- and water-satiated; 16-hr food-deprived and water-satiated; food-satiated and 11-hr water-deprived; and 16-hr food-deprived and 11-hr water-deprived. DMI increased eating in Ss that were food-deprived and water-satiated, and increased drinking in Ss that were food- and water-satiated. No other effects on eating and drinking were observed. Results are discussed in terms of current hypotheses concerning the adrenergic and cholinergic actions of DMI and other tricyclic antidepressants. (18 ref.)—*Journal abstract.*

6210. Nance, Dwight M. (Oklahoma State U.) Neurobehavioral correlates of intracranial chemical stimulation of the cat. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5034.

6211. Reinis, Stanislav. (York U., Toronto, Ontario, Canada) Effect of 2,6-diaminopurine and 6-mercaptopurine on learning in mice. *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 45-48.—Trained 360 Swiss albino mice to reach 1 of the target arms in a Y water maze. 10 trials were given in 1 session, 6 sessions being performed with each S. Ss were injected intracranially by 2,6-diaminopurine or 6-mercaptopurine 1 wk., 72, or 24 hr. before the 1st training session, or 1 hr. after the 1st, 2nd, or 4th session. The injection of 2,6-diaminopurine 1 hr. after the 1st training impaired the performance of Ss. 6-mercaptopurine was always ineffective. Whether the impairment of performance may be associated with the mutagenic effect of 2,6-diaminopurine is discussed.—*Journal abstract.*

Electrical Stimulation

6212. Cohen, Sheol M. (State U. New York, Stony Brook) Effects of electrical brain stimulation of anatomically related structures on delayed successive visual discrimination performance in rhesus monkey. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5655.

6213. Deadwyler, Samuel A. (State U. New York, Stony Brook) Effects of interpolated caudate and septal stimulation on DRL performance in rats. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5017.

6214. Fadeeva, O. N., Shenger, I. F., & Yurisova, M. N. (Pavlov Inst. of Physiology, Leningrad, USSR) Uchastie razlichnykh otdelov perednego gipotalamusa v razviti snopodobnykh sostoyanii. [Participation of different parts of the anterior hypothalamus in the development of hypnotiform states.] In: E. N. Speranskii (Ed.), "Tspenye neirogormonal'nye reaktsii i simpat. adrenalovaya sistema." (See PA, Vol. 43:373) 161-165.—26 cats were Ss in a study to determine (a) more precisely the regions of the anterior hypothalamus whose electrical stimulation (.75 V, 6 cps for 1 min.) leads to the development of hypnotiform states, and (b) how endogenous adrenalin participates in this. Stimulating the area of the paraventricular nucleus and 3rd ventricular wall and the area between paraventricular and supraoptic nucleus led to the development of different degrees of hypnotiform states—from light drowsiness to deep sleep. Stimulating the area of the supraoptic nucleus led to the development of a clearly expressed drowsiness. (15 ref.)

6215. Golden, George H. (U. Tennessee) Effect of septal and limbic stimulation on auditory and visual cortical evoked potentials in the cat. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5661.

6216. Hirtzel, Marl S. (U. Michigan) Stimulus properties of electroconvulsive shock in goldfish. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5025.

6217. McCollum, Richard H. (West Virginia U.) Retention of a passive avoidance response following ECS or ICS in pigeons. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5032.

6218. McIlwain, James T. & Fields, Howard L. (Brown U., Div. of Biological & Medical Sciences) Superior colliculus: Single unit responses to stimulation of visual cortex in the cat. *Science*, 1970(Dec), Vol. 170(3965), 1426-1428.—Electrical stimulation of area 18 of the cat visual cortex produced intense excitation of neurons in the superior colliculus. Excitation was followed by a period of decreased collicular responsiveness to light stimulation. These effects were seen in both directionally selective and nonselective units. The cortico-collicular projection was retinotopically organized. (17 ref.)—*Journal abstract.*

6219. Milgram, N. W., Devor, Marshall, & Sever, Alfred C. (Scarborough Coll., U. Toronto, Ontario, Canada) Spontaneous changes in behaviors induced by electrical stimulation of the lateral hypothalamus in rats. *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 491-499.—Studied changes in the behaviors induced by hypothalamic stimulation when 20 Long-Evans hooded rats were given repeated testing sessions under constant experimental conditions. Ss which only ate or drank initially, usually did both after sufficient experience. Following the initial changes, the amounts of induced feeding and drinking stabilized, but at levels which differed between electrodes. If a 2nd behavior did not emerge spontaneously, it also did not emerge when the originally dominant stimulus object was removed. Results are interpreted as indicating that hypothalamic stimulation excites functionally specific neural elements, but the function

these elements cannot be immediately inferred from the induced behaviors.—*Journal abstract.*

6220. Miller, Arthur J. (U. California, Los Angeles) **Neurophysiological properties of the swallowing reflex.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4959.

6221. Oniani, T. N., Nanelishvili, T. L., Koridze, M. G., & Abzianidze, E. V. (Inst. of Physiology, Tbilisi, USSR) **O roli mindalevidnogo kompleksa i grushevidnoi kory v regulyatsii povedeniya zhivotnykh.** [On the role of the amygdaloid complex and pyriform complex in regulation of animal behavior.] *Sovremennye Problemy Davatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 97-127.—Cats with chronically implanted electrodes were used to study the role of the amygdaloid complex and pyriform cortex in emotional behavior. It was shown that the amygdaloid complex possessed a complex functional structure with distinct topographical organization of its functions. Even various parts of the same nucleus were functionally different. Thus, the posterior part of the basolateral complex participated primarily in the organization of defensive behavior, while its anterior part was an inhibitory substrate for alimentary behavior. Similarly for the pyriform cortex: electrical stimulation of (a) the prepyriform cortex (anterior part) led to alimentary behavior, (b) the periamygdalar cortex (middle part) to defensive behavior, and (c) the entorhinal cortex (posterior part) to inhibition of alimentary behavior. Isolated exclusion of both the amygdaloid complex and pyriform cortex caused hyperphagia and a decrease in fear and aggression. The effect was intensified with their simultaneous exclusion, indicating that they formed 1 functional system regulating both alimentary and defensive behavior. During affective behavior a burst of activity with sinusoidal waves of 35-40 cps occurred, resulting from excitation of the limbic circle, in the prepyriform cortex, and the amygdaloid basal nucleus as well as in the olfactory bulbs. (English summary) (2 p. ref.)—*J. D. London.*

6222. Ordzhonikidze, Ts. A. & Oniani, T. N. (Inst. of Physiology, Tbilisi, USSR) **O funktsional'noi lokalizatsii v mindalevidnom yadre i gipotalamuse.** [On functional localization in the amygdaloid nucleus and hypothalamus.] *Sovremennye Problemy Davatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 68-85.—Using cats with chronically implanted electrodes, different points in the amygdaloid complex and hypothalamus were stimulated and changes in behavior, as well as in spontaneous electrical activity of the neocortex and paleocortex, were noted. Characteristic of stimulation applied to the lateral hypothalamus was the appearance of chewing movements which continued after its cessation. Between the periodically repeated chewing movements Ss were very much on guard and experienced fear, to the accompaniment of emerging sinusoidal waves of high frequency and high amplitude, especially pronounced in the paleocortex. After stimulation of the lateral part of the amygdaloid complex, increased excitability through the limbic system was observed, to the accompaniment of an increase in appetite. Identical changes in behavior and spontaneous electrical activity were obtained also upon stimulation of the lateral hypothalamus. Stimulation of the basal part of the amygdaloid complex and medial hypothalamus failed to produce these reactions. The data obtained are discussed in the light of the functional differentiation

obtaining between different parts of the amygdaloid complex and hypothalamus. (English summary) (*J. D. London.*)

6223. Routtenberg, Aryeh. (Northwestern U.) **Forebrain pathways of reward in Rattus norvegicus.** *Journal of Comparative & Physiological Psychology*, 1971(May), Vol. 75(2), 269-276.—Investigated self-stimulation effects in 121 adult male albino rats using bipolar electrodes and sine-wave current. Self-stimulation loci could be separated into 2 categories: olfactory and extraolfactory. The former included the anterior olfactory nucleus, the lateral septal area, the medial forebrain bundle, and the anterior commissure, but not the diagonal band of Broca. The extraolfactory placements were in pregenual or frontal cortex, the cingulum, corpus callosum, and caudate nucleus. Silver-impregnation experiments employing the Fink-Heimer procedure revealed that this extraolfactory system originates in frontal cortex, ascends via cingulum and through corpus callosum, to descend as part of the internal capsule in the caudate nucleus. At hypothalamic levels it is part of the most medial tip of the internal capsule, interdigitating, thereby, with lateral portions of the medial forebrain bundle. It is suggested that (a) medial forebrain bundle self-stimulation may often be derivative of this extraolfactory fronto-mesencephalic pathway, and (b) inferring the site of stimulation by the electrode-tip placement only may lead to incorrect identification. (26 ref.)—*Journal abstract.*

6224. T'evadze, B. G. (Inst. of Physiology, Tbilisi, USSR) **Hipokampis kh'veulis ushualo gaghizlanelis gavlenis shesakh'eb rep'lek'sur reak'tsiozbe.** [On the influence of direct hippocampal stimulation on animal reflex reactions.] *Sovremennye Problemy Davatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 86-96.—Using dogs, it was shown that electrical stimulation of the hippocampus changed the respiratory rhythm so that most often it slowed up after a bit of short-term increase. Sometimes due to hippocampal stimulation, cases of involuntary turning of the head toward the contralateral side was observed. On stimulation of the anterior part of the hippocampus, not only were the motor CRs inhibited, which were elaborated by direct action on the neocortex under the conditions of the experimental chamber but likewise those motor-alimentary reactions which were elaborated under conditions of free behavior. At the same time there was no inhibition of the act of taking the food. On stimulation of the hippocampal convolution these motor UCRs were inhibited which were elicited by stimulation of the cortical division of the motor analyzer. Extreme stimulation of the hippocampus produced epileptic convulsions lasting several min. It is suggested that hippocampal stimulation exerts an influence on the activity of both the neocortex and the brainstem. In this way, stimulation of the anterior parts of the hippocampus produces the so-called general inhibition of the CNS. (Russian & English summaries) (23 ref.)—*J. D. London.*

ELECTRICAL ACTIVITY

6225. Dzhevrisvili, T. D. (Inst. of Physiology, Tbilisi, USSR) **Medlennye potentsialy i tormozhenie neironov somatosensornoi kory u kotyat.** [Slow potentials and inhibition of somatosensory cortical neurons in kittens.] *Sovremennye Problemy Davatel'nosti i*

Stroeniya Tsentral'noi Nervnoi Sistemy, 1968(Sep), Vol. 2, 193-204.—Lightly nembutalized 1-20 day old kittens were used to study the behavior of single neurons in the somatosensory cortex in the early period of postnatal ontogenesis during paired dermal stimulation. Observations were made of the connection between inhibition of the discharges of the neuron and the slow potentials, recorded from the cortical surface. Paired electrodermal stimulation of the foreleg noticeably changed the parameters of the primary response to the 2nd electroshock: the latent period of the primary response increased by 10-40 msec.; at definite intervals (150-600 msec.) the primary response either disappeared completely or its amplitude decreased. The character of the neuronal response to the 2nd stimulus was a function of the interval between the paired electrodermal shocks and their strength until complete cessation of the discharges. Inhibition of the neuronal discharges coincided in time with the surface-negative slow potential of the primary response. Duration of the slow negative wave of the primary response and inhibition of the neuronal discharges decreased with increase in age of the S. A possible mechanism for the inhibition of neuronal activity in afferent impulsion is considered. (English summary) (35 ref.)—*I. D. London*.

6226. Eranich, Myron J. (U. Tennessee, Medical Units, Memphis) **A frequency response analysis of fusimotor-driven muscle spindles.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4952.

6227. Furedy, John J. & Scull, John. (U. Toronto, Ontario, Canada) **Orienting-reaction theory and an increase in the human GSR following stimulus change which is unpredictable but not contrary to prediction.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 292-294.—Hypothesized that merely unpredictable stimulus change is a form of weak novelty (WN) which, according to the most plausible interpretation of orienting-reaction (OR) theory, should not produce any increase in the GSR component of the OR. 24 undergraduates were given an unpredictable series of shock and cool-air puff trials arranged so that, in addition to the WN factor, the factors of trial blocks and temporal proximity of previous stimulus (PPS) were also varied orthogonally within Ss. GSR magnitude was reliably and inversely related to both trial blocks and PPS, with no interaction between the trial blocks (habituation) and PPS (effector-fatigue) factors. The WN effect also emerged reliably, and did not interact either with the habituation or effector-fatigue effects. Implications of the WN effect for OR theory and other autonomic responses are discussed.—*Journal abstract*.

6228. Gibson, Mary L. (U. Kentucky) **Neurophysiological correlates of the acoustic modulation envelope: Single units in the cat cochlear nucleus.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4954.

6229. Harding, Gordon & Punzo, Fred. (New Mexico State U.) **Response uncertainty and skin conductance.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 265-272.—Measured phasic and tonic skin conductance in 3 experiments with 96, 80, and 32 undergraduates. Stimuli were varied in (a) presence or absence of a response associate, (b) type of response associate (pay attention vs. make a skeletal response), and (c) amount of response uncertainty evoked. Stimuli accompanied by skeletal responses evoked larger auto-

nomic responses than did stimuli without response associates at the same level of response uncertainty, but larger autonomic responses were emitted to stimuli evoking greater response uncertainty regardless of skeletal response accompaniment. Skin conductance varied directly with amount of skeletal response uncertainty but was invariant and reliably lower over response uncertainty levels for Ss instructed to pay attention. Amount of response uncertainty determined rate of phasic skin conductance habituation, not initial response magnitude as suggested by D. E. Berlyne.—*Journal abstract*.

6230. Johnson, James H. (U. California, Los Angeles) **Influences of hormonal and environmental variables on cerebral activity in the rat.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4461.

6231. Kadzhaya, D. V. (Inst. of Physiology, Tbilisi, USSR) **Topografiya otvetov v mezentsefalicheskoj retikulyarnoi formatsii.** [Topography of responses in the mesencephalic reticular formation.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 163-172.—40 unanesthetized curarized cats were used to study the character and topography of the responses, evoked in the mesencephalic reticular formation by different afferent stimulation (light flash, acoustic clicks, electric stimulation of muscle nerve in hindlegs and skin of contra- and ipsilateral forelegs). The response activity of various parts of the mesencephalic reticular formation was different for the same stimulation. This was especially evident in the different response amplitudes that appeared, although certain specific features could be detected in the configuration and latent periods of the responses. The parts giving rise to the greatest amplitudes, were determined for the different stimuli. While they were different they overlapped to a considerable degree. The somatosensory impulses activated most strongly the middle and posterior parts of the medioventral area of the mesencephalic reticular formation, while light activated more strongly the anterior and middle parts of the mediadorsal area. The clicks evoked responses chiefly in the ventrolateral parts of the mesencephalic reticular formation. Thus, a certain localization of the representatives of the afferent systems exists in the mesencephalic reticular formation. The most reactive to various impulses were those neurons of the reticular formation which directly mesh with the endings of the various afferents which, in their turn, terminate in various parts of the reticular formation. (English summary) (20 ref.)—*I. D. London*.

6232. Kitzes, Leonard M. (U. California, Irvine) **Auditory system activity during selective listening in the cat.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5028.

6233. Klinge, Valerie. (State U. New York, Stony Brook) **Effects of instructions and feedback on autonomic activity.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5606.

6234. McCubbin, Robert J. & Katkin, Edward S. (State U. New York, Buffalo) **Magnitude of the orienting response as a function of extent and quality of stimulus change.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 182-188.—Tested the effects upon the GSR of 4 qualitatively distinct stimuli interpolated after repeated presentations of a standard stimulus. 1 of 2 standard stimuli was presented to 24

undergraduate males, and the other to another 24 Ss repeatedly until habituation was obtained; then 4 different test stimuli were presented to Ss. Habituation of the GSR occurred after initial presentations of either standard stimulus, irrespective of its quality, and a change in stimulation of any sort produced a return of the habituated orienting reflex. Differential dishabituation of the GSR to the standard stimulus following the test stimulus did not occur as a function of the degree of change in stimulation, and test stimuli did not elicit greater dishabituation of the GSR to the standard stimulus succeeding them as a function of their differential information value. Results are not entirely consistent with E. N. Sokolov's predictions. Alternative considerations are discussed.—*Journal abstract.*

6235. Oniani, T. N. & Ordzhonikidze, Ts. A. (Inst. of Physiology, Tbilisi, USSR) *Izmenenie élektricheskoi aktivnosti nekotorykh struktur golovnogo mozga koshki pri obshchikh povedencheskikh reaktsiyakh.* [Changes in electrical activity of some structures in the cat brain in general behavioral reactions.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 5-13.—Cats with chronically implanted electrodes were used to study the spontaneous electrical activity of the auditory and visual neocortex and several structures in the limbic system (lateral and basal parts of the amygdaloid nucleus and the lateral hypothalamus) during general behavioral reactions. In such reactions as fear, rage, and being put on the alert, there arose in the lateral parts of the amygdaloid nucleus and hypothalamus a burst of activity involving high-frequency (35-40/sec) slow potentials, whose intensity was proportional to the degree of emotional reaction. This activity could be triggered by all external stimuli producing an orienting reaction with alerting of the S as a component. After repeated stimulation for a given modality, the burst of activity extinguished along with extinction of the alerting reaction. It was possible to trigger a burst of activity in the amygdaloid nucleus and hypothalamus by stimulation of those structures of the brain (mesencephalic reticular formation, hypothalamus, etc.) whose activation produced the reaction of fear and aggression. It is suggested that the burst of activity, arising in the structures of the limbic system during free behavior, is an electrophysiological expression of emotional reactions. (English summary) (16 ref.)—*I. D. London.*

6236. Sunenshine, Harry S. (U. Cincinnati) *The effects of positive reinforcement on the contingent negative variation.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5200.

6237. Surguladze, D. K. (Inst. of Physiology, Tbilisi, USSR) *Universal'nyi stimulyator dlya élektrofiziologicheskikh issledovaniy.* [Universal stimulator for electrophysiological research.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 333-339.—Describes a universal electronic stimulator with 2 independent outputs. The stimulator, by controlling the duration, amplitude, and delay time of single and paired stimulation in combination also with tetanic stimulation, is capable of varying the principal indices of stimulating impulses over a wide range. The design of the stimulator is detailed. Tracings illustrating its operation, are reproduced. (English summary)—*I. D. London.*

6238. Talley, James N. (U. Illinois, Urbana-Cham-

paig) *Acoustic and electric stimulation of the cochleas of hearing and deaf guinea pigs and electrocortical responses.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5436.

6239. Thompson, R. F., Mayers, Kathleen S., Robertson, Richard T., & Patterson, Charlotte J. (U. California, Irvine) *Number coding in association cortex of the cat.* *Science*, 1970(Apr), Vol. 168(3928), 271-273.—In experiments with cats, anesthetized with chloralose (70 mg/kg, ip), it was found that in electrophysiological investigations of single neurons in cortical association response areas, cells were encountered that appeared to code the property of number. In a sequence of stimulus presentations, these cells characteristically discharged to a particular numbered stimulus in the series. This effect was independent of stimulus modality, intensity, and interstimulus interval; thus, the cells seemed to be responding to the number of stimulus presentations. (18 ref.)—*Journal abstract.*

6240. Unigadze, A. A. (Inst. of Physiology, Tbilisi, USSR) *Vliyaniye perifericheskikh razdrazheniy na élektricheskuyu aktivnost' glipokampa v ontogeneze.* [Influence of peripheral stimulation on hippocampal electrical activity in ontogenesis.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 223-234. Unanesthetized rabbits in the early days of postnatal life were used to study the character of electrical effects in the hippocampus in response to peripheral stimulation (flashing light; jet of air against the face; acoustic, tactile, and weak electrodermal stimuli). These responses were compared with the electrical responses of different areas of the neocortex at different stages of postnatal ontogenesis. Before the onset of Period III (15-17 days) in the morphological development of the neocortex, peripheral stimuli produced response potentials throughout the whole neocortex and in the hippocampus. The presence of similar electrical waves, in response to peripheral stimulation in the 1st 2 stages of postnatal development of the neuronal structures in the brain, appears to be due to the influence of a general subcortical locus upon the neural structures of both the neocortex and the hippocampus. After further maturation of the neural elements, peripheral stimuli bring on localized responses in the neocortex adequate to the modality of stimulation. Depending on the frequency (moderate or high) of stimulation in the 2nd period of morphological development of the cortex, the hippocampus responded, respectively, to visual stimulation with increase in amplitude of the spontaneous electrical waves or depression of electrical activity. These different effects appear to depend on activation of the desynchronizing or synchronizing systems of the brainstem reticular formation. (English summary) (21 ref.)—*I. D. London.*

6241. Wurtz, Robert H. & Goldberg, Michael E. (National Inst. of Mental Health, Lab. of Neurobiology, Bethesda, Md.) *Superior colliculus cell responses related to eye movements in awake monkeys.* *Recorded Science*, 1971(Jan), Vol. 171(3966), 82-84. Recorded single cell responses from the superior colliculus of 3 awake Rhesus monkeys trained to move their eyes. A class of cells that discharged before eye movements was found in the intermediate and deep layers of the colliculus. The response of the cells was most vigorous before saccadic eye movements within a particular range of directions. These cells had no visual receptive fields,

and visually guided eye movements were not necessary for their discharge, since they responded in total darkness before spontaneous eye movements and vestibular nystagmus.—*Journal abstract.*

6242 Zukor, William J. (State U. New York, Stony Brook) **Contingent negative variation and motor readiness potential as distinct psychological and physiological phenomena.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4534.

Electroencephalography & Evoked Potentials

6243 Ata-Muradova, F. A. & Chuppina, L. M. (USSR Academy of Medical Sciences, Moscow) **Ekstrapervichnyi otritsatel'nyi komponent zritel'nogo potentsiala.** [Extraprimary negative component of the visual potential.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 197(1), 238-241.—Evoked potentials were recorded from the visual cortex and other portions of the brain in 15 rabbits under nembutal narcosis of varying depth. The object of study was the negative potential of shortest latency in the complex of evoked response produced by photic stimulation (extraprimary negative component). Its latency is 20 msec. and its duration 10-12 msec. Since the extraprimary component of the evoked potential has the shortest latency, it is assumed that it represents excitation arriving at the cortex by the fastest route. The extraprimary component may be found also outside the visual cortex. It, thus, possesses greater generality than the more specific complex of the primary potential. It may be observed under conditions of deepest narcosis, being the last component of the visual evoked response to disappear with lethal dosages of nembutal. An analysis of the nature of the extraprimary potential in a strychninized cortex leads to the conclusion that it is a postsynaptic phenomenon. —*L. Zusne*

6244 Barker, Jeffery L. & Carpenter, David O. (National Inst. of Neurological Diseases & Stroke, Bethesda, Md.) **Thermosensitivity of neurons in the sensorimotor cortex of the cat.** *Science*, 1970(Aug), Vol. 169(3945), 597-598.

6245 Culver, Charles M., Tanley, James C., & Eason, Robert G. (Dartmouth Coll., Medical School) **Evoked cortical potentials: Relation to hand dominance and eye dominance.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 407-414. Studied the amplitude and symmetry of right- and left-occipital lobe evoked potentials (EPs) to right and left visual-field stimulation as a function of hand and eye dominance in 24 female undergraduates. For all Ss, right-lobe EP amplitudes were greater than left-lobe during left visual-field, but not right visual-field, stimulation. Left-eyed Ss had significantly greater EP amplitudes than right-eyed Ss. Comparing this study with previous ones suggests a sex difference in the relationship of handedness to right-lobe-left lobe asymmetry.—*Journal abstract.*

6246 Ellis, Ronnie R. (U. Nebraska) **Attention, intention, and the contingent negative variation phenomenon.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5018.

6247 Goldberg, Joel. (Yeshiva U.) **Interaction of brain responses evoked by colored lights.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5661.

6248 Jewett, Don L., Romano, Michael N., & Williston, John S. (U. California, Medical Center, San Francisco) **Human auditory evoked potentials: Possible brain stem components detected on the scalp.**

Science, 1970(Mar), Vol. 167(3924), 1517-1518.—In an experiment with 3 adult male Ss, it was noted that auditory potentials recorded from the vertex by a modified averaging technique were very short latencies and probably generated by brainstem structures located at a considerable distance from the recording point. The evoked waves which showed considerable detail and consistency within and across Ss. may be clinically useful in evaluating subcortical function. —*Journal abstract.*

6249 Kostandov, E. A., D'yachkova, G. I., & Timofeeva, I. V. (Central Research Inst. of Legal Psychiatry, Moscow) **Osobennosti vyzvannykh potentsialov kory na slabye zvukovye stimuly u cheloveka.** [Characteristics of cortical potentials evoked by weak auditory stimuli in man.] *Doklady Akademii Nauk SSSR*, 1971, 196(2), 471-474.—12 22-40 yr. old Ss were presented monaurally white noise stimuli of 5-15 sec. duration. Loudness thresholds were established by the method of limits, whereupon the same stimuli were presented at SPLs 3-10 db. below threshold, at threshold, and 55-70 db. above threshold. The signals were presented once every 3 sec. Ss counted and reported their number. EEGs were recorded from the vertex and the occipital area. Suprathreshold stimuli evoked a 2-phase potential whose latency and duration decreased and whose amplitude increased with increasing intensity of the stimuli. At subthreshold levels the negative phase of the potential dropped out. In 9 of the 12 Ss and in about 1/2 of the trials evoked potentials were registered when stimuli were below threshold and verbal reports indicated no perception. Since latency keeps decreasing and amplitude keeps increasing with increasing intensity of suprathreshold stimuli, it is concluded that changes in the parameters of the evoked potential are not correlated with awareness or nonawareness of the stimuli.—*L. Zusne*

6250 Leaton, R. N. & Buck, R. L. (Dartmouth Coll.) **Habituation of the arousal response in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 430-434. Implanted electrodes in the dorsal hippocampus and the anterior and posterior cortex of 5 male Holtzman albino rats. The EEG arousal response initially produced in sleeping Ss by the presentation of an auditory stimulus habituated to an asymptote after 1 or 2 stimulus presentations. The initial responsiveness to the tone did not recover over as long as 30 days without stimulation. The habituation could not be explained by excitability changes unrelated to stimulus presentations. It is concluded that nonreinforced presentations of a stimulus can produce a long-term change in the CNS.—*Journal abstract.*

6251 Webb, W. B. & Agnew, H. W. (U. Florida) **Sleep stage characteristics of long and short sleepers.** *Science*, 1970(Apr), Vol. 168(3927), 146-147. Explored the possibility of different sleep stage characteristics being associated with different sleep lengths by comparing 2 groups of high school seniors, who characteristically slept 6 1/2 hr. or less (2 males and 4 females), or who slept 8 1/2 hr. or more (4 males and 4 females), with an age matched control group (14 males), not selected on the basis of sleep length. All-night EEG was used to examine the sleep stage characteristics of these groups. Compared with controls, short sleepers showed no significant diminution in their Stage 4 (deep) or REM (dream) sleep. Long sleepers were observed to obtain significantly more REM sleep than the other groups.—*Journal abstract.*

6252 Wulff, V. J. & Mendez, C. (Masonic Medical

Research Lab., Utica, N.Y.) **Visual receptor potential: Modification by injected current in the Limulus lateral eye.** *Science*, 1970(Jun), Vol. 168(3937), 1351-1353.—Increased the latent period of the light-evoked receptor potential by hyperpolarizing currents injected directly into doubly impaled reticular cells. Indirect hyperpolarization of these cells by injection of hyperpolarizing current into the eccentric cell or other intrammatidial reticular cells either shortened or did not change the latent period. The modification of the latent period may depend upon the direction of current flow across some regions of the membrane system constituting the rhabdomere. The reduction in magnitude of the receptor potential obtained with strong hyperpolarizing currents may also depend upon the direction of current flow. Results support the conclusion that the receptor potential originates in reticular cells within the membrane system of the rhabdomere.—*Journal abstract.*

SENSORY PHYSIOLOGY

6253. Banderet, Louis E. (Washington State U.) **Shock excitation of the retina.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5013.

6254. Berthold, Howard C. (U. Massachusetts) **The interaction of sinusoidal oscillation and sinusoidal electrical stimulation on the sensation of movement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5014.

6255. Boynton, Robert M. & Whitten, David N. (U. California, Medical Center, San Francisco) **Visual adaptation in monkey cones: Recordings of late receptor potentials.** *Science*, 1970(Dec), Vol. 170(3965), 1423-1426.—Reports that the retinal cones of cynomolgus macaque monkeys showed marked amounts of adaptation when the receptor potential was elicited by brief incremental stimuli presented against steady backgrounds of increasing intensity. Results can be accounted for by mechanisms of response compression, modified by the effects of photopigment bleaching, which together set the gain of the system at each background level, while also making the response nearly linear over a significant range of intensities above and below that of each adapting stimulus. (18 ref.)—*Journal abstract.*

6256. Gibson, John M. (U. Kentucky) **A theoretical analysis of masking phenomena in audition and vision.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4953-4954.

6257. Hirsch, Helmut V. & Spinelli, D. N. (Stanford U.) **Visual experience modifies distribution of horizontally and vertically oriented receptive fields in cats.** *Science*, 1970(May), Vol. 168(3933), 869-871.—Raised cats from birth with 1 eye viewing horizontal lines and 1 eye viewing vertical lines. Elongated receptive fields of cells in the visual cortex were horizontally or vertically oriented—no oblique fields were found. Units with horizontal fields were activated only by the eye exposed to horizontal lines; units with vertical fields only by the eye exposed to vertical lines. (15 ref.)—*Journal abstract.*

6258. Meissner, David C. (U. Maine) **The effect of selective chromatic adaptation on the spectral sensitivity of the pigeon (*Columba livia*).** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5032-5033.

6259. Plomp, R. & Smoorenburg, G. F. (Eds.) (Inst.

for Perception RCO-TNO, Soesterberg, Netherlands) **Frequency analysis and periodicity detection in hearing.** Leiden, Netherlands: A. W. Sijthoff, 1970. xiv, 482 p.

6260. Pollak, George D. (U. Maryland) **An investigation of masking in the cochlear nucleus of the cat.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4960.

6261. Rushton, William A. (Florida State U.) **O say can you see?** *Psychology Today*, 1969(Oct), Vol. 3(5), 46-53.—Reviews the author's research on the chemistry of color vision culminating in the conclusion that each cone contains only 1 pigment and thus is primarily sensitive to only a limited range of the spectrum.—E. J. Posavac.

6262. Weisstein, Naomi. (Loyola U., Chicago, Ill.) **Neural symbolic activity: A psychophysical measure.** *Science*, 1970(Jun), Vol. 168(3938), 1489-1491.—In an experiment with 6 Ss with 20-20 vision, it was found that when an S viewed a grating which was partially blocked from view by a cube, adaptation (decrease in contrast of the grating) occurred to the visible portions of the grating, and to those portions blocked from view. This may indicate the existence of a neural mechanism which conveys the information "in back of."—*Journal abstract.*

6263. Worthington, Don W. (Northwestern U.) **Spatial patterns of cochlear difference tones.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4791.

BIOCHEMISTRY

6264. Brown, Cathryn P. (U. New South Wales, Kensington, Australia) **Cholinergic activity in rats following enriched stimulation and training: Direction and duration of effects.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 408-416.—Investigated the pattern and duration of changes in cholinesterase and acetylcholinesterase activity in 2 experiments with 600 male albino Sprague-Dawley rats. Results indicate (a) a more rapid dissipation of these biochemical changes than of the improvements in behavior following both long- and short-term stimulation enrichment and formal training; (b) following short-term stimulation compared with formal training similar enzyme changes were observed, in spite of performance differences suggesting learning or memory differences between these treatments; and (c) the pattern of biochemical effects following developmental enrichment differed from that produced by short-term stimulation and training, although improved performance followed all treatments. The relevance of these findings for a postulated involvement of cholinergic activity in memory is considered. (28 ref.)—*Journal abstract.*

6265. Cartwright, G. M. (Parsons Coll.) **Use of a maze habit as a test of the specificity of memory transfer in mice.** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 53-60. Studied (a) whether chemical transfer of training occurred between donor and recipient animals, and (b) whether the nature of the transferred information was specific to the response learned by the donor animal. The effects on 30 male Swiss Webster mice of ip injections of brain homogenate from 36 Ss trained in a Y maze were studied. Results indicate (a) that transfer effects occurred and were response-specific, and (b) that there was a dose-effect relationship concerning the number of turns made by

any given recipient group. (29 ref.)—*Journal abstract.*

6266. Chapouthier, Georges; Spitz, Sylvie; Legrain, Danièle, & Ungerer, Arielle. (Baylor College of Medicine, Texas Medical Center, Houston) **Effect of brain extracts from mice injected into the mother on learning ability in the offspring.** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 49-52.—Summarizes previous work with adult mice which showed that injections of trained brain can facilitate learning. In 2 identical experiments, a total of 8 pregnant female mice were injected with conditioned brain and 10 were injected with naive brain. Shock avoidance trials with the offspring of Ss revealed no significant differences in performance. Possible reasons for this result are discussed including a consideration of the placental barrier, delay, and dilution.—*Journal abstract.*

6267. Cherkin, Arthur. (Veterans Administration Hosp., Sepulveda, Calif.) **Failure to transfer memory by feeding trained brains to naive chicks.** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 83-85.—Fed 80 naive White Leghorn cockerels homogenized brain from 80 donor chicks trained to inhibit pecking a normally attractive target, in a 1-trial learning paradigm designed to detect specific transfer of memory. Ss fed .3 or 1 trained brains and tested 24 hr. later showed neither specific nor nonspecific transfer of the learned avoidance response.—*Journal abstract.*

6268. Golub, Arnold M., Masiarz, Frank R., Villars, Trudy, & McConnell, James V. (U. Michigan, Mental Health Research Inst.) **Incubation effects in behavior induction in rats.** *Science*, 1970(Apr), Vol. 168(3929), 392-394.—Reports experiments with 17 60-90 day old male Sprague-Dawley rats in which incubation (rest) periods interposed during donor training regimens significantly enhanced the "memory transfer" effect reported by some investigators. When extracts from the brains of donor Ss given interpolated rest during acquisition training were injected into recipient Ss, statistically reliable and experimentally reproducible "memory transfer" effects were found.—*Journal abstract.*

6269. Lundquist, Frank. (U. Copenhagen, Denmark) **Influence of ethanol on carbohydrate metabolism: A review.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 1-12.—Reviews the effects of ethanol on carbohydrate metabolism, based on the following circumstances: (a) different concentrations of alcohol have different effects on metabolic processes, (b) different nutritional states result in different metabolic responses, (c) alcohol influence on metabolism differs in different species, and (d) duration of alcohol treatment influences the effect on carbohydrate metabolism. The concentration ratio of reduced to oxidized nicotinamide-adenine dinucleotide (NADH₂:NAD) in the liver is increased when alcohol is ingested. The concentration of adenosine phosphate (AMP, adenylic acid) has been found to be changed both in vivo and in vitro. In well fed organisms, ethanol causes a slight and transient increase in blood glucose. In starved organisms, the blood glucose concentration is maintained by gluconeogenesis. It is concluded that ethanol metabolism, by increasing NADH₂ and adenosine phosphate, affects glycolysis and gluconeogenesis. The effect varies with species, nutritional state, dose, and duration of treatment. (35 ref.)—A. Farjaglia.

6270. Stumpfhauser, Laszko. (U. Toledo) **Glucose uptake and glycogen resynthesis in electrically stimulated isolated frog sartorius muscle.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4961-4962.

6271. Tarpay, Roger M. (Williams Coll.) **Effects of food deprivation on spontaneous activity and blood glucose.** *Psychological Reports*, 1971(Apr), Vol. 26(2), 463-469.—Food-deprived 100 Sprague-Dawley female albino rats in Exp. I for 0-4 days in a wheel or stabilimeter. Activity increased with deprivation for the wheel groups only, whereas blood glucose decreased in both conditions but significantly more for the wheel groups. Glucose was more highly related to weight than activity. In Exp. II, 40 Ss were deprived in the wheels but prevented from running just prior to blood analysis. No short-term effect was observed. Glucose changes were the same as found in Exp. I. A possible relationship between glucose and activity is discussed.—*Journal abstract.*

6272. Truitt, Edward B. (Battelle Memorial Inst., Columbus Lab., O.) **Ethanol-induced release of acetaldehyde from blood and its effect on the determination of acetaldehyde.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 1-12. Data measured by gas chromatographic analysis show that blood precipitation is required for release of acetaldehyde when ethanol is added to whole blood in vitro. Occasional traces of acetaldehyde were produced when ethanol was added to nonprecipitated blood samples or to plasma from slightly hemolyzed bloods. The amount of acetaldehyde formed is linearly proportional to the logarithm of the amount of ethanol added in vitro to blood with both the gas chromatographic and spectrophotometric methods. No significant amounts of acetaldehyde were developed in the colorimetric method of Stoltz (29 ref.)—S. R. Diamond.

Hormones

6273. Johnson, Joan E. (Stanford U.) **Influence of pituitary-adrenal hormones on habituation and conditioned avoidance behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5027.

6274. Paup, Donald C. (Tulane U.) **The effect of ovulatory blocking agents and electrolytic lesions on estrous running and vaginal cycles in the rat.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5671-5672.

6275. Terkel, Joseph. (Rutgers State U.) **Aspects of maternal behavior in the rat with special reference to humoral factors underlying maternal behavior at parturition.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4534.

Drug Effects—Human

6276. Coulter, Joe D., Lester, Boyd K., & Williams, Harold L. (U. Oklahoma, Medical Center, Oklahoma City) **Reserpine and sleep.** *Psychopharmacologia*, 1971, Vol. 19(2), 134-147.—Results encourage the view that level and turnover of serotonin are the primary mediators for reserpine-induced modifications of sleep in humans. EEG sleep patterns from 20 21-28 yr old male undergraduates were examined following single and repeated oral doses (1 mg.) of reserpine. In the single-dose study, reserpine caused increased REM and decreased slow wave (SW) sleep, effects which became statistically significant on the postmedication recovery session. These changes were accompanied by reduced frequency/min of sigma spindles (Stage 2).

and identification at short exposure (1/100, 1/50, and 1/25 sec) of TAI stimuli. DOM did not affect a simple perceptual response, judgment of line length, but did produce alterations in the identification of complex stimuli at short exposure. The changes in the perception of complex stimuli disappeared as exposure time was increased.—P. J. Federman.

6286. White, Noel D. (Ohio U.) **The effects of alcohol ingestion on counterarguement formation and attitude change.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4269-4270.

Drug Effects-Animal

6287. Angel, Charles & Burkett, Mary L. (Veterans Administration Center, Biloxi, Miss.) **Effects of hydrocortisone and cycloheximide on blood-brain barrier function in the rat.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 53-58.—Reports an experiment with female albino Sprague-Dawley rats assigned to 5 treatment groups of 10-24 Ss each. Results confirm that bilateral adrenalectomy significantly alters blood-brain barrier permeability to cocaine, resulting in increased accumulation in the brain tissue of the rat. Reestablishment of integrity of the blood-brain barrier was accomplished by injection of hydrocortisone for 5 days at the rate of 20 mg/kg/day. When cycloheximide (an inhibitor of protein synthesis at the stage of peptide elongation) was administered to an adrenalectomized S, the drug increased barrier penetration by cocaine; however, pretreatment of the adrenalectomized S with hydrocortisone in the dosage mentioned above reduced the barrier breakdown associated with cycloheximide pretreatment. Pretreatment of the intact S with hydrocortisone did not significantly affect cocaine accumulation in brain tissue; however, it did prevent cycloheximide-induced penetrability of the blood-brain barrier system. (18 ref.)—*Journal summary*.

6288. Anisman, Hymie. (U. Waterloo, Ontario, Canada) **Passive-avoidance learning in mice following methamphetamine or nembital injection during inescapable exposure to shock.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 611-614.—Administered 10 inescapable 2-sec shocks to 24 hybrid C57BL and DBA mice following injection of methamphetamine, nembital, or saline 22 hr. after initial training. Ss were tested on a passive-avoidance task. This task was not acquired as readily by methamphetamine Ss as by Ss treated with nembital or saline. Results indicate that prior shock-exposure results in the acquisition of a freezing response which subsequently facilitates passive-avoidance responding.—*Journal abstract*.

6289. Appel, James B., Lovell, Richard A., & Freedman, Daniel X. (U. Chicago, Psychopharmacology Lab.) **Alterations in the behavioral effects of LSD by pretreatment with p-chlorophenylalanine and α-methyl-p-tyrosine.** *Psychopharmacologia*, 1970, Vol. 18(4), 387-406.—Maintained the bar-breeding behavior of hungary naive, male, albino Sprague-Dawley rats by a fixed-ratio schedule of food reinforcement. At 5 and 12 days after pretreatment with p-chlorophenylalanine (PCPA), a subthreshold dose (20 μg/kg) of LSD was found to disrupt this behavior. No such disruption occurred when PCPA pretreatment was followed by either a distracting external stimulus (tone) or a low dose of D-amphetamine (.3 mg/kg). Sensitivity of LSD was

apparently unaffected by pretreatment with α-methyl-p-tyrosine.—*Journal abstract*.

6290. Avivi, Amiel & Chari-Bitron, Aviva. (Israel Inst. for Biological Research, Ness-Ziona) **Estimation of low chlorpromazine concentrations by surfacing and sinking reaction of minnows (*Gambusia affinis*).** *Psychopharmacologia*, 1970, Vol. 18(4), 407-411.—Surfacing and sinking reactions of minnows (*Gambusia affinis*) allowed the determination of chlorpromazine in aqueous solutions down to concentrations of .1 μg/ml. In a given volume of solution, neither sex nor number of fish/tube had any effect on their response to the low doses. 5 tubes containing 5 Ss each were employed. A 20-fold augmentation in volume caused a 2-fold increase in sensitivity. The time elapsing, from the beginning of immersion until onset of surfacing, increased with decreasing drug concentration. Partial recovery from the drug was obtained after washing of Ss with tap water. Adaptation occurred when Ss were immersed for more than 48 hr.—*Journal abstract*.

6291. Balster, Robert L. (U. Houston) **The effectiveness of external and drug produced internal stimuli in the discriminative control of operant behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5012-5013.

6292. Ban, Takashi & Hojo, Masakazu. (Kyoto U., Medical School, Japan) **A comparative study of the effects of anti-Parkinson drugs on the oxotremorine-induced EEG and muscular activities.** *Psychopharmacologia*, 1971, Vol. 19(1), 1-15.—The effects of oxotremorine on the EEG and muscular activities of 10 chronically electrode implanted male rabbits and the influence of several anti-Parkinson drugs on these effects were studied simultaneously to clarify the relationships between both of the activities and the possible pathways concerned. Oxotremorine, in iv doses of 300 μg/kg, caused an increase in muscular activity for 2 1/4 hr. on average, and in the EEG arousal patterns which lasted several hours. 0.3-2 mg/kg of scopolamine antagonized muscular activity (65-85%) more than EEG activity (10-45%) induced by oxotremorine, whereas 3-8 mg/kg of trihexyphenidyl antagonized both activities to the same extent (7-73% in the former and 18-75% in the latter). On the other hand, 5-15 mg/kg of diphenhydramine markedly antagonized the muscular activity (10-75%) but had little effect on the EEG activity (3-6%). 2-5 mg/kg of orphenadrine was slightly less effective than diphenhydramine on the muscular activity, and 2-5 mg/kg of propranolol was least effective on these oxotremorine-induced activities. (26 ref.)—*Journal abstract*.

6293. Baum, Morrie. (Bishop's U., Lennoxville, Quebec, Canada) **Avoidance training in both alcohol and non-drug states increases the resistance-to-extinction of an avoidance response in rats.** *Psychopharmacologia*, 1971, Vol. 19(1), 87-90.—3 groups of 22 female hooded rats each were given avoidance training followed by extinction. 1 group received 1 acquisition session immediately followed by extinction. A 2nd received 2 acquisition sessions while in the nondrug state, followed by extinction. A 3rd group received 2 acquisition sessions, 1 while under the effects of alcohol and the 2nd under no-drug conditions, followed by extinction. The group trained under 2 drug states made significantly more responses than the other 2, while the group which received 2 training sessions

while undrugged also made more responses than the group which received a single session. Results indicate that an avoidance response trained under more than 1 drug state is more resistant to extinction than a response learned only in 1 drug state.—*Journal abstract.*

6294. Bhagat, B. (St. Louis U., Medical School) **Influence of chronic administration of nicotine on the turnover and metabolism of noradrenaline in the rat brain.** *Psychopharmacologia*, 1970, Vol. 18(4), 325-332.—Chronic administration of nicotine (.5 mg/kg, subcutaneously, 3-5 times/day for 6 wk.) accelerated the rate of disappearance of intraventricularly administered ^3H -noradrenaline from rat brain. This was associated with normal levels of ^3H -normetanephrine suggesting an increase in intraneuronal deamination. The rate constant of amine decline in male Holtzman rats chronically treated with nicotine was significantly greater than that of controls, while the steady state level of brain noradrenaline was about equal in both groups of Ss. Amphetamine, reserpine, acetylcholine, histamine, pheniprazine, pargyline, and nicotine affected the catecholamine levels in the rat brain treated with nicotine to the same degree as they did in the controls. It is concluded that chronic administration of nicotine may increase noradrenaline turnover in the brain and possibly increase the deamination of this amine. (21 ref.)—*Journal abstract.*

6295. Byrne, John E. (U. California, Berkeley) **Locomotor activity responses in juvenile sockeye salmon, *Oncorhynchus nerka*, to melatonin and serotonin.** *Canadian Journal of Zoology*, 1970(Nov), Vol. 48(6), 1425-1427.—Intraperitoneal injections of melatonin, serotonin, or saline were given to juvenile salmon and their behavior was measured in a circular swimming chamber maintained at 12 hr. of light, 12 hr. of dark, 10° C, and no food. Behavior on Days 1-3 was used to establish the individual basal activity level; on Days 4-6 Ss received an injection; and Days 7-9 were postinjection test days. Locomotor activity of the melatonin-treated group decreased during the light phase while the serotonin-treated group showed an increase in activity only during the dark phase of the cycle. 3 possible explanations are offered to account for these changes in behavior.—*J. M. Roberts.*

6296. Castellano, Claudio. (National Council of Research, Lab. of Psychobiology & Psychopharmacology, Rome, Italy) **Lysergic acid diethylamide, amphetamine and chlorpromazine on water maze discrimination in mice.** *Psychopharmacologia*, 1971, Vol. 19(1), 16-25.—The effects of a psychodysleptic (LSD), a psychoanaleptic (amphetamine), and a psycholeptic (chlorpromazine) were evaluated in the performance of 24 mice previously trained in a Y water maze, following 2 procedures: light procedure, responding to a type of innate behavior, and to a "learning without errors," and dark procedure, corresponding to a type of acquired behavior. The disrupting effect of LSD and chlorpromazine was much more marked in the dark than in the light procedure, so that results can be interpreted as a return to an innate behavior pattern. LSD caused the reappearance of a "coming and going" pattern of behavior normally observed only during the pretraining sessions. With chlorpromazine a deconditioning effect limited to the dark procedure was evident at low doses, while at the highest dose immobilization at the starting point in both

procedures was observed. (16 ref.)—*Journal abstract.*

6297. Despopoulos, Agamemnon. (U. New Mexico, Medical School) **Antihemolytic actions of tricyclic tranquilizers: Structural correlations.** *Biochemical Pharmacology*, 1970(Nov), Vol. 19(11), 2907-2914.—Examined 31 phenothiazines for their capacity to protect red blood cells of the S against hypo-osmotic hemolysis. 1 male mongrel dog was used as a blood donor for experiments in which phenothiazines were compared for potency. Additional experiments were performed with blood from at least 3 other dogs, after confirming that sensitivity to phenothiazines was equivalent to earlier experiments. Incubation of erythrocytes in buffered saline (135 mOsmoles/l.) resulted in 40-50% hemolysis. Addition of phenothiazines to this system generally reduced hemolysis. The 50% effective dose (ED_{50}) was determined for each compound. Protection against hemolysis was related to molecular structural features. Imipramine and desmethylinipramine also had anti-hemolytic activity, but the response was maximal at the smallest dose used and did not change with larger doses. In several experiments, phenothiazines were preincubated with compounds which might be constituents of the red cell membrane. Binding could not be observed between phenothiazines and lecithin or cholesterol. Extensive binding to bovine albumin was demonstrated. (17 ref.)—*Journal abstract.*

6298. Dixit, K. S., Dhasmana, K. M., Saxena, R. C., & Kohli, R. P. (King George's Medical Coll., Lucknow, India) **Antagonism of intracerebrally induced nicotinic convulsions in mice: A method for measuring the central antinicotinic activity of CNS acting agents.** *Psychopharmacologia*, 1971, Vol. 19(1), 67-72.—Intracerebral administration of nicotine in mice produced convulsions without any deaths in doses which were significantly lower than the parenteral doses. Ss were 120 male and female albino mice and 20 controls. The drug seemed to act on central nicotinic receptors. The antagonism of central nicotinic convulsions was thus employed for the measurement of the central antinicotinic activity of various CNS acting agents. Chlorisondamine was found to be the most potent, and next in order were atropine and chlorpromazine. It is suggested that the method forms a simple test for evaluating the central antinicotinic activity of various CNS acting agents.—*Journal abstract.*

6299. Everett, G. M., & Borcharding, J. W. (Abbott Lab., General Pharmacology Dept., North Chicago, Ill.) **L-dopa: Effect on concentrations of dopamine, norepinephrine, and serotonin in brains of mice.** *Science*, 1970(May), Vol. 168(3933), 849-850. Reports an experiment in which large doses of L-dopa given to white male mice produced marked increases in brain dopamine, no change in norepinephrine, and a reduction in serotonin. This reduction apparently resulted from a release or displacement, or both, of serotonin from its storage sites. *Journal abstract.*

6300. Fibiger, Hans C. (Princeton U.) **A biphasic action of pilocarpine on behavioral arousal in the rat.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5019.

6301. Freed, Earl X. (Veterans Administration Hosp., Alcohol Research Lab., Lyons, N.J.) **Alcohol and conflict: Role of drug-dependent learning in the rat.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol.

32(1-A), 13-28.—Studied the effects of alcohol on experimentally induced approach-avoidance conflict in 40 Charles River male rats. Ss engaged in schedule-induced consumption of either alcohol or water. 3 phases of the experiment were differentiated: (a) approach training in which Ss ran down a spatial alley for food; (b) conflict when food was available at the end of the alley but with simultaneous shock; and (c) when shock was turned off after the conflict criterion was attained to assay if Ss resolved the conflict. Alcohol did not influence approach measures, but significantly affected the development of conflict. Groups whose intake had been both water and alcohol failed to transfer learning, suggesting drug dependence. 33 Ss resolved conflict. Results of the test phase fail to support previous studies documenting the role of alcohol as a mitigator of conflict behavior. Under only 1 condition, i.e., consistently alcohol-treated Ss exposed to conflict, was the performance of Ss under drugged condition superior to that of nondrugged. (38 ref.)—*A. Farfaglia.*

6302. Freund, Gerhard. (U. Florida) Impairment of shock avoidance learning after long-term alcohol ingestion in mice. *Science*, 1970(Jun), Vol. 168(3939), 1599-1601.—Chronic alcohol consumption impaired the learning of a 2-way shuttle box avoidance task in 14 female mice (c-57 B1/6j) 10-14 days after the discontinuation of ethanol in the diet. 28 controls received laboratory chow ad libitum or were pair-fed with the alcohol-consuming Ss by diets containing isocaloric amounts of sucrose. The performance of the 2 control groups was indistinguishable from each other, and only the ethanol-consuming mice performed poorly. It is concluded that alcohol consumption per se and not a nutritional deficiency was responsible for the impairment of learning. (18 ref.)—*Journal abstract.*

6303. Gibbins, R. J., Kalant, H., LeBlanc, A. E., & Clark, J. W. (U. Toronto, Ontario, Canada) The effects of chronic administration of ethanol on startle thresholds in rats. *Psychopharmacologia*, 1971, Vol. 19(2), 95-104.—Measured the thresholds for startle responses to electric shock in 24 adult male Wistar rats given ethanol daily in doses rising from 3.7 gm/kg over a 30-day period, and in controls receiving equicaloric doses of sucrose. Tests made 23, 36, or 47 hr. after ethanol (i.e., during partial or complete ethanol withdrawal) gave threshold values significantly lower than those obtained with sucrose-treated controls. The difference became greater after longer ethanol treatment and larger doses. However, when threshold measurements were made under the acute influence of ethanol in the experimental group, the mean values were virtually equal to those of the controls. This normalization, by ethanol, of a disturbance produced by absence of ethanol in a chronically treated S is indicative of physical dependence. Following termination of ethanol treatment, there was a gradual return of startle thresholds almost to control values over a relatively short period, indicating that the changes underlying the hyperexcitability are readily reversible. (20 ref.)—*Journal abstract.*

6304. Hauschild, Thomas B. (USAMEDCO-MEUR, Professional Services Div., APO New York, N.Y.) Marijuana. *Military Medicine*, 1971(Feb), Vol. 136(2), 105-109.—Reviews recent studies on the effects of marijuana, especially with experience in Vietnam. Marijuana-induced psychosis when marijuana is used in small amounts is reported for those with a predisposition to mental illness, but it has been found that

acute brain syndrome is correlated with dosage and can occur in anyone. Marijuana has been found to (a) produce psychotic reaction; (b) increase the likelihood of using other drugs, especially when the supply of marijuana is exhausted; (c) result in distortions of time and space; (d) produce lethargy and apathy; and (e) reduce motivation. Thickened speech, blurred vision, poor concentration, impaired thinking and a dream-like, floating state have also been associated with marijuana use of orally administered 20 mg. No evidence has been found which supports contentions that it enhances creativity or that it solves mental or emotional problems.—*G. A. Clum.*

6305. Helfetz, Stephen A. & McMillan, D. E. (State U. New York, Downstate Medical Center, Brooklyn) Development of behavioral tolerance to morphine and methadone using the schedule-controlled behavior of the pigeon. *Psychopharmacologia*, 1971, Vol. 19(1), 40-52.—Used a multiple fixed-ratio, fixed-interval schedule of food presentation to study the development of behavioral tolerance to daily injections of equipotent doses of morphine and methadone in 6 male white Carneaux pigeons. There was evidence that tolerance was developing to the rate-decreasing effects of both drugs after a single injection. Tolerance to morphine developed more rapidly during the 1st wk. of injections than tolerance to methadone. Tolerance to the depressant effects of morphine and methadone was less complete under the fixed-ratio component of the schedule than under the fixed interval component. After repeated injections, increases in the rate of responding were observed in some Ss. These increases depended on the S, rather than on the narcotic. Thus, the development of tolerance was a function of the drug, of the individual S, and of the schedule maintaining the behavior. (21 ref.)—*Journal abstract.*

6306. Izquierdo, Iván & Izquierdo, Juan A. (Cordoba National U. Inst. of Chemical Sciences, Argentina) Effects of drugs on deep brain centers. *Annual Review of Pharmacology*, 1971, Vol. 11, 189-208.—Reviews methods employed in the study of the effects of drugs on deep brain structures. Central sites of action for amphetamine, mefenazine, imipramine, desimipramine, 3-chlorimipramine, imiprypyline, and nortryptiline including EEG studies are discussed. The effects of intraventricular catecholamines, the central site of action for peripherally injected quaternary compounds, the potassium theory in regard to the pharmacology of the hippocampus, and extrahippocampal sites of drug action are also reviewed. (243 ref.)—*F. Weinstein.*

6307. Johnson, F. N. (U. Birmingham, Medical School, England) The effects of chlorpromazine on the expression of an acquired passive avoidance response in mice. *Psychopharmacologia*, 1970, Vol. 18(4), 333-345.—F₁ hybrid mice (strains C57BL/6J × 129/Ola) given 1-trial passive avoidance training were examined 24 hr. later for retention of the acquired response. Testing was carried out with 72 Ss given either chlorpromazine or saline injections before the test session. 3 chlorpromazine doses (.5, 2, and 3.5 mg/kg) were used, and 3 injection times (10, 90, or 180 min. before testing). Chlorpromazine was found to impair expression of the acquired response, both by depressing its initial elicitation and also by apparently facilitating extinction. A 2nd experiment with 20 Ss confirmed that extinction rate was increased. A clear dosage effect was observed but injection time was not important in determining the drug's effect. Further experiments with 9

and 10 Ss, respectively, were undertaken to clarify the interpretation of the drug's action; in particular, the possibility that the effects might have been caused by a dissociation of learning between the training and test situations was examined. It is suggested that the elevated extinction rates observed during testing when Ss were given chlorpromazine represents a temporary effect resulting from the reduced stimulus control of behavior. Permanent effects of pretest drug administration were noted on the initial expression of the learned response. (24 ref.)—*Journal abstract.*

6308. Jori, A., Bianchetti, A., & Prestini, P. E. (Inst. of Pharmacological Research, Milan, Italy) **Relations between barbiturate brain levels and sleeping time in various experimental conditions.** *Biochemical Pharmacology*, 1970, Oct, Vol. 19(10), 2687-2694.—Analyzed the effect of various drugs on pentobarbital narcosis. A linear correlation was obtained between sleeping time and brain pentobarbital concentration 90 min. after treatment of female Sprague-Dawley rats with 30 mg/kg ip of pentobarbital. Pretreatment with various drugs abolished or modified this correlation. SKF-525A, DDT, and low doses of chlorpromazine act on pentobarbital sleeping time by modifying its metabolism. Amphetamine reduces pentobarbital sleeping time by a mechanism which is not of metabolic origin. With phenobarbital pretreatment there is a modification of pentobarbital sleeping time which is the result of increased metabolism and sensitivity. Chlorpromazine at high doses, as well as diazepam, affect pentobarbital sleeping time without affecting pentobarbital metabolism.—*Journal summary.*

6309. Kumar, R. (University Coll., London, England) **Extinction of fear: I. Effects of amylobarbitone and dexamphetamine given separately and in combination on fear and exploratory behaviour in rats.** *Psychopharmacologia*, 1971, Vol. 19(2), 163-187.—Passive avoidance by 145 naive hooded female rats of an environment previously associated with inescapable electric shocks, was taken as an index of the level of fear on repeated, unpunished tests. Locomotor and non-locomotor exploratory activity was also recorded during these tests. Although amylobarbitone diminished fear it did not accelerate its extinction; the amounts of locomotion were increased in both shocked and unshocked Ss and tolerance did not develop to these effects of amylobarbitone. Dexamphetamine retarded extinction, with the result that the level of fear remained high even when the drug was withheld. At the same time as maintaining the level of fear dexamphetamine also increased locomotor activity, but this was confined to "safe" areas of the apparatus. Mixtures of amylobarbitone and dexamphetamine produced greater increases in locomotor activity than did the separate drugs, and their effects on fear were intermediate. In both cases the interactions between the effects of the constituent drugs did not appear to be other than additive. The inhibitory effects of dexamphetamine on the extinction of fear were not modified by adding amylobarbitone. (31 ref.)—*Journal abstract.*

6310. Langfeldt, Thore & Ursin, Holger. (U. Oslo, Neurophysiological Inst., Norway) **Differential action of diazepam on flight and defense behavior in the cat.** *Psychopharmacologia*, 1971, Vol. 19(1), 61-66.—Studied the effect of diazepam (1 mg/kg bodyweight) on flight and defense behavior in 14 feral cats. Defense behavior was reduced while there was no reduction in the flight behavior at this dosage level. The possible

selectivity of this drug for particular limbic structures is discussed.—*Journal abstract.*

6311. Lemberger, L., Sernatinger, E., & Kuntzman, R. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Effect of desmethylinipramine, iprindole and DL-erythro- α -(3,4-dichlorophenyl)- β -(1-butyl amino) propanol HCl on the metabolism of amphetamine.** *Biochemical Pharmacology*, 1970(Dec), Vol. 19(12), 3021-3028.—The ability of a compound to block norepinephrine accumulation or potentiate amphetamine action has been used in the past to evaluate antidepressant activity. Results of several experiments indicate the limitations of this approach. DL-erythro- α -(3,4-dichlorophenyl)- β -(1-butyl amino) propanol HCl (B.W. 65-54), desmethylinipramine, and iprindole, 3 compounds having antidepressant activity were administered to adult male rats. All potentiated amphetamine action, but this effect is due to inhibition of amphetamine metabolism. Iprindole, a potent antidepressant in man, and B.W. 65-54 do not affect the levels of ^3H -norepinephrine in the rat heart while desmethylinipramine does. (24 ref.)—*Journal abstract.*

6312. LeVan, H., Moos, W. S., & Mason, H. C. (Veterans Administration Hosp., Hines, Ill.) **Alteration of transferability of radiation-induced behavior by dimethyl sulfoxide in mice.** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 41-44. Outlines previous studies with mice on (a) the effect of dimethyl sulfoxide (DMSO) in reducing postirradiation conditioned avoidance responses; and (b) the transferability of the radiation-induced avoidance behavior with injection of a small quantity of brain tissue of saccharin-aversion-trained Ss into the brain or the peritoneal cavity of naive (untrained) Ss. In the present experiments, the effect of DMSO on the transferability of radiation-induced behavior was tested using 30 donor and 90 recipient male CF₁ mice. It was observed that the degree of aversion was markedly reduced when recipient Ss received brain tissue from donor Ss treated topically with DMSO 5-10 min. before irradiation, following a saccharin conditioning period. (15 ref.)—*Journal abstract.*

6313. Maitre, L., Staehelin, M., & Bein, H. J. (CIBA Ltd., Basel, Switzerland) **Effects of benzoctamine (30803-Ba, TACITIN[®]), a new psychoactive drug, on catecholamine metabolism.** *Biochemical Pharmacology*, 1970(Nov), Vol. 19(11), 2875-2892. Investigated the effects of benzoctamine (TACITIN[®]), 1-methyl-amino-methyl-dibenzo[b,e]bicyclo[2.2.2]octadiene, a new psychoactive agent, on catecholamine metabolism. Male albino rats served as Ss. Benzoctamine produced no marked change in the catecholamine concentration of various rat organs after either single or repeated treatment and did not inhibit MAO or catechol-O-methyltransferase activities in liver and brain. It enhanced markedly the incorporation of [^3H]tyrosine into [^3H]catecholamines in brain and adrenals. It accelerated the disappearance rate of intracisternally administered [^3H]noradrenaline. [^3H]noradrenaline uptake in the rat heart and brain was not inhibited. It is concluded that benzoctamine most probably increases the turnover rate of catecholamines. (32 ref.)—*Journal abstract.*

6314. McMillan, D. E. (U. North Carolina, Medical School, Chapel Hill) **Interactions between naloxone and chlorpromazine on behavior under schedule control.** *Psychopharmacologia*, 1971, Vol. 19(2), 128-133.—Used a multiple fixed-ratio, fixed-interval schedule of food presentation to study interactions between

naloxone and chlorpromazine in 4 male white Carneux pigeons. Inactive doses of both drugs could combine to decrease the rate of responding under both schedule components. Inactive doses of naloxone could enhance the rate-decreasing effects of chlorpromazine and inactive doses of chlorpromazine could enhance the rate-decreasing effects of naloxone. When both drugs decreased the rate, the combined effects of the drugs was greater than the sum of the rate-decreasing effects of the individual drugs. Data suggest that the rate-decreasing effects of naloxone and chlorpromazine are synergistic.—*Journal abstract.*

6315. Mechoulam, Raphael; Shani, Arnon; Edery, Habib, & Grunfeld, Yona. (Hebrew U., Pharmacy School, Jerusalem, Israel) Chemical basis of hashish activity. *Science*, 1970(Aug), Vol. 169(3945), 611-612.

6316. Miller, Loren L. (U. Kentucky, Medical Center) Effect of magnesium pemoline on the aversive threshold to shock in the rat. *Psychological Reports*, 1971(Apr), Vol. 28(2), 351-354.—Tested the effect of magnesium pemoline on pain thresholds in 52 Long-Evans female rats via the jump-flinch technique in groups receiving 0, 5, 10, or 20 mg/kg of the drug. No significant differences were found between groups in the number of jumps or the specific mean intensity at which the 1st jump was displayed over 4 series of 17 different shock intensities. Findings are interpreted as refuting the hypothesis that superior performance of drug-treated Ss in avoidance situations is due to a sensitization effect to electric shock brought about by drug action.—*Journal abstract.*

6317. Mills, Patrick D., et al. (U. South Dakota) Running-wheel activity of insulin-injected rats. *Psychological Reports*, 1971(Apr), Vol. 28(2), 415-420.—Assigned 48 male albino rats, on the basis of previous running-wheel activity, to 4 experimental groups: (a) Group I, which received 2 U/kg insulin 30 min. before testing; (b) Group S, which received 2 cc/kg saline 30 min. before testing; (c) Group D, which was food deprived 24 hr. before testing; and (d) a control group, which was neither injected nor deprived. Running-wheel activity was recorded 15 min/day for 8 days. A significantly higher level of activity was displayed by Group D, and a significantly lower level of activity was exhibited by Group I in comparison with Group S and the control group, which did not differ from each other. The decreased activity of Group I is interpreted as being due to specific neuromuscular actions of the drug.—*Journal abstract.*

6318. Moore, Cella L. (Rutgers State U.) The transition from incubation to brooding in ring doves, *Streptopelia risoria*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5033-5034.

6319. Nagy, A. & Wollemann, M. (Inst. of Neurosurgery, Biochemical Lab., Budapest, Hungary) Regulatory action of chlorpromazine on the activity of some dehydrogenases. *Aggressologie*, 1970, Vol. 11(4), 327-332.—Investigated the effects of chronic chlorpromazine (CPZ) treatment on rat liver and brain lactic dehydrogenase (LDH), glucose 6-phosphate dehydrogenase (G6-PDH), and succinic dehydrogenase (SDH) levels. Albino rats weighing 200-300 gm. were given daily ip injections of 50 mg/kg CPZ dissolved in .90% saline solution for 1 wk. Controls were given normal saline. Ss were decapitated and cell fractions were prepared from brain and liver homogenates. Results indicate that LDH and G6-PDH activities increased in

liver homogenates while they were inhibited in the brain. SDH activity, in both controls and CPZ-treated Ss increased in the brain and decreased in the liver. For purposes of further elucidation of CPZ effects in vivo, brain and liver cell fractions of homogenates were measured to assess the effective CPZ concentration and time of incubation. It is concluded that in vitro and in vivo activities were similar. When measurements were performed after a 21-min incubation period, the direction of action of CPZ on LDH activity was similar to that of the in vivo. A CPZ concentration of 10^{-3} M produced maximal results. (French, German, Spanish, and Russian summaries) (28 ref.)—P. R. Shibleski.

6320. Pennington, S. N., Chattopadhyay, S. K., & Brown, H. D. (Cancer Research Center, Biochemistry Section, Columbia, Mo.) A possible pathway for ethanol-induced fatty liver and modification of liver injury by antioxidants. *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 13-19.—Investigated from isolated liver microsomes of calves and rats the "interaction of the cytochrome P-450 of the mixed-function oxidase system with ethanol metabolism and the role of an antioxidant in this system. [It was] found that ethanol itself does not appear to interact directly in vitro with this portion of the mixed-function oxidase system; however, the influence of acetaldehyde was pronounced in that this compound appears to oxidize the reduced cytochrome (P-450). In addition, an antioxidant was investigated and found to prevent this inhibition... administration of ethanol over a period of several days in vivo has a pronounced effect on the mixed-function oxidase system... but the possibility that the metabolite of ethanol and not ethanol is responsible for this effect has not been proved."—S. R. Diamond.

6321. Pereira, Walter C., da Rocha, Tania L., & Timo-laria, Cesar. (U. São Paulo, Medical School, Brazil) Efeitos do pentobarbital sódico sobre a atividade elétrica cerebral do rato com lesões da formação reticular mesencefálica. [Action of sodium pentobarbital on the cortical electrical activity of the rat after lesion of the midbrain reticular formation.] *Arquivos de Neuro-Psiquiatria*, 1970(Dec), Vol. 28(4), 324-335.

Employed 35 albino rats prepared for initial and 18 Ss for chronic experiments. The midbrain reticular formation was electrolytically bilaterally destroyed in 24 Ss and unilaterally destroyed in 11 Ss. Interruption of the reticular activating system was checked by strong nociceptive and electrical stimulation below the lesioned area. Increasing doses of pentobarbital were given iv to 35 Ss and up to 18 Ss. The barbiturate always augmented synchronization of the electrocorticogram but induced an early depression of the electrical activity in Ss with bilateral lesions. After barbiturate administration the electrocorticogram of both hemispheres tended to isochronize. Pentobarbital appears to depress the activating system in small doses, thus liberating the synchronizing systems, whereas larger doses block the latter. Only very large doses depress the cortical activity. (15 ref.)—*English summary.*

6322. Pihl, R. O. & Altman, Jack. (McGill U., Montreal, Quebec, Canada) An experimental analysis of the placebo effect. *Journal of Clinical Pharmacology & New Drugs*, 1971(Mar), Vol. 11(2), 91-95.—A placebo response was developed in rats. The strength of the response was related to the number of pairings between the active substance and the conditioned stimuli. Experiments indicated that this effect was a result of the

pairing procedure and could not be attributed to residual traces of the drug or to physical effects resulting from the large number of ip injections. The effect was specific to the drug d-amphetamine. A conditioning model in the development of the placebo response is discussed.—P. J. Federman.

6323. Poschel, B. P. (Parke, Davis & Co., Div. of Medical & Scientific Affairs, Ann Arbor, Mich.) **A simple and specific screen for benzodiazepine-like drugs.** *Psychopharmacologia*, 1971, Vol. 19(2), 193-198.—24 naive, nonhungry, nonthirsty male albino rats ingested inordinate amounts of a sweetened milk solution when given their 1st opportunity to drink the solution while under the influence of benzodiazepine drugs. Among many other drugs tested, only phenobarbital gave a similar, although clearly weaker, effect. The test provides a simple, rapid, sensitive, and specific screen for benzodiazepine-like drugs. The effects were interpreted in terms of these drugs overcoming (disinhibiting) a rat's natural aversion to an unfamiliar food substance without at the same time greatly sedating the S.—*Journal abstract*.

6324. Reiniš, Stanislav. (U. Ghana, Medical School, Accra) **Effect of 5-iodouracil and 2,6-diaminopurine on passive avoidance task.** *Psychopharmacologia*, 1971, Vol. 19(1), 34-39.—Studied the effect of 2 antimetabolites, 2,6-diaminopurine and 5-iodouracil, on passive avoidance learning in 828 Swiss albino mice. The drugs were injected intracranially 48, 24, or 2 hr. before and 1, 2, or 24 hr. after the acquisition trial. The injection of 5-iodouracil 2 hr. before the acquisition trial or 1 hr. after it impaired the performance in the same experimental situation of the Ss tested 48, 72 hr. or 1 wk. after. The same impairment of performance appeared after the injection of 2,6-diaminopurine performed 24 and 2 hr. before or 1 hr. after the acquisition trial. The effect of these substances was probably caused by the interference with the metabolism of nucleic acids during learning.—*Journal abstract*.

6325. Rizzoli, A. A. & Galzigna, L. (U. Padova (Padua), Italy) **Molecular mechanism of unconscious state induced by butyrate.** *Biochemical Pharmacology*, 1970(Oct), Vol. 19(10), 2727-2736.—Reports that the role of butyrate in the induction of the unconscious state in young adult Wistar rats, depends on an interaction of this compound with the lecithin of the neural membrane which is followed by the formation of molecular complexes between butyrate and the central chemical transmitters serotonin and dopamine.—*Journal summary*.

6326. Roizin, L., Akai, K., Lawler, H. C., & Liu, J. (New York State Psychiatric Inst., New York) **Lithium neurotoxicologic effects: I. Acute phase (preliminary observations).** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 38-44.—Reports the acute phase of preliminary studies on the neurotoxicological effects of lithium, using 25 adult male rats given either a low sodium or commercial pellet diet. Following ip or iv lithium injections, changes in pulse rhythm and respiration rate were noted. Clinical pathological, biochemical, and CNS electron microscope observation during 2-24 hr. following drug infusion revealed ultracellular membrane alterations, but no definite conclusions were reached.—P. Hertzberg.

6327. Roll, Susan K. (U. California, San Diego) **Intracranial self-stimulation and wakefulness: Effect of manipulating ambient brain catecholamines.**

Science, 1970(Jun), Vol. 168(3937), 1370-1372.—Administered disulfiram, an inhibitor of norepinephrine biosynthesis, to 4 adult male Simonsen Sprague-Dawley rats to see if norepinephrine is a transmitter for motivation in electrical stimulation of the brain. Ss given the drug paused in bar pressing, appearing asleep or sedated; if replaced on the bar, they always resumed pressing at normal rates. It is concluded that the decrease in bar pressing may result from a direct or indirect effect of the drug on wakefulness rather than on reward.—*Journal abstract*.

6328. Roth, Robert H. & Suhr, Youngmin. (Yale U., Medical School) **Mechanism of the γ -hydroxybutyrate-induced increase in brain dopamine and its relationship to "sleep."** *Biochemical Pharmacology*, 1970(Dec), Vol. 19(12), 3001-3012. The naturally occurring CNS depressant γ -hydroxybutyrate (GHB) and its lactone precursor, γ -butyrolactone (GBL) cause a marked and selective increase in brain dopamine and a decrease in homovanillic acid. GBL also causes a selective increase in the specific activity of brain dopamine but not of brain norepinephrine when rats are injected with ^{14}C -tyrosine. This is probably the result of a compensatory activation of dopaminergic neurons. When catecholamine biosynthesis is inhibited by administration of α -methyl- p -tyrosine, GBL completely blocks the disappearance of subcortical dopamine but exerts no antagonism on the disappearance of subcortical norepinephrine. These observations suggest that GBL increases brain dopamine primarily by selectively blocking the release of this monoamine from dopamine containing neurons. Indirect evidence is also presented which suggests that the CNS depressant properties of GHB may be related to this block in the release of brain dopamine. (24 ref.)—*Journal abstract*.

6329. Saiki, Hisashi. (Tokyo Jikei-Kai U., Medical School, Japan) [Effects of injected tocopherol to the behavior of the mice under high oxygen environment.] *Japanese Journal of Aerospace Medicine and Psychology*, 1969(Jun), Vol. 6(2), 15-22.—Investigated the effects of tocopherol and a high oxygen content environment on mouse behavior. Young mice, bred under a high oxygen environment, were given 5 mg. tocopherol every 4 days or a placebo. Results show that Ss, grown to 25 gm. in weight, suddenly decreased their weight in the high oxygen content environment where they could only survive for approximately 10 days. Ss weighing less than 20 gm. did not experience weight loss in the high oxygen concentration environment. In addition, they had a 30-day life span. No significant differences were observable between Ss treated with tocopherol and controls with 1 exception. Ss treated with placebo demonstrated excitable behavior in the periods between 10-15 and 30-35 days, while Ss treated with tocopherol did not. It is concluded that tocopherol prevented excitable behavior in the process of chronic oxygen poisoning under normal pressure environment. This action of tocopherol can be attributed to a biochemical, antioxidant reaction caused by the inhibition of cellular lipid peroxidation.—*English abstract*.

6330. Schechter, Martin D. (State U. New York, Buffalo) **Effect of lysergic acid diethylamide and mescaline on flicker discrimination in the rat.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5533.

6331. Siegel, Ronald K. (Dalhousie U., Halifax, Nova Scotia, Canada) **Effects of cannabis sativa and LSD**

changes in CR activity, manifested in 3 successive periods. The 1st short period (1-3 hr.) was marked by an excitatory effect. In the 2nd period (2 days several weeks) a depressive effect was observed. In the 3rd period (from 2-10 days) the action of iprazid was revealed in excitation. The role of serotonin and noradrenaline in the brain under the action of iprazid is discussed.—I. D. London.

6338. Valzelli, L. (Mario Negri Inst. of Pharmacological Research, Milan, Italy) Further aspects of the exploratory behaviour in aggressive mice. *Psychopharmacologia*, 1971, Vol. 19(1), 91-94.—Previous experiments have shown (a) that aggressive mice exhibit less exploratory activity and a different sensitivity to psychoactive drugs compared with normal mice, and (b) that aggressive mice can be divided in 2 subgroups according to their exploratory activity: active (reduced activity), and blocked (no exploratory activity). Several experiments are reported in which active and blocked aggressive mice showed a different sensitivity to drugs, although they had a similar decrease of brain serotonin turnover rate.—Journal abstract.

6339. Wilson, Marvin C. (U. Michigan) Variables which influence the reinforcing properties of cocaine in the rhesus monkey. *Dissertation Abstracts International*, 1971(Feb.), Vol. 31(8-B), 4902.

6340. Wise, C. David; Berger, Barry D., & Stein, Larry (Wyeth Lab., Philadelphia, Pa.) Serotonin: A possible mediator of behavioral suppression induced by anxiety. *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl), 34-37.—Tested the hypothesis that norepinephrine and serotonin exert opposing effects on goal-directed behavior by suppressing a simple approach response by a mild electric shock and then attempting to modify the intensity of the suppression with serotonergic drugs. Effects of drugs on the drinking latencies of 68 shocked and 61 unshocked rats were compared. Results support the hypothesis. It was also found that elevation of serotonin level in the brain by a combination of pargyline and 5-HTP significantly increased conditioned suppression. None of the drugs affected drinking latencies of unshocked rats. Results support the view that a central serotonergic system mediates suppressive effects on behavior. (27 ref.)—P. Hertzberg

CARDIOVASCULAR PROCESSES

6341. Davis, John D., Campbell, Constance S., Gallagher, Robert J., & Zurakov, Michael A. (U. Illinois, Chicago, Chicago) Disappearance of a humoral satiety factor during food deprivation. *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 426-432.—Carried out blood transfusions between 22 Sprague-Dawley male albino rats deprived of food for 22 hr and 54 donors deprived of food for 0, 1, 2, 3, 4, or 5 hr immediately prior to transfusions. Following transfusions the 22-hr deprived recipients were given access to food and the amount consumed in 30 min. was recorded. The posttransfusion intake of recipients whose blood had been mixed with nondeprived donors was about 55% of normal, became progressively more normal with increasing deprivation of the donor, and was considerably above normal when the donor was food deprived for 5 hr. Results indicate the presence of a humoral satiety factor in animals not deprived of food. The existence of an appetite regulating or stimulating factor in the blood

is discussed in light of the variation in intake. (20 ref.)—Journal abstract.

6342. Fenz, Walter D. & Hagg, Jon M. (U. Waterloo, Ontario, Canada) Voluntary control of heart rate in a practitioner of yoga. Negative findings. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 447-464.—Recordings of heart rate from a 42-yr-old male engaged in a RT task without and with instructions to decelerate during the anticipatory interval, as well as under a condition of augmented feedback. No evidence was found that S was able voluntarily to control his heart rate. *Journal abstract.*

6343. Hockmeyer, Merrith H. (Rutgers State U.) Discriminative conditioning of human systolic blood pressure, manipulating two parameters. UCS intensity and schedules of reinforcement. *Abstracts International*, 1971(Feb.), Vol. 31(8-B), 4906.

6344. Holer, Myron A. (Montefiore Hosp. & Medical Center, Bronx, N.Y.) Physiological responses of infant rats to separation from their mothers. *Science*, 1970(May), Vol. 168(3933), 871-873.—Rat pups decreased of 40% in cardiac and respiratory rates occurred during the 1st 12-16 hr after separation. When rat pups were separated from their mothers, plasma levels decreased without significant alterations in behavior, and despite maintenance of body temperature, isolation by intubation, an intact litter, and the home cage nest. *Journal abstract.*

6345. Schechter, Ephraim I. (U. Pittsburgh) Effects of unpredictability and uncertainty on heart rate during classical conditioning in rats. *Dissertation Abstracts International*, 1971(Feb.), Vol. 31(8-B), 5038.

ENVIRONMENT & STRESS

6346. Aschoff, J., et al. (Max Planck Inst. for Behavioral Physiology, Frihn, W. Germany) Human circadian rhythms in continuous darkness: Entrainment by social cues. *Science*, 1971(Jan), Vol. 171(3967), 213-215.—Kept 3 groups of 2-5 yr each in underground chambers for 4 days in continuous light-dark cycle, and thereafter for 4 days in continuous darkness. Ss lived on a regular time schedule. Physiological and psychological functions were measured at 3-hr intervals. There were no differences in the functions between the 2 sections of the experiment. It is concluded that social cues are sufficient to entrain human circadian rhythms, and absence of such cues leads to free-running rhythms. *Journal abstract.*

6347. Barm, Jerry D. (Arizona State U.) Hypothalamic effects on critical flicker frequency in the rhesus monkey. *Dissertation Abstracts International*, 1971(Feb.), Vol. 31(8-B), 5042.

6348. Fath, Harold R. & Humphrey, L. (Drexel U., South-west Missouri State Coll., Kansas City, Mo.) Cold water application effects on responses to heat stress during exercise. *Research Quarterly*, 1971, Vol. 42(1), 21-27.

6349. Gelashvili, S. A. (U. Georgia, Tbilisi, USSR) Rontgenobionticheskaia gastiia shimaui kurghlebia dakhovnebia rosh la lobze. *Trudy nauchnoy konferentsii po fiziol. i med. psichologii*, 1970, Vol. 1, 10-12.—The effects of various types of stress on the capacity of the organism to respond after delays of various lengths

to different forms of stimulation (visual, auditory, labyrinthine, and complex), signaling the place where food was available. Also presented are the details of the performance of delayed responses subsequent to summated local irradiation (3000-9000 r) of the head over a period of time. While slowing movement to the food, irradiation with 9000 r did not change the previously determined maximal delayed period for visual, auditory, labyrinthine, and complex perceptions. Total fractional irradiation (2000 r) over a 3-mo period did not lead to marked deterioration of motor reactions until the appearance of the external symptoms of radiation sickness. Maximal delayed periods underwent no change either. (Russian & English summaries) (39 ref.)—*I. D. London*

6350. Hurwitz, D. A., Robinson, S. M., & Barofsky, J. (U.S. Army Research Inst of Environmental Medicine, Natick, Mass.) **Behavioral decrements and brain catecholamine changes in rats exposed to hypobaric hypoxia.** *Psychopharmacologia*, 1971, Vol. 19(1), 26-33. Used the behavior of 19 male Sprague-Dawley rats trained on an avoidance schedule to assess performance decrements at altitude. After adequate base-line behavior of $95 \pm 5\%$ avoidance on 3 consecutive days was attained, Ss were subjected to hypobaric hypoxia (23,000 ft.) for 2 or 4 hr. prior to an experimental session. Performance in this environment was disrupted in that Ss responded primarily to the shock rather than an auditory or visual cue. Brain norepinephrine levels were reduced about 20% in untrained and performing Ss at altitude. Inhibition of MAO with tranylexpromine, 5 mg/kg, prevented the reduction in norepinephrine in untrained Ss at altitude and increased the levels above normal in performing Ss at altitude but did not improve the performance. Data suggest that alterations in the behavior of performing rats at altitude are not related to absolute levels of norepinephrine. (19 ref.)—*Journal abstract.*

6351. Jovanović, Uroš J. (U. Würzburg, Neuroclinic & Polyclinic, W. Germany.) **Der Effekt der ersten Untersuchungsnacht auf die Erektionen im Schlaf.** [Effect of the first examination night on erections during sleep.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 295-308. Examined 25-30 yr. old males phallographically in a 1st examination night (unaccustomed examination situation) and on a 2nd successive night to determine the effects of anxiety on penile erections. Results show that penile erections occurred less frequently, were weaker, and were of shorter duration in 24 Ss on the 1st examination night. Results are attributed to anxiety evoked by the exposure to an unknown and strange examination situation on the 1st night. Anxiety evoked while awake and while dreaming has demonstrated ability to exert a negative effect on erections occurring during sleep.—*English summary*

6352. Kaiser, Charles & Roessler, Robert. (U. Houston) **Galvanic skin responses to motion pictures.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 371-374. Examined number and amplitude of GSRs during rest, during a bland, and during a stressor film in 20-22 yr. old male student Ss. The Zuckerman Multiple Affect Adjective Check List (MAACL) was administered before and after both stressor and bland films. The greatest number and amplitude of GSRs were produced during the stress film and the least during the bland film. A direct relationship between number and amplitude of GSRs and MAACL scores was obtained.

The GSR indexes paralleled variations in the content of the stressor film. Results support the interpretation that cognitive factors are important in understanding mechanisms of psychological stress. (17 ref.)—*Journal abstract*

6353. Khan, Mohammed N. (Louisiana State U., Agricultural & Mechanical Coll.) **Physiological response of caged White Leghorn layers to changes in thermal environment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4957-4958.

6354. Krabenbuhl, Gary S. (U. Hawaii) **Stress reactivity in tennis players.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 42-46.—Determined stress reactivity for each of 6 male college tennis players through catecholamine excretion analyses in 4 levels of activity. These levels consisted of basal, practice, competition anticipation, and competition situations. These situations were selected because they represent conditions during which the physical and psychic components should vary. Results indicate that significant measurable differences in stress reactivity exist between the 4 levels in the following directional comparison: competition > basal, competition > practice, and competition > precompetition anticipation. An analysis of the role played by the different components of the sport stressor is presented in a discussion of the results.—*Journal abstract.*

6355. Medina, Miguel A. & Merritt, James H. (U.S. Air Force School of Aerospace Medicine, Biosciences Div., Brooks Air Force Base, Tex.) **Drug metabolism and pharmacologic action in mice exposed to reduced barometric pressure.** *Biochemical Pharmacology*, 1970(Oct), Vol. 19(10), 2812-2816.—Reports the effects of reduced barometric pressure on in vitro metabolism of hexobarbital (125 mg/kg), zoxazolamine (90 mg/kg) and pentobarbital (40 mg/kg) in male C-57 black mice. Groups of 12-25 Ss were placed in wire cages in altitude chambers having a pressure equal to 18,000 ft. for 5 days after which they were returned to an environment of normal pressure. Animals were injected with drugs dissolved in normal saline solution with the exception of zoxazolamine. Food and water were permitted as desired throughout the experiment. Drug metabolism in vitro was measured using the Kato and Gillette method. Student's t test was used to assess the statistical significance of the results. Results show that exposure to simulated altitudes of 18,000 ft. result in decreased action and metabolism of hexobarbital and zoxazolamine but not of pentobarbital. (29 ref.)—*B. A. Stanton*

6356. Schoener, Eugene P. (Rutgers State U.) **Influence of hyperthermia and altered carbon dioxide tension on the response of the slowly adapting pulmonary stretch receptor.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4961.

6357. Smith, R. J. (U. Saskatchewan, Saskatoon, Canada) **Control of prespawning behaviour of sunfish (*Lepomis gibbosus* and *Lepomis megalotis*): II. Environmental factors.** *Animal Behaviour*, 1970(Aug), Vol. 18(3), 575-587. Both species showed high levels of aggression in 25°C under short (8-hr light, 16-hr dark) and long (16-hr light, 8-hr dark) photoperiod. Lower and water temperature (11-13°C) inhibited aggression and nesting. A long photoperiod induced nesting by both species in 25°C but only by longears in cold water. A short photoperiod inhibited nesting in both species. Injection of human chorionic gonadotrophin induced nest digging in both species under short photoperiod in

25° C but not in 11-13° C water and had no effect on aggression. Both species dug nests more readily in visual isolation. Androgen secretion, as assayed by nest digging is controlled by photoperiod. Level of aggression depends on water temperature. (28 ref.)—*Journal summary*.

GENETICS

6358. De Laender, Jan. (U. Louvain, Research Center for Psychoanalysis, Belgium) **Sigmund Freud and the belief in the inheritance of acquired characters: II. The role played by Lamarckism in the work of Freud.** *Psychologica Belgica*, 1970, Vol. 10(2), 125-139.—Examines the relationship between Lamarckism and Freudian psychology. Contrary to Jones' view that Freud's links with Lamarckism are of purely contingent nature, Freud's belief in the inheritability of acquired characters can be explained logically and historically and is tied with application of his theory to cultural and historical problems. Emphasized are: (a) impossibility of transmission of totemism to later generations without inheritance of experience, (b) universal symbolism in dreams not traceable to individual experiences, and (c) the concept of inheritance of memory contents. Heredity is thus reduced to the deepest stratum of experience of living species and to the biological deposit of experience of previous generations. This view is at variance with contemporary genetics where hereditary material is characterized by its resistance to experience. (18 ref.)—*S. Slak*.

6359. Glass, David C. (Ed.) **Biology and behavior: Genetics.** New York, N.Y.: Rockefeller U. Press, 1968. vii, 260 p. \$7.50.—2nd in a series of 3 volumes reporting the biology and behavior conferences organized by the Russell Sage Foundation and Rockefeller University. Papers by various authors include discussions of (a) the relationship between genetics and intelligence; (b) behavior genetics research in infrahuman species and its relevance for understanding human social behavior; (c) the role of social competition in natural selection, with particular attention to population control; and (d) biogenetic theories of social structure and process, i.e., stratification, socialization, deviance, and social change.

6360. Hinkelmann, Klaus. (Virginia Polytechnic Inst.) **Estimation of heritability from experiments with inbred and related individuals.** *Biometrics*, 1971(Mar), Vol. 27(1), 183-190.—Assuming an arbitrary amount of inbreeding and certain types of relationships among individuals in the parent population, it is shown how for nested and diallel mating designs the genetic and environmental variance components can be estimated from the mean squares in the usual analyses of variance. The systems of equations are given explicitly for the case of equal numbers of offspring per mating. A method for dealing with unequal numbers of offspring is outlined. —*R. L. McCornack*.

PERSONALITY CORRELATES

6361. Beck, Anita C. (Purdue U.) **Chronological fluctuations of six premenstrual tension variables and their relation to traditional-modern sex role stereotypes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4980.

6362. Hawel, W. (Ruhr U. of Bochum, Inst. of Psychology, W. Germany) **Untersuchung zweier**

verschiedener Filmdarbietungen als psychologische Ursache für emotionalen Stress. [Investigation of two different film presentations as the psychological cause of emotional stress.] *Psychologie und Praxis*, 1970(Jul), Vol. 14(3), 125-133.—2 very different films (1 with murder, the other with scenic mood contents) were presented to a group of paid college students, viewed in 2 separate sessions on 2 different days of the wk. Ss judged their mood by the polarity profile developed by Hofstaetter in 1962. The 8 dimensions of the profile were correlated for the 2 sessions and then factor analyzed. 3 factors were isolated: predominantly mood and self-criticism, mood judgment of the 1st film session only, and dominated by the mood after the 2nd session. The 1st film was in black and white (murder), the 2nd in color (mood scenes). With relation to emotional stress, the 1st film had a strong, lasting, and depressing effect while the 2nd one showed a lighter, euphoric effect. No change in catecholamine urine content was noted for either experimental group.—*R. F. Wagner*.

6363. Porach, Lee B. (U. Virginia) **The relationship of masculine and female identification to dream scores, and to menstrual cycle reactions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4558.

NUTRITION & GASTROINTESTINAL PROCESSES

6364. Ehman, G. K., Albert, D. J., & Jamieson, J. L. (Selkirk Coll., Castlegar, British Columbia, Canada) **Injections into the duodenum and the induction of satiety in the rat.** *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 147-166.—Examined ways in which the intestine might participate in the induction of satiety, using direct intestinal injections to alter the contents of the duodenum and then observing the effect on subsequent food intake over a 2½-hr period. Ss were 24 male hooded rats, food-deprived for approximately 17 hr. The injection of either bulk or hypertonic solutions (NaCl or glucose) into the duodenum suppressed food intake. The injection of substantial amounts of food did not have an effect greater than that caused by equivalent amounts of nonnutritive bulk and the injection of acid material did not suppress eating more than basic material. These results suggest that bulk and osmotic pressure in the duodenum may initiate physiological changes which can ultimately participate in the regulation of meal size but that metabolites, duodenal hormones, and specific dynamic action do not. With the gastrointestinal system intact, the flow of material from the stomach to the intestine would be sufficiently slow that neither changes in duodenal bulk nor osmotic pressure would be involved in the regulation of meal size. When the stomach is partially removed or denervated, the rate of passage of food into the duodenum may increase enough so that osmotic and bulk signals originating in the duodenum would help to regulate meal size. (French summary) (33 ref.) *Journal summary*.

6365. Moura Ribeiro, Valeriana; Braga Montelli, T., Moura Ribeiro, Rubens, & Rolando, Edgar. (U. São Paulo, Medical Faculty of Ribeirão Preto, Brazil) **Alterações eletroencefalográficas relacionadas a deficiências nutritivas.** [Electroencephalographic changes related to nutritional deficiencies.] *Arquivos de Neuro-Psiquiatria*, 1970(Dec), Vol. 28(4), 357-361.—Reports EEG changes in a group of 20 children with nutritional disorders. Results suggest a significant difference in the EEG of Ss with undernutrition and

those with protein-caloric deficiency. These alterations correspond to the incidence of diffuse cerebral involvement and/or discharges of an epileptic focal activity. The relatively high incidence of focal discharges may be explained on the basis of a very low epileptiform threshold of the cerebral cortex in children with nutritional disease.—*English summary.*

6366. Schachter, Stanley. (Columbia U.) **Eat, eat.** *Psychology Today*, 1971(Apr), Vol. 4(11), 45-47, 78-79.—Reports of hunger coincide with physiological measures for normal-weight people, but not for the obese. A series of studies shows that the eating behavior of obese Ss is very dependent on external factors (taste, time of day, and quantity of food visible). The amounts of food eaten by normal-sized Ss were seldom influenced by such variables. Attempts to aid obese people to lose weight by altering their internal physiological symptoms of hunger are ineffective probably because obese people do not use internal cues to control eating.—*E. J. Pasavac.*

ANIMAL PSYCHOLOGY

6367. Drickamer, Lee C. (Michigan State U.) **Genetics, experience and strategy as factors in the food habits of *Peromyscus*: Use of olfaction.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5072.

6368. Ison, James R. & Hammond, Geoffrey R. (L. Rochester) **Modification of the startle reflex in the rat by changes in the auditory and visual environments.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 435-452.—Conducted 6 experiments with a total of 69 male Holtzman albino rats. The temporal functions relating inhibition and facilitation of the startle reaction, elicited by an intense auditory stimulus, to momentary and to prolonged acoustic and visual stimuli were studied. The extent of inhibition was positively related to the intensity of the stimulus in both modalities. The extent of facilitation was positively related to the intensity of the visual stimulus but nonmonotonically related to the intensity of the auditory stimulus, a relationship confirmed in a study of the effects of background noise level on startle behavior. Data are correlated with physiological processes which provide similar effects at the electrophysiological level. Some implications drawn for experiments on classical conditioning and habituation are discussed. (46 ref.)—*Journal abstract.*

6369. Weber, Joyce E. (Yeshiva U.) **Behavior of *Rana pipiens* in experimental terraria.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5683-5684.

COMPARATIVE PSYCHOLOGY

6370. Campbell, Byron A. & Church, Russell M. (Eds.) (Princeton U.) **Punishment and aversive behavior.** New York, N.Y.: Appleton-Century Crofts, 1969. ix, 597 p. \$10.50.—Presents papers by various authors delivered at a 1967 conference on punishment. Topics covered include (a) quantification of punishment, (b) suppressive effects of punishment, (c) the conditioned emotional response, (d) implications of Pavlovian conditioning and instrumental learning for punishment, (e) paradoxical effects of punishment, and (f) a summary of the discussion at the conference.

6371. Esser, Aristide H. (Ed.) (Letchworth Village,

Thiells, N.Y.) **Behavior and environment: The use of space by animals and men.** New York, N.Y.: Plenum, 1971. xvii, 411 p. \$17.50.

6372. Wagner, Mahlon W. (State University Coll. New York, Oswego) **Comparative rodent preferences for artificial sweeteners.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 483-490.—In a series of 4 experiments, 8 white-footed and 6 cactus mice, 4 deer mice, 12 male albino Holtzman and Sprague-Dawley rats, and 8 male Long-Evans hooded rats were exposed to saccharin, cyclamate, and mixtures of the 2 artificial sweeteners. All Ss preferred saccharin and/or drank the less concentrated of cyclamate choices. Possible reasons for these preferences and aversions are discussed including the reported off-taste and toxicity of cyclamates. (30 ref.)—*Journal abstract.*

NATURAL OBSERVATION

6373. Myers, Judith H. (Indiana U.) **Genetic, behavioral, and reproductive attributes of dispersing field voles, *Microtus pennsylvanicus* and *Microtus ochrogaster*.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5318.

6374. Ryder, John P. (U. Saskatchewan, Saskatoon, Canada) **Timing and spacing of nests and breeding biology of Ross' goose.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4517-4518.

EARLY EXPERIENCE

6375. Galef, Bennett G. (McMaster U., Hamilton, Ontario, Canada) **Social effects in the weaning of domestic rat pups.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 358-362.

—Conducted 3 experiments with 33 female hooded rats and their offspring. Results of previous experiments by B. Galef and M. Clark (see PA, Vol. 46:Issue 4) had indicated that adult members of a wild rat colony play a major role in determining the diet on which rat pups born to colony members 1st feed. The present experiments examined the nature of the interactions between adult and young rats which affect the initial food choices of the young. Results indicate that the interaction is not due to imitation of the adults by the young but rather to a tendency on the part of the young to approach areas in which the adults are located and begin feeding there.—*Journal abstract.*

6376. Galef, Bennett G. & Clark, Mertice M. (McMaster U., Hamilton, Ontario, Canada) **Social factors in the poison avoidance and feeding behavior of wild and domesticated rat pups.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 341-357.—Conducted 10 experiments with wild Norway rats, 1st generation laboratory-bred wild rats, hooded rats, and their respective litters. It was found that when a colony of adult wild rats learned to avoid 1 of 2 palatable diets as a result of that diet's previous association with poison, rat pups born to colony members did not eat any of the diet the adults were avoiding. The pups continued to avoid that diet following their removal to a new enclosure isolated from the adults. This finding is interpreted as resulting from a 3-stage process in which the pups 1st follow the adults to food, then learn cues associated with that food, and thereafter avoid alternative diets as a result of their neophobia. The phenomenon is discussed as an adap-

tation facilitating food location by weanling rats rather than as a primary poison-avoidance mechanism. (21 ref.)—*Journal abstract.*

6377. Gallup, Gordon G. & McClure, Michael K. (Tulane U.) **Preference for mirror-image stimulation in differentially reared rhesus monkeys.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 403-407.—Conducted 2 experiments with 10 captive-born surrogate-raised and 8 feral rhesus monkeys. When given a choice between viewing themselves in a mirror or looking at another monkey, feral Ss seemed to prefer viewing the conspecific. Surrogate-reared Ss spent appreciably more time viewing the mirror and interacted more with their reflection than with the conspecific. Results are interpreted in terms of the effects of early social isolation and the psychological properties of mirrors.—*Journal abstract.*

6378. Klopfer, Peter H. (Duke U.) **Imprinting: Determining its perceptual basis in ducklings.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 378-385.—Conducted 5 experiments examining the effect of S or model movement on the imprinting process. Imprinting tests with 450 Pekin ducklings established that subsequent changes in behavior require movement of both the S and the imprinting object. The cues by which the imprinting objects are subsequently discriminated depend on the solidity of the objects, different 2-dimensional representations being treated as equivalent. (16 ref.)—*Journal abstract.*

6379. Kovach, Joseph. (Menninger Foundation, Topeka, Kan.) **Interaction of innate and acquired: Color preferences and early exposure learning in chicks.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 386-398.—Presented identical flashing stimulus patterns of 4 different colors (blue, green, yellow, and red) in paired combinations to Rhode Island Red chicks. 180 Ss were dark-reared, 180 had experience with achromatic light, and 348 had controlled experience with colors. Results indicate significant differences in the development of color preferences in dark-reared and visually experienced Ss. Blue and red were preferred over green and yellow in the former, but only a prolonged perceptual exposure to blue and red resulted in the development of significant preferences (for blue and red) in the latter. Systematic exposure to the colors of highest and lowest naive preference (blue and green) at 3 stimulus intensity levels over 2 log units did not alter preference for blue after exposure to blue, nor the lack of preference for green after exposure to green. (16 ref.)—*Journal abstract.*

6380. Persinger, Michael A. (U. Manitoba) **Prenatal exposure to an ELF rotating magnetic field, ambulatory behavior, and lunar distance at birth: A correlation.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 435-438.—Continuously exposed 19 pregnant female rats, bred over a 1-yr period, to a .5-Hz, 3-30 gauss rotating magnetic field (RMF). A significant correlation of .877 between lunar distance at the time of birth and the number of squares traversed in an open-field situation 21-25 days after birth was found for the 19 litters. RMF-exposed litters that were born on or near lunar perigees traversed fewer squares in an open field than those born on or near apogees. RMF-exposed litters tested "blind" also showed the relationship between lunar distance at time of birth and later open-field activity. 12 control litters did not show a significant correlation (.101).—*Journal abstract.*

6381. Volckmann, Jean P. (Indiana U.) **The development of open field activity and plasma corticosterone elevation in rats handled during early infancy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5682.

INSTINCTS

6382. Hartman, G. F. (U. Guelph, Ontario, Canada) **Nest digging behavior of rainbow trout (*Salmo gairdneri*).** *Canadian Journal of Zoology*, 1970(Nov), Vol. 48(6), 1458-1462.—The rate of digging (digging bouts/10-min interval) and number of body flexures/dig were measured on a wild population of trout as they built their nests. Their behavior was nocturnal at first but became nearly steady throughout the day as spawning time approached. Rate of digging increased greatly immediately after spawning while the number of body flexures decreased sharply at this time. Contacting the bottom of the nest (external stimuli) and egg release (internal stimuli) are discussed as factors influencing nest building behavior.—*J. M. Roberts.*

6383. Koepke, Jean E. & Pribram, Karl H. (Simon Fraser U., Burnaby, British Columbia, Canada) **Effect of milk on the maintenance of sucking behavior in kittens from birth to six months.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 363-377.—Manipulated the amount of milk received for sucking in kittens from birth to 6 mo. by permitting 5 Ss, the milk-sucking group, to suck at a lactating cat, and 5, the dry-sucking group, to suck at a nonlactating cat which was anesthetized. All Ss were fed by using a stomach-loading technique. The dry-sucking group spent as much time sucking as the milk-sucking group during the 1st 3 wk. but sucked increasingly less thereafter, though they continued to suck some throughout the 6 mo. At no time did the dry-sucking group initiate sucking less often than the milk-sucking group, suggesting that the effect of milk was mainly in prolonging sucking episodes. Results suggest that neither the acquired drive nor the unlearned oral drive hypothesis is adequate to explain sucking. Observations regarding playing, sleeping, nuzzling, and nipple grasping are also reported.—*Journal abstract.*

6384. Shaffer, James H. (West Virginia U.) **Food-hoarding behavior of the Syrian hamster.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5039-5040.

6385. Yellin, Absalom M. (U. Delaware) **Circadian periodicity in the rhesus monkey (*Macaca mulatta*), under several conditions, both in isolation and in a group situation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5685.

MOTIVATION & EMOTION

6386. Aivazashvili, I. M. (Inst. of Physiology, Tbilisi, USSR) **Vliyanie razlichnykh emotsional'nykh vozdeistvii na otsrochennyye reaktsii sobaki.** [Effect of different emotional influences on delayed reactions in the dog.] *Sovremennyye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 3, 14-28.—3 dogs (2 highly excitable, 1 less excitable) were used to study the influence of positive and negative emotional excitation upon various periods of delayed reaction in the process of complex perception of food location. Strong positive natural emotional stimulation, applied

once at various times during the different periods of delay (1-2 min. teasing of the dog with food followed by feeding) and producing a complex picture of motor reactions (strong alimentary excitation) did not destroy its ability to execute delayed reactions. A natural negative emotional stimulation (threatening with a stick) during different periods of delay, eliciting in Ss either passive- or active-defense activity, did not produce a disturbance of delayed reactions. Either weak electrical stimulation (25 V), delivered to the S during the period of delay, also failed to disturb its ability to execute delayed responses. Electrical stimulation with an intensity of 40 V produced a short-term disturbance of general behavior in the case of delayed reactions. Delayed reactions in the S were easily suppressed and for a long time if in the customary experimental situation it was subjected to strong painful electrical excitation, causing in it the emotional reaction of "fear" expressed in avoidance of the experimental setting. (English summary) (19 ref.)—*J. D. London*.

6387. Ashton, Alan B. (U. Massachusetts) The effects of sequential fluid concentration shifts upon short term ingestive behavior in the rat. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5012.

6388. Goodrick, Charles L. (Baltimore City Hosp., Gerontology Research Center, Md.) Variables affecting free exploration responses of male and female Wistar rats as a function of age. *Developmental Psychology*, 1971(May), Vol. 4(3), 440-446.—Tested a total of 352 male and 352 female immature, adolescent, young mature, old mature, and senescent Wistar rats in 4 experiments to determine free exploration responses within an open field. Exploration responses were greater for immature and young mature Ss than adolescent, old mature, or senescent Ss. Females explored more than males of all ages. Variables of testing in the dark portion of the dark-light cycle, paired testing, and gentling prior to testing generally resulted in greater exploration responses of adolescent Ss, compared with controls, but had little effect upon exploration scores of old Ss, compared with low-scoring controls. During gentling, old mature and senescent Ss were more emotional than younger Ss, and senescent Ss did not reduce emotionality scores as did Ss in younger groups.—*Journal abstract*.

6389. Hulse, Stewart H. & Suter, Steve. (Johns Hopkins U.) Emitted and elicited behavior: An analysis of some learning mechanisms associated with fluid intake of rats. *Learning & Motivation*, 1970(Aug), Vol. 1(3), 304-315.—24 naive female Sprague-Dawley rats licked single drops of water. 3 groups licked either .004-, .012-, or .020-ml drops, while a 4th licked all 3 sizes in random order. Approach latencies to drops and the duration of licks and interlick intervals were measured. The response to a drop was typically a single burst of licks, lick rate decayed in time during the burst. For Ss exposed to single drop sizes bigger drops produced longer bursts of licks at a higher rate, and shorter approach latencies, than smaller drops. For Ss exposed to all 3 sizes, bursts varied in length the same way, but approach latencies were uniformly short. Data speak to the stereotypy of licking, to theories of reinforcement, e.g., those of K. W. Spence and F. D. Sheffield, and to the distinction between elicited and emitted behavior.—*Journal abstract*.

6390. Kurtz, Kenneth H. (State U. New York, Buffalo) Food deprivation and effort expended for food. *Learning & Motivation*, 1970(Aug), Vol. 1(3),

281-296.—Investigated in 4 experiments wheel turning by 12 male albino rats under several conditions of food deprivation. 2 procedures were compared: 1 in which force required to turn the wheel remained constant throughout a session and 1 in which required force increased progressively with each revolution of the wheel. Rate of wheel turning decreased as a linear function of force required. Increasing deprivation displaced the rate-force function upward without changing its slope. When body weight was reduced by gradual stages, performance reached a maximum at approximately 78% ad libitum weight and declined with further weight reduction. Results are interpreted in terms of a utility model in which the gains and costs associated with responding are increasing functions of response rate, and S selects the response rate for which net gain (utility) is greatest. In this context, deprivation is construed as modifying the value of food. (18 ref.)—*Journal abstract*.

6391. Mendelson, Joseph & Chillag, Dana. (Ruigers State U.) Tongue cooling: A new reward for thirsty rodents. *Science*, 1970(Dec), Vol. 170(3965), 1418-1420.—Thirsty rodents will persistently lick a stream of dry air pumped through a standard drinking tube. This air-licking is attenuated by experimental manipulations which reduce the evaporative cooling of the tongue and mouth produced by the airstream. This suggests that such cooling is itself an effective reward for thirsty rodents. This hypothesis was tested by presenting thirsty rodents with a piece of cold, dry metal. Initially, Ss were 2 male and 2 female rats, mice, guinea pigs, and hamsters (hamsters added later). Different species spent from 9-40% of their session time licking the cold metal. When deprived of water hamsters reared from birth without access to drinking water licked cold metal in preference to metal maintained at room or body temperature. This preference was approximately equal to that of littermates reared normally. It is concluded that tongue cooling is a primary reward for thirsty rodents. (15 ref.)—*Journal abstract*.

6392. Radford, Mary G. (George Peabody Coll. for Teachers) Age, sex, and shock level effects upon novelty seeking behavior in the rat. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4974-4975.

6393. Rohrbaugh, Michael J. (Kent State U.) Specific and nonspecific components of retention in infant and adult rats. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5037-5038.

6394. Slighter, Ralph G. (Sterling-Winthrop Research Inst., Rensselaer N.Y.) Alcohol selection and position selection in hamsters caged singly and in groups. *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 20-27.—Employed male and female 2-6 mo. old hamsters (*Mesocricetus auratus*) in 5 experiments. The normal position selection of grouped Ss is ascertained and the fact that both singly housed and grouped Ss would select 10% ethanol over water in the free-choice situations is demonstrated even when the dispenser was positioned on the cage opposite from their directional instinct. It also demonstrates that not all Ss select alcohol over water.—S. R. Diamond.

LEARNING

6395. Ardila, Ruben. (U. Nebraska) A parametric investigation of transposition. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5012.

6396. Baum, Morrie & Myran, David D. (Bishop's U., Lennoxville, Quebec, Canada) **Response prevention (flooding) in rats: The effects of restricting exploration during flooding and of massed vs distributed flooding.** *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 138-146.—Conducted 2 experiments with 33 and 60 female hooded rats to determine ways of decreasing or increasing the efficacy of response prevention (flooding). In Exp. I, Ss were trained to avoid electric shock and following learning some groups were given the response-prevention treatment. (Response prevention consisted of thwarting the avoidance response while forcing Ss to remain in the presence of the feared stimuli.) Mechanically confining the Ss during response prevention (interfering with the occurrence of spontaneous exploration and locomotion) decreased the efficacy of the treatment in leading to extinction of the avoidance response. In Exp. II, Ss were trained to avoid intense shock and then were given response prevention in either 1 single, long-duration session or in several shorter sessions distributed over days (massed vs. distributed flooding). Results indicate that distributed response prevention was more effective than massed response prevention. (French summary) —*Journal summary*.

6397. Beritashvili, I. S. & Alvazashvili, I. M. (Inst. of Physiology, Tbilisi, USSR) **O prodolzhitel'nosti kratkosrochnoi pamyati u sobak v raznykh usloviyakh opyta.** [On the duration of short-term memory in dogs under various experimental conditions.] *Sovremennye Problemy Deyatel'nosti i Stroeniya Tsentral'noi Nervnoi Sistemy*, 1968(Sep), Vol. 2, 29-44.—3 dogs were Ss in a study of short-term memory of the "visual perception of food" as a function of the conditions of its location. When food was shown 1-2 times daily in any new place in the experimental setting, then the maximum delay for the right reaction in the form of running to the location of food extended up to 2 hr. in most cases. When the S received food many times in the course of the experimental day in different places of the experimental room, then after showing food in 1 of these places, the duration of delay declined to 20-25 min. If the food was placed within the S's field of vision in several places in a given setting over a period of time, then the duration of delay for a correct reaction was considerably shorter: (a) in the case of food being placed in the S's field of vision at a distance of 4 m., the duration of delay was not more than 15 min., and (b) if the food was placed at a distance of 1.5 m., the duration of delay ranged within the limits of 5 min. A physiological explanation is offered for the origin of this difference in the duration of the delay of the alimentary-motor reaction—an explanation involving the competition and extinction of competing images of the location of the food. (English summary) (16 ref.)—*I. D. London*.

6398. D'Amato, M. R. & O'Neill, Ward. (Rutgers State U.) **Effect of delay-interval illumination on matching behavior in the capuchin monkey.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 327-333.—Demonstrated in Exp. I that delayed matching-to-sample in 3 adult male capuchin monkeys was superior when the delay interval was spent in darkness rather than in moderate illumination. In contrast with previous studies in which the delayed-matching ability of primates appeared limited to 60 sec. or less, in the dark condition all Ss showed above-chance matching at a 120-sec delay interval. Exp. II, with 2 adult

female *Cebus apella*, verified that darkness during the delay interval can facilitate delayed matching and provides evidence that the effective variable was the illumination level of the delay interval rather than change in illumination, which in Exp. I was confounded with illumination level.—*Journal abstract*.

6399. Davenport, Richard K. & Rogers, Charles M. (Georgia Inst. of Technology) **Intermodal equivalence of stimuli in apes.** *Science*, 1970(Apr), Vol. 168(3928), 279-280.—Reports an experiment designed to determine if apes possess the capacity to utilize visual cues to solve tactual problems. Ss were 3 chimpanzees and 2 orangutans, who were presented 3 objects, 1 of which could be seen (the sample) and the other 2 touched. Results indicate that Ss were able to discriminate between the 2 objects on the basis of tactile cues and select the 1 that matched the visually presented sample. Results demonstrate the presence in apes of a metamodal concept of stimulus equivalence which is based on a mediation process independent of verbal language.—*Journal abstract*.

6400. Davis, J. Michael. (Duke U.) **Testing for inhibitory stimulus control with S- superimposed on S+.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 365-369.—4 white Carneaux pigeons (2 naive and 2 experienced) learned a successive discrimination between a positive stimulus (red) correlated with a variable-interval 1-min reinforcement schedule and a negative stimulus (vertical line) correlated with either a variable-interval 5-min schedule or extinction. Transfer tests measured the rate of responding to the positive stimulus alone, to various orientations of the negative stimulus, and to the same line orientations superimposed on the positive stimulus. Although there were no gradients with minima at the training value for the negative stimulus dimension, the addition of the negative stimulus dimension to the positive stimulus always resulted in a lower response rate than that for the positive stimulus alone. Results demonstrate that an operational definition of inhibitory stimulus control that requires increased responding to stimuli more distant from a negative stimulus (along some dimension) is not always consistent with a definition that requires the suppression of responding in the presence of the positive stimulus, by the simultaneous presentation of the negative stimulus.—*Journal abstract*.

6401. Freeman, Betty J. (Southern Illinois U.) **Behavioral contrast: Reinforcement frequency or response suppression?** *Psychological Bulletin*, 1971(May), Vol. 75(5), 347-356.—Reviews recent studies dealing with behavioral contrast effects and notes 2 major interpretations of the phenomena: (a) the emotional consequences of response suppression, and (b) changes in reinforcement frequency. Special emphasis is placed on studies which have attempted to separate the effects of these 2 variables. The methodological problems inherent in any attempt to separate reinforcement frequency and response rate are discussed. (48 ref.) —*Journal abstract*.

6402. Greene, Richard L. & Jennings, Joseph W. (U. Montana) **Apparatuses for assessing maze learning in the isopod (*Porcellio scaber*).** *Journal of Biological Psychology*, 1970(Oct), Vol. 12(1), 37-40.—Tested differences between some typical maze cross sections and mazes to define an apparatus adequate for testing maze learning in isopods. Straight alley latency data of 40 Ss were recorded for square, semicircle, circle, and

triangle cross sections. Ss ran significantly faster in a square cross section alley and significantly slower in a triangular cross section alley, with circle and semicircle cross sections intermediate. Then escape responses of 30 Ss were recorded for T, Y, and cross mazes. Learning occurred in all apparatuses. The T and cross mazes produced significantly better performance than the Y maze.—*Journal abstract.*

6403. Jarrard, Leonard E. & Moise, Samuel L. (Carnegie-Mellon U.) **Short-term memory in the stump-tail macaque: Effect of physical restraint of behavior on performance.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 267-275. Investigated short-term memory in 1 female and 2 male stump-tail macaque (*M. speciosa*) by employing a delayed matching from sample task. The importance of hypothesized "incompatible" responses (grooming, moving around the testing compartment) during delay intervals was evaluated under conditions of free movement and physical restraint in a primate chair. Data on latencies of response following onset of sample and test stimuli were analyzed with analysis of variance. Percent correct responses at each delay indicate no significant differences between the 2 conditions. The resulting short-term memory curves are similar in form to those found in human experiments where interpolated activity prevents rehearsal during retention intervals.—*Journal summary.*

6404. Mackay, Harry A. & Brown, Stephen M. (Massachusetts General Hosp., Boston) **Teaching serial position sequences to monkeys with a delayed matching-to-sample procedure.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 335-345. Compared 2 methods for training monkeys to "observe" a 2-member serial position sequence by pressing 2 consecutively lighted keys and then to "report" the sequence by pressing the same 2 keys in the same order but without the lights. Ss were 4 rhesus monkeys. A fading technique involving gradual elimination of brightness cues from "reporting" keys was found more effective than a no-fading procedure in which the cues remained bright during training and then were suddenly removed. Ss that failed to learn to report a new sequence with the no-fading procedure sometimes developed behavior incompatible with that desired. They made repeated and specific errors that prematurely terminated trials of the sequence to be learned, even though the correct key was cued by a bright light. They behaved appropriately, however, on succeeding trials of other sequences. Thus, the errors were followed by trials on which reinforcement occurred. Manipulation of this contingency indicates its importance in maintaining the stereotyped error patterns. (20 ref.)—*Journal abstract.*

6405. Pryor, Karen. **Behavior modification: The porpoise caper.** *Psychology Today*, 1969(Dec), Vol. 3(7), 46-49, 64. Experiments with 2 porpoises indicated that the production of novel behavior can be reinforced. Sessions were held in which only novel behaviors were reinforced. Previously reinforced behaviors were ignored. Both porpoises learned that new behaviors were required and performed complex series of maneuvers which would have been difficult if not impossible to shape specifically. Spontaneity and creativity might be induced in many species using a similar procedure.—*E. J. Posavac.*

6406. Werboff, Jack & Lavery, J. Jeffrey. (U. Connecticut Health Center, Storrs) **Spatial and visual maze learning, and motivation in *Mus musculus* and**

***Peromyscus*. Perceptual & Motor Skills**, 1970(Apr), Vol. 30(2), 591-598.—Compared performance and learning of 3 groups of adult mice. *Mus musculus* (80 wild and 80 C57BL/6J) and 60 *Peromyscus maniculatus* Bairdii on 2 types of water maze (spatial or visual) under 4 levels of motivation (25, 35, 45, or 115 F water temperature). The wild *Mus* learned most rapidly, the *Peromyscus* being the slowest to learn. Extremes of water temperature and the spatial discrimination task facilitated performance and learning. *Journal abstract.*

Conditioning

6407. Frieman, Jeanne P., Frieman, Jerome; Wright, Wesley, & Hegberg, William. (Kansas State U.) **Developmental trends in the acquisition and extinction of conditioned suppression in rats.** *Developmental Psychology*, 1971(May), Vol. 4(3), 425-428.—Trained 18 infant and 18 adult male Sprague-Dawley albino rats to lick a drinking tube for water. Ss were then given conditioned suppression training (repeated stimulus-shock pairings) until a criterion of suppression was reached. Following this training, extinction of suppression was instituted by presenting the CS alone (no shock) while licking was still reinforced. Analysis of the number of trials to reach criterion did not show any age differences; however, adult Ss extinguished suppression to the CS more rapidly than infants. Results are considered in relation to how differential extinction between young and adult rats might explain age-related differences in stimulus generalization. (15 ref.)—*Journal abstract.*

6408. Galvan, Peter F. (U. Iowa) **Effects of the contingency between CS and US on Pavlovian fear conditioning.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5659-5660.

6409. Hill, Rachel T. (Indiana U.) **The effect of blackout duration on the amount of behavioral contrast in pigeons.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5663.

6410. Kremer, Edwin F. (Princeton U.) **Pavlovian conditioning and the truly random control procedure.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5029-5030.

6411. McHose, James H., Maxwell, Frederick R., & McHewitt, Earl R. (Southern Illinois U.) **Effects of nonreward in S+ and S- on performance in differential conditioning.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 282-284.—108 male albino Holtzman rats, distributed across 4 experiments, received differential conditioning training in a black-white runway discrimination apparatus. Results of the 1st 3 experiments show that greater depression of S+ speeds results from nonreward as compared with small reward in S-. Results of the 4th experiment, in which some Ss received occasional nonreward in S-, are compatible with an incentive-averaging equation developed to account for the effects of occasional small reward in S+.—*Journal abstract.*

6412. Morris, Scot A. (Southern Illinois U.) **A comparison of the classical and gradient methods of extinguishing a conditioned fear response.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5631-5632.

6413. Roberts, Albert E. (U. Tennessee) **Stimulus control over the conditioned suppression of an avoidance response.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5673.

Discrimination

6414. Beach, Frank A. (U. Hawaii) **Complex learning in the dolphin with auditory stimuli.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5013-5014.

6415. Daly, Helen B. (State University Coll. New York, Oswego) **Evidence for frustration during discrimination learning.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 205-215.—Assigned 120 male Sprague-Dawley rats to 8 groups receiving 30 or 60 runway trials of (a) discrimination training, (b) partial reinforcement, (c) continuous reinforcement, or (d) 0 reinforcement. Ss were then given hurdle jump training. Groups a, b, and c did not differ from each other in speed of hurdle jumping, and the number of runway acquisition trials did not influence hurdle-jump performance. All of these groups learned to jump the hurdle faster than Group d. A 2nd experiment with 128 male Holtzman rats demonstrated hurdle-jump acquisition after 24 or 96 discrimination learning trials and showed that groups given discrimination training to a large vs. small reward, rather than a large vs. no reward, also learned to jump the hurdle to escape from the stimuli paired with the small reward. Results provide evidence for A. Amsel's (see PA, Vol. 33:7687) frustration analysis of discrimination learning. (18 ref.)—*Journal abstract*.

6416. Galloway, William D. (U. Maryland) **Stimulus control in a two-choice discrimination procedure.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5020-5021.

6417. Grimm, Jeffrey A. (West Virginia U.) **Conditioning and extinction of a complex discrimination.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5023.

6418. Hearst, Eliot. (U. Missouri) **Contrast and stimulus generalization following prolonged discrimination training.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 355-363.—15 experimentally naive female white Carneaux pigeons in 4 groups received discrimination training in which the reinforcement-associated and extinction-associated stimuli were, respectively, either (a) a line tilt vs. a blank key, (b) a blank key vs. a line tilt, or (c) 2 different line tilts. The high response rates that developed to the positive stimulus in all groups during discrimination learning were maintained over 64 sessions of training. After these sessions, all Ss were tested for stimulus generalization along the line-tilt dimension. Gradients of relative (percent) generalization around the stimulus associated with reinforcement (so-called excitatory gradients) and around the stimulus associated with extinction (so-called inhibitory gradients) were as steep as they typically are after much briefer training periods. Results do not support several of H. S. Terrace's predictions on the basis of the hypothesis that emotional responses develop to the stimulus associated with extinction during discrimination learning with errors, but eventually dissipate after extended training. (15 ref.)—*Journal abstract*.

6419. Mandler, Jean M. (U. California, San Diego) **Two-choice discrimination learning using multiple stimuli.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 261-266.—In 2 experiments 16 and 24 male hooded rats, respectively, were trained in a Y maze on a 2-choice simultaneous visual discrimination task in which either a constant positive stimulus was used and the negative stimulus varied from trial to trial, or a constant negative

stimulus was used and the positive stimulus varied. In both experiments the constant S- multiple S+ discrimination was easier to learn than the constant S+ multiple S- discrimination.—*Journal abstract*.

6420. Morgan, M. J. & Firsirot, G. I. (McGill U., Montreal, Quebec, Canada) **A comparison between the reinforcing and discriminative functions of a stimulus.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 248-260.—After learning a discrimination based upon illumination change, 7 female hooded rats were exposed to an extinction schedule in which lever presses during the previously negative stimulus caused the previously positive stimulus to come on and vice versa. Response rates remained much higher in the presence of the positive stimulus than in the negative, arguing against J. A. Dinsmoor's suggestion that the reinforcing and the discriminative effects of a stimulus are quantitatively identical. It is suggested that Dinsmoor's own results arose because his measure of secondary reinforcement was strongly "contaminated" by direct discriminative effects of the stimulus. A computer simulation in a 2nd experiment is used to show that exact coincidence of discriminative and reinforcing effects in these circumstances is not so unlikely as Dinsmoor had supposed.—*Journal summary*.

6421. Riley, Donald A. & Leuin, Terry C. (U. California, Berkeley) **Stimulus-generalization gradients in chickens reared in monochromatic light and tested with a single wavelength value.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 399-402.—Reared 51 White Leghorn chickens in a monochromatic light of 589 nm. Ss were trained to peck at a key of the same wavelength. To eliminate negative afterimages, no intertrial blackouts were used in training. Following training, Ss were tested in extinction. 1 group was tested with all test stimuli (589 nm., 569 nm., and 550 nm.). 3 other groups were tested with only 1 stimulus: 1 group with each value. Peck rate declined as a function of remoteness in wavelength of the test stimulus from the training value regardless of whether Ss were tested with all values or only 1. It is concluded that the generalization gradient does not depend on prior training or differential experience on the hue dimension.—*Journal abstract*.

6422. Weiss, Stanley J. (American U.) **Discrimination training and stimulus compounding: Consideration of non-reinforcement and response differentiation consequences of S-.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 387-402.—In Exp. I, 4 adult naive male hooded rats were trained on a 2-component multiple schedule with tone and light each associated with different variable-interval schedules. Extinction in light-out no-tone, common to previous studies reporting additive summation to compounded discriminative stimuli, was omitted from training. In testing, the simultaneous presentation of tone and light controlled a response rate intermediate between that controlled by these stimuli presented singly. In Exp. II, Ss were trained on 3-ply multiple schedules. While tone and light were each associated with variable-interval schedules for both groups, light-out no-tone signaled extinction for 1 and differential-reinforcement-of-behavior-other-than-bar-pressing for the other. This permitted response reduction during light-out no-tone to be viewed independently of non-reinforcement. Responding of both groups showed summation to tone plus light in testing, with the effect

clearly larger for extinction-trained Ss. Results indicate that (a) discrimination training afforded by extinction has been integral to additive summation previously reported, (b) response differentiation and nonreinforcement consequences of extinction training contribute to the magnitude of summation, and (c) summation and peak shift might be functionally related phenomena. (19 ref.)—*Journal abstract.*

Avoidance & Escape

6423. Dyer, Robert S. (State U. New York, Buffalo) **Influences of guinea pig visual system upon two-way avoidance learning.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5657.

6424. Myers, Arlo K. (U. California, Riverside) **Escape conditioning followed by extinction with and without the aversive training stimulus.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 316-320.—48 female albino Holtzman rats received 2 hr. of operant wheel-turning training to escape either a weak shock or a loud white noise, followed by 1 hr. of extinction with either (a) continuous shock (or noise), or (b) no stimulus. Significantly more extinction responses occurred with the aversive stimulus present than with it absent. Control Ss "trained" with noncontingent stimulus changes showed no such effect in "extinction." Shock-trained and noise-trained Ss did not differ significantly in acquisition or extinction. Results parallel those of studies in which deprived Ss are trained with appetitive reinforcement, then extinguished with or without deprivation and without reinforcement.—*Journal abstract.*

Reinforcement

6425. Bauermeister, José J. (Florida State U.) **Positive reinforcement: Further tests of the Premack theory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5651.

6426. Kendall, Stephen B. (U. Western Ontario, London, Canada) **Reinforcement by stimuli associated with S-.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 367-374.—Trained 3 white carneau pigeons in a situation where they responded on a fixed ratio (FR) schedule in the presence of a yellow light. Following the completion of each FR the key was darkened for either 30 sec. or 2 min. (S- period). A peck to the dark key produced 1 of 2 colors: green if the 30-sec S- period was in effect, blue if the 2-min S- period was in effect. Ss responded to produce these stimuli but showed a rate decrease when the 2 colors were no longer correlated with the duration of S- 1 S had probably formed a superstitious chain during training and results from this S were equivocal.—*Journal abstract.*

6427. Mellgren, Roger L. (Indiana U.) **Positive contrast in the runway as a function of the number of preshift trials.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5669-5670.

6428. Riem, Kark F. (Marquette U.) **The effect of a secondary reinforcer (CS) on the longevity of *Brachydania rerio* (zebra fish).** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5037.

6429. Schick, Karl. (Harvard U.) **Operants.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 413-423. Discusses the definition of an operant

as a response class each of whose members possesses the property upon which reinforcement is contingent. It is suggested that this definition is not broad enough to cover the units that are supposed in Skinner's accounts of extinction, superstition, and transfer of learning. A broader definition is suggested. Properties defining operants are discussed.—*Journal abstract.*

6430. Senkowski, Peter C. (U. Iowa) **Temporal course of motivational after-effects of reward and nonreward.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5678-5679.

6431. Staddon, J. E. (Duke U.) **Temporal effects of reinforcement: A negative "frustration" effect.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 227-247.—Reinforcement omission in situations that show positive goal-gradients elevates subsequent responding (positive "frustration" effect). In this experiment with White Carneaux pigeons, a standard, single-key, operant conditioning apparatus was used. In a situation showing a negative goal-gradient, reinforcement omission depressed subsequent responding (negative "frustration" effect). A simple hypothesis in terms of discriminative aftereffects of reinforcement accounts for both effects. The same interpretation is adequate to describe frustration effects in runways and avoids problems faced by frustration theory. Further tests of the hypothesis are proposed. (47 ref.)—*Journal abstract.*

6432. Walker, William R. (U. Mississippi) **Secondary reinforcement as a function of neutral stimulus-primary reinforcer overlap.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5683.

6433. Waller, T. Gary. (U. Waterloo, Ontario, Canada) **Variable reward and choice behavior of rats.** *Learning & Motivation*, 1970(Aug), Vol. 1(3), 276-280. Varied reward conditions for a correct response for 3 (Total N = 51) of experimentally naive male albino Sprague-Dawley rats in a T maze. Groups 2-0 and 4-0 received 50% reward for correct responses with 2 and 4 pellets, respectively. Group 4-2 received 4 pellets for 50% of the correct responses and 2 pellets for the other 50%. Performance of Group 4-2 was predictable from performance of Groups 4-0 and 2-0. (18 ref.)—*Journal abstract.*

6434. Winokur, Stephen. (Texas Christian U.) **Skinner's theory of behavior: An examination of B. F. Skinner's contingencies of reinforcement: A theoretical analysis.** *Journal of the Experimental Analysis of Behavior*, 1971(Mar), Vol. 15(2), 253-259.—Analyzes Skinner's latest book, *Contingencies of Reinforcement* with respect to different schools of behavior theory (i.e. with J. B. Watson, behavioral genetics, etc.) in order to show the points of departure and individualism of Skinner's theory. Rule-governed behavior, and behavior in relation to genetics and perception are discussed. It is suggested that Skinner's systematic and consistent analysis of behavior may provide the basis for a 2nd behavioristic revolution.—P. Hertzberg.

Reinforcement Schedule

6435. Blue, Scot; Sherman, J. Gilmour, & Pierrel, Rosemary. (Rutgers State U.) **Differential responding as a function of auditory stimulus intensity without differential reinforcement.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 371-377.—Trained 2 groups of 4 male albino Sprague-

Dawley rats each to bar press on a variable-interval 2-min schedule. During training, either 3, 5, or 9 auditory stimuli of various intensities were randomly presented. A direct relationship between stimulus intensity and rate of responding was obtained, but it was more consistent in the group trained initially with 3 stimuli than for the group that started with 9 stimuli. Results are related to the concept of stimulus intensity dynamism and the necessary conditions for the acquisition of stimulus control.—*Journal abstract.*

6436. Catania, A. Charles. (New York U.) **Reinforcement schedules: The role of responses preceding the one that produces the reinforcer.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 271-287.—In a 2-key pigeon chamber, variable-interval reinforcement was scheduled for a specified number of pecks, emitted either on a single key or in a particular sequence on the 2 keys. Ss were 4 adult male white Carneaux pigeons. Although the distribution of pecks between the 2 keys was affected by whether pecks were required on 1 or both keys, the total pecks emitted was not; the change from a 1-key to a 2-key requirement simply moved some pecks from 1 key to the other. Thus, each peck preceding the 1 that produced the reinforcer contributed independently to the subsequent rate of responding; the contribution of a particular peck in the sequence was determined by the time between its emission and the delivery of the reinforcer (delay of reinforcement), and was identified by the proportion of pecks moved from 1 key to the other when the response requirement at that point in the sequence was moved from one key to the other. (33 ref.)—*Journal abstract.*

6437. D'Andrea, Thomas. (Haverford Coll.) **Avoidance of timeout from response-independent reinforcement.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 319-325.—Responses on a lever by 3 Sprague-Dawley male rats postponed scheduled time-outs, or periods during which the delivery of response-independent food was withheld. The effects of a number of experimental variables were examined and the conclusions drawn that (a) the functional relations describing free-operant avoidance of time-out from response-independent reinforcement are similar to those for avoidance of electric shock, and (b) both phenomena are sensitive to the same parametric manipulations. Results suggest that high frequency of food delivery in time-in maintains a higher rate of time-out avoidance than low frequency. The evidence argues against an interpretation in terms of adventitious food-reinforcement of the time-out avoidance response. The effects of scheduling time-outs independently of responding, and of omitting time-outs, confirm the view that time-outs can be aversive and may act as punishment for responding. (21 ref.)—*Journal abstract.*

6438. Jernstedt, G. C. (Dartmouth Coll.) **Joint effects of pattern of reinforcement, intertrial interval, and amount of reinforcement in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 421-429.—Observed the joint effects of patterns of reinforcement, large and small amounts of reinforcement, and massed and spaced trials on acquisition and both initial and terminal extinction. 96 male Sprague-Dawley albino rats served as Ss. Greater total numbers of nonreinforcements produced greater resistance to extinction, particularly early in extinction. Massed trials produced greater resistance to extinction than spaced trials, but only later in extinction. Large amounts of

reward resulted in more resistance to extinction than small amounts for partially reinforced Ss, but the opposite for continuously reinforced Ss. A 3-way interaction between pattern, amount, and ITI was not found. It is concluded that the main effects and interactions are best explained by a frustration mechanism. (18 ref.)—*Journal abstract.*

6439. Lee, Julia K. & Gollub, Lewis R. (Henry Ford Hosp., Detroit, Mich.) **Second-order schedules with fixed-ratio components: Variation of component size.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 303-310.—Reinforced key pecking by 2 adult male white Carneaux pigeons with food under 2nd-order schedules with fixed-ratio units. A constant total number of key pecks was required for reinforcement under each condition, but the size and, inversely, number of fixed-ratio components were varied. The total response requirement of 256 pecks was divided into fixed-ratio units of 128, 64, 32, 8, and 2 responses. A brief stimulus, which always preceded food reinforcement, was presented upon completion of each fixed-ratio unit. Under most conditions, the pattern of within-unit responding was typical of that under simple fixed-ratio schedules. Overall response rate was an inverted U-shaped function of component size. This relationship is consistent with previous determinations of rate as a function of fixed-ratio value for simple fixed-ratio schedules.—*Journal abstract.*

6440. McMillan, John C. (U. North Carolina, Chapel Hill) **Percentage reinforcement of fixed-ratio and variable-interval performances.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 297-302.—Replaced 20-70% of the reinforcements scheduled for pigeons' fixed-ratio 80 performances by a 4-sec timeout. Ss were 4 adult male white Carneaux pigeons. Pauses after reinforced ratios were unchanged at 80% reinforcement, but were lengthened at lower reinforcement percentages. Pauses after nonreinforced ratios were shorter than postreinforcement pauses. When 50% of the reinforcements arranged by a variable-interval 60-sec schedule were replaced by a 4-sec time-out, pauses after reinforcement omission increased. Both frustrative nonreward and reinforcement aftereffects notions can explain the fixed-ratio results; neither easily explains the variable-interval data. *Journal abstract.*

6441. Padilla, A. M. (State University Coll. New York, Potsdam) **Analysis of incentive and behavioral contrast in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 464-470.—Trained 10 male Holtzman albino rats to shuttle freely in 2 parallel runways. Ss were reinforced in both runways on 1 of 2 variable-interval (VI) schedules of reinforcement (VI 1.5 min. or VI 3.75 min.) and with 1 of 2 reward magnitudes (2 or 5 pellets). After performance had stabilized, the VI schedule in 1 of the runways was shifted to the other schedule. The contrasted condition continued for 8 sessions, after which the base-line schedule was reinstated for another 12 sessions. The magnitude of reinforcement was then contrasted. Response rate and 1 measure of latency following each of the shift phases showed contrast effects. A perceptual-motivational interpretation is offered to explain the findings.—*Journal abstract.*

6442. Pear, Joseph J. & Wilkie, Donald M. (U. Manitoba, Winnipeg, Canada) **Contrast and induction in rats on multiple schedules.** *Journal of the Ex-*

Experimental Analysis of Behavior, 1971(May), Vol. 15(3), 289-296. Trained 8 male Holtzman albino rats on a variable-interval schedule in the presence of a light (Phase I). Responding was then extinguished in the presence of darkness that alternated with the light (Phase II). Reinforcement was then introduced in the presence of darkness (Phase III). Several Ss were then returned to the condition of Phase II (Phase IV) and then to that of Phase III (Phase V). Most Ss' responses showed clear behavioral contrast in Phase II, i.e., an increase in responding in the presence of the light. When, for 3 Ss, Phase III was introduced early after the occurrence of positive contrast, either positive induction occurred (i.e., an increase in responding in the presence of the light, or there was little change. Negative contrast did not occur. It was shown that positive contrast dissipates over time, thus replicating a result previously obtained with pigeons and that the positive induction effect seems also to dissipate over time. The introduction of reinforcement in the presence of darkness (Phases III and V) after the dissipation of positive contrast seemed to have little consistent effect. (17 ref.)—*Journal abstract*.

6443. Sheldon, M. H. (U. Newcastle upon Tyne, England) Stimulus functions in some chained fixed-ratio schedules of reinforcement. *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 314-317. Compared behavior for 2 male pigeons in equivalent 2-link chained and tandem schedules in which 100 responses were required for food reinforcement but responses required in the 2 links of the chained schedule were varied over the values 2-98, 50-50, and 98-2. Initial pausing, response rate in each link, and the total time to complete each ratio were recorded. In chained components, initial-link pausing (for both Ss) and total time to complete the ratio (for 1 S) were generally shorter when the response requirement was 2-98 than when it was 50-50 or 98-2; for terminal-link pausing this relationship was reversed for both Ss. There were also systematic changes in behavior in tandem components, and in the relationship between behavior in chained and tandem components. Results are discussed in terms of conditioned reinforcement.—*Journal abstract*.

6444. Traupmann, Kenneth L., Wong, Paul T., & Amsel, Abram. (U. Texas) Durability of persistence as a function of number of partially reinforced trials. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 372-375. Gave 30 Holtzman male albino rats asymptotic CRF training. Ss were then given either 0 (PR-0), 4 (PR-4), or 32 (PR-32) partially reinforced (PRF) runway trials with multiple-pellet reward. While a partial reinforcement extinction effect (PREE) was shown in both the PR-32 and PR-4 groups, the effect was much greater in the former. Following asymptotic extinction training, all groups were subjected to CRF reacquisition and a 2nd extinction. The PREE reemerged in the extinction of the PR-32 but not of the PR-4 group. Results are compared with some earlier ones on partial delay of reward (PDR) and the comparison suggests an explanation in frustration-theoretic terms for durable persistence in the PRF case but not in the PDR case.—*Journal abstract*.

6445. Zimmerman, Donald W. (Carleton U., Ottawa, Ontario, Canada) Rate changes after unscheduled omission and presentation of reinforcement. *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 261-270. Studied changes in response rate similar to frustration effects in 4 Sprague-Dawley male

albino rats in a 2-lever situation. Responding on 1 lever on a fixed-interval schedule produced access to water for 5 sec. and an exteroceptive stimulus. In the presence of this stimulus, responding on another lever on a fixed-interval schedule produced access to water for 5 sec. and terminated the stimulus. Occasional omission of a previously scheduled reinforcer after responding on the 1st lever resulted consistently in increases in rate on the 2nd lever during the immediately succeeding interval. In another procedure occasional presentation of a previously unscheduled reinforcer after responding on the 1st lever resulted consistently in decreases in the rate of the 2nd lever during the immediately succeeding interval. Changes occurred after the 1st omissions or presentations and were about the same in magnitude as the procedure continued over several sessions. Typically, an increase or decrease in rate was maintained throughout an entire 100-sec interval. Changes in rate on the 2nd lever of approximately the same magnitude also occurred when rate on the 1st lever was near 0 under a schedule that differentially reinforced behavior other than lever pressing. (15 ref.)—*Journal abstract*.

Punishment & Extinction

6446. Holt, Gary L. (West Virginia U.) Function of extinction and correction procedures in the simultaneous matching-to-sample task. *Dissertation Abstracts International*, 1971(1 Feb), Vol. 31(8-B), 5025-5028.

6447. Koteskey, Ronald L., & Hendrix, M. Michael. (Ashbury Coll.) Increased resistance to extinction as a function of double and single alternation and of subsequent continuous reinforcement. *Journal of Experimental Psychology*, 1971(Jun), Vol. 88(3), 423-428. Proposes a stimulus sampling model to account for the increased resistance to extinction following partial reinforcement. 50 Holtzman albino male rats were divided into 5 groups: (a) double alternation, followed by single alternation, followed by CRF; (b) double alternation only; (c) single alternation, followed by CRF; (d) single alternation only; and (e) CRF only. Each group was given a total of 212 acquisition trials. Groups given double alternation showed greater resistance to extinction than those given single alternation, and the groups given CRF were more resistant to extinction than those continued on partial reinforcement. 5 out of 6 predictions made by the model were confirmed. Results are interpreted as generally supporting the model.—*Journal abstract*.

6448. Likely, David; Little, Lydia, & Mackintosh, N. J. (U. New Brunswick, Fredericton, Canada) Extinction as a function of magnitude and percentage of food or sucrose reward. *Canadian Journal of Psychology*, 1971(Apr), Vol. 25(2), 130-137. 64 male hooded rats and 8 groups were trained to run an alleyway and extinguished. For groups given food rewards, extinction performance was dependent on an interaction of the magnitude and percentage of reward in acquisition. Consistently reinforced Ss, large rewards led to slower running in extinction, but in partially reinforced Ss, large rewards led to faster running. With sucrose as the reward, however, large rewards (higher concentration) led to faster running in extinction irrespective of the schedule of reinforcement. These differences between food and sucrose are discussed in terms of frustration theory and sequential theory. The simplest interpretation, within the context of sequential theory, is to assume

that different concentrations of sucrose, although differing in their reinforcing effects, do not produce discriminably different aftereffects. (French summary) (21 ref.).—*Journal summary*.

6449. Sherman, William O. (U. Utah) **Effects of response elimination of omission and extinction with an added counter.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5040.

6450. Snow, Mark E. (U. Utah) **Comparison of discriminative and conditioned reinforcing properties of punishing and initially neutral stimuli.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5041.

SOCIAL & SEXUAL BEHAVIOR

6451. Ellis, Kenneth R. (U. Toronto) **An ethological study of *Tilapia h. macrocephala* in small groups.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5018.

6452. Elton, Robert H. (U. Utah) **Influences of multiple schedules upon social interactions between pigeons.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5602.

6453. Gallup, Gordon G. (Tulane U.) **It's done with mirrors: Chimps and self-concept.** *Psychology Today*, 1971(Mar), Vol. 4(10), 58-61.—"Most animals react as though mirror-images were other animals." Full-length mirrors were placed in the cages of 4 jungle-born chimpanzees for 8 hr/day. By the 3rd day social responses had nearly ceased and "the chimps began using the mirrors to inspect and manipulate their bodies and to make grotesque faces at themselves." Spots of paint placed on the faces and ears of these chimpanzees caused them to repeatedly touch the spots when before the mirror. Perhaps chimpanzees are able to possess a self-concept.—E. J. Posavac.

6454. Gerritz, Ellsworth K. (Columbia U.) **Social behavior of pairs of male rodents in the open-field and the effects of social isolation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4886.

6455. Hadley, Wayne F. (Oklahoma State U.) **Factors affecting aggressive behavior and social hierarchy in the longear sunfish, *Lepomis megalotis* (rafinesque).** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5074.

6456. Ingraham, Lary H. (U. Iowa) **The effects of social stimuli on the runway performance of domestic chicks.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5664-5665.

6457. Johnson, Michael S. (Rutgers State U.) **Social experience and stimulus familiarity as determinants of social attachment in hooded rats.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5027.

6458. Panov, Evgenii N. **Signalizatsiya i "yazyk" zhivotnykh: Evolyutsionnye i populyatsionnye aspekty povedeniya zhivotnykh.** [Signalization and "language" of animals: Evolutionary and population aspects of the behavior of animals.] Moscow, USSR: Znanie, 1970. 31 p. 6 K.

6459. Rieder, Corinne A. & Reynierse, James H. (U. Nebraska) **Effects of maintenance condition on aggression and marking behavior of the Mongolian gerbil (*Meriones unguiculatus*).** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 471-475.—Maintained 12 male and 12 female immature Mongolian gerbils in either sensory isolation from, or

sensory contact with, the opposite sex. After maturity, Ss were paired, and fighting, marking with a midventral sebaceous gland, and mock fighting were observed. Isolated Ss of both sexes fought more often and more quickly than contact Ss; contact males marked more than any other group, and contact females had more mock fights than any other group. An interesting ritualization of elimination was noted which may serve a signaling function.—*Journal abstract*.

SENSORY PROCESSES

6460. Baran, Daniel. (U. Michigan) **Responses of the male Mongolian gerbil to biological odors deposited in gerbil-inhabited areas.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4966.

6461. Fay, Richard R. (Princeton U.) **Hearing and frequency discrimination in the goldfish (*Carassius auratus*).** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5019.

6462. Gottlieb, Gilbert. (Dorothea Dix Hosp., Raleigh, N.C.) **Development of species identification in birds: An inquiry into the prenatal determinants of perception.** Chicago, Ill.: U. Chicago Press, 1971. xi, 176 p. \$7.50.

6463. Hölldobler, Bert. (U. Frankfurt, W. Germany) **Communication between ants and their guests.** *Scientific American*, 1971(Mar), Vol. 224(3), 86-93.—Many species of insects have developed a parasitic relationship with ants. Research is described indicating the nature of chemical and mechanical communication regulating adoption and feeding of *Atemeles pubicollis* and other myrmecophilous staphylinid beetles by host ants.—P. Tolin.

6464. Vestal, Bedford M. (Michigan State U.) **Development of visual acuity in two species of *Peromyscus* (Rodentia).** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5084-5085.

DEVELOPMENTAL PSYCHOLOGY

6465. Eisner, Donald A. (West Virginia U.) **A life span analysis of perceptual differentiation and fixity-mobility.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4968-4969.

6466. Grimwade, J. C., Walker, D. W., & Wood, C. (Monash U., Clayton, Victoria, Australia) **Sensory stimulation of the human fetus.** *Australian Journal of Mental Retardation*, 1970(Jun), Vol. 1(2), 63-64.—Experimental work in animals suggests that stimulation of fetal nervous pathways may relate to the development of the brain. The fetal environment is probably one of sensory deprivation. This was investigated experimentally by inserting a microphone into the uterus of several pregnant women. Specific sounds and levels were generated by placing a source of pure tone frequency on the abdominal wall. Sound loss was appreciable, and the fetus did not receive high frequency signals. Sound stimulation of the fetus did produce changes in the heart rate and muscular activity. The effect on the nervous system is not known.—C. L. Nicholson.

6467. Schumacher, Gary M. (Iowa State U.) **The development of encoding processes in memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5677.

6468. Wagoner, Omer L. (U. Michigan) **The relation**

between reading ability and Piaget's developmental stages as determined by WISC sub-test profiles. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3976-3977.

INFANCY

6469. Brockman, Lois M. & Ricciuti, Henry N. (U. North Dakota) **Severe protein-calorie malnutrition and cognitive development in infancy and early childhood.** *Developmental Psychology*, 1971(May), Vol. 4(3), 312-319.—Observed the effects of severe protein-calorie malnutrition during infancy on cognitive development. 20 protein-calorie deficient 11.8-43.5 mo. old children and 19 controls without a history of malnutrition were tested with 10 different sorting tasks. Following 12 wk. of further nutritional treatment the experimental Ss were retested. Analysis of the total test scores indicate that malnourished Ss performed significantly lower than controls, and the younger Ss (< 24 mo.) lower than the older (> 24 mo.) Ss. On retest, the malnourished Ss showed no significant increase in test scores. Test scores of experimental Ss were correlated negatively with all body measure percentages at admission, and positively with changes in body length and head circumference percentages between admission and 1st testing, length of time in nutritional treatment, and medical ratings of nutritional recovery. (15 ref.) *Journal abstract*.

6470. Eimas, Peter D., Siqueland, Einar R., Jusczyk, Peter, & Vigorito, James. (Brown U.) **Speech perception in infants.** *Science*, 1971(Jan), Vol. 171(3968), 303-306. Studied discrimination of synthetic speech sounds in 1- and 4-mo-old infants (32 male and female experimental Ss and 20 controls). The speech sounds varied along an acoustic dimension previously shown to cue phonemic distinctions among the voiced and voiceless stop consonants in adults. Discriminability was measured by an increase in CR rate to a 2nd speech sound after habituation to the 1st speech sound. Recovery from habituation was greater for a given acoustic difference when the 2 stimuli were from different adult phonemic categories than when they were from the same category. The discontinuity in discrimination at the region of the adult phonemic boundary was taken as evidence for categorical perception. —*Journal abstract*.

6471. Littenberg, Ronnie; Tulkin, Steven R., & Kagan, Jerome. (Harvard U.) **Cognitive components of separation anxiety.** *Developmental Psychology*, 1971(May), Vol. 4(3), 387-388.—Each of 24 11-mo-old infants watched his mother leave him from an exit in the home that was either normally or rarely used by the mother. The incidence of crying, staring, and crawling to the exit was greater when the mother left by the unfamiliar exit. Results suggest that cognitive components are a factor in the phenomenon of separation anxiety. —*Journal abstract*.

6472. O'Grady, Roberta S. (Orange County Medical Center, Calif.) **Feeding behavior in infants.** *American Journal of Nursing*, 1971(Apr), Vol. 71(4), 736-739.—Describes the infant's feeding behavior in 5 behavioral steps: prefeeding, approach, attachment, consummatory, and satiety. Nurses are 1st to see the infant's spontaneous and reflex behavior become shaped by the mother's behavior. These behaviors are cues to the kind of relationship which is developing between mother and

infant. How these cues can be utilized is discussed. A healthy pattern of feeding behavior in infancy is stimulated and nurtured by consistent predictable events in which the infant learns to associate hunger tension with pleasurable relief, to experience varieties of taste and texture, to attempt mastery of self-feeding skills, and to explore the properties of foods and eating utensils. It is concluded that the behaviors of a mother and child should be observed by child care workers in order "to encourage or promote healthy interactions."—S. R. Diamond.

6473. Rheingold, Harriet L., & Eckerman, Carol O. (U. North Carolina, Chapel Hill) **The infant separates himself from his mother.** *Science*, 1970(Apr), Vol. 168(3927), 78-83.—Discusses (a) the detachment of an infant from his mother in humans and in several primate species, (b) the psychological and biological consequences of this detachment, and (c) the relationship of this behavior to current principles of behavior theory. 2 studies involving human infants and children are reviewed to show that this behavior lends itself to experimental analysis. Exp. I was conducted in a seminaturalistic setting and involved 48 1-5 yr. old children. Exp. II was conducted in a laboratory with 24 10-mo-old infants. It is concluded that detachment (a) increases opportunities for learning on the part of the infant, (b) can be readily experimentally manipulated, and (c) lends itself to comparisons between species. (28 ref.)—P. McMillan.

6474. Salk, Lee. (Cornell Medical Center, New York Hosp., New York, N.Y.) **The critical nature of the post-partum period in the human for the establishment of the mother-infant bond: A controlled study.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 110-116. Examined the question of whether postpartum separation of mother from her newborn infant has any effect on mother's response to her infant, noting that from general observations, it seems natural for mothers with normal infants to hold them on their left side. 115 mothers who had experienced long postpartum separation and 286 mothers who did not were compared as to how they held their infants and questioned by an E. Results suggest that prolonged postpartum separation (at least 24 hr.) alters the mother-infant response, suggesting that the time immediately postpartum is critical for releasing a certain maternal response stimulated by holding the infant. This reaction was also noted in Ss who had other children. There also seemed to be as much alteration in maternal response following short as well as long periods of separation. (28 ref.)—P. Hertzberg.

CHILDHOOD

6475. Chase, H. Peter & Martin, Harold P. (U. Colorado, Medical School, Denver) **Undernutrition and child development.** *New England Journal of Medicine*, 1970(Apr), Vol. 282(17), 933-939.—Compared 19 children who had been hospitalized with undernutrition in the 1st yr. of life with a control group 3-4 yr. later. The test group was found to be lower in height, weight, head circumference, and developmental quotient. Impairment of physical and mental development appeared to correlate with the duration of undernutrition in the 1st yr. of life. 9 children admitted to the hospital with undernutrition but treated in the 1st 4 mo. of life now have a mean developmental quotient of 95, which is

similar to the mean of 99 for the control children. In 10 with undernutrition after 4 mo. of age low indexes for height, weight, and head circumference were more frequent, and the mean developmental quotient was 70. Social factors associated with undernutrition included paternal separation, alcohol-related problems, inadequate money, and many young siblings. (23 ref.)—*Journal abstract.*

6476. Frost, Jose L. & Hawkes, Glenn R. (Eds.) (U. Texas) **The disadvantaged child: Issues and innovations.** (2nd ed.) Boston, Mass.: Houghton Mifflin, 1970. xvii, 499 p. \$5.95(paper).

6477. Gordon, Thomas J. (Boston Coll.) **Environmental correlates of certain conceptual and social developments in preschool children.** *Dissertation Abstracts International* 1971(Feb), Vol. 31(8-B), 4993-4994.

6478. Harrison, Algea O. (U. Michigan) **The relationship between cognitive style and the development of selective attention.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3955.

6479. Karr, Sharon K. (Southern Illinois U.) **Differences in psycholinguistic abilities and intellectual maturity among Sierra Leonean children from four cultural systems of varying degrees of modernization.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3958-3959.

6480. Loewenstein, Sophie F. (Brandeis U., Florence Heller Graduate School for Advanced Studies in Social Welfare) **An observational study of mothers and their children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4971-4972.

6481. McGee, James P. (Catholic U. of America) **Verbalized predictions of performance in culturally advantaged and disadvantaged children under conditions of accurate and inaccurate verbal feedback.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4973.

6482. Palmer, Edward L. (Ohio U.) **Color preference as a distinct forerunner of color prejudice in the young child.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4265-4266.

6483. Schubring, M. (Humboldt U., Berlin, E. Germany) **Zur Konditionalanalyse des kindlichen Entscheidungsverhaltens.** [Conditional analysis of decision behavior during childhood.] *Zeitschrift für Psychologie*, 1970, Vol. 177(3-4), 250-285.—Extending the research work of H. D. Schmidt concerning the behavior of children in decisive situations, child behavior is examined, depending on cognitive variables. 47 3-6 yr. olds and 49 4-8 yr. olds, about evenly divided between boys and girls, were examined. Below average, average, and above average IQs were used in order to determine the decision genetics in their dependence on cognitive conditions. Experiments were made in change-dependent situations, and little rewards, e.g., chocolate, marbles, were offered. A succession of decision strategies over the probability aspect (understood as "security") was found to be the tendency: behavior promising material gain was more strongly expressed than behavior promising security. The experiments indicate a correlation of the cognitive conditions in ontogenesis with the risk calculation covering a larger series of decisions. As the results of the experiments were not decisive, further differentiated examinations of the risk problem are recommended. (34 ref.)—*P. von Toal.*

6484. Wilkinson, Robert J. (U. Virginia) **An analysis**

of the relationship between psycholinguistic abilities and articulatory abilities of Negro and white first grade boys. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5695.

Learning

6485. Curry, Judith R. (U. Pittsburgh) **Effects of dimension preference on the learning of a matching-to-sample task and optional shift behavior in young children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5655-5656.

6486. Doan, Helen M. & Cooper, Deborah L. (York U., Downsview, Ontario, Canada) **Conditional discrimination learning in children: Two relevant factors.** *Child Development*, 1971(Mar), Vol. 42(1), 209-220.—40 5.3-6.2 yr. old children served as Ss in a conditional discrimination problem. 2 methods of stimulus presentation (random or alternative method) and 2 background conditions (red-blue or striated-black) were explored in a 2 x 2 factorial design. Generally, it was demonstrated that the type of stimulus background interacted with the method of presentation to determine both the difficulty of the problems and the strategy used to solve the problems.—*Journal abstract.*

6487. Enfield, Roger E. (U. Arizona) **Response variability and stereotypy as a function of reinforcement schedule.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4988-4989.

6488. Estrada, Elette S. (Florida State U.) **Production deficiency of nonverbal mediators in young rural black children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4543.

6489. Ghatala, Elizabeth S. (U. Wisconsin) **Encoding verbal units in memory: Changes in memory attributes as a function of age, instructions, and retention interval.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4544-4545.

6490. Górecka, Alicja K. **Badanie nad rozwojem bezpośredniej pamięci dzieci.** [Studies of the development of immediate memory in children.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 87-104.—Tested 300 3rd-8th grade children with 3 stories. Each story was followed by a list of questions concerning 40 details of story content. Relationships between scores, sex, grade, age, and education of parents were examined. Data indicate that (a) memory develops with age, (b) the greatest development of memory occurs in the 4th-6th grade, and (c) Ss with educated parents performed significantly better than Ss with less educated parents. No sex differences were noted. An explanation for the differences between the results of this study and others on memory is presented. (Russian summary)—*English summary.*

6491. Graham, David M. (U. Toronto, Ontario, Canada) **Acquisition of an instrumental response in young children under various conditions of reinforcement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5022-5023.

6492. Heider, Eleanor R. (Brown U.) **"Focal" color areas and the development of color names.** *Developmental Psychology*, 1971(May), Vol. 4(3), 447-455.—Tested a possible developmental basis for the universality of focal colors, those areas of the color space previously found to be the most exemplary of basic color names in many different languages. It was hypothesized that focal colors are more "salient" than nonfocal colors

for young children and are the areas to which color names initially become attached. In Exp. I, 24 3-yr-olds picked any color they wished from sets of focal and nonfocal colors to show to the E. In Exp. II, 20 4-yr-olds tried to pick colors that matched focal and nonfocal color samples. In Exp. III, 27 3-4 yr. olds chose colors to represent each basic color name from arrays containing focal and nonfocal examples of the color. Focal colors were (a) more frequently shown to the E, (b) more accurately matched, and (c) more frequently chosen to represent the color name than were nonfocal colors. Implications for the learning of semantic reference are discussed.—*Journal abstract.*

6493. Hill, Kennedy T. & Watts, Graeme H. (U. Illinois) **Young children's performance on a two-choice task as a function of social reinforcement, base-line preference, and response strategy.** *Developmental Psychology*, 1971(May), Vol. 4(3), 487-488.—Investigated methodological problems and analyzed response strategies (e.g., repetition and response shifting) in a 2-choice learning task used in studies of social reinforcement in children. 24 4-yr-olds were selected on the basis of the strength of their response preferences during a 25 trial base-line period. Ss were then assigned to a reinforcement condition which supplied social reinforcement or nonreinforcement for the less preferred choice. Strong preference Ss under social reinforcement showed a strong change towards the less preferred choice, while weak Ss showed little change. Response strategies did not change. Under nonreinforcement no changes were noted from the base-line period. It is concluded that the response tendencies and strategies were the primary determinants of preference under both conditions of reinforcement.—*S. Knapp.*

6494. Jensen, Larry C., Harris, Kenneth, & Anderson, D. Chris. (Brigham Young U.) **Retention following a change in ambient contextual stimulus for six age groups.** *Developmental Psychology*, 1971(May), Vol. 4(3), 394-399.—144 male and 144 female students attending Grades 2, 4, 6, 8, 10, and 12 serially learned a list of 8 nonsense syllables. All Ss were tested for retention after 24 hr. The ambient contextual stimuli were markedly altered during the recall session. $\frac{1}{2}$ the Ss recalled in the same room used during original learning and the others changed rooms. Data were analyzed with a 3-way analysis of variance and covariance. Results indicate that (a) older Ss learned more rapidly but did not recall better, (b) contextual change impaired retention across age levels, and (c) females were slightly superior to males in recall but not in acquisition. (23 ref.)—*Journal abstract.*

6495. Keogh, Barbara K. & MacMillan, Donald L. (U. California, Los Angeles) **Effects of motivational and presentation conditions on digit recall of children of differing socioeconomic, racial, and intelligence groups.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 27-38.—Investigated relationships between IQ, racial-socioeconomic status, and children's performance on digit recall tasks under 2 motivation conditions, intrinsic and extrinsic, and 3 presentation conditions, immediate recall, delayed recall, and repetition. IQ and method of presentation were significantly related to performance in digit recall. The triple interaction of Motivation \times IQ \times Presentation Condition was also significant. Repeated presentation of digits led to the best performance in all groups. Racial-socioeconomic status was not related to the presentation

condition. It is concluded that motivation should be considered when generalizing about learning aptitudes and abilities of children from varied intellectual, ethnic, or socioeconomic backgrounds.—*E. J. Mason.*

6496. Kossuth, Gina L., Carroll, Wayne R., & Rogers, Cecil A. (U. Arizona) **Free recall of words and objects.** *Developmental Psychology*, 1971(May), Vol. 4(3), 480.—Assessed free recall effects of spatial groupings of unrelated words and their object referents, 80 normal intelligence 6th graders, assigned to 4 groups served as Ss. $\frac{1}{2}$ the Ss were presented words and $\frac{1}{2}$ the object referents of the words. $\frac{1}{2}$ of each group then verbally labeled the materials while the other $\frac{1}{2}$ did not. "Findings suggest that spatial grouping may serve as a basis for organization of words and objects." Objects produced better clustering and recall than words, while labeling did not facilitate recall and clustering, probably due to interference in covert labeling and rehearsal strategies.—*S. Knapp.*

6497. Levin, Joel R., Rohwer, William D., & Cleary, T. Anne. (U. Wisconsin) **Individual differences in the learning of verbally and pictorially presented paired associates.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 11-26.—Investigated individual differences in recalling various types of presented materials in a mixed-list, paired-associate (PA) learning study. Within samples of children from different grades (kindergarten, 1st, and 3rd) and socioeconomic-racial groups, stimulus preferences were observed that could be accounted for by the presentation mode of the materials: verbal or pictorial. Furthermore, the administration of a parallel form of the PA task indicated that individual item-type preferences were relatively stable. Interpretive precautions and suggestions for future use are included. (23 ref.)—*Journal abstract.*

6498. Linn, Marcia F. (Stanford U.) **Effects of a training procedure on matrix performance and on transfer tasks.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3962.

6499. May, Richard B. & MacPherson, David F. (U. Victoria, British Columbia, Canada) **Size discrimination in children facilitated by changes in task difficulty.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 453-458.—Conducted 2 experiments with 138 5-9 yr. old primary school children on size discrimination. Groups of Ss given easy and then medium difficulty levels of the task subsequently performed better on a difficult level than Ss receiving all their training on the difficult discrimination. Groups given the same easy and medium discriminations in other orders performed better than either graduated easy-medium-hard or control groups. It is argued that number of stimulus changes in problem difficulty is a major factor influencing transfer along a continuum.—*Journal abstract.*

6500. Moely, Barbara E. & Shapiro, S. I. (U. Hawaii) **Free recall and clustering at four age levels: Effects of learning to learn and presentation method.** *Developmental Psychology*, 1971(May), Vol. 4(3), 490.—Tested 144 3-7 yr. old children on recall of 30 pairs of line drawings in experimental vs. control groups with block vs. random presentations. Age, list type, presentation method, and sessions were significant for recall and clustering. Recall increased with age and was consistently higher for the category blocked condition. Clustering increased with age with block presentation. Performance did not differ, however, for the block vs.

random control conditions indicating that presentation as such has little effect on overall clustering. Results indicate a learning to learn effect for recall and clustering, but since no interactions were found between sessions and list type, it is concluded that such effects are not dependent on conceptual relations.—S. Knapp.

6501. Venn, Jerry R. (U. Virginia) **The vicarious conditioning of emotional responses in nursery school children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4890.

Concepts & Language

6502. Allen, George S. (Washington State U.) **Children's egocentric speech during isolation and socialization.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4965.

6503. Baker, Eugene A. (U. Missouri) **Conservation and two related cognitive functions.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4965.

6504. Bass, Helen G. (Columbia U.) **The topological understandings of children in kindergarten, first, and second grades.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3946.

6505. Berzonsky, Michael D. (U. Toronto, Ontario, Canada) **Factors influencing children's causal reasoning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3946.

6506. Berzonsky, Michael D. (Edinboro State Coll.) **Interdependence of Inhelder and Piaget's model of logical thinking.** *Developmental Psychology*, 1971(May), Vol. 4(3), 469-476. Administered measures of physical causality, tests of hypothesized component abilities of causal reasoning, Piagetian concrete operational tasks, 2 of B. Inhelder and J. Piaget's problem-solving tasks, and an intelligence measure to 42 male and 42 female 1st graders. Results, analyzed by submitting the intercorrelation matrix of 30 variables to a maximum likelihood factor analysis with a varimax rotation, indicate 5 factors. The 1st factor, causal reasoning, included 2 verbal criteria of physical causality and 5 hypothesized component abilities. 2 of the other 4 factors were identified as problem solving and operational thought, on which 5 Piagetian tasks loaded. Results fail to support the unitary nature of logical thinking postulated by Inhelder and Piaget. It is suggested that at least 3 relatively independent abilities are involved. (24 ref.)—*Journal abstract*.

6507. Blank, Marion & Frank, Sheldon M. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Story recall in kindergarten children: Effect of method of presentation on psycholinguistic performance.** *Child Development*, 1971(Mar), Vol. 42(1), 299-312.—Devised a story-retelling task as a means of testing syntactic and semantic aspects of language performance in 34 kindergartners. 2 groups of Ss were matched for age, IQ, and ethnic background (Negro, Puerto Rican, and white Ss in each group). Syntactic recall was reduced in amount and varied in pattern from the commonly used single sentence imitation task. Several factors appeared to be responsible, including such variables as semantic content and "stress" (the need to retain large amounts of information). Linguistic performance, including both semantic and syntactic recall, was enhanced by varying the method of presentation so that S was required to play a more active role in the situation. In addition to the method of presentation, intelligence was found to

influence performance in that Ss with higher MAS showed significantly better recall. (16 ref.)—*Journal abstract*.

6508. Britton, James. (U. London, Inst. of Education, England) **Language and learning.** Coral Gables, Fla.: U. Miami Press, 1970. 296 p. \$6.95.

6509. Douglass, H. Jeff & Bourne, L. E. (U. Colorado, Inst. for the Study of Intellectual Behavior) **Chronological age and performance on problems with repeated presolution shifts.** *Developmental Psychology*, 1971(May), Vol. 4(3), 329-333.—Tested a dimension-selection theory of concept identification, following procedures used by T. Trabasso and G. Bower (see PA, Vol. 40:4732). 26 1st, 3rd, 5th, 7th grade, and college-aged males solved a single problem involving repeated reversal shifts, repeated dimensional shifts, a simple unidimensional concept, or a concept with 2 redundant relevant dimensions. Discrepancies between data (informed errors to solution) and theory changed with age, increasing to a maximum at Grades 3 and 5 and decreasing to a pattern reported by Trabasso and Bower for adults. It is concluded that dimension selection (or hypothesis testing) might depend on the prior acquisition of simpler skills (e.g., coding) which are unavailable to younger Ss.—*Journal abstract*.

6510. Esty, Edward T. (Harvard U.) **An investigation of children's concepts of certain aspects of topology.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3773.

6511. Fernald, Charles D. (Indiana U.) **An experimental investigation of young children's active and passive knowledge of grammar.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5658.

6512. Greenberg, Bonita R. (Purdue U.) **Sentence retention and syntactic complexity in children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4142-4143.

6513. Gururaja, Sreelakshmi. (U. Saskatchewan, Saskatoon, Canada) **The development of number concepts in children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5023.

6514. Haney, Joanne D. (West Virginia U.) **A comparison of socioeconomic status, verbal ability and grade level in the performance of Piagetian tasks.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3955.

6515. Harding, James. (U. Houston) **Organizer influence on children's responses to questions of physical causality.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3981.

6516. Hartigan, Robert R. (Central Michigan U.) **A temporal-spatial concept scale: A developmental study.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 221-223.—The Temporal-Spatial Concept Scale was administered to 2,383 9-18 yr. old schoolchildren in Grades 3-12 in 6 states. A good degree of stability and reliability was noted. Some sex differences were noted. There were no significant differences between a bilingual Mexican-American sample and a monolingual suburban sample for Grades 3-8. There was no significant difference between an inner-city sample and a suburban sample, nor between East Coast and Midwest suburban samples. Significant differences were found in some sets when an *t* test was run between variances.—E. J. Kronenberger.

6517. Hill, Warren H. (George Peabody Coll. for Teachers) **The effect of set theory instruction upon**

the ability of children to recognize conclusive and inconclusive inferences in sentential logic. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5024-5025.

6518. Kamps, Kenneth G. (U. Iowa) An investigation of portions of a model for acquisition of conservation and measurement of length based on performance of selected second grade children on six Piaget-type tasks. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4550.

6519. Krenzel, Ken. (Yeshiva U.) Development of equivalence of amount in the visual and haptic modalities. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4552.

6520. Lamb, Wesley A. (U. Arizona) A comparison of various techniques of training mothers as language-concept models for their children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4999-5000.

6521. Leler, Hazel O. (Stanford U.) Mother-child interaction and language performance in young disadvantaged Negro children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4971.

6522. Montemero, Melvin D. (Pennsylvania State U.) The effects of training and ability on conservation of number. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4555.

6523. Moore, J. William; Jones, J. Charles, & Goldschmidt, Joan. (Bucknell U.) The use of negative instances in the learning of grammatical concepts. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 26-29.—Investigated the use of negative instances in deductive concept learning and studied the effect of the type of negative instance used. 3 groups of 6th graders (N = 146) using different linear programs studied 9 grammatical concepts that were presented in a deductive or verbal explanatory way. Although no significant differences were found among the groups, suggestions for selecting and ordering material to enhance concept learning are made.—H. Kaczowski.

6524. Securo, Samuel. (West Virginia U.) Concept attainment of culturally advantaged and disadvantaged children utilizing artificial and life-like stimulus tasks. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3969-3970.

6525. Stokes, Charles A. (U. Michigan) Some effects of schooling, age, race and socio-economic status on the cognitive development of primary school boys. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3793.

6526. Tyszkowa, Maria. Analiza rozwiązywania trudnych zadań (problemów) przez dzieci szkolne. [An analysis of school children's solving of difficult problems.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 71-86.—Analyzed the psychological structure of activities connected with the solving of difficult mathematical problems by 9-13 yr. old schoolchildren. It was found that during the process of solving difficult problems the elements of orientation expanded. The attempts by the younger Ss to solve problems by trial and error is interpreted as a return to the initial orientation phase. The formation and internal evaluation of ideas on how to solve the problems was often prolonged, particularly in the older Ss. Control and evaluation activities were rarely noted. Older Ss exhibited a marked tendency to abandon attempts at solution of problems they could not solve, whereas younger Ss persevered with trial and error methods. (Russian summary)—English summary.

6527. Watt, Norman F. (U. Massachusetts) Developmental changes in semantic interpretation of ambiguous words. *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 332-339.—Administered homograph measures of vocabulary and semantic interpretation to 81 7th grade and 85 12th grade children to test for patterns of developmental change in language. Developmental progressions were found for enlargement of abstract vocabulary and reduction of biases toward primary (common) and concrete errors of interpretation in sentence contexts. Another experiment using the same measures found a loss of abstract vocabulary in aphasics and a trend toward excessive primary bias in schizophrenics. However, on all other measures of vocabulary and semantic interpretation the mental patients did not perform like the younger Ss in this experiment. Results do not support conceptions of linguistic regression in psychopathology.—Journal abstract.

6528. Williams, Benny J. (U. Tennessee) Effects of perceptual and linguistic encoding abilities on problem-solving methodology: Divergent or convergent. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5648.

6529. Williams, Robert. (Nativity Parish, Hollywood, Fla.) A theory of God-concept readiness: From the Piagetian theories of child artificialism and the origin of religious feeling in children. *Religious Education*, 1971(Jan), Vol. 66(1), 62-66. Piaget's stages of artificialism could serve as bases for developing a rationale for God-concept readiness and could provide criteria for introducing children to the God concept. In diffuse artificialism (to about 5-6 yr. of age) children believe nature to be under men's control and related to men's purposes, with parents regarded as all-powerful, all-knowing, divine. By the time the child is in the stage of mythological artificialism (5 or 6-7 yr. of age), he realizes the limits of human power and transfers it to God. During the period of technical artificialism (7-9 or 10 yr. of age) inquiry concerning the "how" of production leads to renunciation of belief in human omnipotence and to learning laws of reality (marked by decline in participation, artificialism, and animism). In the stage of immanent artificialism (from about 9-10 yr. of age on), the child no longer regards nature as made by men. If led to distinguish between physical and theological factors, he continues to interpret creation of the world in terms of integral artificialism, but attributes details of the phenomena to natural processes. A transitional age of 6 could serve as base from which the child might be socialized to the God concept. Relating God-concept readiness to number-concept readiness through a report of evidence, neither concept seems to be immediately enhanced by educational intervention.—S. E. Gavin.

6530. Yawkey, Thomas D. (U. Illinois, Urbana-Champaign) A test of Piaget's notions of conservation of number on tasks of inequality. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4566.

Abilities

6531. Berg, Norman L. & Berg, Sandra D. (Xavier U., Cincinnati, O.) Comparison of verbal intelligence of young children from low and middle socioeconomic status. *Psychological Reports*, 1971(Apr), Vol. 28(2), 559-562.—Hypothesized that young children from a middle-socioeconomic status school would score higher on a test of verbal intelligence than those from a low-socioeconomic status school. Results with 20 kinder-

garters from each of 2 schools on the Peabody Picture Vocabulary Test did not support the hypothesis. Data show racial differences in the verbal intelligence of Ss in a school undergoing racial integration. It is suggested that this finding deserves consideration in programs of rapidly integrating schools and neighborhoods.—*Journal abstract.*

6532. Browne, Dauna B. & Tiahrt, Helen G. (U. Northern Colorado) **An exploration of the usefulness of four descriptive clusters of subtest scores of the Wechsler Intelligence Scale for Children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4983.

6533. Darbyshire, M. & Scott, Phyllis M. (Monash U., Clayton, Victoria, Australia) **Some cultural factors related to cognitive functioning: I and II.** *Australian Journal of Mental Retardation*, 1970(Jun), Vol. 1(2), 40-45.—Attempts to highlight a few of the issues arising out of current theory and research relevant to the topic of cultural differences in cognitive functioning. Points discussed are: cognitive development, significant cross-cultural differences in cognitive functioning, subcultural and ethnic group differences in cognitive functioning, hypotheses advanced to account for the cross-cultural (and subcultural) differences in cognitive functioning, the antecedents of child practices, subcultural and ethnic group differences in cognitive functioning in Australian society, and intervention efforts to change/improve the course of cognitive development. Also, discussed is the development of cognitive functioning in aboriginal children.—C. L. Nicholson.

6534. Darun, Annie. (Inst. for Clinical Psychology, Copenhagen, Denmark) **WPPSI.** [WPPSI.] *Skolepsykologi*, 1970, Vol. 7(1), 49-52.—Describes the preliminary Danish version of the Wechsler Preschool and Primary Scale of Intelligence.—P. Mylov.

6535. Greenberger, Ellen; O'Connor, Jeanne, & Sørensen, Annemette. (Johns Hopkins U., Center for Study of Social Organization of Schools) **Personality, cognitive, and academic correlates of problem-solving flexibility.** *Developmental Psychology*, 1971(May), Vol. 4(3), 416-424.—Tested a sample of 113 middle-class children in Grades 1-3 with questions resembling J. Guilford's "consequences" procedure. An hypothesis linking problem-solving flexibility with alertness to and interest in the environment was generally supported, more strongly for boys than for girls. Ss high in problem-solving flexibility had better recall for novel information and were rated higher in curiosity by their teachers. Boys who were high in problem-solving flexibility showed a patriarchal pattern of intrusive, active, assertive personality characteristics. The pattern for girls was somewhat more subdued, but still suggested responsiveness to novelty and diversity of experience. Problem-solving flexibility was associated (a) positively but weakly with IQ, (b) negligibly to test anxiety, and (c) positively with school achievement. (26 ref.)—*Journal abstract.*

6536. Henderson, Douglas B. & Greenwald, Anthony G. (Ohio State U.) **Two developmental tests of ideomotor theory.** *Developmental Psychology*, 1971(May), Vol. 4(3), 484-485.—Hypothesized that control over the performance of an action develops from association to an image of its own feedback, to generalization to high ideomotor-compatible stimuli, and finally to generalization to low ideomotor-compatible stimuli. 23 1st graders, 21 6th graders, and 20 undergraduates were tested in 2 tasks. Task 1 required rapid naming of digits presented (a) auditorily or (b) visually.

Task 2 required rapid naming of visually presented digits accompanied by an auditory stimulus of (c) same digit, (d) different digit, or (e) click. RTs for all ages were faster for a than b in Task 1, and slower for d than for c or e in Task 2. "The prediction of strongest effects for youngest Ss was confirmed by a significant Age Level \times Stimulus Condition interaction for each task, due chiefly to substantial enhancement of ideomotor effects for the 1st-grade age level."—S. Knapp.

6537. Hertzog, Margaret E. & Birch, Herbert G. (New York U., Medical School) **Longitudinal course of measured intelligence in preschool children of different social and ethnic backgrounds.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 416-426.—Examined the longitudinal course of measured intelligence (using the Stanford-Binet Intelligence Scale, Form L) in white middle-class and Puerto Rican working class children at 3 and 6 yr. of age. 60 Puerto Rican and 116 white Ss were examined at 3 yr., while 57 Puerto Rican and 110 of the white Ss were reexamined at 6 yr. of age. Findings suggest that stability in IQ over this time period was characteristic of both groups, with greater stability manifested by Puerto Rican than by middle-class Ss. No evidence for deterioration of IQ with age in the disadvantaged group was found. Data are considered in relation to problems of the stability of IQ and its utility in the assessment of the effects of compensatory education programs. (17 ref.)—*Journal abstract.*

6538. Klindová, Ľuba. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Niektoré psychologické problémy nadania vo svetle najnovších výskumov.** [Psychological problems with talented children in the light of latest research.] *Jednotná Škola*, 1970(Feb), Vol. 22(2), 145-158.—Considers the problem of talented children and briefly discusses theoretical approaches. An outline of the world literature is presented which deals with (a) the essence of talent as a psychological phenomenon, (b) the developmental characteristics of the talented, and (c) the influences of external events on talent. An ongoing research project studying the manifestations of talent in children during their preschool and 1st years of school is described. (Russian summary) *English summary.*

6539. Leithwood, Kenneth A. (Ontario Inst. for Studies in Education, Trent Valley Center, Peterborough, Canada) **Motor, cognitive, and affective relationships among advantaged preschool children.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 47-53.—Examined motor-cognitive and motor-affective relationships among 60 4-yr-old nursery school children advantaged intellectually and socioeconomically. Both simple and complex motor measures were correlated with 8 dimensions of intellectual functioning and a multidimensional scale of psychosocial adjustment. Several cognitive abilities were identified as having significant relations with motor ability. Also, twice as many significant correlations were found between intellectual measures and complex as compared with simple motor ability. Psychosocial adjustment appeared to be unrelated to either the cognitive or motor spheres. (18 ref.)—*Journal abstract.*

6540. Lurcat, Lilliane & Kostin, Irene. (Lab. of Genetic Psychology, Sorbonne, Paris, France) **Study of graphical abilities in children.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 615-630.—Administered the Lurcat Test of Graphical Abilities to 124 4-10 yr. old right-handed children. Age trends were determined for the ability to reproduce the correct form of a curve, i.e., a

cycloid or a spiral, when given (a) visual information alone, (b) both visual and kinesthetic information, and (c) kinesthetic information alone. Results for the right and left hands were determined separately. Age trends were examined, also, for the ability to reproduce the correct trajectory or orientation of these curves in the 3 above situations. Most of the development of these abilities in our sample seems to occur between 4 and 7 yr. of age. Reproducing cycloids with parallel rotations with both hands simultaneously while blindfolded seems to be related to laterality. In this situation, for 6 and 7 yr. olds, the large majority of right-handed children correctly reproduce the rotation of the cycloid only with the right hand. The rotation produced by the left hand was found to be symmetrical rather than parallel to that produced by the right hand.—*Journal abstract.*

6541. Middendorf, Lorna A. (Rutgers State U.) **Mothers as mediators of change in the perceptual and learning abilities of inner city kindergarten children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3966.

6542. Mittler, Peter. (U. Manchester, Hester Adrian Research Center, England) **The use of morphological rules by four year old children: An item analysis of the Auditory-Vocal Automatic subtest of the Illinois Test of Psycholinguistic Abilities.** *British Journal of Disorders of Communication*, 1970(Oct), Vol. 5(2), 99-109.—Administered the Auditory-Vocal Automatic test of the Illinois Test of Psycholinguistic Abilities to 80 normal 4-yr-old children. The performance of the British children corresponded closely to that of the United States standardization sample, but the scores were strongly influenced by social class. Detailed analysis of Ss' use of morphological rules indicated that simple plurals constituted no difficulty, but that only a small proportion could produce irregular plurals. About 2/3 could form regular verbal inflections, but only about 10% could form irregulars. Regular comparatives and superlatives were produced by 1/3 of the sample, but irregular forms were rarely correct. Results are discussed in the light of the test's logical and psycholinguistic assumptions.—*Journal summary.*

6543. Moyles, E. William & Wolins, Martin. (U. California, School of Public Health, Berkeley) **Group care and intellectual development.** *Developmental Psychology*, 1971(May), Vol. 4(3), 370-380.—Compared for cognitive development several hundred children in various group care programs with children reared at home. Raven's Progressive Matrices test was administered to groups of children in residence for 2 or more yr. in Israeli kibbutz youth groups and institutions, an Austrian children's village, and Polish and Yugoslav children's homes. When compared with age-mates living with natural families, the group-reared Ss did not show any of the developmental deficiencies usually attributed to "institutional" rearing. Similarly, there was no correlation between age of entry or length of stay in a group setting and test performance. (27 ref.)—*Journal abstract.*

6544. Sang, Barbara E. (Yeshiva U.) **Age changes in the identification of objects by naming.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5611-5612.

Perception

6545. Hammill, Donald D., Colarusso, Ronald P., &

Wiederholt, J. Lee. (Temple U.) **Diagnostic value of the Frostig Test: A factor analytic approach.** *Journal of Special Education*, 1970(Sum), Vol. 4(3), 279-282. —3 factor analyses were performed on the subtests of the Frostig DTVP using a random sample of kindergarten and 1st grade economically disadvantaged urban youngsters. Results indicate that the test measures 1 general visual perception factor, rather than the 5 postulated by Frostig. The single factor was found even when a group of children with visual perception problems were used as Ss.—*Journal abstract.*

6546. Kraynak, Audrey R. & Raskin, Larry M. (Purdue U.) **The influence of age and stimulus dimensionality on form perception by preschool children.** *Developmental Psychology*, 1971(May), Vol. 4(3), 389-393.—Investigated the influence of spatial dimensionality, age, and sex on form perception by young children, using a match-to-sample task. 64 nursery school children were divided into a younger and an older group, each composed of equal numbers of boys and girls. 1/2 the Ss in each age group were presented with 2-dimensional geometrical forms; the other Ss saw 3-dimensional forms. Older Ss in the 3-dimensional task made more correct responses than did all the other Ss. This finding is interpreted in terms of the superior information-processing ability of the older Ss.—*Journal abstract.*

6547. McAdoo, Harriette A. (U. Michigan) **Racial attitudes and self concepts of black preschool children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3963.

6548. McAdoo, John L. (U. Michigan) **An exploratory study of racial attitude change in black preschool children using differential treatments.** 1971(Feb), Vol. 31(8-A), 3963-3964.

6549. Nebelkopf, Edwin B. & Dreyer, Albert S. (Eastern Connecticut State Coll.) **Perceptual structuring: Cognitive style differences in the perception of ambiguous stimuli.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 635-639.—Investigated the relationship between analysis and structuring as stylistic modes of perceptual functioning. 37 66-75 mo. old boys were administered the Children's Embedded-Figures Test (CEFT) as a traditional measure of perceptual style. The Elkind Ambiguous Pictures Test (APT) was used to assess level of structuring under an unstructured search condition, a condition which was considered more conducive to a study of individual preferences in perceptual structuring. The strong correlation between scores on the CEFT and APT was interpreted as an indication of perceptual structuring as an additional attribute of the field-independent dimension of perceptual style.—*Journal abstract.*

6550. Ross, Sylvia B. (Columbia U.) **The young child's perception of the space on the horizontally-positioned page: A comparison of the effect of two-dimensional, three-dimensional and combined activities programs in the pre-kindergarten.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3968-3969.

6551. Smothergill, Daniel W. & Stanek, James. (Syracuse U.) **Preschoolers' remembrance of a touched, unseen hand.** *Developmental Psychology*, 1971(May), Vol. 4(3), 481.—Tested the spatial position hypothesis in a replication of J. P. McKinney's (see PA. Vol. 38:9937) study of spatial information processing in

children. 30 white, middle-class 4-yr-olds were assigned to 2 groups: Group I exactly replicating McKinney's study, and Group II run identically with the hand moved to the left after the target finger was touched. "Results indicate that McKinney's findings are reliable and that the spatial position hypothesis is incorrect."—S. Knapp.

Personality

6552. Amado, Georges. *L'affectivité de l'enfant: Conceptions psychologiques*. [Emotions of the child: Psychological conceptions.] Paris, France: Presses Universitaires de France, 1969. 317 p.

6553. Bates, Opal E. (Oregon State U.) *The correlation of children's perception of locus of control to originality in selected groups of sixth grade children*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3865.

6554. Beebe, Janis S. (U. Rochester) *Self-concept and internal-external control in children and adolescents*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4966-4967.

6555. Berman, Alan L. (American U.) *Social schemas: An investigation of age and socialization variables*. *Psychological Reports*, 1971(Apr), Vol. 28(2), 343-348. Administered the Felt Figure Replacement Technique (FFRT) to 160 normally adjusted white Catholic males in 3 distinct CA groups: 5.5-6.5, 9.5-10.5, and 15.5-16.5. It was hypothesized that the existence of common social schemas would vary with age and that the neutral-latency group (9.5-10.5) would produce different schematic reconstructions based on relative degrees of perceived maternal warmth. Chi-square analyses did not support the hypotheses. Results are interpreted as consistent with studies of perceptual accuracy and at odds with the use of the FFRT by groups of normal children. Contrasts are made with the positive findings of other researchers using deviant and/or mature normal Ss. (17 ref.)—*Journal abstract*.

6556. Butler, Alan C. (U. Maine) *Exploring the world of a healthy child*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4983-4984.

6557. Ciaccio, N. V. (Inst. for Juvenile Research, Chicago, Ill.) *A test of Erikson's theory of ego epigenesis*. *Developmental Psychology*, 1971(May), Vol. 4(3), 306-311. Tested the 2 basic postulates of E. Erikson's theory of ego epigenesis on a sample of 120 5-, 8-, and 11-yr-old boys. A projective instrument designed by R. Boyd (see PA, Vol. 39:4529), was administered to each group. The 1st postulate, ego stage progression with increasing age, found preliminary confirmation: Group I (5 yr. olds) was most concerned with Stages II (autonomy vs. shame and doubt) and III (initiative vs. guilt). Groups 2 and 3 showed peak interest in Stages III and IV (industry vs. inferiority issues), respectively. The 2nd postulate, that the ego develops as it meets the different crisis elements of the ego stages, was called into question. All 3 groups showed most conflict for the Stage II crisis. It is suggested that this may be the focal crisis of the 1st 5 ego stages. (16 ref.)—*Journal abstract*.

6558. Cohen, Robert J. (Boston U., School of Education) *The effects of environmental conditions upon sex typing characteristics*. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4454-4455.

6559. Eysenck, H. J., Easting, G., & Eysenck, S. B. (U. London, England) *Personality measurement in children: A dimensional approach*. *Journal of Special Education*, 1970(Sum), Vol. 4(3), 261-268.—A scale was constructed to measure the personality dimensions, P (psychoticism), E (extroversion), N (neuroticism) in addition to an L scale for the measurement of dissimulation (lying). These scales were applied to more than 3,000 7-15 yr. old Ss. Results indicate that boys scored much higher on P than did girls as well as being more extroverted and less emotional. In the L scale, the girls had higher scores. It is felt that these scales may be of value for identifying exceptional children for the purpose of further research and outlining special educational needs.—L. M. Glidden.

6560. Fay, Betty M. (U. California, Los Angeles) *The relationships of cognitive moral judgment, generosity, and empathic behavior in six- and eight-year-old children*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3951.

6561. Flammer, Donald P. (U. Massachusetts) *A dimensional investigation of self-other orientations of preschool age boys and girls*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4990.

6562. Koocher, Gerald P. (U. Missouri) *Swimming, competence, and personality change*. *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 275-278.—Hypothesized that increasing competence in one's environment leads to enhancement of self-esteem. Using pre- and posttest measures of the discrepancy between the ideal self and self-concept of 65 7-15 yr. old boys at a YMCA summer camp, it was found that success in learning to swim reduced the discrepancy significantly ($p < .05$). Ss who did not learn to swim, and controls who could already swim were matched to experimental Ss in age and socioeconomic status. These Ss did not experience significant changes in the ideal-self-self-concept discrepancies in either direction.—*Journal abstract*.

6563. Kuehe, James L. (State U. New York, Albany) *Comment on Berman's "Social schemas: An investigation of age and socialization variables"*. *Psychological Reports*, 1971(Apr), Vol. 28(2), 358.—Comments on the article by A. Berman (see PA, Vol. 46 Issue 4) and stresses the importance of eliminating "benchmarks" that may aid Ss in the reconstruction of stimulus displays. It is suggested that because of the difficulty in eliminating all extraneous cues, the replacement method should be reserved for studies of the effect of response sets on perceptual accuracy, and that the free-placement method be used to study population differences in schema operation.—*Author abstract*.

6564. Offendick, Thomas H. & Green, Gerald E. (Purdue U.) *Level of achievement and probability in children*. *Developmental Psychology*, 1971(May), Vol. 4(3), 486. Examined the relationship of need for achievement (n Ach) to performance on a 3-choice probability learning task in which 1 stimulus was partially reinforced and the other 2 were not. 27 upper middle-class 3rd graders were equally divided into high, medium, and low n Ach groups. The prediction that high n Ach Ss would chose the reinforcing stimulus less and make more patterned responses was confirmed. Each group differed significantly from the others, with the low group making the greater number of correct responses. The pattern of the low groups response was similar to

that which has been found in lower-class and retarded Ss.—*S. Knapp.*

6565. Pate, Robert H. & Nichols, William R. (U. Virginia) **A scoring guide for the Koppitz system of evaluating children's human figure drawings.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 55-56.—Describes a scoring sheet that can be used to evaluate a child's human figure drawing.—*H. Kaczowski.*

6566. Singer, David L. & Whiton, Mary B. (Teachers Coll., Columbia U.) **Ideational creativity and expressive aspects of human figure drawing in kindergarten-age children.** *Developmental Psychology*, 1971(May), Vol. 4(3), 366-369. Administered an M. Wallach and N. Kogan type measure of ideational creativity to 74 white kindergartners. Low ideational creativity was associated with absence of motion, facial expressiveness, and elaboration in human figure drawings of kindergarten-age children. Indexes of cognitive development and emotional disturbance derived from the figure drawings, as well as a measure of verbal IQ, were all independent of ideational creativity. Findings are interpreted in terms of a multifactor theory of the creative process: expressive freedom may be a generalized precondition for creative activity which is independent of the particular information processing and transformation operations involved. *Journal abstract.*

6567. Vroegh, Karen. (Inst. for Juvenile Research, Chicago, Ill.) **The relationship of birth order and sex of siblings to gender role identity.** *Developmental Psychology*, 1971(May), Vol. 4(3), 407-411.—Assessed the appropriateness of masculinity and femininity of 316 boys and 314 girls in preschool and in Grades 2-8 by teacher and peer ratings. Data for sex of siblings, including older siblings, of each S were recorded from school records. Data analyses indicate that neither sex of siblings nor sex of older siblings had any consistent effects upon gender identity. Possible reasons for the difference between these findings and those of earlier investigators who have reported relationships among the variables are discussed.—*Journal abstract.*

6568. White, William F. & Richmond, Bert O. (U. Georgia) **Perception of self and of peers by economically deprived black and advantaged white fifth graders.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 533-534.—Neither the concept of self nor the feelings about peers appeared to be different between 98 economically deprived black and 111 advantaged white 5th graders. Ss were administered the Self-Esteem Inventory and 12 bipolar adjectives of Osgood's semantic differential. Although the sample was small and the reading ability of some of the Ss was poor, both groups perceived the connotative meaning of "activity" as the primary characteristic of importance.—*Journal abstract.*

Social Behavior

6569. Ashear, Victor & Snortum, John R. (Claremont Graduate School, Calif.) **Eye contact in children as a function of age, sex, social and intellectual variables.** *Developmental Psychology*, 1971(May), Vol. 4(3), 479.—Tested generalizations in eye contact from adults to children and developmental changes in gaze duration. 90 preschool, kindergarten, 2nd, 5th, and 8th grade children were interviewed by a college female, who was "blind" concerning the experimental hypotheses. Recordings of interviewer's and Ss' speech patterns, records of the intervals during which the S met the interviewer's

constant gaze, and ratings of Ss on a scale of social and intellectual characteristics were analyzed. Results support the hypothesis of differential patterns of eye communication for boys and girls. There was significantly more eye contact for females while speaking but not while listening. Analysis of variance for Eye Contact \times Grade Level was significant for speaking, listening, and overall eye contact. Analysis of grade level differences indicated a significant peak in kindergarten and 2nd grades with a significant drop in the 5th grade.—*S. Knapp.*

6570. Biaggio, Angela & Rodrigues, Aroldo. (Moorhead State Coll.) **Behavioral compliance and devaluation of the forbidden object as a function of probability of detection and severity of threat.** *Developmental Psychology*, 1971(May), Vol. 4(3), 320-323. Hypothesized that (a) mild threats lead to higher behavioral compliance both under high and low probability of detection, whereas severe threats lead to high compliance only under high probability of detection; and (b) highest devaluation of the forbidden object occurs under low probability of detection and mild threat, lowest devaluation occurs under high probability of detection and severe threat, and intermediate devaluation occurs under the other 2 conditions. Results with 39 Brazilian 2nd graders were opposite to those predicted. Findings are discussed as a cross-cultural disconfirmation of hypotheses derived from cognitive dissonance theory. *Journal abstract.*

6571. Bryan, James H. (Northwestern U.) **How adults teach hypocrisy.** *Psychology Today*, 1969(Dec), Vol. 3(7), 50-52, 65. A series of experiments were conducted with children exposed to a consistent adult model (preached and practiced either charity or greed) or an inconsistent model (preached the opposite of what he practiced). Results indicate that children tend to behave in the manner which the adult adopts regardless of what the model says. Conversely, if the model preaches charity, the children are attracted to him no matter what he does. Apparently 9-yr-old children do not believe that behavior should be consistent with moral exhortations. The children also had some difficulty remembering how the inconsistent models did behave.—*E. J. Posavac.*

6572. Cavior, Norman. (U. Houston) **Physical attractiveness, perceived attitude similarity, and interpersonal attraction among fifth and eleventh grade boys and girls.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5617.

6573. Crawford, Priscilla T. (Ohio State U.) **The very young adult social behavior among preschoolaged children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4900.

6574. Dubanoski, Richard A. & Parton, David A. (U. Hawaii) **Effect of the presence of a human model on imitative behavior in children.** *Developmental Psychology*, 1971(May), Vol. 4(3), 463-468.—Investigated the effects of model presence on imitative behavior in 81 kindergarten and 1st grade girls and 90 preschool and 2nd grade boys and girls. In 2 main conditions, Ss either watched events performed by a model (model condition) or performed in the absence of a model (model absent condition). Although more imitation occurred in the model condition, considerable imitation was exhibited in the model absent condition. Results indicate that the presence of the model facilitates the performance of imitation and that in an experimental setting much imitation can be accounted for by mere observation of

those events which define the imitative responses.
—*Journal abstract.*

6575. Dubanoski, Richard A. & Parton, David A. (U. Hawaii) **Initiative aggression in children as a function of observing a human model.** *Developmental Psychology*, 1971(May), Vol. 4(3), 489.—Investigated (a) whether a model exhibiting aggressive responses facilitates the performance of aggressive imitative responses in Ss compared to observation alone, and (b) whether the facilitative effect of the model can be attributed to its disinhibitory function. 20 male and 20 female preschool children were assigned to 1 of 2 groups. Group 1 observed a 9-yr-old male model perform 6 different aggressive acts, and Group 2 observed the same events without the model. Group 1 showed significantly more aggressive responses than Group 2. The possible disinhibition effect of the model was examined and no support was found. It is suggested that the model facilitates the acquisition of aggressive imitative responses by eliciting closer attention or covert labeling of the events.—S. Knapp.

6576. Egsgaard, J. Børn, der isolerer sig. [Children who isolate themselves.] *Skolepsykologi*, 1970, Vol. 7(1), 41-48.—Describes normal development in contact. Such symptoms are shyness, anxiety for contact, selective mutism, and autism are discussed in relation to school-children.—P. Mylov.

6577. Emmerich, Walter; Goldman, Karla S., & Shore, Roy E. (Educational Testing Service, Princeton, N.J.) **Differentiation and development of social norms.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 323-353.—Conducted a cross-sectional study on shared beliefs on how the self should act toward others (norms) in 680 middle-class 8-17 yr. olds. Ss judged the normative import of statements differing in (a) behavioral content, (b) sources, and (c) objects. Behavioral contents were differentiated similarly at all ages, but age- and sex-role normative differentiations of sources and objects exhibited marked developmental trends, often generalizing across behavioral contents. During middle childhood, higher standards were expected in relationships with parents than with peers, irrespective of source, whereas during adolescence this differentiation was reversed for attributions to sources within the S's generation. Sex-role norms were strongly sex typed during middle childhood, a pattern that decreased during later childhood and adolescence. Related developmental shifts occurred in choices of identification models, indexed by convergences between norms held by the self and those attributed to other sources. Certain developmental trends were accelerated in brighter subgroups. Findings are related to theories of normative development, including analyses of social learning, cognitive complexity, and cognitive structure. (39 ref.)—*Journal abstract.*

6578. Haskett, Gary J. (U. North Carolina, Chapel Hill) **Modification of peer preferences of first-grade children.** *Developmental Psychology*, 1971(May), Vol. 4(3), 429-433.—Evaluated the effects of 6 kinds of social interaction on peer preference among 54 male and 52 female 1st graders. Social interaction varied in type of pairing (opposite or same sex) and extent of peer interaction (cooperation, spatial contiguity, or normal classroom control). Results of pretreatment peer rankings indicate that Ss preferred same-sex peers as friends. Preference-change scores, obtained by comparing pre- and posttreatment peer rankings, were analyzed

by analysis of covariance. Treatment and pairing-by-treatment effects were statistically reliable. Evaluation of adjusted preference-change scores indicate that cooperative interaction significantly increased preference for opposite-sex peers ($p < .01$), but not for same-sex peers. Spatial contiguity appeared to have no effect on peer preference. Results are discussed in terms of a predictability hypothesis, a deprivation-satiation effect, and a change in the discriminative properties of opposite-sex peers.—*Journal abstract.*

6579. Kaplan, Melissa G. (U. Illinois, Urbana-Champaign) **The effects of social reinforcement and sex of peer reinforcing agent on the performance of boys and girls as a function of pretraining experience.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5604-5605.

6580. Klein, Rosslyn S. (U. California, Los Angeles) **Some factors influencing empathy in six- and seven-year old children varying in ethnic background.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3960.

6581. Lipton, Marc B. (State U. New York, Buffalo) **Individual differences in the imitation of models.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5629.

6582. Mock, Ronald L. & Tuddenham, Read D. (Alameda County Child Development Service, Oakland, Calif.) **Race and conformity among children.** *Developmental Psychology*, 1971(May), Vol. 4(3), 349-365.—Examined the relationship between susceptibility to group pressure and the racial composition of small groups. Ss were 280 4th, 5th, and 6th graders, divided evenly by sex and by race. Ss in groups of 5 made perceptual judgments, using apparatus which in successive phases of the experimental run distorted to specified degrees the judgments allegedly coming from others in the group. The racial, but not the sexual, composition of the groups was systematically varied, as was the E's race. Negro Ss showed more conformity than whites, and girls more than boys. A white E induced more conformity than did a Negro E. Conformity among both Negroes and whites increased as the number of white Ss in the groups increased. (19 ref.)—*Journal abstract.*

6583. Peevers, Barbara H. (U. Nevada) **The development of the concept of a person.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4266.

6584. Rockwell, George J. (U. Minnesota) **Children's task performance as a function of friendship status, and independence or interdependence of means and goals.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5611.

6585. Rychlak, Joseph F. (Purdue U.) **Personality factors in self- and peer-evaluations of WISC performance intelligence among middle-class children.** *Journal of Special Education*, 1970(Sum), Vol. 4(3), 269-277.—112 middle-class children (60 boys, 52 girls) were given 4 subtests of the WISC Performance scale, then asked to evaluate their performances. Following this, all children selected one another on the basis of presumed competence on WISC-like tasks. Although prorated WISC IQ did not correlate extensively with personality, there were several correlations between S's tendency to overestimate his performance and personality patterns of dominance, individuality, social competency, and ego strength. The reputational images of Ss considered talented by their peers were not as clear-cut in personality trends as in intellectual trends. The

brightest children of the sample had personalities typified by weaker self-images and lower ego strengths than the 2nd-brightest children.—*Journal abstract.*

6586. Staffieri, J. Robert & Bassett, John E. (St. Elizabeth's Child Development Center, Portland, Me.) **Birth order and perception of facial expressions.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 606.—Investigated whether later-born children are more accurate than 1st borns in recognizing facial expression of mood. 228 10- and 11-yr-old children were presented 32 pictures in 4 sets of 8 showing different mood expression on adult and child male and female figures. Results indicate no significant differences in accuracy of recognition of expression between S groups.—*P. Hertzberg.*

6587. Weiner, Elliot A. (Purdue U.) **Comparison of direct and indirect reinforcement on performance of kindergarten children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5010.

6588. Womack, Milton O. (U. Houston) **Utilization of two nonverbal cues by children giving moral judgment responses.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3893.

Parent-Child & Family Relations

6589. Aldrich, C. Knight. (New Jersey Coll. of Medicine & Dentistry, Newark) **Theft: Expect a boy to steal and he won't disappoint you.** *Psychology Today*, 1971(Mar), Vol. 4(10), 66-69.—Clinical evidence suggests that the expectation that a person will misbehave is often accompanied by subtle cues prompting the supposedly feared behavior. At times the entire subculture may hold expectations of delinquent behavior. Since some parents also secretly wish they could act out their aggressive and sexual impulses, they reinforce the behavior they verbally castigate. In order to overcome the present hostility between the generations it is necessary to stop treating minor problems as if they will necessarily lead to serious antisocial acts and to replace current pessimism with optimism about the next generation.—*E. J. Posavac.*

6590. Besdine, Matthew. **Mrs. Oedipus has daughters, too.** *Psychology Today*, 1971(Mar), Vol. 4(10), 62-65.—Male and female geniuses often experience very intense mothering as infants and children. Extraordinary females often possess "an unresolved but inverted Oedipal problem in which she feels more like a boy than a girl and remains attached to the mother in a fusion of love and hate. She lusts for the mother." Tentatively, then, it seems that very intense mothering is "a necessary, though not sufficient, condition for both male and female geniuses to develop."—*E. J. Posavac.*

6591. Burger, Gary K. & Armentrout, James A. (St. Louis U.) **A factor analysis of fifth and sixth graders' reports of parental child-rearing behavior.** *Developmental Psychology*, 1971(May), Vol. 4(3), 483.—Extended results of prior factor analyses of the responses of 7th and 8th graders and young adults to the Child's Report of Parental Behavior Inventory to 5th and 6th graders. Ss were 64 male and 83 female 5th graders and 54 male and 59 female 6th graders from a middle-class metropolitan suburb. Previous analyses had found 3 orthogonal dimensions: acceptance vs. rejection, psychological autonomy vs. psychological control, and firm vs. lax control. Results were similar for both grade levels. Correspondence analysis indicated high similarity be-

tween children of both sexes and sex of parent. Results replicate previous findings and extend the range of the inventory to a younger age group.—*S. Knapp.*

6592. Chandler, Frederick D. (U. Michigan) **A comparison of the effects of group discussion and of role playing with group discussion upon parental self-confidence.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3948.

6593. Corrigan, Eileen M. (Columbia U.) **Child rearing practices of unwed mothers.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4893.

6594. Ernhart, Claire B., Jordan, Thomas E., & Spaner, Steven D. (U. Missouri, St. Louis) **Maternal Quick Test (QT) scores in child development research.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 669-670.—Administered the Quick Test, a brief measure requiring recognition of vocabulary, to 503 mothers of mother-child pairs in a research program. Correlations with demographic variables, IQ of child, and an index of authoritarian attitude are presented to demonstrate its validity in such research.—*Journal abstract.*

6595. Forbes, Gordon B. & Dykstra, Dale. (Millikin U.) **Children's attribution of negative traits to authority figures as a function of family size and sex.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 363-366.—Measured attitudes toward authority in 105 male and 91 female 1st-4th grade students with a semiprojective test. It was found that boys had more negative attitudes toward authority than girls, and that boys from large families had more negative attitudes than males from small families. No relationship between attitudes toward authority and family size was found for girls. Findings suggest that the social learning experiences accompanying large family life produce more negative perceptions of authority.—*Journal abstract.*

6596. Heilbrun, Alfred B. (Emory U.) **Style of adaptation to perceived aversive maternal stimulation and selective attention to evaluative cues.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 340-344. Tested the hypothesis that given sustained exposure to aversive maternal control, the male child tends to adapt by 1 of 2 coping styles: (a) a closed style involving social avoidance and narrowed attention to evaluative cues, and (b) an open style embracing manipulative social approach and heightened attention to evaluative cues. 49 experimentally defined closed style and open style aversive-control male undergraduates were compared in their ability to recognize briefly exposed evaluative words. The closed style group correctly identified fewer words than the open style group as predicted. Incorrectly identified words reflected a tendency toward evaluative self-enhancement for both groups. Control comparisons revealed neither difference. Some promising relations between coping styles, breadth of attention to evaluative cues, and paranoid behavior are noted. (16 ref.)—*Journal abstract.*

6597. Henry, Jim G. (U. Kentucky) **Child-rearing practices in Mountain County, Kentucky.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3956.

6598. Hoffman, Martin L. (U. Michigan) **Father absence and conscience development.** *Developmental Psychology*, 1971(May), Vol. 4(3), 400-406.—Compared a father-absent and a father-present group, controlled for sex, IQ, and social class, on 7 moral attributes and overt aggression. Each group contained 25 male and 28 female 7th graders. Data were based on structured and semiprojective items and ratings by

parents, teachers, and peers. Father-absent boys (a) obtained lower scores for all the moral indexes—significantly lower for internal moral judgment, maximum guilt following transgressions, acceptance of blame, moral values, and rule conformity; and (b) were rated by teachers as significantly more aggressive than father-present boys. No differences between father absence and presence were obtained for girls. Evidence is presented that the effects of father absence on boys (a) are similar but somewhat more pronounced than the effects of nonidentification with a father who is present, (b) are partially attributable to the lack of a paternal model, and (c) may be partly mediated by the resulting changes in the mother's child-rearing practices. (23 ref.)—*Journal abstract*.

6599. Hurley, John R. & Hohn, Robert L. (Michigan State U.) Shifts in child-rearing attitudes linked with parenthood and occupation. *Developmental Psychology*, 1971(May), Vol. 4(3), 324-328.—Administered child-rearing attitude measures to 128 undergraduates. 6 yr. later, 75 Ss were contacted by mail and returned an abbreviated form of the same measures. General shifts toward increased manifest rejection and decreased overprotection occurred, but achievement pressure remained unchanged. Over this interval, producers of 3 or more children exceeded producers of less than 2 children in manifest rejection increments. Total child-rearing experience correlated positively with manifest rejection increments only among females. Males in person-oriented occupations increased less on manifest rejection but decreased more on overprotection than those in more impersonal occupations. These data and related findings suggest that high child production rates in the early postcollege years are accompanied by considerable maternal stress and a negative child-rearing stance. (16 ref.)—*Journal abstract*.

6600. Leifer, Aimée D. (Stanford U.) Effects of early, temporary mother-infant separation on later maternal behavior in humans. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5030-5031.

6601. Miller, Darwin. (Ball State U.) A study of the relationship of preschoolers' perceptions of parental attributes to behaviors exhibited in nursery school. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5608-5609.

6602. Osofsky, Joy D. (Cornell U.) The shaping of mother's behavior by children. *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 400-405.—Attempted to investigate some of the child effects upon parents in an experiment with 65 white middle-class mothers, each of whom had at least 1 female child between the ages of 8 and 14. Utilizing a structured laboratory situation and an intervention approach, role playing children were trained to behave differently in each of 3 situations to determine possible effects upon the mothers. Differences in mothers' reinforcing behavior and teaching style were noted in response to the children's changing behaviors. Findings support the notion that children's behavior has an effect upon parental responses.—*Journal abstract*.

6603. Tuck, Samuel. (Inst. for Juvenile Research, Chicago, Ill.) Working with black fathers. *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 465-472.—Describes a strategy used to mobilize black fathers (4 initially) to provide new experiences for their preschool children within the ghetto. A much larger-scale neighborhood involvement evolved that included the fathers engaging their wives in a neighborhood social

event and sponsoring a local business venture. A concerted drive for community control resulted. It is suggested that if an indirect rather than a direct approach is used to engage black fathers, many of them can be mobilized to provide the emotional and positive experience necessary for the development of their children. 7 operating principles are suggested.—*Journal abstract*.

ADOLESCENCE

6604. Alarcon, Reynaldo. (U. San Marcos, Lima, Peru) *Objetivos vitales en adolescentes de distinto nivel socioeconómico*. [Life goals in adolescents of different socioeconomic levels.] *Revista Latinoamericana de Psicología*, 1969, Vol. 1(1), 55-61.—191 adolescents from higher and lower socioeconomic classes in Lima, Peru, were administered Buhler and Coleman's Life Goals Inventory to test the hypothesis that economic and social status of the Ss' families would influence their selection of life goals. No significant differences were found between the 2 classes; all Ss showed a predominant tendency toward internal control and creative expansion as the most desired goals.—*English abstract*.

6605. Ballante, Hazelene W. (Florida State U.) Empathic ability among lower- and middle-class adolescents in relation to several social-psychological variables. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4884.

6606. Baltes, Paul B. & Wender, Karl. (West Virginia U.) Age differences in pleasantness of visual patterns of different variability in late childhood and adolescence. *Child Development*, 1971(Mar), Vol. 42(1), 47-55.—Investigated pleasantness of 2 kinds of visual patterns (random shaped polygons and random dot configurations) of 14 different levels of variability in 240 9-, 11-, 13-, and 15-yr-old male and female Ss, using a cross-sectional approach. A monotonically increasing function between degree of variability and verbally stated pleasantness was found for all age groups. In addition, a relatively weak but significant Age \times Variability interaction resulted with the older Ss rating low-variability random shapes as less pleasant. Results are interpreted in the framework of research relating stimulus complexity to exploratory behavior. Earlier data, suggesting an age-invariant preference for an intermediate level of variability, are interpreted as representing a methodological artifact primarily due to biased sampling of the stimulus domain. (17 ref.)—*Journal abstract*.

6607. Blos, Peter. (New York Psychoanalytic Inst., N.Y.) *The young adolescent: Clinical studies*. New York, N.Y.: Free Press, 1970. xxiii, 252 p. \$8.95.

6608. Campbell, Janet E. (U. North Carolina, Chapel Hill) *The influence of self and family perceptions on school children's health*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4807-4808.

6609. Coleman, John C. (London Hospital Medical Coll., England) *Independence in adolescence*. *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 7-10.—Contributed to the problem of the desire for independence among adolescents by utilizing projective rather than questionnaire material. In previous empirical studies of adolescence, less attention has been paid to the issue of independence. 20 13-17 yr. olds, referred to a psychologist by a child guidance center, were given the TAT. Stories were read by Ss and

then analyzed according to the primary source of conflict between parent and child, and according to the solution of the conflict. 12 Ss gave at least 1 story which showed evidence of a conflict over independence. There was a total of 22 stories. 6 areas of conflict were distinguished: love, leaving home, attitudes, career, freedom of behavior, and accepting advice. 4 solutions were designated. The projective method has elicited material which was difficult to obtain by means of a questionnaire; it shows that among a group of adolescents, independence is their primary problem.—*A. Farfaglia.*

6610. Cunha, Jurema A., Carvalho, Lília C., Braga de Moraes, Maria I., & Maraninchi, Suely. **Nível intelectual dos estudantes de escolas médias de Porto Alegre.** [Intellectual level of postelementary school students of Porto Alegre.] *Arquivos Brasileiros de Psicotécnica*, 1968(Sep), Vol. 20(3), 39-44.—Reports results from 720 12-18 yr. old postelementary school-children tested on the nonverbal intelligence test of Gilles-Weil. It was found that (a) the Porto Alegre Ss scored significantly higher than existing percentile scores for adolescents in general; and (b) the Ss' school seemed to influence the indications of intellectual development, particularly in the area of abstract thought and logic.—*P. Hertzberg.*

6611. Dreyer, Albert S., Hulac, Valerie, & Rigler, David. (U. Connecticut) **Differential adjustment to pubescence and cognitive style patterns.** *Developmental Psychology*, 1971(May), Vol. 4(3), 456-462.—Presents a longitudinal study of the adaptation of 12 boys and 10 girls to pubescent body changes. An analysis of variance of Sophistication of Body Concept Scale (SBCS) scores using (a) field independent-field dependent cognitive styles, (b) pre- and postonset of puberty, and (c) sex as main effects indicates that significantly more sophisticated SBCS scores were associated with field independent Ss and postpubescent status. There were no sex differences and none of the interactions were significant. Age and IQ were also not related to SBCS score change. Findings support the hypothesis of a more highly differentiated response to puberty by the more field independent adolescents. (17 ref.)—*Journal abstract.*

6612. Feshbach, Norma & Sones, Gittelle. (U. California, Los Angeles) **Sex differences in adolescent reactions toward newcomers.** *Developmental Psychology*, 1971(May), Vol. 4(3), 381-386.—Examined sex differences in indirect aggressive behaviors. Reactions of 14 male and 15 female 8th grade pairs to a same-sex newcomer were observed. Following a problem-solving session, the group members rated each other's personality. Female Ss made less favorable judgments of the newcomer than did males. On behavior-interaction measures obtained during the problem-solving task, female Ss displayed less friendly reactions than males toward the newcomer. Results, in conjunction with those of an earlier study, reflect developmental consistencies in sex differences in the use of indirect aggressive behaviors. (15 ref.)—*Journal abstract.*

6613. Jackson, E. B. **The girl in puberty: A psycho-pedagogical study.** *Opvoedkundige Studies*, No. 59, 77 p.—Considers the girl in puberty as a unique individual in a unique situation and discusses (a) her physical development; (b) her affective and mental development; and (c) her environment, comprising family, friends, and society. Results are based on the examination of 16 girls in puberty with (a) interviews

with parents; (b) pedagogical observation; (c) a test of emotional lability; (d) the Rorschach Inkblot Test; (e) TAT; (f) drawings of people and trees; (g) the Four Picture Test; (h) essays on the future, mother's idealized role, and actions if life could be lived over; (i) a drawing completion test; (j) the Rotter Incomplete Sentences Blank; and (k) the New South African Individual Scale intelligence test. Data from these tests are presented for 3 15-yr-old girls. The phenomenological approach used in this study is discussed. (40 ref.)—*S. Knapp.*

6614. Jans, J. (Catholic U., Psychological Lab., Nijmegen, Netherlands) **Psychometrisch onderzoek naar ego-identiteit volgens Erikson.** [Psychometric investigation about ego-identity according to Erikson.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Jan), Vol. 26(1), 1-22.—Erikson considered the problem of adolescence as the resolution of ego identity vs. ego diffusion. Ego identity is described as "the accrued confidence that one's ability to maintain inner sameness and continuity... is matched by the sameness and continuity of one's meaning for others." A. Constantinople's (see PA, Vol. 43:14144) revision of A. E. Wessman and D. F. Rick's (see PA, Vol. 40:7692) test of 60 items based on self-reports by students indicating their success in their development, according to Erikson's 8-step model, was administered to 90 Ss. By means of iterative cluster analysis, ego identity vs. ego diffusion along with 5 other traits did not attain required internal consistency. With respect to explorative cluster analysis, 3 clusters were identified: (a) inhibition in self-development, (b) fear in one's work, and (c) lack of interest in others. The items in inhibition in self-development could be the basis for further research in ego-identity crisis.—*A. J. Ter Keurst.*

6615. Landsbaum, Jane B. & Willis, Richard H. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Conformity in early and late adolescence.** *Developmental Psychology*, 1971(May), Vol. 4(3), 334-337.—Examined (a) the view that conformity behavior characterizes early adolescence and diminishes in later adolescent years, and (b) whether previous research on partner influence would hold with adolescents. 32 13-14 and 18-21 yr. old males and females served as Ss. Ss perceptions of their own and their partner's competency were manipulated by means of a sham pretest of judgmental skill. Results indicate that younger adolescents, "low-competency" Ss, and Ss with "high-competency" partners showed the most conformity behavior.—*Journal abstract.*

6616. Love, David N. (Florida State U.) **Parent-adolescent communication as related to family social variables.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5629-5630.

6617. Musgrave, Letha C. **Hot line takes the heat off.** *American Journal of Nursing*, 1971(Apr), Vol. 71(4), 756-759.—Describes the hot line program which offers telephone assistance to adolescents overwhelmed by their problems. By dialing Hot Line, a caller may have a competent adult trained in creative listening techniques help him examine his situation and decide on a solution that would be realistic for him. A caller may receive information about free clinics, drug counseling, or draft counseling; he may get the address of a crash pad. In many communities, hot lines have been valuable in crisis intervention.—*Journal abstract.*

6618. Muthayya, B. C. (National Inst. of Community Development, Hyderabad, India) **A study of the**

relationship between level of aspiration and reactions to frustration. *Psychology Annual*, 1969(Mar), Vol. 3, 3-9.—Determined level of aspiration in 59 male and 29 female 13-17 yr. olds using Ss' predictions of their scores on 6 tasks. Ss completed the Madras Picture Frustration Test (MPF) 6 mo. later. The MPF was scored for reaction categories: extrapunitive (E), intro-punitive (I), impunitive (M), direction (O), obstacle dominance (OD), ego defensive (ED), and need persistence (NP). Significant correlations between mean goal discrepancy scores and frustration reactions were found only for M and OD where the relationship was negative. Correlations between high positive and negative aspiration patterns and E and M were more significant than for aspiration patterns and E and I reactions. High positive aspirations were significantly related to E and negative aspirations to M. (22 ref.)—S. Knapp.

6619. Nagy, György. (National Inst. of Education, Budapest, Hungary) *Férfi ifjúsági kosárlabdázók pszichológiai vizsgálata különös tekintettel a személyiségvonások, teljesítmény és motiváció kapcsolataira*. [Psychological examination of male basketball players: An attempt at correlating personality traits, achievement and motivation.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 370-382.—Employed the Rorschach Szondi tests, the Bregelmann questionnaire, case history taking, sport achievement evaluation, analysis of written tasks, and measurements of latency time in task oriented movements in the examination of 20 male adolescent basketball players. Findings were that (a) adolescents engaged in sports have stenic (rigid) character; (b) there is no correlation between IQ and rank order in sport achievement; and (c) their aspiration is concentrated on winning the title of "member of the representative team." The latter provides a high motivational level and stimulates time spent on training. (Russian summary)—English summary.

6620. Nawas, M. Mike. (Indiana State U.) *Change in efficiency of ego functioning and complexity from adolescence to young adulthood*. *Developmental Psychology*, 1971(May), Vol. 4(3), 412-415.—Analyzed the TAT stories of 64 male and 61 female Ss who were studied as adolescents in 1952 and as young adults 8 yr. later. Ego sufficiency and perceptual complexity scores, based on the TAT, were derived for each of the Ss. Confirming the predictions, the changes from adolescence to young adulthood revealed a significant increase for males and a highly significant decrease for females in both ego sufficiency and complexity. It is concluded that the evidence from long-range longitudinal studies is mounting, that the assumption of continuity in human development is too simplistic, and that behavior is subject to greater changes than current theories lead one to believe.—Journal abstract.

6621. Nowicki, Stephen & Roundtree, Julia. (Emory U.) *Correlates of locus of control in a secondary school population*. *Developmental Psychology*, 1971(May), Vol. 4(3), 477-478.

6622. Pegg, Joanne L. (George Peabody Coll. for Teachers) *The personality integration of early adolescents*. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5003-5004.

6623. Raubo, Jadwiga. *Postawa młodzieży wobec zjawiska śmierci*. [The attitude of youth to death.] *Przegląd Psychologiczny*, 1971, Vol. 1(2), 105-128.—Examined attitudes toward death in 133 11th graders, using

a film, a questionnaire, an interview, Raven's Progressive Matrices, and the Eysenck Personality Inventory as measures. Sex, family position, and relationship with parents and peers were significantly related to attitudes. Reflections on death tended to arise under the impact of death of relatives, illness, and consideration of the meaning of life. In approximately 1/3 of the Ss difficult situations produced thoughts of or attempts at suicide. Most Ss regarded death as a biological and natural phenomenon. Negative attitudes were found toward euthanasia, suicide, the death penalty, and ending the lives of the aged. Emotional attitudes ranged from fear, horror, clinging to life, and repulsion, to joy. Males tended to approach the concept of death cognitively, females emotionally. Extroversion or introversion, level of intelligence, and other factors studied did not differentiate between attitudes held. (Russian summary) (46 ref.)—English summary.

6624. Robinson, John P. & Hirsch, Paul. (U. Michigan) *It's the sound that does it*. *Psychology Today*, 1969(Oct), Vol. 3(5), 42-45.—A survey of 430 Detroit and 340 Grand Rapids, Michigan, 8th and 11th graders revealed that a minority understood the lyrics of current best-selling records even though most liked the current "hits." Their expressed concern was whether they liked the sound of the records, not the lyrics. Antiestablishment themes in popular music have become part of the established music industry but it is questionable how much the listeners are influenced by them. E. J. Posavac.

6625. Schneemann, N. (8 Volkhartstr., Augsburg, W. Germany) *Gedanken zur Entstehungsgeschichte des Gammers anhand einer Analyse des Struwwelpeters*. [Reflections concerning the formative story of a hippie based on an analysis of Struwwelpeter.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Nov), Vol. 20(6), 213-223. Analyzed a character (prototype of a hippie) in a children's book in an attempt to isolate social causative factors. Lack of family atmosphere and familial interpersonal relationships is seen to be one of the main causative factors. Hostility, which is a result of lack of adequate parental figures becomes displaced, and is manifested in the form of antisocial behavior. (English summary) (30 ref.)—B. A. Stanton.

6626. Shea, Barbara J. (U. Iowa) *Help-seeking behavior as a function of peer-rated aggression, age of subjects, and conditions of help*. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5641-5642.

6627. Shirley, Fehl L. (Ferris State Coll.) *The influence of reading concepts, attitudes, and behavior*. *Journal of the Reading Specialist*, 1968(Dec), Vol. 8(2), 50-57. Studied the influence of reading in personal development on 420 high school students. A questionnaire was the major instrument used. A qualitative analysis of the reported influences on concept, attitude, and behavior was made. Ss commented on classical readings, e.g., *The Lord of the Flies*. Responses were classified into areas influenced by reading, and 7 areas in order of frequency emerged from the analysis of the data: (a) self image, (b) philosophy, (c) cultural groups, (d) social problems, (e) sensitivity to people, (f) political science, and (g) miscellaneous. The reports of the adolescents showed that reading does influence concepts, attitudes, and behavior. Only 16 of the 420 students reported no personal influence from reading. Of the 1184 influences reported, 45% were concepts, 40%

were attitudes, and 15% were behavioral responses. Ss' concepts, attitudes, and behavior appear to be more influenced by reading materials they selected on their own. The number of influences is related to intelligence, reading proficiency, and situation rather than type (fiction or nonfiction).—A. M. Farfaglia.

6628. Turner, Jonathan H. (U. California, Riverside) **Entrepreneurial environments and the emergence of achievement motivation in adolescent males.** *Sociometry*, 1970(Jun), Vol. 33(2), 147-165.—Discusses previous research which has (a) traced high need for achievement (n Ach) among adolescent males to certain socialization experiences within the family, and (b) demonstrated that adolescents with high n Ach are over-represented in the middle classes. Among the many variables associated with social class, the nature of the father's occupation is considered most likely to have this effect on family socialization. The relationship between father's occupation and the level of achievement motivation in their sons was examined using the entire 7th and 8th grade male population of 3 different types of communities. Ss completed an extensive questionnaire on their father's occupations and the TAT. Results indicate that high n Ach Ss came from homes where fathers engage in entrepreneurial role behavior in their occupational status. This was true regardless of whether or not such an occupation was middle or working class, or whether the community where the S lived was highly modern or traditional. Findings are discussed as specifying more exactly the social structural origins of achievement motivation. (28 ref.)—*Journal abstract*.

6629. Weigert, Andrew J. & Thomas, Darwin L. (U. Notre Dame) **Socialization and religiosity: A cross-national analysis of Catholic adolescents.** *Sociometry*, 1970(Sep), Vol. 33(3), 305-326.—Relates dimensions of religiosity (belief, experience, knowledge, and practice) to adolescents' perception of the control and support received from parents. A total of 740 Ss were chosen from 4 urban male Catholic schools in the United States, Puerto Rico, and Mexico. Except for the Mexican sample and the knowledge dimension, the apriori hypothesis that adolescents perceiving a high (low) degree of control and support score highest (lowest) on religiosity is moderately verified, mainly because of a positive relationship between support and religiosity, although control is noticeably related in the Puerto Rican sample. For the Anglo samples, the usefulness of socialization variables in understanding religiosity is demonstrated, and the differences across samples point to the importance of reasons for religious behavior. (4 p. ref.)—*Journal abstract*.

ADULTHOOD & OLD AGE

6630. Clark, Margaret. (U. California, San Francisco) **Patterns of aging among the elderly poor of the inner city.** *Gerontologist*, 1971(Spr), Vol. 11(1, Pt. 2), 58-66.—The last 2 decades have witnessed a decline in the quality of life in American inner cities. "Unlike some in the ethno-minority groups . . . the white, impoverished inner-city aged lack the familial supports and the respect of others which sustain the waning powers of those in certain minority groups. Although they are not as isolated from their kind as was once supposed . . . their life-style seems to exemplify isolation, social invisibility, and—above all—grinding poverty." The functional and dysfunctional aspects of inner-city life are discussed in

regard to nutrition, shelter, mobility, and social interaction. It is concluded that "the urban environment, like any other milieu in which aged individuals find themselves, has great potential for promoting both human misery and human survival." Stressed is the need to examine how the aged poor, "when faced with basic problems of physical and psychological survival, develop informal structures for their solution. If planned programs can be constructed to emulate or develop these spontaneous arrangements among people, they are more likely to be acceptable and effective." (48 ref.)—L. Linnick.

6631. Cox, Troy J. (Louisiana State U., Agricultural & Mechanical Coll.) **Relations among selected auditory parameters and age.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4790-4791.

6632. Gubrium, Jaber F. (Marquette U.) **Environmental effects on morale in old age and the resources of health and solvency.** *Gerontologist*, 1970(Win), Vol. 10(4, Pt. 1), 294-297.—Analyzed the effects of age concentration of local environments on morale among the aged, controlling for health and solvency. Since health and solvency are considered as resources influencing the behavior flexibility of persons, it was hypothesized that ego concentration would be positively related to morale only when resources were poor. Data from interviews with 210 people, 60 yr. of age and over, supported the hypothesis. Environmental variations have the greatest impact on the morale of old people with the least flexible behavior.—*Journal abstract*.

6633. Hultsch, David F. (Pennsylvania State U., Div. of Individual & Family Studies) **Adult age differences in free classification and free recall.** *Developmental Psychology*, 1971(May), Vol. 4(3), 338-342.—Presented a verbal free classification and free recall task to 20 20-29, 40-49, and 60-69 yr. old white females. $\frac{1}{2}$ the Ss categorized words into 2-7 categories prior to free recall, while the other Ss inspected the words but were prevented from physically sorting them. There were no significant age differences in free classification performance under the sorting condition. Analysis of free recall data indicate a significant Age \times Experimental Condition interaction. Under the sorting condition, the 2 groups of younger Ss recalled significantly more words than the older Ss. Under the nonsorting condition the 20-29 yr. old Ss recalled significantly more words than the older Ss. Findings support the hypothesis of a greater age-related decrement in memory performance under conditions that minimize the opportunity for meaningful organization than under conditions that maximize such opportunity.—*Journal abstract*.

6634. Marcoen, Alfons. (Catholic U., Louvain, Belgium) **Het rollenpatroon van bejaarden in een tehuis.** [Role patterns of the institutionalized aged.] *Psychologica Belgica*, 1970, Vol. 10(2), 201-224. 40 74-81 yr. old institutionalized persons, an equal number of widows, widowers, and unmarried men and women, living 2-10 yr. in a home, were interviewed with the aid of an adapted schedule from the "Cross-national study: Adjustment to retirement." Results show that family roles still played an important part and total isolation was not reported. Compensation phenomena, such as friendships, church membership, leisure time, were especially noticeable among women and at higher ages. The aged reported a general decrease in activity as a function of age and accepted it as natural. (English abstract) (28 ref.)—S. Slak.

6635. Powell, Richard R. & Pohndorf, Richard H. (U. Illinois) **Comparison of adult exercisers and nonexercisers on fluid intelligence and selected physiological variables.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 70-77.—Administered a test of specific mental abilities reflective of cognitive deterioration associated with aging to 71 34-75 yr. old male Ss. Mental test results of 26 older men who had been participating in a regular exercise program of the running type for more than 3 yr. were compared to the mental test results of 22 men who had engaged in little or no physical activity for at least 3 yr. prior to their testing. Mental ability was measured by the "Culture Fair" Intelligence Test. It was also determined whether or not any of 8 cardiovascular fitness measures were related to mental ability performances among the exercisers and nonexercisers ($N = 48$) as well as an additional 23 men whose exercise status was uncertain. It was found that regular exercisers scored higher as a group on the mental decrement test than did the nonexercise group. In general, better fitness measures were found to accompany higher fluid intelligence scores. In particular, measures related to elevated blood pressure were usually associated with poorer fluid intelligence measures. (18 ref.)—*Journal abstract*.

6636. Rossiter, Charles M. (U. Wisconsin, Speech Communication Center, Milwaukee) **Chronological age and listening of adult students.** *Adult Education*, 1970(Fal), Vol. 21(1), 40-43.—Tested recall of information in a tape recorded passage by 30 female 20-60 yr. old undergraduate and graduate students. The correlation between age and listening test scores was $-.46$ which is significant at the .01 level. Regression analysis yielded a significant F ($p < .01$) for linearity of regression. It is concluded that teachers of adult students varying widely in age should be aware that the older students may be retaining less from oral presentations of information than younger students.—*Journal abstract*.

6637. Tallmer, Margot & Kutner, Bernard. (Hunter Coll., City U. New York) **Disengagement and morale.** *Gerontologist*, 1970(Win), Vol. 10(4, Pt. 1), 317-320.—In an empirical study of the "disengagement theory" of aging, the morale factor was found to be unrelated to marital status, sex, health status, income, cause of unemployment, aging, and engagement. The study replicated the methods used by Cumming and Henry in their Kansas City Study of Aging, including their "morale indexes." Morale appears to be related to life style and circumstances often beyond control: health, income, widowhood, and retirement. It is suggested that the process of social withdrawal be studied since only voluntary disengagement may yield high morale, while enforced, stressful disengagement may be associated with hopelessness and despair. (20 ref.)—*Journal abstract*.

SOCIAL PSYCHOLOGY

6638. Bartee, Edwin M. (Case Western Reserve U.) **A phenomenological theory of behavior and its problem-solving implications.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4261.

6639. Craig, Robert M. & Shively, Donald H. (Eds.) (Harvard U., East Asian Research Center) **Personality in Japanese history.** Berkeley, Calif.: U. California Press, 1970. x, 495 p. \$8.75.

6640. Kraemer, Richard H. (U. Texas) **Military**

influence on foreign policy: A self-perception. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4856-4857.

6641. McGargee, Edwin I. & Hokanson, Jack E. (Eds.) (Florida State U.) **The dynamics of aggression: Individual, group, and international analyses.** New York, N.Y.: Harper & Row, 1970. xiv, 271 p. \$3.95(paper).

6642. Rasor, Richard A. (U. Northern Colorado) **A manual for studies of human behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4975.

6643. Seferi, Mania L. (U. Colorado) **Resident participation in relocation planning: The case of the Denver neighborhood of Auraria.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4888.

CULTURE & SOCIAL PROCESSES

6644. Abély, Paul. (St. Anne Hosp., Paris, France) **Les avatars du sentiment de liberté.** [The incarnations of the feeling of freedom.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 191-199. Liberty occupies a precarious position between dictatorship and anarchy. Alternating philosophic emphasis on the forces of determinism and free-choice in human affairs often neglect the need for both influences in the successful operation of any society. The preoccupation of today's youth with freedom from nearly all forms of restraint is discussed. The contemporary frenzy to be rid of all parental, university, and sexual restriction is seen to have its roots in the many homes without fathers (prisoners of war, soldiers, or displaced persons) immediately after World War II. This gave rise to more than the normal desire of each generation to overthrow its predecessors. This generation may also have been the victim of an overacceptance of the psychoanalytic doctrine that restraint is harmful to the individual, to the neglect of a need for the continuing of certain restraints in the interest of society.—*H. King*.

6645. Cummings, Thomas G. (U. California, Los Angeles) **A methodology for reconstructing and studying social systems linkage processes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3709.

6646. Dimarco, Nicholas J. (Case Western Reserve U.) **Stress and adaptation in cross-cultural translation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4330.

6647. Etzioni, Amital. (Columbia U.) **Kennedy's Russian experiment.** *Psychology Today*, 1969(Dec), Vol. 3(7), 42-45, 62-63.—The use of unilateral, symbolic gestures of goodwill are suggested as a means to reduce hostility between nations. The flurry of activity and agreements between the United States and Russia during 1963 is interpreted as an experiment conducted by President Kennedy. By careful choice of limited but clear initiatives he was able to begin a series of moves which were reciprocated by Russia and which reduced international tensions without significantly endangering either side militarily.—*E. J. Posavac*.

6648. Kilbride, Philip L. (U. Missouri) **Individual modernization and pictorial perception among the Baganda of Uganda.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4464-4465.

6649. Milgram, Stanley. (City U. New York, Graduate Center) **The experience of living in cities.** *Science*, 1970(Mar), Vol. 167(3924), 1461-1468.—*Dis-*

cusses the contribution that psychology can make to the understanding of living experiences in cities, the construction of urban theories, and the creation of lines of research. Root elements of a sociopsychological understanding of city life include large numbers, density, and heterogeneity of population. The individual experiences these factors as overloads at the level of roles, norms, cognitive functions, and facilities. The overloads in turn lead to adaptive mechanisms which create the distinctive tone and behaviors of city life. The differing atmospheres of cities, e.g., Paris, London, and New York are examined. It is suggested that more precise knowledge of urban atmosphere can be attained by applying tools of experimental inquiry. (23 ref.)—*P. McMillan*.

6650. Moon, Sheila. (Sonoma State Coll.) **A magic dwells: A poetic and psychological study of the Navaho emergence myth.** Middletown, Conn.: Wesleyan U. Press, 1970. x, 206 p. \$7.95.

6651. Porteus, S. D. (U. Hawaii) **Possible effects of rate of global spin.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 503-509.—Technological retardation among certain ethnic groups has been commonly ascribed to the mental inertia associated with prolonged residence in tropical climates. However, in every direction except human resourcefulness tropical conditions favor the most rapid development. There were exceptional civilizations in tropical regions, but their decline was hastened by the failure of peoples in the New World to invent and use the wheel and the onset of the debilitating diseases of malaria, hookworm, etc. Another factor may be that the equatorial bulge happens also to be the region of greatest velocity of diurnal rotation. A device that could possibly assist in gathering data on the effect of extremes of spin is described. Its use might also reverse the trend toward overdomestication of the albino rat. Present-day progress in space travel could favor such study.—*Journal abstract*.

6652. Rustow, Dankwart A. (Ed.) (Columbia U.) **Philosophers and kings: Studies in leadership.** New York, N.Y.: George Braziller, 1970. vii, 526 p. \$7.50.

Ethnology

6653. Del Campo, Philip E. (United States International U., San Diego, Calif.) **An analysis of selected factors in the acculturation process of the Mexican-American elementary school child.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4885-4886.

6654. Kalish, Richard A. (U. California, School of Public Health, Los Angeles) **A gerontological look at ethnicity, human capacities, and individual adjustment.** *Gerontologist*, 1971(Spr), Vol. 11(1, Pt. 2), 78-87.—Discusses "the difficulties of doing good research on ethnicity." It is suggested that the concern of the psychologist should relate to "research into ethnic differences in performance on simple sensory, motor, and cognitive tasks.... the evaluation of differences among the elderly of ethnic groups regarding personality, adjustment, values, roles" requires the attention of all behavioral scientists. Also relevant for all behavioral scientists is "the meaning of age-related changes to the various ethnic groups.... How does the loss of certain capabilities effect the elderly person's standing in his ethnic group?" To the anthropologist is relegated the problem of defining good adjustment as perceived in each ethnic group. How the 50s, 60s, and 70s differ and how they differ from the 65-plus current population are

areas of concern of the social gerontologists. Being aware "that the individual personality functions in an environment that is affected by economic conditions, climate, international relations, pollution, health services," the investigator must remain attuned to individual differences, ethnic group differences and differences within ethnic groups.—*J. Linnick*.

6655. Lloyd, Barbara B. (U. Sussex, Brighton, England) **The intellectual development of Yoruba children: A re-examination.** *Journal of Cross-Cultural Psychology*, 1971(Mar), Vol. 2(1), 29-38.—It was suggested that traditional and educated Yoruba children converged in intelligence by age 5 but the current study found no evidence of convergence. An intervention program was proposed to compensate for the intellectual advantage of educated Ss.—*A. Krichev*.

6656. Rubin, Roger H. (Pennsylvania State U.) **Family structure and peer group affiliation as related to attitudes about male-female relations among black youth.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4920-4921.

6657. Schwartz, Theodore. (U. California, San Diego) **The noise: Cargo-cult frenzy in the South Seas.** *Psychology Today*, 1971(Mar), Vol. 4(10), 51-54, 102-103.—The cults of the Admiralty Islands expect miraculous loads of cargo to be brought to them which will give them parity with the Europeans. The appearance of these cults seems to be a "manifestation of a paranoid ethos under conditions of culture contact and value dominance." The culture of the Melanesians is marked by distrust and hostility and its value system has been overwhelmed by European wealth. Parallels are drawn between the cargo cults, American subgroup hostility, and the dropout counterculture.—*E. J. Posavac*.

6658. Wittmer, Joe. (U. Florida) **Perceived parent-child relationships: A comparison between Amish and non-Amish young adults.** *Journal of Cross-Cultural Psychology*, 1971(Mar), Vol. 2(1), 87-94.—The Parent-Child Relations Questionnaire was administered to 25 Amish and 25 non-Amish late teen-agers. Amish parents were seen as "less rejecting, less neglecting, less casual, less likely to reward directly, and less likely to use symbolic methods of punishment." Amish fathers were seen as more loving than non-Amish fathers. Results are discussed in light of the Amish culture.—*A. Krichev*.

Social Structure & Social Role

6659. Atherton, Charles R., Mitchell, Sandra T., & Schein, Edna B. (U. Illinois, Jane Addams Graduate School of Social Work) **Locating points for intervention.** *Social Casework*, 1971(Mar), Vol. 52(3), 131-141.—Presents a system for classifying social problems into areas related to (a) role performance, (b) problematic roles, and (c) defects in social systems that affect behavior. The purpose was to identify points for intervention.—*M. W. Linn*.

6660. Rappaport, Alan F., Payne, David, & Steinmann, Anne. (Pennsylvania State U.) **Perceptual differences between married and single college women for the concepts of self, ideal woman, and man's ideal woman.** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 441-442.—Compared perceptions of the female sex role held by 45 married and 45 single college women. Ss were compared in their perception of self, ideal woman, and man's ideal woman with the Inventory of Female Values. Results indicate that the single group

was significantly more family oriented than the married group in perceiving self and ideal woman. No significant differences were found between the groups in perceiving man's ideal woman. Both married and single Ss indicated their belief that most men would desire an ideal woman with a strong intrafamilial orientation. Results are explained in terms of cultural stereotypes enveloping the female sex role in our society.—*Journal abstract.*

6661. Rushing, William A. (Vanderbilt U.) **Class, power, and alienation: Rural differences.** *Sociometry*, 1970(Jun), Vol. 33(2), 166-177. —Investigated the validity of the postulation of an inverse relationship between social class and powerlessness. 240 middle- to upper-class farmers and 1,031 poverty-level farm workers were studied for correlations between social class and feelings of powerlessness. Results indicate that powerlessness was associated with income and perceived socioeconomic deprivation as expected, but not position in the system of production. Although farmers had much greater political-economic power than workers, they did not view themselves as having greater power. Results fail to support the hypothesis that power of position is associated with the perception of power among incumbents. It is suggested that bureaucratic and reference-group processes influence such perceptions. (27 ref.)—*Journal abstract.*

6662. Segal, David R., Segal, Mady W., & Knoke, David. (U. Michigan) **Status inconsistency and self-evaluation.** *Sociometry*, 1970(Sep), Vol. 33(3), 347-357. —Discusses the social psychological exchange model upon which much of the recent status inconsistency literature is based which assumes that individuals will attempt to maximize their social positions by stressing those status dimensions that give them claim to the greatest amount of deference from others. Analysis of data from a national sample of 1,571 American adults, however, suggests that status inconsistent people average their several statuses in defining their social positions, rather than maximizing their claims by disregarding low statuses. Results show that highest status, average status, and occupation are of primary importance in explaining social class identification among status consistent respondents and do not differ significantly from each other. Income and education have significantly weaker relationships to class identification ($p < .001$).—*Journal abstract.*

6663. Weisstein, Naomi. (Loyola U., Chicago, Ill.) **Stimulus/response: Woman as Nigger.** *Psychology Today*, 1969(Oct), Vol. 3(5), 20-22, 58. —Argues that a psychology that ignores the social situation in which behavior takes place, continues the error of Freud and others who believed that behavior is primarily caused by something inside the person. This error has resulted in the practice of believing that women are psychologically different from men. Women do what the social environment causes them to do. One cannot discuss differences between the sexes until males and females are raised in a society which expects both to succeed. Until then theories about sex differences in behavior are only a reflection of prejudice.—*E. J. Posavac.*

Religion

6664. Beck, Samuel J. (U. Chicago) **Cosmic optimism in some Genesis myths.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 380-389. —Considers myths as statements in metaphor about rigorous

life problems, which project emotional realities. Among Genesis myths are etiologic rationalizations for: (a) harsh toil for sustenance, (b) woman's pain in childbirth, (c) the unequal struggle against conscience, (d) punishment for murder, and (e) world destruction and rebirth. The dominant tone is optimism.—*Journal abstract.*

6665. Hinkle, John E. (Northwestern U.) **A study of attitudes toward anger and the expression or inhibition of anger in a religious and non-religious population.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4256.

6666. Stinnette, Charles R. (U. Chicago, Divinity School) **Existence and faith: A theological method as focused in psychosocial perspectives.** *Journal of Pastoral Care*, 1970(Sep), Vol. 24(3), 165-177. —Discusses the methods of theology in terms of sources of data, as a theater of examined experience, and as a cognitive model.—*O. Strunk.*

6667. Strunk, Orlo. (Boston U., School of Theology) **Humanistic religious psychology: A new chapter in the psychology of religion.** *Journal of Pastoral Care*, 1970(Jun), Vol. 24(2), 90-97. —Although the psychology of religion is nearly 100 yr. old, its survival as an academic discipline frequently has been in jeopardy. The present humanistic psychology movement may provide the psychology of religion with needed vigor by emphasizing the depth dimensions of religion, by greater stress on interdisciplinary involvement, and by providing the field with a new perspective.—*O. Strunk.*

6668. Struzzo, John A. (Florida State U.) **Professionalisms and non-conformity among Catholic clergy in the exercise of their ministerial role.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4890.

Cross Cultural Comparison

6669. Bhalla, Salma. (U. Massachusetts) **Interpersonal schemas: A cross-cultural comparison.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4981-4982.

6670. Okonji, Ogbolu M. (Makerere University Coll., Kampala, Uganda) **A cross-cultural study of the effects of familiarity on classificatory behaviour.** *Journal of Cross-Cultural Psychology*, 1971(Mar), Vol. 2(1), 39-49. —138 Ibusa and 105 Glasgow male elementary schoolchildren were given 2 classificatory tasks, 1 of animals familiar to both and 1 of objects more familiar to the Ibusa children. Degree of familiarity was found to influence the classifications, but the overall trend of development was similar in both samples in both tasks.—*A. Krichev.*

6671. Ross, Bruce M. & Millsom, Carol. (Catholic U. of America) **Repeated memory of oral prose in Ghana and New York.** *International Journal of Psychology*, 1970, Vol. 5(3), 173-181. —Ss enrolled in 3 collegiate education classes in Ghana and in 3 child development classes in an American university listened to a short prose passage. Immediately afterwards, and at 2 intervals involving several weeks, Ss reported what they remembered. The hypothesis, that Ghanaian Ss would perform significantly better than their American counterparts, owing to a strong oral tradition in Africa, received support in all but 1 instance. In contrast to memory investigations commonly undertaken, this study, with its emphasis upon retention of content through verbal paraphrase,

highlights inadequacy of explaining the forgetting of connected prose by making use of the measure of decrement in literal memory alone. (French abstract) —S. E. Gavin.

6672. Saville, Margaret R. (U. Hawaii) **Individual and group risk taking: A cross-cultural study.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4268.

Family

6673. Cone, John D. (West Virginia U.) **Social desirability, marital satisfaction, and concomitant perceptions of self and spouse.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 173-174.—Reanalyzed data from a study by E. B. Luckey (see PA, Vol. 30:5527) in terms of social desirability (SD). Correlations between endorsement of adjectives of the Interpersonal Check List and marital adjustment varied linearly with the SD scale values of the adjectives. The respective correlations between SD scale values and adjective-adjustment correlations were .75 and .89 for self- and spouse-rating conditions (N = 80 couples). It is concluded that SD may be an important moderator influencing correlations of personality scales and marital adjustment.—*Journal abstract*.

6674. Fromm, Erich. **Mother.** *Psychology Today*, 1971(Mar), Vol. 4(10), 74-77.—Several social psychological changes in contemporary society indicate that the values of mother-like nurturance are displacing the more strict, abstract values of patriarchal authority. However, the "purely matriarchal society stands in the way of the full development of the individual, thus preventing technical, rational, artistic progress." The ideal society synthesizes the often opposing principles of mercy and justice.—E. J. Posavac.

6675. Gustav, Alice. (Monmouth Coll.) **Ritual in families of dissident and non-dissident students.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 563-567.—158 college students, many of whom had engaged in serious dissident behavior, and 277 who had not, wrote brief descriptions of a ritual in their family life. Approximately 95% of both groups considered the family an important element in their development. A significantly larger percentage of nondissident Ss reported the following experiences taking place within a family context: meals, positive communication with parents, and celebration of holidays with both immediate and extended families. A significantly larger percentage of more dissident Ss reported adverse communication with parents and TV watching.—*Journal abstract*.

6676. Holz, Robert F. (American U.) **Similarity and complementarity in marital interaction: The effects of role on need patterns.** *CRC Report, Boston U.*, 1970(Oct), No. 46, 17 p.—Studied the effects of role expectations of spouses on patterning of needs. Ss were 49 recently married (14 mo.) childless couples, matched for age, education, religion, parental occupation, and social class. In terms of expressive need, egalitarian dyads reflected similarity while traditional dyads reflected complementarity. Conversely, in terms of instrumental need, egalitarian dyads were found to reflect complementarity while traditional were characterized by similarity.—*Journal abstract*.

6677. Marcer de Stancato, Beatriz, et al. (Salaberry Hosp., Buenos Aires, Argentina) **Familia y marginalidad en el Gran Buenos Aires: Una aprox-**

imacion psicológica. [Marginality and family structure in Buenos Aires: A psychological approximation.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 63-80.—The "marginal" character of the population in the slums of Buenos Aires, primarily derived from an urban-directed migration of agrarian workers, combined with the stresses of poverty and unemployment has resulted in an extreme disruption of the usual patriarchal family. Courtship patterns, sexual relationships, and parent-child relationships are all altered in a fashion such that the individual is unable to function effectively. Various psychopathological behaviors are so prevalent as to be considered normal. The moral issue concerning the propriety of working for an agency whose housing and relocation plans contribute to the problem is also discussed.—S. M. Halpin.

6678. Murstein, Bernard I. (Connecticut Coll.) **Stimulus-value-role: A theory of marital choice.** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 465-481.—Presents a 3-stage theory of marital choice called stimulus-value-role. The majority of data stem from studies involving 197 couples who were engaged or "going steady," and who were given a revised form of the EPPS and the Marital Expectation Test. The 1st (stimulus) stage consists of value satisfaction obtained by visual, auditory, and noninteractional means. The 2nd (value) stage consists of values appreciated through verbal interaction, and the 3rd (role) stage involves the ability of the couple to function in mutually assigned roles. Among the topics considered are whether similars or opposites marry, sex-drive, self-acceptance, neuroticism, physical attraction, greater importance of men in determining courtship progress, and imagined role-compatibility as opposed to actual role-compatibility. A series of 19 hypotheses and supporting data are presented. (45 ref.)—*Journal abstract*.

6679. Petranek, Charles F. (Florida State U.) **Post-parental spouses' perception of their dyadic interaction as related to their life satisfaction.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4920.

6680. Ryder, Robert G., Kafka, John S., & Olson, David H. (National Inst. of Mental Health, Section on Family Development, Bethesda, Md.) **Separating and joining influences in courtship and early marriage.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 450-464.—Describes transitional processes, e.g., getting married, in terms of the interaction of change-facilitating and change-resisting social forces. Information was gathered from a sample of about 2000 couples and a more intensively studied sample of 50 couples. Information was gathered by means of autobiographical essays and unstructured interviews. Lawful features of a transitional process include a nonarbitrary sequence of stages defined by reversals in the influence of particular classes of 3rd party events. (23 ref.)—*Journal abstract*.

6681. Stierlin, Helm. (National Inst. of Mental Health, Bethesda, Md.) **Die Familienbeziehung.** [Family relationships.] *Psyche, Stuttgart*, 1970(Sep), Vol. 24(9), 678-691.—Freud was interested chiefly in analytic dyadic relations and in the inner psychic processes of his patients; family relations were implied theoretically and therapeutically, but were not made the main focus. The interdependence which exists between parents and their offspring and the dialectic interdependence of the family and its surrounding society are discussed. In order for the offspring to develop an ego-autonomy, all family

members must share in a complex work of delimitation and reconciliation. The dialectic of closeness and distance whose success or failure shapes the style of interaction and communication prevailing in a given family is crucial.—*English summary.*

Social Change & Social Programs

6682. Quesada, Gustavo M. (Michigan State U.) **Patron-dependence, communication behavior and the modernization process.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4974.

SEXUAL BEHAVIOR

6683. Birenbaum, Arnold. (Wheaton Coll., Norton, Mass.) **Revolution without the revolution: Sex in contemporary America.** *Journal of Sex Research*, 1970(Nov), Vol. 6(4), 257-267.—Discusses the sexual revolution in relation to the other institutions of American society. The new problems, responsibilities, and anxieties which have emerged from the changing sex role are discussed. The premise of creating the autonomous personality must involve one's total self and is to be accepted if one desires to accomplish universalistic freedom.—*E. B. Jaffa*

6684. Clayton, Richard R. (U. Tennessee) **Premarital sexual intercourse: A substantive test of the contingent consistency model.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4916.

6685. Gaffney, Louis. (Seattle U., Graduate School) **Psychological reflections on marital love and contraception.** *Journal of Religion & Health*, 1971(Jan), Vol. 10(1), 11-22.—After a brief review "of the complexities and difficulties of man's struggle to break with primitive taboos and superstitions as by knowledge and science he began to master nature," human love and sexuality are examined from a more modern biological science viewpoint and from the standpoint of "a first-hand report of those experiencing marriage." It is concluded that "our teaching on marital love and birth control is against the natural law," but expresses a hope that "in a more open, permissive church society" additional factual information will "find a psychological climate for reconsideration and change."—*I. Linnick.*

6686. Gottheil, Edward & Freedman, Abraham. (Jefferson Medical Coll., Philadelphia, Pa.) **Sexual beliefs and behavior of single, male medical students.** *JAMA: Journal of the American Medical Association*, 1970(May), Vol. 212(8), 1327-1332.—63 single, male, sophomore medical students volunteered to respond fully and sincerely to a 352-item questionnaire covering approximately the same topic areas described in the Kinsey Report. In addition to describing their own sexual behavior, the respondents, constituting a 57% sample of those invited to participate, indicated how they believed the average college man and woman would respond. Ss displayed a fairly conservative attitude and appeared to believe that a double standard of sexual morality for men and women still exists. Comparisons among the students' descriptions of their own and Kinsey's data did not indicate that: (a) their sexual behavior was constricted, (b) they were concerned about their sexual potency, or (c) they were naive and uninformed about sexual behavior.—*Journal summary.*

6687. Johnson, Ralph E. (Sacramento State Coll., Graduate School of Social Work) **Some correlates of**

extramarital coitus. *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 449-456. Attempted to provide an understanding of extramarital sexual involvement through an analysis of 100 middle-class, middle-aged couples. Ss who had experienced a sexual affair outside the conjugal bond and those who had not were compared. The following independent variables were utilized as a basis for this comparison: (a) opportunity for involvement; (b) perceived desire of others for involvement; (c) potential involvement; (d) justification of involvement; and (e) marital sexual satisfaction, marital adjustment, and involvement. 3 major findings emerged: (a) husbands who had experienced extramarital intercourse (EMI) had a lower degree of sexual satisfaction in their marriage than non-EMI husbands; (b) basic sex differences existed between husband and wife across all 5 independent variables used in the study; and (c) "opportunity for EMI" appears to be a particularly crucial variable in the analysis of extramarital sexuality.—*Journal abstract.*

6688. Juhasz, Anne M. (Loyola U., Chicago, Ill.) **Background factors, extent of sex knowledge and source of information.** *Journal of School Health*, 1969(Jan), Vol. 39(1), 32-39. Studied the following questions: (a) Does the source of sex information differ for students from different backgrounds? (b) Is there a relationship between scores on a sex knowledge test and background factors? and (c) How do students feel about the information they received? 365 male and 528 female university and education students answered a 2-part questionnaire. Information on source, sex, religion, community, and birth order was obtained. Printed matter is the most frequent source of information. For males, parents were the least frequent source; for girls, only for the youngest-of-4 group did parents provide the least information. Considering religion, Catholic Ss chose parents as sources less often, while Protestant Ss selected printed matter less often. More than 1/2 thought that information on sexuality had not been acquired at the best time. Whatever the background factors, 1/2 of the Ss did not have adequate knowledge of the physiology of sex.—*A. Farfaglia.*

6689. Kaats, Gilbert R. & Davis, Keith E. (U.S. Air Force Academy) **The dynamics of sexual behavior of college students.** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 390-399. In contrast to pre-1962 research is a 1967 reported premarital coital rate for college women (mostly sophomores) of 41%—a finding which was replicated in an independent follow-up study. For males, a 60% coital rate differed little from previous research. Ss were 155 male and 222 female undergraduates in the initial study, and 84 male and 97 female Ss in the follow-up. In spite of their relatively liberal sexual behavior, considerable evidence was found among both men and women for the existence of a strong double standard, a finding particularly true of males when the female involved was a potentially meaningful one. While females felt their friends approved of premarital intercourse, males felt their having had intercourse would be disapproved of by friends, family, and society alike. It appears that the female's liberal sexual behavior occurred in a setting where she perceived little support for such behavior. Evidence was also found that the more physically attractive college woman, while differing little from less attractive women in sexual attitudes and values, had more noncoital and coital experience. (26 ref.)—*Journal abstract.*

6690. Martin, J. David. (Washington State U.) **Note on a mathematical "theory" of coital frequency in marriage.** *Journal of Sex Research*—The "beans in the jar" folk model of marital coition rates was found to be implausible when examined in mathematical form. Mathematical models have the advantage that they may be tested in relatively short periods of time if data fit a predicted trend curve.—E. B. Jaffa.

6691. Middendorp, C. P., Brinkman, W., & Koomen, W. (Netherlands Organization for the Advancement of Pure Research, The Hague) **Determinants of premarital sexual permissiveness: A secondary analysis.** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 369-379.—Challenges the hypothesis by I. L. Reiss that among persons with a conservative life style there is a negative relationship between social class and premarital sexual permissiveness whereas for persons with a liberal life style, this relationship would be positive. 2 alternative rationales for the theory are presented. Results do not confirm the theory. By way of elaboration, some determinants of permissiveness regarding premarital sexual relationships were isolated: (a) religion, with liberalism-conservatism as an interpreting variable; (b) age, with liberalism-conservatism only partly interpreting; and (c) as weak determinants: residence (along the urban-rural continuum), and sex. (15 ref.)—*Journal abstract*.

6692. Reiss, Ira L. (U. Minnesota) **Comments on Middendorp's "The determinants of premarital sexual permissiveness."** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 379-380.—Replies to C. P. Middendorp, W. Brinkman, and W. Koomen's article (see PA, Vol. 46:Issue 4) in which I. L. Reiss's theory that among persons with a conservative life style there is a negative relationship between social class and premarital sexual permissiveness, whereas for persons with a liberal life style, this relationship is positive. 3 criticisms to the article are presented by Reiss: (a) the retest of his study was inadequate in the measurement of the dependent and control variables; (b) his position was inadequately understood, e.g., a generalization was designated a hypothesis, and discussion was based on only 2 of the propositions made; and (c) the article did not concentrate adequately on the basic test of the empirical relationship between social class and premarital sexual permissiveness.—P. McMillan.

6693. Robertiello, Richard C. (Long Island Center, Psychiatric Services, Forest Hills, N.Y.) **The "clitoral versus vaginal orgasm" controversy and some of its ramifications.** *Journal of Sex Research*, 1970(Nov), Vol. 6(4), 307-311.—It is felt that there is no physiological difference between a clitoral and vaginal orgasm, but when investigated psychologically there are 2 distinguishable kinds of orgasms which can be subjectively experienced. The psychological differences between the 2 are discussed. The degree of sexual mutuality and compatibility between partners is also discussed. The prevention of poor marital sexual adjustment through experimentation before marriage is recommended. Although the more mechanical and educational approaches may help to cure the situation, it is believed that the only really definitive approach is long-range intense psychoanalytic psychotherapy.—E. B. Jaffa.

6694. Schmidt, Gunter & Sigusch, Volkmar. (U. Hamburg, Inst. for Sexual Research, W. Germany) **Sex differences in responses to psychosexual stimulation by films and slides.** *Journal of Sex Research*,

1970(Nov), Vol. 6(4), 268-283.—Describes the emotional and physiosexual behavior of 128 male and 128 female students who viewed films and slides that showed petting and coitus. After presentation of the stimuli Ss were required to describe their emotional reactions through a semantic differential rating scale. Information was also obtained regarding the sexual behavior and reactions of the Ss before and after the viewing. The major results indicate that (a) men tended to describe the stimuli as more sexually arousing and favorable than the women, (b) women reacted stronger to a psychosexual stimulation, and (c) the total number of all orgasms increased significantly in the 24 hr. after the experiment. The finding that women were stimulated through the stimuli much more than the men differed from Kinsey's data. 2 explanations for the discrepancy included the validity of results obtained through Kinsey's questionnaires, and the fact that Kinsey's data were collected 20-30 yr. ago.—E. B. Jaffa.

Birth Control & Abortion

6695. Speidel, J. Joseph. (U.S. Dept. of State, Office of Population Technical Assistance Bureau, Washington, D.C.) **Knowledge of contraceptive techniques among a hospital population of low socio-economic status.** *Journal of Sex Research*, 1970(Nov), Vol. 6(4), 284-306.—A questionnaire designed to provide demographic data and to investigate opinions about ideal family size and attitudes toward birth control was administered to 89 Ss. Major findings of the survey were: (a) for most contraceptive techniques, less than 1/2 of the respondents possessed adequate knowledge to allow them to use the method effectively; (b) most respondents had a theoretical knowledge of at least 1 of 4 good contraceptive methods; (c) most of the Ss approved of family planning and desired more information and services about birth control; (d) knowledge about contraception was lower among the 15-18 yr. old age group; and (e) there was a positive correlation between greater educational attainment and increasing knowledge of contraceptives. (22 ref.)—E. B. Jaffa.

ATTITUDES & OPINIONS

6696. Albrecht, Stan L. (Washington State U.) **The effect of disclosure and reference group considerations on verbal attitude-overt behavior consistency.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4278.

6697. Brein, Michael. (U. Hawaii) **The indirect assessment of social attitudes using an object arrangement technique.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4261-4262.

6698. Brenner, Arline R. (Wayne State U.) **A test of the preference for objective vs. social information in the theory of social comparison processes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4262.

6699. Cook, Thomas D., Burd, John R., & Talbert, Terence L. (Northwestern U.) **Cognitive, behavioral and temporal effects of confronting a belief with its costly action implications.** *Sociometry*, 1970(Sep), Vol. 33(3), 358-369.—Experimentally formed a belief and differentially confronted 81 male and female undergraduates and 60 female undergraduates with this belief and its costly action implications. The belief was

considered less true when the action implications were salient than when they were not. Furthermore, the costly action was not performed. These differences between conditions were maintained over an 8-day period, though the absolute amount of belief change decayed with time. Data are interpreted in terms of a model of "consistency plus hedonism" and a model based on "redefinition of the object of belief." The importance of these findings for the literature on the relationship of beliefs and behaviors are briefly discussed.—*Journal abstract.*

6700. Emery, Anne; Goscinski, Frank; Schroeder, Christine, & Lerner, Richard M. (Eastern Michigan U.) **College students' attitudes toward contemporary issues.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 542.—Administered a 29-item Contemporary Topics Questionnaire (CTQ) to 50 college-aged persons. Ss were retested exactly 2 days later and the average reliability coefficient was .75. A comparison of Ss' responses with those of younger adolescents previously studied with the CTQ indicated that the responses were markedly similar.—*Journal abstract.*

6701. Fitzsimmons, Stephan J. & Osburn, Hobart G. (6 Frost St., Cambridge, Mass.) **The impact of social issues and public affairs television documentaries.** *Public Opinion Quarterly*, 1968(Fall), Vol. 32, 380-397.—Investigated the effects of TV news documentaries on the viewer's knowledge level, attitudes and attitude dimensions, and potential for changing certain behaviors. 161 undergraduates were shown TV documentaries dealing with 5 different topics and were then compared to a matched control group of 152 Ss. Particular attention was paid to affects that occurred irrespective of topic, the role of initial position in mediating change, and the interrelationship among changes. "Open-mindedness" was assessed by the Rokeach Dogmatism Scale, and "intelligence" by scores on the verbal section of the Scholastic Aptitude Test (SAT). Exposure led to significant gains in information and changes in attitudes. Open-mindedness and initial position had no appreciable effect on information gain, but SAT scores were significantly related. Effects of exposure on closure of attitudes is discussed.—*Journal abstract.*

6702. Gray, Bernadette G. (St. Louis U.) **Attitudes toward law and order as a function of sex, generalized expectancy for internal versus external locus of reinforcement and dogmatism.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4994.

6703. Hampden-Turner, Charles & Whitten, Phillip. **Morals left and right.** *Psychology Today*, 1971(Apr), Vol. 4(1), 39-43, 74-76.—Surveys relating political attitudes to Kohlberg's 6 level conception of moral development were conducted in San Francisco and Boston. Key findings include: (a) radicals and liberals use different levels of moral judgment, (b) college activists are found at both the highest and the lowest stages of moral development, (c) it is seldom possible to comprehend judgments more than 1 level above one's own level, and (d) growth in moral judgment can be induced by conflicts between stages.—*E. J. Posavac.*

6704. Lee, Dorothy E. (U. Iowa) **Beliefs about self and others: A test of the dogmatism theory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4887.

6705. Markley, O. W. (Stanford Research Inst., Menlo Park, Calif.) **Latitude of rejection: An artifact of own position.** *Psychological Bulletin*, 1971(May), Vol. 75(5), 357-359.—Proposes that the latitude of rejection

of attitude statements as measured by the method of ordered alternatives is artifactually contaminated by the extremity of own position. An unsuccessful attempt to find a more direct measure of the threshold of rejection is described. It is concluded that differential "ego" or attitudinal involvement across varying own positions cannot be validly inferred by use of either the latitude or the threshold of rejection since the latter ideally requires the property of equal intervals, which is not achieved in most applications. It is recommended that the use of the latitude measures for comparison of differential involvement between respondents be limited to responses of equal extremity of own position.—*Journal abstract.*

6706. Melamed, L. (U. Witwatersrand, Johannesburg, South Africa) **Mac Crone's race attitudes scale: Thirty years after.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 202-208.—Administered I. D. Mac Crone's scale of ethnic attitudes to 57 undergraduates. Results were compared with those obtained by Mac Crone in 1937. Marked changes were observed in the scale and Q values. The changes in scale values were partly explained by a change in the method of scale value assessment and by changes in Ss' perceptions of the items. Q value changes were possibly due to the smaller sample and a nonuniform shift in ratings of items. It is concluded that while the scale can still be used for ordering respondents on a continuum, it cannot be used to determine absolute position on the scale.—*Journal abstract.*

6707. Parsons, Paul J. (U. Northern Colorado) **A study of values of Spanish-surname undergraduate college students at five state colleges in Colorado.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3883-3884.

6708. Penick, Benson E. (Kansas State U.) **Knowledge of black culture as a factor in attitudes and behaviors of whites and blacks.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4266-4267.

6709. Segal, Marcia T. (Indiana U.) **A study of responses to cognitive dissonance.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4888-4889.

6710. Solomon, Lawrence N. (United States International U., San Diego, Calif.) **A note on the ethical implications of values research.** *Journal of Humanistic Psychology*, 1970(Spr), Vol. 10(1), 30-32.—Although just begun, the behavioral scientific search for universal values has yielded encouraging findings. These point either "to an invariant factorial structure of moral values and ethical judgments across cultural boundaries... or to high cross-cultural similarity in need and goal structures...." As research advances, what is "desirable" to permit mankind optimal function grows ever clearer. The time may be nearing when behavioral scientists can no longer be "ethically neutral regarding deviation from the human values, the attainable traits, and the attainable social reality, which research illuminates."—*P. Swartz.*

6711. Statman, James M. (Yeshiva U.) **The role of value-orientations in the resolution of moral dilemmas.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4889.

Formation & Change

6712. Dawson, John L., Law, Henry; Leung, Andrew, & Whitney, Richard E. (U. Hong Kong) **Scaling Chinese traditional-modern attitudes and the GSR**

measurement of "important" versus "un-important" Chinese concepts. *Journal of Cross-Cultural Psychology*, 1971(Mar), Vol. 2(1), 1-27.—The traditional-modern attitude theory states that individuals exposed to conflicting ideas either develop compromise attitudes or use alternate modes of inconsistency reduction. This paper presents theoretical and scaling problems involved in the Chinese Traditional-Modern Scale and a model of susceptibility to attitude change. In an accompanying GSR experiment it was found that more important concepts elicited a significantly higher level of arousal in response to attitude change in the direction of peer-group pressure. Such pressure resulted in important concepts changing in a traditional direction and unimportant concepts in a modern direction.—*A. Krichew.*

6713. Edwards, John D. (Ohio State U.) **Resistance to attitude change: Application of the value bonding model to interpersonal attitudes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5602.

6714. Keating, John P. (Ohio State U.) **A politician's guide to success on the stump: Hire a heckler.** *Psychology Today*, 1971(Apr), Vol. 4(11), 70-72.—Distraction while listening to a persuasive message seems to inhibit the development of counterarguments and thus leads to greater attitude change. It may be that heckling at a political rally serves to distract the listeners and, thus, to cause them to retain more of the speaker's message.—*E. J. Posavac.*

6715. McDade, Henry. (Florida State U.) **Incentive and audience in attitude change associated with physiological concomitants.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5607.

6716. Riffer, Roger L. (Harvard U.) **Determinants of university students' political attitudes and presidential preference: A theoretical model.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4267.

6717. Robinson, Ernest L. (Wayne State U.) **An investigation of the motivational bases of inconsistency dilemmas: A functional analysis.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4267.

6718. Rodríguez Kauth, Angel. (Cuyo National U., San Luis, Argentina) **La evaluación de los cambios actitudinales mediante técnicas psicosociales.** [Evaluation of attitudinal changes through psychosocial techniques.] *Revista Latinoamericana de Psicología*, 1971, Vol. 3(1), 73-90.—Reviews the problems of attitude measurement and attitude change. Describes the technique of the panel, stressing its advantages and disadvantages in the evaluation of the direction and intensity of the attitude changes. Discusses some ethical issues about the psychologist's research purposes and the modification of attitude systems.—*English abstract.*

6719. Rosenbaum, Leonard L. (U. Maryland) **Sex of subject and importance of issue as determinants of pretest sensitization and resistance in attitude change.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4267-4268.

6720. Satir, Kenneth R. (Pennsylvania State U.) **Effect of commitment to counterattitudinal acts on attitude change.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4562.

6721. Stanley, Robert H. (Ohio U.) **Interpersonal attraction and social influence.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4269.

6722. Wernander, Marilyn Y. (U. Michigan) **Response to social influence: Public compliance and**

private acceptance as a function of social power and pre-existing attitudes. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4979.

6723. Zajonc, Robert B., Swap, Walter C., Harrison, Albert A., & Roberts, Paul. (Inst. of Experimental Psychology, Oxford, England) **Limiting conditions of the exposure effect: Satiation and relativity.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 384-391.—Studied some conditions which may modify the relationship between frequency of stimulus exposure and attitude. Exp. I and II, with a total of 39 male and 45 female undergraduates, utilized a within-Ss design. Significant exposure effects when the maximum number of exposures was 9, 27, or 81 were demonstrated. There was no tendency toward satiation, even at very high exposure levels. The level of affect for the maximum number of exposures was virtually identical across experiments, suggesting the possible relative nature of the exposure effect. In Exp. III with 96 male undergraduates, frequency was manipulated on a between-Ss basis, and the exposure effect failed to occur. In Exp. IV with 112 undergraduates, exposure to stimuli was manipulated as a within-Ss variable, while affective ratings were made on stimuli of a single frequency class. A significant exposure effect resulted. Results of the 4 experiments indicate that the exposure effect will occur (a) when the frequency manipulation is performed on a within-Ss basis, and (b) on a between-Ss basis only if the stimuli differ in distribution or the scale values are unambiguous.—*Journal abstract.*

Influence & Behavior

6724. Long, Huey B. (U. Georgia) **Information sources, dogmatism, and judgmental modifications.** *Adult Education*, 1971(Win), Vol. 21(2), 37-45.—Investigated the relative influence of the status of information sources on the behavior of individuals. 36 employees from a state governmental agency were assigned to 1 of 6 categories according to the status of information source and high or low scores on the Rokeach Dogmatism Scale. Each S completed a paper and pencil test using a version of Asch's vertical line test and then an oral test in which confederates made spurious selections. Results indicate that (a) high dogmatic Ss made more judgmental modifications when receiving information from peers, and fewer when receiving information from subordinates or superiors; (b) low dogmatic Ss favored superior information sources; and (c) overall judgmental modification was higher among Ss receiving information from a peer source. Findings suggest that peer group information may be assimilated more readily than similar information from a superior in the employment situation and that dogmatism may not be a dependable variable in conforming judgmental decisions.—*Journal abstract.*

GROUP & INTERPERSONAL PROCESSES

6725. Atyas, Victor. (U. Tennessee) **Creative and utilitarian interpersonal relating, theoretical and operational considerations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5613.

6726. Banikiotes, Paul G. (Purdue U.) **Interpersonal attraction in simulated and real interactions.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4979-4980.

6727. Benedict, Barbara A. (Columbia U.) **The effects of self-disclosure on the development of trust.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5601.

6728. Berger, Joseph & Fisek, M. Hamit. (Stanford U.) **Consistent and inconsistent status characteristics and the determination of power and prestige orders.** *Sociometry*, 1970(Sep), Vol. 33(3), 287-304.—Investigated the following problem: given that the members of a task-oriented group are differentiated with respect to 2 or more status characteristics instrumental to their task, how is the distribution of these characteristics related to the group's power and prestige order? A theoretical analysis of this problem is presented. 2 alternative mechanisms are proposed to account for how expectations are formed in multicharacteristic task situations: a "balancing" mechanism, and a "combining" mechanism. Results with 76 male junior college students in an experiment specifically designed to discriminate between these mechanisms provide support for the combining mechanism formulation. (15 ref.)—*Journal abstract*.

6729. Certner, Barry C. (U. Cincinnati) **The exchange of self-disclosures in same-sexed and heterosexual groups of strangers.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4885.

6730. Coen, Charles J. (Michigan State U.) **A field study of leadership in a complex organization.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3708.

6731. Collingwood, Thomas R. (State U. New York, Buffalo) **Differential effects of large and small group training and retraining on the long term retention of facilitative communication.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5617.

6732. Collingwood, Thomas R. (Hot Springs Rehabilitation Center, Ark.) **Toward identification of plus and minus training groups.** *Rehabilitation Research & Practice Review*, 1970(Fal), Vol. 1(4), 27-31.—Distinguishes between a plus and minus (effective vs. ineffective) training group. A plus group results in an individual's walking away from a group experience with insight of action to function more effectively in the physical, intellectual, emotional, and interpersonal spheres of life. A minus group experience is the result when the individual comes away feeling that he is less confident of himself. Certain communication variables, when present or not present, add or subtract from the process, e.g., empathy, respect, genuineness, and concreteness. The most critical variable is how well the trainer is functioning. A minus group tends to go toward extremes. It either functions to coerce members to conform or there is lack of direction. Insight without direction leads nowhere; a group experience which offers both insight and action to live a more effective life is a real source of gain.—A. M. Farfaglia.

6733. Curry, Timothy J. & Emerson, Richard M. (U. Washington) **Balance theory: A theory of interpersonal attraction?** *Sociometry*, 1970(Jun), Vol. 33(2), 216-238.—Discusses T. Newcomb's theory of acquaintance processes, the AB-X theory which concerns 2 persons, A and B, and their joint relationship to some object, X, as that relationship is perceived by 1 of them. Newcomb's study was replicated in a university dormitory containing 8-person natural living groups and extended to study the influence of variables derived from W. Chambliss's theory of attraction. 6 male and 3 female

groups were studied over an 8-wk period. Data from some of the groups paralleled Newcomb's, but revealed considerable variation between groups unexplained by the AB-X formulation. Alternative explanations are examined. It is concluded that group substructuring and perceptual-judgmental interpretations of ambiguous stimuli account for relations previously attributed to the AB-X processes. The variable most strongly associated with attraction was Chambliss's variable of success based on an interactional approach. Interpretations of this variable via social exchange theory parsimoniously achieves explanation of the data gathered on the longitudinal aspects of reciprocity in social relations, and further questions the advisability of a cognitive balance approach to long-term attraction. (30 ref.)—*Journal abstract*.

6734. Dreyer, H. & Grabitz, H. (113 Prinzess-Luise Str., Mulheim an der Ruhr, W. Germany) **Das Bewertungsquadrat: Eine Methode zur Erfassung von Einstellungsänderungen.** [The evaluation table: A method for the assessment of attitude changes.] *Psychologie und Praxis*, 1970(Jul), Vol. 14(3), 97-102.—The method intends to evaluate attitude and behavior changes in connection with leadership behavior after a series of training sessions. The questions submitted to the Ss participating in leadership training are arranged in such a way that each item is weighted against another item with a resulting favorable response (preference). Results are dichotomized on the basis of above and below median location and entered in a 2 x 2 table for statistical treatment. Pre- and postmeasures are required.—R. F. Wagner.

6735. Fisek, M. Hamit & Ofshe, Richard. (Stanford U.) **The process of status evolution.** *Sociometry*, 1970(Sep), Vol. 33(3), 327-346.—Considers the development of status structures in task-oriented discussion groups. Results with 177 male undergraduates in 3-man groups indicate that groups attain status differentiation through at least 2 distinct paths. Approximately 1/2 the groups studied displayed marked differentiation in member participation as early as the 1st min. of the group session. The remaining groups displayed near equality in initial participation and appeared to evolve dominance structures during the course of interaction. Differences between members of the 2 types of groups were found in (a) the degree of differentiation in participation at the close of the discussion session; (b) recognition of differential contributions in guidance, ideas, and ability at the task; and (c) certain aspects of the qualitative performance of group members. It is suggested that, in direct opposition to the generally accepted belief, differential participation leads to differential cognition. (24 ref.)—*Journal abstract*.

6736. Fonyó, Ilona. **A társ kapcsolatok elemzése kontaktometria módszerrel.** [Analysis of social relationships by the contractometry method.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 422-427.

6737. Foulds, Melvin L. (Bowling Green State U.) **Effects of a personal growth group on a measure of self-actualization.** *Journal of Humanistic Psychology*, 1970(Spr), Vol. 10(1), 33-38.—20 "normal," relatively healthy, growth-seeking college undergraduates participated in 9 weekly personal growth group sessions of 4 hr. each. The facilitator was of an experiential-Gestaltist persuasion. Group mean scores on all 12 Personal Orientation Inventory scales changed positively. For 8 of the scales the change was statistically significant. Among

a control group, no significant shifts in mean scores occurred. It is concluded that "the personal growth group appears to be 1 effective method for fostering increased self-actualization and the personal growth process in normal college students."—P. Swartz.

6738. Frahm, John H. (Michigan State U.) **Verbal-nonverbal interaction analysis: Exploring a new methodology for quantifying dyadic communication systems.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4990-4991.

6739. Gattton, Michael J. (Purdue U.) **Behavioral aspects of interpersonal attraction.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4991.

6740. Gordon, Andrew C. (Columbia U.) **Friends, strangers and manipulated stress.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4886.

6741. Hammann, Kalen A. (U. Michigan) **Trainer orientation, member experience, and empathy: A true experiment exploring the source and kinds of impact of sensitivity training.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4969-4970.

6742. Harold, Edward S. (Iowa State U.) **Dating adjustment and dating satisfaction: An application of exchange theory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4917.

6743. Harper, Richard A. (U. North Dakota) **The effects of sex and levels of acquaintance on risk-taking in groups.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4461.

6744. Harris, Sandra L. (State U. New York, Buffalo) **Subject non-compliance in the psychological experiment.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5603-5604.

6745. Hartness, Helen T. (Oregon State U.) **Analysis of dating decisions made by college freshmen women while random and steady dating.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5604.

6746. Hawkes, Frederick J. (Colorado State U.) **Non-content verbal behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5663.

6747. Jourard, Sidney M. & Resnick, Jaquelyn L. (U. Florida) **Some effects of self-disclosure among college women.** *Journal of Humanistic Psychology*, 1970(Spring), Vol. 10(1), 84-93.—12 women designated as high disclosers and 12 as low disclosers were selected from a sample of 80 female undergraduates, on the basis of scores on a self-disclosure questionnaire. A 2-part experiment was conducted, inquiring into (a) the predictive value of the selection instrument at forecasting self-disclosure in a dyadic situation, and (b) whether an S would increase or decrease her predicted level of self-disclosure when paired with a partner who differed from her in self-disclosure. The low-disclosing Ss disclosed less to their partners than did the high-disclosing Ss when dyads were formed with like-disclosing pairs. When low disclosers were paired with high disclosers, however, the latter remained high disclosing and the low disclosers showed a significant increase in self-disclosure to their partners.—*Journal summary*.

6748. Knoflicek, William J. (Purdue U.) **Induction and maintenance of interpersonal attraction through an interaction.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4999.

6749. Kreilkamp, Thomas K. (New York U.) **The dimensions of psychological distance.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4887.

6750. Lindsold, Sverre A. (U. Miami) **Threatening and conciliatory influence attempts as a function of source's perception of own competence in a conflict situation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4887-4888.

6751. Loper, Marvin D. (U. California, Los Angeles) **Videotaped feedback and changes in self-concept during and after sensitivity training.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3712-3713.

6752. Lucas, Rex A. (Columbia U.) **Social behavior under conditions of extreme stress: A study of miners entrapped by a coal mine disaster.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4906.

6753. Maier, Norman R. (U. Michigan) **Male versus female discussion leaders.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 455-461.—Based upon impressions gained from listening to taped problem-solving groups, the hypothesis was developed that in a situation where a standard solution is not provided the sex of the leader will determine the degree of dominance. A changing work procedure problem was used under 2 conditions: with and without a suggested solution. 384 undergraduates were divided into 96 groups of 4 Ss each (2 male and 2 female members). The group solutions were classified as worker's preference, integrative method, and leader's preference. The leader's preference solution was defined as the suggested solution provided. The integrative method was a partial solution which reflected a median position and the worker's preference was inclined toward continuation of the current practice despite its apparent inefficiency. The results, presented as percentages with a chi-square analysis, indicate that for male leaders the type of solution reached was independent of the problem situation but there was a significant difference for female leaders. When a standard solution was provided the female leader's preference was obtained 66.7% of the time while only 20.8% of the time under the facts-only condition. D. L. Dieterle.

6754. Marin, Irwin C. (U. Michigan) **The dynamics of affect linkages in social groups.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4264.

6755. McConnell, Howard K. (Carnegie-Mellon U.) **The role of individual differences in human relations laboratory training.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4888.

6756. Mehrabian, Albert & Ksionzky, Sheldon. (U. California, Los Angeles) **Factors of interpersonal behavior and judgment in social groups.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 483-492.—Explored dimensions used to describe persons within closely-knit social groups. 22 male and 18 female members of a student church group completed sociometric, personality, and family make-up questionnaires. Ss used 2 independent dimensions in describing one another: another's positive and negative reinforcing qualities. The sociometric questionnaire which yielded these 2 factors is considered to be a potentially useful device for characterizing an individual within any social organization and according to a 4-fold classification: (a) positively and negatively reinforcing to others, (b) positively but not negatively reinforcing to others, (c) negatively but not positively reinforcing, and (d) neither positively nor negatively reinforcing. Correlations show that males were less affiliative and were judged as more negatively reinforcing than females. (19 ref.)—*Journal abstract*

6757. Meltzer, Leo; Morris, William N., & Hayes, Donald P. (Cornell U.) **Interruption outcomes and vocal amplitude: Explorations in social psychophysics.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 392-402.—Illustrates the utility of a social psychophysical approach—investigations of social behavior as functions of precisely measured physical aspects of communicative behavior. 120 male undergraduates served as Ss. A multiple correlation of .79 was obtained between the percentage of successful interruptions in discussions and (a) the change in interrupter's vocal amplitude from before to during the interruption, and (b) the difference between the interrupter's and interruptee's amplitude during simultaneous speech. In cross-validation, scores derived from the 2-variable regression equation correlated .60 with the observed scores. The defender's amplitude was generally a more potent determinant of interruption outcomes than the attacker's amplitude. Within any dyad, the greater the amplitude differentials, the greater was the likelihood of interruption success. Amplitude variable *a* was particularly effective in determining the outcome of very short interruptions, while *b* was effective for all but very long contests. Data suggest that certain features of verbal social interaction may be more dependent upon nonverbal cues than upon the semantic content of the utterances spoken. (24 ref.)—*Journal abstract*.

6758. Meux, Eleanor F. (U. Utah) **An experimental analogue of pollution and population problems: An N-person game of chicken.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4973.

6759. Murdoch, Peter & Rosen, Dean. **Norm formation in an interdependent dyad.** *Sociometry*, 1970(Sep), Vol. 33(3), 264-275.—Studied power use, interpersonal accommodation, and trading agreements in 74 undergraduates in dyadic relationships involving a joint work task. In the trading agreements each S restrained his capability to disrupt the relationship in exchange for a similar restraint from the other S. In the relationship, a high-power S's capability to disrupt was based on a conflict of interest with a low-power S, whose capability to disrupt was based on defection to an alternative thereby hurting the high-power S. Conflict of interest, varied as high and low, was crossed with level of alternative, varied as attractive and unattractive. It was predicted and found ($p < .05$) that more interpersonal accommodation and trading agreements occurred when both Ss rather than 1 or neither S possessed high disruptive capability.—*Journal abstract*.

6760. O'Day, Rory. (U. Michigan) **Training styles in self-analytic groups.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4265.

6761. Rich, Robert O. (Brigham Young U.) **The relationship between value balance and cross-sex attraction of engaged couples.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4920.

6762. Sashkin, Marshall. (U. Michigan) **Supervisory leadership in problem solving groups: Experimental tests of Fred Fiedler's "theory of leadership effectiveness" in the laboratory using role play methods.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5048-5049.

6763. Schmitt, David R. & Marwell, Gerald. (U. Washington) **Taking and the disruption of cooperation.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 405-412.—Describes 3 experiments with 15 pairs of undergraduates in which Ss could

either cooperate or respond on a lower-paying individual task. In Exp. I and II, either S could make a response that took \$1.00 of the other's earnings whenever Ss chose to cooperate. The 2 experiments differed as to whether taking responses were effective continuously or intermittently, and showed that the opportunity to take disrupted cooperative behavior. Exp. III indicated that if taking was possible regardless of whether Ss cooperated or responded on the individual task, Ss either cooperated or terminated the experiment.—*Journal abstract*.

6764. Scioli, Frank P. (Florida State U.) **Political attitude, verbal behavior, and candidate selection in experimental small groups.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4860-4861.

6765. Sheskin, David J. (U. Kentucky) **An extension of the concept of personal space.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4977.

6766. Shore, Clement W. (Oklahoma State U.) **Risk taking and rationality in individual, group, and leadership situations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4978.

6767. Tiller, Richard H. (U. Tennessee) **Cooperative behavior in a Prisoners Dilemma game as a function of selected reinforcement schedules and personality variables.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5645.

6768. Tomch, Aida K. (Bowling Green State U.) **Birth order and friendship associations.** *Journal of Marriage & the Family*, 1970(Aug), Vol. 32(3), 360-369.—Analyzed the relationship between birth order and friendship associations in a study based on a sample of 523 18-23 yr. old female undergraduates in the Middle East. The main finding is that last-born girls tend to visit with friends more frequently than 1st and in-between children. However, the same pattern by birth order does not always hold when intensity of interaction with friends is considered. The relatively high participation with friends on the part of last borns as compared to 1st-borns may reflect the beginning of change in the functions of the family. The apparent high friendship interaction of all the different groups studied emphasizes group solidarity based on affectivity as its major base of strength. (42 ref.)—*Journal abstract*.

6769. Well, Pierre. (Federal U. Belo Horizonte, Brazil) **Dinâmica de grupo e psicodrama no ensino da psicologia social.** [Group dynamics and psychodrama in the area of social psychology] *Arquivos Brasileiros de Psicoterapia*, 1968(Sep), Vol. 20(3), 23-29. Describes the division of psychology students into 2 psychodynamic groups, 1 which verbalized, the other which observed. The groups interacted and changed their respective roles for 10-min sessions. The participants analyzed their observations and discussed the favorable and unfavorable aspects of group dynamics. An observation program for future sessions was proposed.—P. Hertzberg.

6770. Weissman, Herbert N., Seidman, Martin, & Ritter, Kenneth. **Changes in awareness of impact upon others as a function of encounter and marathon group experiences.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 651-661. Assessed the efficacy of encounter (E) and marathon group experiences in inducing changes in perception of self and others and in personal and interpersonal dimensions of psychological functioning. Formulation and changes in attitudes toward the group were examined as well. Objective tests were administered to E and control groups consisting of

17 graduate students in psychology. Forced-choice peer-nomination rating forms and attitude questionnaires were administered at various points to the E group and the Barron-Welsh Art Scale and the Fundamental Interpersonal Relations Orientation-Behavior Scales to both groups. Peer-nomination data indicate Ss became more accurate in predicting how group members viewed them but did not change their self-perceptions in alignment with group ratings. (17 ref.)—*Journal abstract.*

6771. Wilson, Thomas A. (Harvard U.) **The effect of racial group membership and cross-race contact on the communication of expectancies.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4891.

6772. Yarger, Sam J. (Wayne State U.) **A correlational study of leader behavior and group performance in a task oriented behavior setting.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3977-3978.

6773. Yinon, Yoel. (U. California, Los Angeles) **The role of aggression in the risky shift: A test of the diffusion of responsibility and the social value hypotheses.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4270-4271.

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6774. Blake, Brian F. & Heslin, Richard. (St. John's U.) **Evaluation apprehension and subject bias in experiments.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 57-63.—Examined the effect of an S's awareness that his adjustment is being evaluated upon 2 forms of bias, conformity to the E's expectancies (Rosenthal effect) and socially desirable responding. Expecting $\frac{1}{2}$ the Ss to prefer 1 kind of picture, each of 4 Es ran 32 female undergraduates (a total of 128 Ss) in a picture-rating task. The pictures varied in social desirability and the experimental context was either evaluative or nonevaluative. A significant Rosenthal effect which did not depend upon an evaluative setting appeared. Also, Ss made more socially desirable responses in an evaluative setting; this effect decayed over time during the experimental session. The validity of the Rosenthal effect and the limited bias introduced by an evaluative context are discussed.—*Journal abstract.*

6775. Bobele, Harvey K. (U. California, Los Angeles) **An exploratory study of the use of body-movement as a personal growth adjunct in sensitivity training.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4982.

6776. Collingwood, Thomas R. (Pittsburgh YMCA Counseling Service, Pa.) **Retention and retraining of interpersonal communication skills.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 294-296.—40 undergraduates, all of whom had received training in empathy, respect, genuineness, and concreteness were followed up at monthly intervals for 5 mo. Between the 3rd and 4th follow-up period, 18 Ss received 2.5 hr. of retraining. All Ss responded in writing to 8 taped client stimulus expressions, and ratings by 2 raters were accomplished using the Overall Facilitative Functional Scale. There was an initial slippage which paralleled results obtained in learning studies investigating retention. Retraining increased the Ss' functioning to peak levels.—E. J. Kronenberger.

6777. Jones, Stephen C. & Shrauger, J. Sidney. (Cornell U.) **Reputation and self-evaluation as de-**

terminants of attractiveness. *Sociometry*, 1970(Sep), Vol. 33(3), 276-286.—Investigated the effect of the correspondence between an individual's reputation and his self-evaluation on his attractiveness for others. 92 female undergraduates were given information depicting a stimulus person as a high or low worth individual, and then listened to a tape recording of the same stimulus person describing herself in a self-enhancing or self-derogating manner. Conditions were arranged in a 2×2 factorial design. Results show that Ss found the stimulus person more attractive in the high than in the low reputation condition. Furthermore, the reputation and self-evaluation conditions interacted so that the high self-evaluator tended to be more attractive than the low self-evaluator in the high reputation condition and the low self-evaluator tended to be more attractive than the high self-evaluator in the low reputation condition.—*Journal abstract.*

6778. Leib, Jere W. (Ohio U.) **The effects of group relaxation training and group discussion on verbal productivity: Some implications for group therapy.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5000-5001.

6779. Mehrabian, Albert. (U. California, Los Angeles) **Nonverbal betrayal of feeling.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 64-73.—In 3 experiments with 56, 48, and 41 paid undergraduates, respectively, the behaviors of deceitful communicators were explored to study the more general situations in which a person is unwilling or unable to communicate his feelings verbally. The hypothesis which received some support was that of negative affect—indicating nonverbal cues occur more frequently in deceitful than in truthful communications. Communicators exhibited less frequent movements while they were being deceitful, assumed less immediate positions relative to their addressees, talked less, talked slower, had more speech errors, and smiled more. In addition to their relevance for deceit, the findings also provide detailed information about the significance of the various nonverbal cues employed in the study.—*Journal abstract.*

6780. Morris, Harvey S. (U. Nebraska) **Effects of psychopathology, group composition, and sex on group consensus and cooperation in a four-person game.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5002-5003.

6781. Rosen, Sidney & Tesser, Abraham. (U. Georgia) **On reluctance to communicate undesirable information: The MUM effect.** *Sociometry*, 1970(Sep), Vol. 33(3), 253-263.—Tested the common sense notion that people will be more reluctant to communicate information which is negative rather than positive for the recipient. 16 male and 20 female undergraduates served as Ss under conditions that eliminated (a) the recipient's prior behavior toward the communicator, (b) specified present or anticipated role relationships and/or interaction, (c) a unit relation between communicator and message, and (d) obvious anticipated rewards and punishments as a consequence of transmission (or nontransmission). Even when these factors were controlled for, the hypothesized effect was obtained ($p < .001$). The difference in communication rates as a function of whether the news was good or bad is discussed in terms of some of the costs which might inhere in the communication situation per se and of other variables which might moderate the relationship.—*Journal abstract.*

6782. Savicki, Victor E. (U. Massachusetts) **Self-disclosure strategy and personal space proximity in intimacy development.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5008-5009.

6783. Shilling, Louis E. (U. Georgia) **The differential effect of two small-group training procedures upon the acquisition of interpersonal communication skills and the extinction of interpersonal anxiety.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4977-4978.

Social Perception & Motivation

6784. Albert, Stuart. (City U. New York, Graduate Center) **Interpretation of temporal trends.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 311-322.—Considers temporal experience as a set of temporal trends in which situationally defined properties are plotted over time. In Exps. I and II with 30 and 38 male and female undergraduates, the primary set of trends expressed graphic patterns of 0, moderate, or high temporal variabilities in (a) an attitude, (b) a behavior (smoking), or (c) a physical state (pollution). At the end of the time portrayed by the graph, the S was to assume an influence attempt to lower the trend. Attitudinal fluctuation prior to influence implied susceptibility to influence, whereas variation in smoking or pollution level did not. This finding is interpreted as the differential operation of homeostatic processes within situations that have explicit goals vs. situations that do not. Exp. III with 34 undergraduates and 16 volunteers, tested this explanation with a set of trends varying in slope. The use and limitations of temporal trends as a device for studying temporal experience are discussed. (18 ref.)—*Journal abstract*.

6785. Bernhardtson, Clemens S. & Fisher, Ronald J. (U. Saskatchewan, Saskatoon, Canada) **Perceptions of social desirability and frequency of occurrence of traits and the probability that the traits will be endorsed.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 571-576.—1 group of 72 students estimated the percentage of their fellow students characterized by each of 100 traits while another group of 74 students responded "true" or "false" to each trait. The correlation between the social desirability values of the traits and probability of endorsement was .80 while the correlation between the perceived frequency of occurrence of these traits and the probability of endorsement was .86. The multiple correlation of frequency of occurrence and social desirability with probability of endorsement was .88 and .10 of the variance in the endorsement variable was directly associated with variance in the social desirability variable while .37 of the variance in the endorsement variable was directly associated with variance in the frequency of occurrence variable.—*Journal abstract*.

6786. Boyle, Richard & Bonacich, Phillip. **The development of trust and mistrust in mixed-motive games.** *Sociometry*, 1970(Jun), Vol. 33(2), 123-139.—Proposes improvements for the theory of consensus formation developed by T. Scheff (see PA, Vol. 41:16254) as a solution to mixed motive games. Scheff's assumption of a "motivation to coordinate" and his failure to show how consensus develops over time are discussed. Modifications and extensions for the theory are proposed which (a) allow for the development of a noncooperative as well as a cooperative consensus; (b) account for the gradual creation or destruction of trust

between players, where the level of trust at any time is a function of the past interaction in the game and determines the future interaction; and (c) account for the 1st strategy choices with an index of "caution" based on the values in the game. (26 ref.)—*Journal abstract*.

6787. Bryson, Jeff B. (Purdue U.) **A correlative approach to the analysis of impression formation processes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4967-4968.

6788. Collins, W. Andrew. (Stanford U., Inst. for Communication Research) **Idiosyncratic verbal behavior of interviewers.** *Report of the Institute for Communication Research, Stanford U.*, 1968(Oct), 18 p.—Presents evidence that interview bias exists in the response recording of open-ended questions. Content analysis of major and minor encoding patterns, idiosyncratic verbal behavior, was completed on schedules received from 2 interviewers and compared with that of 3 other interviewers. Analysis of word repetition frequency and number of words in each response yielded interviewer differences significant at the .001 level. The possibility that situational factors may have influenced these results was examined. Mean number of words/question for 3 interviewers was correlated for time of interview in the survey period, type of attempt, number of attempts, and sex of the respondent. No significant differences were found for the variables considered. Implications for the use of open-ended questions in research are discussed. Suggestions for the training of interviewers are presented. (22 ref.)—S. Knapp.

6789. Cooper, Joel. (Princeton U.) **Personal responsibility and dissonance: The role of foreseen consequences.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 354-363. Tested the proposition that personal responsibility is a necessary condition for the arousal of cognitive dissonance. A person was considered to feel personally responsible for his behavior if he voluntarily chose to act in a discrepant way and was able to foresee the consequences of his choice. 124 female undergraduates either chose or were ordered to work with a partner who, for the purpose of their interaction, had negative characteristics. The partner's negative characteristics either were or were not foreseeable prior to S's decision to work with her. It was predicted that Ss whose partners were freely chosen and whose negative traits were known beforehand would experience dissonance. Such Ss were expected to reduce their dissonance by liking their partners more as the degree of their partners' undesirable trait increased. All other Ss were expected to show an inverse relationship between their liking for their partners and the degree of their partners' negative trait. Results generally support the predictions. (20 ref.)—*Journal abstract*.

6790. Crandall, James F. (U. Idaho) **Effects of intolerance of ambiguity upon interpersonal attraction.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 550.—Reports that previous research has suggested that Ss who are intolerant of ambiguity possess characteristics producing greater likability. 2 experiments with a total of 60 Ss revealed the opposite effect. Intolerant Ss were liked less than more tolerant Ss. Even those who were themselves intolerant of ambiguity preferred others who were more tolerant. Differences in self-descriptions on the Leary Interpersonal Adjective Checklist, as a function of tolerance-intolerance of ambiguity, were similar to those found earlier.—*Author abstract*.

6791. Dorfman, Donald D., Keeve, Susan, & Saslow, Carl. (U. Iowa) **Ethnic identification: A signal detection analysis.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 373-379.—Investigated the suggestion of G. Allport and B. Kramer (see PA, Vol. 20:4204) that Ss high in anti-Semitism are more accurate at discriminating Jews from non-Jews than Ss low in anti-Semitism. Whether sensitivity in such a task is a function of anti-Semitism was tested. Ss were 108 non-Jewish undergraduates. Through signal detection theory, indexes of sensitivity and response bias were obtained from receiver-operating characteristic curves in a task requiring the identification of Jews and non-Jews from facial photos. Results show that sensitivity was greater for high-prejudiced Ss. The difference between the 2 groups was quite small. On response bias, high-prejudiced Ss were more confident of their judgments than low-prejudiced Ss, and this result was found with sensitivity held constant. High-prejudiced Ss showed slightly greater sensitivity ($p < .05$) and were significantly more confident of their judgments ($p < .001$) than low-prejudiced Ss. The existence of a prejudiced personality type is briefly considered. (17 ref.)—*Journal abstract.*

6792. Elsenhath, Sherman. (Boston U., Medical School) **Attribution of mental illness in relation to sex of respondent and sex of rated stimulus person.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 471-474.—31 male and 79 female undergraduates rated the degree of mental illness of 10 case descriptions on a 5-point scale. 2 forms were used, matched for the 10 case problems but varied for case sex. Analysis of variance yielded significant main effects for sex of the respondent and case sex. Male respondents attributed more mental illness than female respondents to the cases. The mean rating of case sex for male items was significantly higher than female items. However, 6 of the 7 items which varied sex between forms failed to differ significantly.—*Journal abstract.*

6793. Gitter, A. George & Fishman, Janet E. **Leadership: Nonverbal communication, verbal communication, race of target and sex of perceiver.** *CRC Report*, Boston U., 1969(May), No. 41, 76 p.—Investigated the effects of nonverbal communication (NVC), verbal communication (VC), race of target, and sex of perceiver on person perception. 151 Caucasian undergraduates were assigned to 8 experimental groups. Ss viewed an actor, who appeared to be Caucasian or Negro, presenting a verbally strong or weak script with strong or weak NVC. Ss then completed a 51-item rating scale on characteristics of the actor. Manipulation of NVC produced the main effects, followed by VC, race, and sex. Results of multivariate analysis indicate significant effects of (a) NVC on the perception of leadership, empathy, wise man, and nice guy; (b) VC on perception of leadership, wise man, and nice guy; (c) race on perception of empathy, wise man, and nice guy; and (d) sex on perception of leadership and nice guy. (6 p. ref.)—*Journal abstract.*

6794. Kaplan, Martin F. (Northern Illinois U.) **Dispositional effects and weight of information in impression formation.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 279-284.—Investigated response dispositions, or initial impressions existing prior to presentation of stimulus traits, in the impression formation paradigm. Response disposition, likability, and weight of stimulus traits were varied in an

experiment with 80 female undergraduates. Consistent with a weighted average model of information and initial impression integration, positive dispositions were associated with greater positivity of person impressions, independent of stimulus likability level. The magnitude of the dispositional effect diminished when greater weight was associated with stimulus traits. It is concluded that dispositions and stimulus value are averaged in forming impressions, the weight of the 2 components being inversely related. (24 ref.)—*Journal abstract.*

6795. Kaplan, Martin F. & Olczak, Paul V. (Northern Illinois U.) **Attraction toward another as a function of similarity and commonality of attitudes.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 515-521.—Hypothesized that agreement is a reinforcer, providing reward through consensual validation, and that agreement should therefore lead to greater attraction in minority opinion Ss than in majority Ss. 160 minority or majority male and female undergraduates compared attitudinal responses on an important or unimportant topic with a confederate who agreed with either 25 or 75% of responses. Further, regardless of initial position, $\frac{1}{2}$ the Ss were told they were in a minority, $\frac{1}{4}$ a majority. Confirming the hypothesis, increased agreement led to greater attraction for actual minority Ss on both topics, and for actual majority Ss only when given minority feedback on an important topic. (23 ref.)—*Journal abstract.*

6796. Martin, Dale A. (Florida State U.) **The differential effect of three dimensions of emotional meaning: Activity, valence, and potency upon identification of vocal emotional expressions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4467-4468.

6797. Martin, J. David. (Washington State U.) **Suspicion and the experimental confederate: A study of role and credibility.** *Sociometry*, 1970(Jun), Vol. 33(2), 178-192.—Reports 5 experiments investigating the relative "suspiciousness" of persons, some of whom were confederates and some uninstructed Ss, who performed different roles in small group discussions observed by undergraduate classes. Simple deviants, who took positions different from those which were modal for their groups, and persons whose behavior (including dress) was not internally consistent, elicited more suspicion than did conformers who were consistent. Actual stooges failed to elicit significantly more suspicion than naive Ss in comparably deviant roles. Recommendations on the use of confederates in experimental studies are presented. (22 ref.)—*Journal abstract.*

6798. McGinnis, James H. & Oziel, Leon J. (Xavier U., Cincinnati, O.) **Note: Primacy effects in impression formation.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 393-394.—Primacy effects accounted for differences in the mean ratings of the 2 groups of 8 female undergraduates each. Such effects in impression formation may be the result of 2 separate but interacting processes, i.e., S. E. Asch's directed impression formation and N. H. Anderson's decreased attention hypothesis.—*Journal abstract.*

6799. Merenda, Peter F. & Mohan, Jitendra. (U. Rhode Island) **Indian students' pre- and post-election perceptions of Nixon and Humphrey.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 677-678.—Using the activity vector analysis (AVA), 34 Indian students gave their perceptions of Richard Nixon (N) and of Hubert Humphrey (H) in October 1968, and again in January 1969. 4 identical clusters were found for each condition:

N-H (pre), N-H (post), N-N, and H-H, all centered around AVA pattern 9713 (administrative pattern). However, the average interprofile correlations for these 4 conditions show statistically significant differences, suggesting the outcome of the election influenced Ss' public image of the candidates.—*Journal abstract.*

6800. Michener, H. Andrew & Tausig, Mark. (U. Wisconsin) **Usurpation and perceived support as determinants of the endorsement accorded formal leaders.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 364-372.—Manipulated 2 independent variables, usurpation of control by the leader and perception that other members support the leader, in 2×2 factorial design over 3 trials. 40 male undergraduates, participating in 3-person groups, completed a test to determine apparent skill on the judgmental task confronting the group and then held an election to select a leader. The independent variables were varied through written messages received by the Ss. Results show significant main effects on the leader's endorsement for both usurpation and perceived support. No significant interactions were found, and data indicate that these effects were mediated differently. Usurpation of control caused members to become dissatisfied with participation, while perceived lack of support created dissatisfaction with the level of goal attainment.—*Journal abstract.*

6801. Mordkoff, Arnold M. (New York U.) **The judgment of emotion from facial expression: A replication.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 74-78.—Attempts to understand different results obtained by 2 similar studies of the judgment of emotion from facial expression using the semantic differential. The 1st and major factor obtained by A. M. Mordkoff (see PA, Vol. 41:9615) was labeled forceful-submissive and differed from the evaluative factor obtained by N. J. Frijda and E. Phillipszoon (see PA, Vol. 37:4291). The hypothesis investigated and supported in the present study with 25 Ss who were not medical students, was that the results previously obtained by Mordkoff were due to special characteristics of the Ss, 1st-yr medical students, who would tend to emphasize in their ratings considerations of power, i.e., a forceful-submissive dimension.—*Journal abstract.*

6802. Parker, Randall M. (U. Missouri) **The effects of disability attribution and personality type on person perception.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3883.

6803. Shaw, Jerry I. & Skolnick, Paul. (San Fernando Valley State Coll.) **Attribution of responsibility for a happy accident.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 380-383.—Tested 2 rival theories on the attribution of responsibility for accident: (a) the defensive attribution model of E. Walster (see PA, Vol. 40:2829) which states that as an accident increases in severity, more responsibility is attributed to the victim; and (b) "the world is just" model of M. Lerner (see PA, Vol. 39:9560) which states that people believe in a reasonable fit between merit and reward. 58 male and 58 female undergraduates reacted to stories of mild and severe, positive and negative accidents. Results tend to support the defensive attribution model, but certain findings in the supplementary data suggest that other mechanisms may be in operation.—S. Knapp.

6804. Simon, William E. (Southampton Coll.) **Helping behavior in the absence of visual contact as a function of sex of person asking for help and sex of**

person being asked for help. *Psychological Reports*, 1971(Apr), Vol. 28(2), 609-610.—30 male and 31 female students each telephoned 5 males and 5 females and asked them for help. It was found that females were more likely to be helped than males. Neither males nor females were any more likely to help. Some factors regarding generalizability are discussed.—*Journal abstract.*

6805. Worchel, Stephen & Brehm, Jack W. (Duke U.) **Direct and implied social restoration of freedom.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 294-304.—Tested 3 hypotheses: (a) a threat to the freedom to make 1 of 2 choices arouses reactance and a consequent increase in desirability of the choice; (b) the increase in desirability will be reduced to the extent that the threatened freedom is directly restored by another person; and (c) the increase in desirability will be reduced to the extent that another person, under the same threat to freedom, is observed to act so as to restore his own freedom. In Exp. I with 90 male undergraduates, the S and 2 confederates acting as Ss were to make a group decision between 2 alternatives. When 1 of the confederates demanded the selection of a particular alternative, Ss tended to want the other alternative. When the 1st confederate's demand was followed by the 2nd saying that he had not yet made up his mind, Ss tended to prefer the alternative demanded by the 1st confederate. In Exp. II with 36 male undergraduates, each group member was to make his own choice between the 2 alternatives, rather than there being a group decision. When 1 confederate demanded that all in the group choose a particular alternative, Ss tended to choose the opposite alternative. When that confederate's demand was followed by the 2nd confederate saying that he had not yet made up his mind (about his own choice), Ss tended to prefer the task demanded by the 1st confederate. Results confirm the hypotheses. *Journal abstract.*

6806. Crano, William D. (Michigan State U.) **Effects of sex, response order, and expertise in conformity: A dispositional approach.** *Sociometry*, 1970(Sep), Vol. 33(3), 239-252. Examined the effects of sex of both S and confederate, response order, and perceived confederate expertise upon the establishment and maintenance of conformant responses. 64 male and female undergraduates were tested individually with 1 of 4 confederates. Sex effects proved minimal when examined across the levels of expertise. The expertise manipulation, affecting S's perception of the quality of socially derived information, proved influential in training ($p < .001$), and in the effective absence of the confederate ($p < .001$). Differences as a function of response order, affecting information quantity rather than quality, were significant in training ($p < .001$), but disappeared with the removal of the confederate. The advantage of conceptualizing conformity as a difference in the degree to which perceptual or social modes of information-weighting are activated in arriving at a decision is discussed, emphasizing variables affecting differences in information quality and quantity. (15 ref.) *Journal abstract.*

COMMUNICATION

6807. Matson, Floyd W. & Montagu, Ashley. (Eds.) (U. Hawaii) **Human dialogue: Perspectives on com-**

munication. New York, N.Y.: Free Press, 1967. xx, 595 p.—Contains 49 articles concerning the problems of human communication and representing a wide range of disciplines including psychology, sociology, anthropology, political science, linguistic philosophy, mass culture and mass media, cybernetics, and information theory. An overview is included presenting monological and dialogical approaches to communication.

6808. Meyer, Timothy P. (Ohio U.) **The effects of viewing justified and unjustified fictional versus real film violence on aggressive behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4264-4265.

6809. Parker, Edwin B., Lingwood, David A., & Paisley, William J. (Stanford U., Inst. for Communication Research) **Communication and research productivity in an interdisciplinary behavioral science research area.** *Report of the Institute for Communication Research, Stanford U.*, 1968(Jul), 85 p.—Developed separate indices for the use of formal media and informal, interpersonal sources of information from data collected from 786 communications researchers. Both indices were "then included in multiple regression equations predicting research productivity from these and other factors. The major finding reported . . . is that use of informal scientific communication is the strongest single predictor of research productivity." Other consistent predictors include number of professional memberships, level of education (PhD or not), and recency of highest degree. It is concluded that facilitation of interpersonal contact among researchers should be encouraged by professional societies, employers, and relevant government agencies. The text of the questionnaire and response percentages, tables of intercorrelations, and a factor analysis of 55 variables are presented in appendices.—S. Knapp.

Language

6810. Dinero, Thomas E. (State U. New York, Buffalo) **The prediction of semantic differential responses using denotative referents: Validation of mathematical model for the generation of affect to words in isolation.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4541.

6811. Esposito, Nicholas J. & Pelton, Leroy H. (State University Coll. New York, Cortland) **Review of the measurement of semantic satiation.** *Psychological Bulletin*, 1971(May), Vol. 75(5), 330-346. Reviews studies which have used various measures of meaningfulness to measure semantic satiation, and in other ways have attempted to test the effects of semantic satiation. It is concluded that the effects of the phenomenon labeled as semantic satiation have not been reliably measured and are in doubt. An attempt is made to link semantic satiation to what has been called the verbal transformation effect. An alternative approach to the study of semantic satiation is suggested. (75 ref.)—*Journal abstract.*

6812. Gleseke, Martha. (National Inst. for Personnel Research, Johannesburg, South Africa) **Predicting the ability to learn a foreign language.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 218-221.

6813. Jaffe, Joseph & Breskin, Stephen. (Columbia U.) **Prediction of an individual speech pattern from dyadic interaction.** *Perceptual & Motor Skills*,

1970(Apr), Vol. 30(2), 363-368.—Tested 1 mathematical consequence of a Markov model of conversational rhythm empirically. 25 male and 25 female adult applicants to an outpatient psychotherapy clinic were Ss. It is that monologue represents a special case of dialogue in which 1 participant is silent (or absent). The interaction parameters unique to dialogue indeed contribute little if any information to the prediction of noninteractive speech rhythms. They are nevertheless essential to regenerate the dyadic system via the concatenation of monologue sequences.—*Journal abstract.*

6814. Kelly, L. G. (Ed.) **Description et mesure du bilinguisme: Un colloque international: Université de Moncton, 6-14 juin 1967.** [Description and measurement of bilingualism: An international seminar: University of Moncton, June 6-14, 1967.] Toronto, Ontario, Canada: U. Toronto Press/Canadian National Commission for UNESCO, 1969. xvii, 442 p.

6815. Kibrik, A. E. (Moscow State U., USSR) **Ob odnom sposobe zapisi lingvisticheskikh algoritmov.** [On one way of recording linguistic algorithms.] In V. A. Zvegintsev (Ed.), "Issledovaniya po rechevoi informatsii." (See PA, Vol. 44:3582) 72-90.—Presents an artificial language for describing linguistic algorithms—I which belongs to the so-called standard operator languages.—J. D. London.

6816. Kubiniec, Cathleen M. & Farr, S. David. (Temple U.) **Concept-scale and concept-component interaction in the semantic differential.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 531-541.—Compares various methods of analyzing semantic differential data. An alternative method is introduced which provides evidence of concept-component interaction. Implications for semantic differential measurement are discussed.—*Journal abstract.*

6817. Munsell, Paul E. (U. Michigan) **The relationship between aural discrimination and oral production.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4144.

6818. Murygina, Z. M. (Moscow State U., USSR) **Chlenenie rechi na diskretnye smyslovye edinitsy: Opyt analiza rechi na semanticheskom urovne abstraktsii.** [Division of speech into discrete sense units: An attempt to analyze speech at the semantic level of abstraction.] In V. A. Zvegintsev (Ed.), "Issledovaniya po rechevoi informatsii." (See PA, Vol. 44:3582) 160-189.—Presents an analysis of speech at the semantic level of abstraction, and the results of 3 experiments: (a) the perception of speech divided into units of sense, (b) comparisons of dialogical and monological speech with respect to 1 statistical characteristic (average length of sentence and comparative probability of the appearance of verbs), and (c) determination of linguistic contexts.—J. D. London.

6819. Smith, Roger C. & Dixon, Theodore R. (Civil Aeromedical Inst., Aeronautical Center, Oklahoma City, Okla.) **Frequency and the judged familiarity of meaningful words.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 279-281.—Describes 2 experiments with 30 and 150 undergraduates, in which Ss rated 198 verbs on a 5-point scale of familiarity. It was found that the relationship was better fit by a logarithmic than by a hyperbolic function for each S sample. This finding suggests that familiarity (a) increases without limit as a function of increasing frequency of encounter, and (b) is a comparative quality of stimuli which is associated with

ability to discriminate differences in frequency of occurrence of various stimuli.—*Journal abstract.*

6820. Todd, Thomas C. (New York U.) **Information theory and word perception: The effects of N-gram frequency, word frequency, pronunciability, and confusability on the discrimination between words and nonwords.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5043.

6821. Weingartner, Herbert & O'Brien, John P. (Johns Hopkins U.) **Discriminability of free associations.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 254-257.—50 Ss were administered a 74-item multiple-choice word-association test in which each item had 6 response words of varying strength. Ss did discriminate between the responses, and perceived relatedness between words can be predicted. "A uni-dimensional psychophysical intensity function describes the relationship between free associative response strength and perceived relatedness of word stimuli."—E. J. Kronenberger.

Psycholinguistics

AESTHETICS

6822. Burnett, Marie M. (Case Western Reserve U.) **The differential effects of experimental induction on film ratings as a function of levels of sophistication and task-set.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4884.

6823. Fischbach, Jerzy. **Badania nad odtwarzaniem układow rytmicznych.** [The research work for the rhythmic structures.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 61-70.—Examined 482 Ss of both sexes and various ages on reproduction of rhythmic series and groups. Ss with an education in music performed significantly better on the test. Age and sex were not significant variables. (Russian summary)—*English summary.*

6824. Wadden, Anthony T. (U. Iowa) **The novel as psychic drama: Studies of Scott, Dickens, Eliot, and James.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4737.

6825. Wheeler, Richard P. (State U. New York, Buffalo) **A psychological study of "All's Well That Ends Well."** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4739-4740.

SMOKING & DRUG & ALCOHOL USE

6826. ———. **Potted dreams.** *British Medical Journal*, 1969(Jan), Vol. 1(5637), 133-134.—Comments and criticizes a 1969 report issued by the Hallucinogen Subcommittee of England's Home Office Advisory Committee on Drug Dependence. Issue is taken with the "recommendations that the possession, supply, and smuggling of cannabis should be subject to lighter penalties than at present" instead of concentrating on diminishing "the use of a drug that causes mental disorientation." Also, criticized is the report's failure to explore the "probable effects on society of bringing into social use another intoxicant as well as alcohol."—S. Knapp.

6827. Alsever, William D. (Syracuse U., Student Health Service) **An evaluation of marihuana for school physicians, nurses, and educators.** *Journal of School Health*, 1968(Dec), Vol. 38(10), 629-638.—Stud-

ied the facts and fallacies about marihuana in order to be of help to those who seek to counsel students. Discussion centered around 3 questions: (a) What are the benefits of marihuana? (b) What effects does it have on the mind and body? and (c) Is marihuana harmless or harmful? Efforts to contain the drug problem center on marihuana, for it is the root of drug abuse at all levels of the educational process. A glossary of drugs is included. Marihuana is the world's most popular intoxicant next to alcohol. The effects of marihuana are (a) physical (bloodshot eyes, dilated pupils, cough, dry mouth, excessive thirst, hunger, frequency of urination, and lowering of the blood pressure), and (b) mental (the "high," defined as a dreamy euphoric state of inner contentment). Marihuana is compared to tobacco and alcohol, and the differences discussed. A distinction is to be made between marihuana and hashish, which is made from pure resin and is 5-8 times as potent. Conclusions are that it is not the innocuous drug its advocates claim, penalties for possession are excessively harsh, and it should not be legalized. The difference between marihuana and other drugs up to LSD and heroin is a matter of degree, not principle. (16 ref.)—A. Farfaglia.

6828. Briscoe, Raymond G. (U. Utah) **Educational implications of differences of perception by drug-using and non-drug-using students in Davis School District.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3767-3768.

6829. Cwalina, Gustav E. (Purdue U., School of Pharmacy & Pharmaceutical Sciences) **Drug use on high school and college campuses.** *Journal of School Health*, 1968(Dec), Vol. 38(10), 638-646.—Provides information on marihuana and LSD and places the abuse of drugs in proper perspective with other abuses, e.g., overeating, alcohol, and cigarette smoking. It is asserted that the United States is a drug-oriented society; 60% of all prescriptions written are for medication whose primary intended effect is psychoactive. It is suggested that correction or prevention of illness where possible would be a more effective and beneficial course. A bad example is set for the young. The term marihuana is applied to a number of preparations which varies in potency; the least potent marihuana has a potency relationship to hashish like that of beer to 95% alcohol. 64 countries in the world have antimarihuana laws. It is asserted that marihuana is the most harmful drug because it is illegal and its use or possession carries extreme penalties. Common signs of drug abuse are listed. Programs of education and prevention in schools must be up to date, sophisticated, and have accurate facts. Exaggeration and fear tactics must be avoided. There was a significant decline in the use of LSD in 1967-1968, because of the availability of factual information.—A. Farfaglia.

6830. Frumkin, R. M., Cowan, Ronald A., & Davis, James R. (Kent State U.) **Drug use in a Midwest sample of metropolitan hinterland high school students.** *Corrective Psychiatry & Journal of Social Therapy*, 1969(Win), Vol. 15(4), 8-13.—A random sample of 386 high school students in a Michigan County were given an anonymous questionnaire about their general backgrounds and specific experiences with nonmedically prescribed drugs to determine the kinds and amounts of drugs used. Results showed less than 1 in 4 had ever tried drugs. Reasons for the growth of drug use are discussed. (15 ref.)—M. B. Merk.

6831. Johnson, Frank K. & Westman, Jack C. (U.

Wisconsin) **The teenager and drug abuse.** *Journal of School Health*, 1968(Dec), Vol. 38(10), 646-654.—Studied marihuana, LSD, amphetamines, barbiturates, and toxic inhalants. It is stated that all can promote emotional psychological dependence, but rarely physical addiction. Marihuana produces a pleasant euphoric dreamlike state in which the senses of time and space are distorted, and self-confidence is increased. The adverse effects are parallel to those of alcohol and hinge on its use as an introduction to narcotics, possible aggravation of psychopathology in a predisposed individual, and possible injury because of impaired judgment. Facts argue for new legislation to separate it from the narcotics. LSD was first used for its value in psychiatric treatment. It is an exceedingly potent drug producing dramatic, permanent, mental and physical changes following a minute dose of 25 microgm. Other hallucinogens and amphetamines can produce drug habituation with a need for increased dosage creating a risk of psychiatric complications. It is necessary to bring the adolescent into our confidence; general education of the public represents the most significant step to minimize the adverse effects of drug abuse. (28 ref.)—A. Farfaglia.

6832. Jordan, Clifford W. (Coronado School System, Calif.) **A drug abuse project.** *Journal of School Health*, 1968(Dec), Vol. 38(10), 692-695.—Organized an educational program to relieve the drug abuse program. 2 important factors were stressed: (a) students must be involved in the development, operation, and evaluation of the program; and (b) means and methods of discovering why teen-agers use drugs must be found along with educating teen-agers about drug use. The course of study is divided into 3 phases: (a) exhaustive investigation of the drug situation; junior and senior high school students work with teachers and use information of consultants from medicine, science, sociology, anthropology, psychology, education, and the advertising world; (b) an intensive study of today's teen and subteen cultures and the effect of advertising and entertainment; and (c) a broad curriculum approaching solutions to teen and subteen drug problems. This type program gets at the basis for behavior and behavior changes. "It is entirely possible that most American communities may not be able to withstand the cure of teenage drug abuse but instead may settle for the more typical educational program which depicts the dangers and consequences of drug misuse."—A. Farfaglia.

6833. Knupfer, Genevieve & Room, Robin. **Abstainers in a metropolitan community.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 108-131.—Employed data from a probability sample of San Francisco adults to "present some relevant data on the reasons for not drinking offered by abstainers, and [to] compare abstainers and drinkers on a variety of indicators of disapproval of drinking, conservative values exposure to drinking and traditionalist background." Questions, e.g., whether virtual abstainers differ very greatly on the particular variable under discussion from those who have never drunk more than moderately, are stressed. Using these methods it was found that there remained a very large difference between all classes of drinkers and both classes of virtual abstainers, on indices of exposure to other people's drinking. On the question of the ideological basis for abstaining, the majority of urban drinkers in the United States appear to belong in the nonideological category. (16 ref.)—S. R. Diamond.

6834. Kolansky, Harold & Moore, William T. (Phil-

adelphia Assn. for Psychoanalysis, Child Analysis Div. Pa.) **Effects of marihuana on adolescents and young adults.** *JAMA: Journal of the American Medical Association*, 1971(Apr), Vol. 216(3), 486-492.—Reviews the large amount of marihuana smoking in this country as well as some of the literature concerning adverse effects. 38 13-24 yr. old males and females who smoked marihuana 2 or more times weekly, were examined between 1965 and 1970, and all showed adverse psychological effects. Some also showed neurologic signs and symptoms. Of the Ss seen, there were 8 with psychoses; 4 of these attempted suicide. Included in these cases are 13 unmarried female patients who became sexually promiscuous while using marihuana. 1 of these became pregnant.—Journal summary.

6835. Lamy, Peter P. & Kitley, Mary E. **Untoward effects of drugs: I. (Including non-prescription drugs).** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 17-23.—Discusses problems that arise from the misuse of products identified as nonprescription (OTC) drugs. It is noted that many products which are actually drugs have assumed the guise of "nondrug drugs" in the minds of patients and physicians. These include aspirin, alcohol, antacids, vitamins, and certain foods. The dangers involved in home or self-medication may include an incorrect self-diagnosis, symptom suppression, excessive dosages over a prolonged period of use, and habituation. While most OTC drugs are effective and safe if taken according to directions, it is felt that there is not enough information available on their exact modes of action. Tables are presented showing (a) OTC products containing prescription drugs, (b) interactions of salicylates (aspirin) with other drugs and their influence on certain laboratory test values, and (c) the interactions of some drugs with foods. (64 ref.) P. McMillan.

6836. Midgley, J. (U. Cape Town, South Africa) **Drinking and attitudes toward drinking in a Muslim Community.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 148-158.—Studied drinking and attitudes toward drink in a Muslim community in Cape Town as a stimulus for more extensive research in other such societies. Although the area is a wine growing district, most Muslims did not drink because of strong religious and social controls. 117 households were interviewed and answered a questionnaire concerning personal data and questions on drinking. An attitude scale was devised. Those interviewed were mostly women of working-class backgrounds. Only 13% of males reported drinking: 12 once/wk., 4 daily, and the rest less frequently. There were no educational, occupational, or age patterns. Drinking was more prevalent where Muslims were interspersed among the Christians, a majority than in the traditional old quarter. Attitudes were related to the amount of education at Muslim religious schools. (18 ref.)—A. Farfaglia.

6837. Paulson, Patricia C. (Indiana U.) **Psychosocial factors in drug use among community college students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5455-5456.

6838. Robbins, Richard H. (U. North Carolina Chapel Hill) **Drinking behavior and identity resolution.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4466-4467.

6839. Sorenson, David P. (U. Northern Colorado) **Student attitudes, judgments, usage, and personal characteristics in regard to marijuana and LSD at**

the University of Northern Colorado. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(B-A), 4268-4269

PERSONALITY

6840. Ellman, Carolyn S. (New York U.) An experimental study of the female castration complex. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(B-B), 4987-4988

6841. Nowakowska, Maria. Krytyczna analiza strategii badawczej R. B. Cattella. [A critical appreciation of research methods of R. B. Cattell.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 13-33.—Reports on R. B. Cattell's formalization of the concept of trait. The personality is described as a configuration of traits which can be obtained inductively from empirical data. The cognitive consequences of factor analysis, whose merits and restrictions determine the value of Cattell's system, are discussed. An explanation is proposed for the failure of Cattell to succeed in the complete verification of his main hypothesis of the indifference of media, i.e., that independent of the source of information, factor analysis will result in the same personality structure. Cattell's approach is interpreted as an attempt to construct a formal language in which expressions are formed according to rules determined by the choice of particular programs of factor analysis. The use of Cattell's methodology in descriptive psychology is considered. (Russian summary)—*English summary*.

PERSONALITY TRAITS & PROCESSES

6842. Hogo, Norman; Winget, Carolyn, & Gleser, Goldine C. (U. Cincinnati) Ego defenses and perceptual styles. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 599-605. Explored similarities between H. M. Voth's personality construct ego-close—ego-distant and that of W. J. Warden's field-dependent—field-independent, especially with reference to ego defenses. A measure of anxiety, the Figure Drawing Test (FDI), the Rod-and-Frame Test (RFT), and the Defense Mechanisms Inventory (DMI) was administered to 45 male and 52 female undergraduates. The correlations between anxiety scores and the FDI and RFT scores were of low order and not significant. Correlations between FDI and RFT scores and between combined FDI-RFT scores and the subcategories of the DMI tended to confirm previous findings. Predicted relations between the anxiety effect and ego defenses were obtained for men. Other significant sex differences are presented. Possible explanations for these results are discussed. (17 ref.)—*Journal abstract*.

6843. Rohnstedt, Marvin A. (U. Nevada) Stability and change of self conception. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(B-A), 4261

6844. Brasil-Biaggio, Angela M. (Catholic U. Rio de Janeiro, Inst. of Psychology, Brazil) Identificação: Principais hipóteses. [Identification: Principal hypotheses.] *Arquivos Brasileiros de Psiquiatria*, 1968(Sep), Vol. 10(3), 9-22.—Presents a review of the main hypotheses concerning the identification construct. Included are (a) identification with the aggressor, (b) secondary identification, (c) secondary reinforcement (Stark, Mowrer, etc.), (d) status envy (Wentzell), (e) social power (Mussen, Dittler, Maccoby, etc.) and (f)

reciprocal role interaction (Pines). The importance of (a) masculine tendency toward identification with the order of birth, sex, and adjustment levels of a child is discussed with regard to research by Hartman and Freud. The influence of identification on the development of values and attitudes is considered important for the holistic study of personality. *—English summary*

6845. Dickstein, Louis S. & Mac Evin, Marjorie (Wellesley Coll.) Comprehension subtest of the WAIS and need for approval. *Psychological Reports*, 1971(Apr), Vol. 28(2), 482. Tested the hypothesis that the Comprehension subtest of the WAIS is a measure of social conventionality. The Marlowe-Crowne Social Desirability Scale was administered to male college graduates, 18 high and 21 low scorers then completed the WAIS and their performance were compared. Groups were not significantly different on any of the verbal subtests. An unexpected but significant open-ended difference was obtained within the high need for approval group, with those Scoring high scoring on items regarding social approval. This finding did not obtain with the low need for approval group. (6 ref.)—*abstract*

6846. Donovan, James M. (U. Michigan) A study of ego identity formation. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(B-B), 4986-4987

6847. Fisher, Seymour (New York U. State Medical Center, Syracuse) Boundary effects of persistent inputs and messages. *Journal of Abnormal Psychology*, 1971, Jan, Vol. 75(1), 290-295. Evaluated the effects of antisocial versus hostile messages on dependent measures, depressive mood, and self-made reassuring messages on the hostile group. Stimulus of 87 male and 87 female undergraduates. Subjects completed the 1st 25 items of the Human Factors Technique Series Boundary of Sensory Stimulus and Series A under sensory input. Results indicate that only hostile messages produced boundary decrement and this effect was severely confined to males. This effect was supported in a previous study. Reasons why hostility should have a greater boundary-decrement impact on males than on females are discussed. (12 ref.)—*Journal abstract*

6848. Friend, Ronald M. (U. Toronto, Ontario, Canada) Defensive processes and self evaluation. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(B-A), 4267

6849. Geln, Zsuzsa (Centre Inst. for Child Psychology & Mental Health, Budapest, Hungary) Szűrés és kettős tudat kioldásának feloldása mint az értelem torzása. [Screening and double consciousness as a distortion of intelligence.] *Magyar Pszichológiai Szemle*, 1970, Vol. 25(4), 4-14

6850. Gough, Harrison G. (U. California, Berkeley) Scoring high on an index of social maturity. *Journal of Abnormal Psychology*, 1971, May, Vol. 76(2), 24. Considers social maturity as a developmental concept, with anti and individualistic being opposite ends along the continuum. Social maturity is not a component of this construct, but is a necessary condition congruent with it at higher levels of social maturity. An individual may choose to leave the mainstream of a corrupt or decadent order, whereas the more socially socialized individual may be overconcerned to the point of acquiescence in oppression and the denial of basic rights. A brief index of social maturity, developed for a prior analysis, was applied to new samples to determine

its ability to differentiate among occupational groups and to identify persons characterized by exceptional ethical sensitivity. 14 occupational groups were rated by 85 undergraduates for social maturity, using the constant sum method; mean scores on the maturity index were also computed from CPI protocols obtained from these same samples. Rho between the sets of ranks was .83. 2 illustrative case studies of men scoring unusually high on the index are presented which stress factors of rational independence, acceptance of self and others, and openness to innovative experience.—*Journal abstract.*

6851. Lubetkin, Barry S. & Lubetkin, Arvin I. (Massachusetts General Hosp., Boston) **Achievement motivation in a competitive situation: The older female graduate student.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 269-271.—Using the principle established by Atkinson and also by Weiner that individuals with high achievement motivation will remember from a series of tasks more tasks that they are not allowed to complete than those they completed (Zeigarnik effect), a procedure was developed to measure the differential Zeigarnik scores of 3 female groups. "When placed in competition with a male, older female graduate students showed significantly higher Zeigarnik scores than did groups of younger female graduate students or undergraduate females."—E. J. Kronenberger.

6852. Nawas, M. Mike. (Indiana State U.) **El estilo de vida: I. Introducción y estilo expresivo.** [Life style: I. Introduction and expressive style.] *Revista Latinoamericana de Psicología*, 1971, Vol. 3(1), 91-107.—This is the 1st of a sequence of 3 papers dealing with the concept of "life style" set forth by Alfred Adler. Life style is defined as the unique way in which an individual behaves towards a goal, and includes the spheres cognitive, affective, interpersonal, and motoric. Research on the expressive style is reviewed. (41 ref.)—V. A. Colotta.

6853. Paryzek, Lech. **Próba Interpretacji projekcji "uraz psychiczny."** [An attempt at interpretation of the notion of "psychical complex."] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 129-141.—Considers the notion of "psychical complex" as a theoretical construction designed to explain certain disturbances in an individual's adaptation to his environment. Generally, the term "complex" is used when an individual reacts impulsively and irrationally to a situation and comes into conflict with the environment. When the complex is due to a received shock, there is a tendency to react defensively. This tendency frequently becomes generalized to several different situations. Recent views of such behaviors as forms of frustration are disputed. It is suggested that the theory of psychical complexes can be linked through the theories of impulses with theories of learning and behavior and neurophysiology. (Russian summary) (32 ref.)—*English summary.*

6854. Roginska, Wilhelmina. **Ekstrawersja i introwersja w typologiach osobowości.** [Extroversion and introversion in typology of personality.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 143-163.—Traces the development of the concept of introverted and extroverted personality types. The theory of primary and secondary differentiation proposed by O. Gross and G. Heymans and the emphasis placed on the factor of emotion by F. Jordon are discussed as influencing C. Jung's later conceptualizations. Later developments by S. B. Eysenck of the concepts are described. A comparison

of extroversion and introversion in normal and neurotic persons as understood by Jung and Eysenck is presented. (Russian summary) (15 ref.)—*English summary.*

6855. Rothburt, Michael I. (Ohio U.) **Behaviors related to scores on the Cynosural Narcissism-Scoptic Curiosity Scale in college and mental hospital populations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5007.

Behavior Correlates

6856. Bailes, Daniel W. & Guller, Irving B. (City Coll., City U. New York) **Dogmatism and attitudes towards the Vietnam war.** *Sociometry*, 1970(Jun), Vol. 33(2), 140-146.—Hypothesized that (a) individuals markedly for or against United States policy in Vietnam would not differ in dogmatism, and (b) moderates would have significantly lower dogmatism scores than the other 2 groups. 150 male undergraduates completed the Rokeach Dogmatism Scale, Form E. Student Attitude Questionnaire—and the Vietnam War Attitude Questionnaire. Results indicate a small, but significantly positive correlation between dogmatism and pro-Vietnam war attitudes. Moderates scored significantly higher in dogmatism than the anti-Vietnam war group, and slightly, but not significantly, lower than the pro-Vietnam war group. A theoretical analysis of the results is offered.—*Journal abstract.*

6857. Boland, Gertrude C. (St. Louis U.) **The relationship of personality adjustment to the learning of material having connotative and associative meaningfulness.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4982-4983.

6858. Coverdale, Herbert L. (Illinois Inst. of Technology) **Pupillary response, connotative meaning and personality.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5045-5046.

6859. Davis, Dolores E. (Kansas State U.) **Internal-external control and defensiveness.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4985-4986.

6860. Dodrill, Carl B. (Purdue U.) **Prediction of differential verbal participative and interruptive behaviors in a task-oriented dyadic situation on the basis of personality characteristics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4986.

6861. Gabennesch, Howard & Hunt, Larry L. (U. Kentucky) **The relative accuracy of Interpersonal perception of high and low authoritarians.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 43-48.—Authoritarian personality theory leads us to expect to find that low authoritarians perceive others more accurately than do high authoritarians. Several experimental investigations have attempted to test this hypothesis and have concluded that high and low authoritarians do not differ in the accuracy with which they estimate the California F Scale scores of others with whom they have briefly interacted. The basic research design used in previous studies was slightly modified, making it possible to detect evidence of greater perceptual accuracy by low authoritarians when 84 undergraduates with upper and lower quartiles in their F-score distribution were studied. Low authoritarians are better able to discriminate the F-scale responses of high authoritarian others from those of low authoritarian others, they more accurately rank 5 others in terms of their total F scores, and they are more aware of the points of greatest discrepancy between high and low

authoritarian attitudes. These accuracy differentials are apparent only with respect to the 13 F-scale items which had the greatest discriminatory power for this sample. —*Journal abstract.*

6862. Good, Lawrence R. & Levin, Richard H. (Purdue U.) **Pupillary responses of repressors and sensitizers to sexual and aversive stimuli.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 631-634.—Compared the pupillary responses of repressors, neutrals, and sensitizers across neutral, aversive, male sexual and female sexual pictorial stimuli. Ss were 78 undergraduate males who were administered the Repression-Sensitization Scale. The a priori hypothesis that sensitizers would evidence a greater magnitude of pupillary dilation (or perceptual vigilance) than repressors to the sexual and aversive stimuli was not confirmed. The possibility that variability in pupillary responses rather than directionality might provide a more meaningful index of threat reaction was also contraindicated insofar as all assumptions regarding homogeneity of variance were found to be tenable. A significant effect did obtain, however, for the stimulus-content variable corroborating previous research findings that pupillary dilation is related to the affective arousal value of visual stimulation independent of brightness contrast. —*Journal abstract.*

6863. Haley, Graham A. (York U., Toronto, Ontario, Canada) **Effects of personality factors and increased eye movement on a size-matching measure of scanning.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 303-307.—Related experimentally altered eye movement levels and a variety of personality trait measures (including the Personality Research Form and the 20-item Shallow Affect Scale) to the size-matching performance of 92 male undergraduates. An experimental analogue of increased impulsivity was created by the speeding of size-matching performance. Results indicate that experimentally increased eye movement levels did not alter size estimates. Impulsivity level, both as a trait and an experimentally altered state, was an important determinant of performance, such that higher impulsivity resulted in increased overestimation. Implications of the results for the measurement and functional significance of perceptual scanning are discussed. (18 ref.) —*Journal abstract.*

6864. Held, Mark L. (U. Pittsburgh) **Ego control and pronounceability as factors in vocal behavior in conflict.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4995.

6865. Hoffman, Harvey E. (Northwest Center, Philadelphia, Pa.) **Scanning, stress, and the defense profile.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 199-202.—108 Ss were divided into high-, middle-, and low-scoring groups with each of these groups being divided into thirds so that each experimental condition was represented equally at each scoring level. 3 sets of stress instructions were designed to induce 3 separate levels of anxiety or stress. A tachistoscopic procedure for determining the defense profile was utilized. The Institute for Personality and Ability Testing 8-Parallel-Form Anxiety Battery was administered to each S. Various differences between the high and low scorers were noted. "These results support the concept that cognitive controls act as determinants for selection of perceptual defenses and not as determinants of an overall defensive attitude." Results were analyzed in relation to previous findings, and explanations are presented. —*E. J. Kronenberger.*

6866. Houston, B. Kent. (U. Kansas) **Trait and situational denial and performance under stress.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 289-293.—Investigated the relations between performance on a digits backward task under stress and (a) general disposition to deny threat (trait denial), and (b) specific use of denial in the stressful situation (situational denial). Trait denial in 48 male students was measured by scores on the K. Little and J. Fisher Denial scale (see PA, Vol. 34:1040), adjusted for anxiety level. Ss high in trait denial performed better under stress but worse in the absence of stress than Ss low in trait denial. Situational denial was defined by the difference between affective response and physiological reaction to stress. Ss high in situational denial performed significantly better under stress than Ss low in situational denial. It is concluded that situational denial was more highly related to performance under stress than was trait denial. (18 ref.) —*Journal abstract.*

6867. Kangas, Barbara B. (Washington State U.) **An experimental manipulation of expressed values.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4997.

6868. Khol, Timothy. (Ohio U.) **Repression-sensitization and information-seeking behavior in a threatening social situation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4997-4998.

6869. Phares, E. Jerry & Wilson, Kenneth G. (Kansas State U.) **Internal-external control, interpersonal attraction, and empathy.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 543-549.—Predicted that (a) internal Ss would show greater interpersonal attraction scores for an internal stranger than for an external stranger, and (b) external Ss would show a greater preference for an external stranger. Similar results were expected from an empathy measure. Results with 30 internal undergraduates support the 1st prediction. Contrary to prediction, 30 external Ss did not show a greater attraction toward an external stranger. Data in the empathy area were in general agreement. The lack of differentiation indicated by the externals is discussed. (24 ref.) —*Journal abstract.*

6870. Phares, E. Jerry; Wilson, Kenneth G., & Klyver, Nelson W. (Kansas State U.) **Internal-external control and the attribution of blame under neutral and distractive conditions.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 285-288.—Selected 32 internal and 32 external male undergraduates on the basis of scores on Rotter's Internal-External Control Scale. Ss were then failed on 2 tasks described to them as measuring intellectual functions. $\frac{1}{2}$ the Ss were failed under distractive conditions and the others under nondistractive conditions. Following this procedure, all Ss completed a blame-attribution scale. Under nondistractive conditions, internals were significantly less prone to use blaming behavior than (a) externals, and (b) internals in the distractive condition. No significant differences were found (a) between groups in the distractive condition, and (b) between externals in the 2 conditions. Variation in defensive considerations is suggested as an explanation for the latter result. —*Journal abstract.*

6871. Reyher, Joseph & Basch, Judith A. (Michigan State U.) **Degree of repression and frequency of psychosomatic symptoms.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 559-562.—Derived a rational index of repression by utilizing items from personality

inventories (the MMPI and supplementary items relating to physical illness) which reflected varying degrees of repression. Ss were 124 undergraduates, 32 of whom served as a replication group. The repression index was found to be inversely related to the frequency of somatic symptoms. This finding was successfully replicated and its theoretical and professional implications are discussed.—*Journal abstract.*

6872. Rockman, Richard M., Gold, Joel A., & Rodda, William C. (U. Maine) **Confidence rating shifts and performance as a function of locus of control, self-esteem, and initial task experience.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 18(3), 305-310.—Studied 80 undergraduates in an experiment using a $2 \times 2 \times 2 \times 15$ factorial repeated-measures design. Internal and external Ss with high and low self-esteem were required to solve 5 easy anagrams (success condition) or 5 very difficult anagrams (failure condition) before attempting to answer 10 common anagrams of moderate difficulty level. Results indicate that high-self-esteem internals who were quite responsive to their initial task experiences performed more effectively on the last 10 problems than those who were not as responsive. An exploration of the manner in which high- and low-esteem internals react to failure is presented.—*Journal abstract.*

6873. Taccarino, John R. (Northwestern U.) **The relationship between value inconsistency and ineffective social adjustment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4978.

6874. Wagner, Carl; Manning, Sidney, & Wheeler, Ladd. (Naval Medical Research Inst., Bethesda, Md.) **Character structure and helping behavior.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 37-42.—Explored helping behavior as a function of interactions between situational factors and helpers' personal characteristics as measured by Kipnis's "Insolence Scale." It was speculated that situational factors would elicit hedonistic responses from high insolent Ss (HiIns) and altruistic responses from low insolent Ss (LoIns), so that the effects of prior task success and failure, increased costs of helping, and observation of a selfish model would be greater among HiIns, while a generous model effect would be greater among LoIns. 108 young Navy enlisted men were given opportunities to help a dependent peer in a task situation. The Insolence \times Cost speculation was supported, with a greater reduction in helping among HiIns than among LoIns as costs increased. The Insolence \times Success-Failure speculation was virtually reversed, HiIns being unaffected by this manipulation and LoIns helping more under both success and failure than under a control condition.—*Journal abstract.*

INTELLIGENCE

6875. De Bruyn, Eric. (U. Louvain, Center for Psychodiagnostics, Belgium) **The measurement of intelligence among higher levels: II. Revision of the AH5.** *Psychologica Belgica*, 1970, Vol. 10(2), 169-179.—Describes the British test AH 5 and its 3rd revision for Dutch-speaking university freshmen AH5L3, with a verbal-numerical and a diagrammatic part. For the revised test, the intercorrelation between parts was .32. Correlations between equivalent halves were .73, .77, and .83 for Parts I and II, and total test, respectively.

Respective product-moment correlations with July examinations were .37, .18, and .36 and r biserial correlations .34, .05, and .26; r biserial correlations with July and September sessions combined, however, were .32, .49, and .52, respectively. While Part I seemed equally valid for the July session and the July-September combination, Part II was valid for the latter only. Differences in validity of both parts are discussed.—*S. Slak.*

6876. Goldman, Morton. (U. Missouri, Kansas City) **Group performance related to size and initial ability of group members.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 551-557.—Examined the relationship of group performance as a function of group size, where members within each group are of similar initial ability levels, but members in different groups are of different levels. 232 undergraduates completed the analogy part of the Terman Concept Mastery Test. 5 wk. later, Ss were formed into groups of 2-5 persons composed of all high, medium, and low scorers. Ss working as a group retook the same test. Results show that groups with different initial levels had their own unique patterns of improvement as the size of the group increased.—*Journal abstract.*

6877. Greaves, George. (Georgia State U.) **Harvey's "This I Believe" Test: Studies of reliability.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 387-390. Briefly describes the items and administration of Harvey's This I Believe test, an instrument designed for assessing level of conceptual system functioning. A number of studies relating to reliability factors are described which suggest that the test is reliable and stable.—*Journal abstract.*

6878. Grotelueschen, Arden & McQuarrie, Duncan. (U. Illinois) **Cross-validation of the Quick Word Test as an estimator of adult mental ability.** *Adult Education*, 1970(Fal), Vol. 21(1), 14-19.—Presents the results of additional analyses of data collected by A. Grotelueschen and T. Lyons (see PA, Vol. 41:8151). Ss were 84 male and 94 female 22-70 yr. old adults. A correlation of .76 was obtained for the predictor group of 89 Ss on WAIS full scale IQ scores and Quick Word Test (QWT) scores. The QWT was administered to the 89 Ss in the cross-validation group and WAIS full scale IQ scores predicted. The correlation between predicted and observed IQ scores was .72. It is concluded that the QWT is a valid instrument for estimating adult mental ability as defined by the WAIS. Descriptive information for the validation sample is given to facilitate the use of the conversion table developed in the validation analysis by adult education researchers and evaluators. *Journal abstract.*

6879. Hansen, Vagn R. **Om intelligensbegrebet og anvendelsen af intelligensprøver.** [The concept of intelligence and intelligence testing.] *Skolepsykologi*, 1970, Vol. 7(1), 26-33.—Defends the definition that intelligence is what we measure with the tests. Construction of culture-free tests is only an attempt at hiding that our culture raises children differently. (15 ref.) P. Mylov.

6880. Logue, Jessie W. (Georgia State U.) **Personal net worth as a function of economic intelligence quotient.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4334.

6881. Silverstein, A. B. (Pacific State Hosp., Pomona, Calif.) **A corrected formula for assessing the validity of WAIS, WISC, and WPPSI short forms.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 212-213.

—Beginning with McNemar's formula for the part-whole correlation which does not require access to the raw data, a formula was evolved for short forms of Wechsler instruments (WAIS, WISC, and Wechsler Preschool and Primary Scale of Intelligence). This formula takes into account the actual unreliability of the subtests and thereby corrects for the spurious element in the conventional correlation between short form and Full Scale.—E. J. Kronenberger.

6882. Stewart, Kenneth D., Wood, Dorothy Z., & Gallman, William A. (Augusta Coll.) **Concurrent validity of the Slosson Intelligence Test.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 218-220.—It was suggested that 1 of the major gaps in the concurrent validity of the Slosson Intelligence Test (SIT) is its relationship to the Wechsler scales. Likewise the norms for the SIT appear to be limited to the northeastern part of the United States. The SIT and the WISC were administered to 76 6-13 yr. olds. Data were also collected on 81 6-15 yr. olds who were administered the Stanford-Binet and the SIT. Means, standard deviations, and intercorrelations for the various measures were calculated. Regression coefficients and equations were computed. A close relationship existed between the SIT and the 2 tests, and it is concluded that the SIT is potentially a very useful addition to psychological assessment programs.—E. J. Kronenberger.

CREATIVITY

6883. Salamon, Jenő. (Főtvös Lorand U., Budapest, Hungary) **Kísérleti módszer a cselekvésben megnyilvánuló alkotó képzelet és gondolkodás tanulmányozásához.** [Experimental method for studying creative imagination and thought manifested in action.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 337-354.—Examined imagination and formation of abstract concepts in the course of solving tasks involving activity. A previous method (construction of 3-dimensional models) has been completed by the addition of a new method, which provides for the following: (a) examination of objective (material) action; Ss of various ages and sex are asked to fill in a vacant square using flat plastic forms, a task which has several solutions; (b) observation of objectified (materialized) actions; Ss are asked to perform the previous task by drawing, an activity which implies a higher level of abstraction, and (c) examination of the verbalized, generalized principle on which the solving procedure is based, by recording verbal expressions in the course of task solution and by performing explorations when solutions are terminated. (Russian summary) (20 ref.) *English summary*

6884. Scott, Hugh M. (Royal Victoria Hosp., Montreal, Quebec, Canada) **The potential contributions of clinical medicine to the study of creativity.** *Perspectives in Biology & Medicine*, 1971(Win), Vol. 14(2), 319-332.—Discusses various definitions of creativity, and suggests that medicine may contribute to the study of creativity from 3 perspectives: (a) as a model, (b) as a historical analogy, and (c) by offering physicians as creative Ss for research.

PERSONALITY MEASUREMENT

6885. Bléder, J. Le "test" du prénom. [The forename "test".] *Annales Medico-Psychologiques*, 1970(Jul), Vol. 2(2), 261-266.—Asking a person about his forename

(whether he likes it or not, if others in the family are known by the same given name, etc.) will often elicit very personal and sometimes surprising responses. Although schoolchildren and adolescents often change or wish to change their names, adults seldom do so. The adopting of special names to signify a change of status (e.g., taking orders) offers another clue to their personal significance, as does the refusal by some individuals to accept diminutives. Although not a test in the psychometric sense, this simple method qualifies as a productive test of the personality.—H. King.

6886. Cloud, Jonathan & Vaughan, Graham M. (York U., Toronto, Ontario, Canada) **Using balanced scales to control acquiescence.** *Sociometry*, 1970(Jun), Vol. 33(2), 193-202.—Discusses the problem of contamination of personality inventories and attitude scales by acquiescent response styles. Research with the Wilson and Patterson Conservatism Scale, administered to 183 undergraduates, is presented. It is empirically demonstrated that the balanced keying of items is sufficient to prevent such contamination if item ambiguity is kept to a minimum. Such a scale is also described as enabling a statistical assessment of the degree to which unbalanced scales are biased by this response style. (27 ref.)—*Journal abstract*.

6887. Haward, L. C. **Personality of parachutists: II. Psychosexual profiles of American and British paratroops.** *Flight Safety*, 1969(May), Vol. 2(4), 16-17.—Describes the Krout Personal Preference Scale, devised in the 1930s by Krout and Tabin in the belief that, ultimately, development must be relied upon to explain emotional dynamics. The test determines the extent to which the S shows preferences derived from each of 10 Freudian developmental stages. A comparison of the mean profiles of American and British paratroops indicates that personalities of these 2 groups have much in common. (16 ref.)—S. R. Diamond

6888. Huckabee, Malcom W. & McGawn, W. P. (Southern Mississippi) **Differences between field independent and field dependent persons on the Stroop Color-Word Test: A failure to replicate.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 226.—58 college students were administered the Halden Figures Test and the Stroop Color-Word Test (SCWT). There was no evidence that Card III of the SCWT is an operational definition of hierarchic integration. The results were inconsistent with Bloomberg's statement regarding field independence and hierarchic integration.—E. J. Kronenberger.

6889. Jor, Victor C. (Idaho State U.) **Review of the internal-external control construct as a personality variable.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 619-640.—Reviews recent research concerning J. Rotter's concept of internal-external control of reinforcement. 12 areas are covered: (a) the Internal-External Control (IE) Scale, (b) personality, (c) attempts to control the environment, (d) achievement, (e) reactions to threat, (f) ethnic group and social class differences, (g) parent-child relationships, (h) risk-taking, (i) reactions to social stimuli, and (j) the relation of the IE measure to anxiety, adjustment, and learning. Evidence generally supports the validity of Rotter's concept. Implications and limitations of the research are presented, and suggestions for further work in specific problem areas are made. (5 p. ref.)—*Journal abstract*.

6890. McCully, Robert S. & Palmquist, Kyllikki. (Cornell U. Medical School) **Comment: The VIII**

International Congress of Rorschach and other projective techniques. *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 1-2.—Compared the 7th International Rorschach Congress held in London with the 6th Congress held in Paris. The 6th Congress was continental rather than French; there was room for impromptu meeting and interchange. The 7th Congress was British, and the easy-going atmosphere was an advantage. Suggestions for future reunions are made.—A. Farfaglia.

Inventories

6891. Gynther, Malcolm D., Fowler, Raymond D., & Erdberg, Philip. (St. Louis U.) **False positives galore: The application of standard MMPI criteria to a rural, isolated, Negro sample.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 234-237.—A socially isolated Negro sample of 32 Ss was administered a tape-recorded version of the MMPI. In general, the results indicate extreme differences between normal S responses and the responses of these Ss. For example, on the item "Evil spirits possess me at times" only 14 of 541 adults in a normative group endorsed this item but 58% of the Negro sample endorsed the item. It is suggested that there be a moratorium on interpreting profiles of Ss from this type of background. E. J. Kronenberger.

6892. Payne, Frank D. (U. Illinois, Urbana-Champaign) **Structured personality inventory items: Test-retest response consistency and item properties.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5609-5610.

6893. Sherrill, David. (Syracuse U.) **A situational restriction of the S-R Inventory of Anxiousness: Test anxiety.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 653-654.—Administered a single-statement version of the Stimulus-Response (S-R) Inventory of Anxiousness and the 16-item Test Anxiety Scale to 79 undergraduates under "test" and "no-test" conditions in an attempt to establish the validity of the S-R as a measure of test anxiety. Parallel responses to both instruments suggest the acceptability of the S-R.—*Journal abstract*.

6894. Sund, Arne. (Norwegian Armed Forces Joint Medical Services, Oslo) **Personality inventories as selective and prognostic criteria.** *Military Medicine*, 1971(Feb), Vol. 136(2), 97-104.—An adaptation of a neurosis inventory designed to reveal possible neurotic tendencies was administered to 101 19-yr-old Norwegian men who were beginning their service commitment. Follow-up information was available 13 yr. after the time of original testing. Scores on the test were then used to predict to a criterion of fit or unfit for service, level of alcoholic problems, legal offenses, whether psychiatric treatment was or was not given, whether psychiatric hospitalization was or was not necessary, and whether on the basis of an interview a psychiatrist was of the opinion that they were in need of treatment. Neither the number of neurotic answers given to a test, nor the number of serious neurotic answers were related to any of the criteria of adjustment.—G. A. Clum.

Projective Techniques

6895. Baty, Martha A. (Louisiana State U. Agricultural & Mechanical Coll.) **A comparison of three methods of recording TAT protocols.** *Dissertation*

Abstracts International, 1971(Mar), Vol. 31(9-B), 5613-5614.

6896. Berman, Alan L. (American U.) **Reply to Kuehe: On replacing the replacement technique.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 430.—Proposes that the comments by J. Kuehe (see PA, Vol. 46: Issue 4) on A. Berman's critical findings with the Felt Figures Replacement Technique are misdirected and inconsistent. The question of whether the replacement technique should be replaced is raised. Results, using this technique with young children, question the adequacy of the procedure to assess the manifestation of prepotent schemata. It is concluded that Kuehe's defense fails to respond to the critical issue.—*Author abstract*.

6897. Fernald, Peter S. & Stolurow, Katherine A. (U. New Hampshire) **Projected "eye" responses and sensitivity to the opinion of others.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 258-259.—"This study tests Piotrowski's hypothesis that in presumably non-paranoid Ss the perception of eyes in inkblots is related to a sensitivity to other's opinions." 82 college males were administered the Holtzman Inkblot Technique in a group administration. 27 items from the Social Relations scale of the Minnesota Counseling Inventory served as a measure of sensitivity to the opinions of others. The data did not support the hypothesis but it was suggested that this might be due to an inability to measure sensitivity to other's opinions through self-report. E. J. Kronenberger.

6898. Fried, Christopher. (U. Jyväskylä, Finland) **Icarianism, masochism, and sex differences in fantasy.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 38-52.—Reviewed R. May's theory that the female fantasy pattern is masochistic and moves from deprivation to enhancement, while the male fantasy pattern is Icarian and moves in the opposite direction. His study was replicated using 12 Icarian male, 12 non-Icarian male, and 12 sadomasochistic female college age Ss, 8 TAT cards, and a different scoring system in addition to May's. Results fail to support May's conclusions that (a) males fantasy abrupt failure more than females, (b) females fantasy resurgence after failure more than males, or (c) either male or female fantasies regularly move in the directions predicted. It is concluded that May's findings were produced by specific stimulus effects rather than being characteristic of spontaneous fantasy. (25 ref.)—*Journal abstract*.

6899. Hector, Heinz. (Inst. of Applied Psychology, Stockholm, Sweden) **Seven squares: Bibliography of German references 1952-67.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 502.—Describes the professional response to the Seven Squares Technique, a projective mosaic test which grew out of aptitude testing. It is considered to have potential in the observational and experimental fields of psychology and psychiatry.—P. Herizberg.

6900. Juri, Luis J. (Colegio de Psicólogos, Rosario, Argentina) **Técnicas proyectivas grupales.** [Group projective techniques.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 81-91.—Since the development of projective techniques, their use has been largely confined to individual diagnosis. Criteria are suggested for a development of comparable group projective techniques based on the need for understanding group interactional dynamics. As an example of such a test, 1 is discussed that utilizes drawings done by individual members of a group which are then used as the basis for a group-developed story. The "story" is told from the viewpoint

of the drawings rather than the persons who draw them, allowing for projection of unconscious roles. The analysis of the story reveals aspects of the patients in interaction which aid understanding of the therapy group. It is pointed out that a systematic development of the interpretative criteria used is necessary for a more complete utilization of the potential of this approach.

—S. M. Halpin.

6901. **Lieblich, Amia.** (Hebrew U., Jerusalem, Israel) **Antecedents of envy reaction.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 92-98.—Studied antecedents of envy in a multivariate design by means of semiprojective questionnaire depicting stories of the differential fates of 2 heroes. 30 undergraduates participated. Results support the predictions that the content and intensity of satisfaction of the other, as well as background information about the heroes describing the "requirements of justice" for both of them, were systematically related to the intensity of envy reaction. Theoretical implications are discussed, mainly relating to F. Heider's cognitive balance theory. —*Journal abstract.*

6902. **Mebane, Donata F. & Die, Jerry G.** (U. Houston) **A scoring system for human figure drawings as a measure of personality at Level III of the Leary Interpersonal Diagnostic System.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 385-386.—Using the T. Leary diagnostic system Draw-a-Person Test and TAT protocols for 47 male undergraduates permitted only gross discrimination of those having loving or hating, dominant or passive interpersonal attitudes. —*Journal abstract.*

6903. **Ogston, Don & Thompson, Angus.** (U. Calgary, Alberta, Canada) **Influence of social desirability upon the Group Personality Projective Test.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 677-678.—Correlated the probability of endorsing each multiple-choice item alternative of the Group Personality Projective Test with the probability of endorsing the alternative as the most socially desirable. Results with 88 university and nursing students indicate that about 53% of the measured variance of the test can be attributed to the influence of social desirability. A possible reason for the finding that social desirability has less influence on the test than has been demonstrated with true-false type inventories is discussed. Results suggest caution in evaluating the discriminative validity of the test. —*Journal abstract.*

6904. **Perczel, J.** (Ganz Mavag, Psychological Lab., Budapest, Hungary) **The Lavoëgle Self-Characterization Test: An English adaptation.** *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 22-23.—Illustrates the English adaptation by J. Perczel of the Lavoëgle Self-Characterization Test. The test comprises many boxes containing word pairs, e.g., reliable and forceful. The person taking the test must indicate in each box which of the 2 qualities corresponds most closely to his personality. —A. Fargaglia.

6905. **Stolorow, Robert D.** (Postgraduate Center for Mental Health, New York, N.Y.) **Causality-interpretation and obsessive versus hysterical functioning.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 32-37.—Predicted relationships between the relative salience of the theme of voluntary control (VC) and the relative predominance of obsessive vs. hysterical personality traits, and between the relative salience of VC and the relative predominance of obsessive vs. hysterical neurotic symptoms. A coding system for VC was applied

to TAT stories written by 89 male and 96 female undergraduates. 20 males and 20 females who scored high on VC and 20 males and 20 females who scored low on VC were given further instruments pertaining to obsessive/hysterical personality traits and neurotic symptoms. As predicted, high VC Ss were significantly more obsessive (or less hysterical) in their personality traits than low VC Ss. Predicted relationships between VC and obsessive/hysterical neurotic symptoms were not significant. (21 ref.)—*Journal abstract.*

6906. **Tolar, Alexander & Salafia, W. Ronald.** (Fairfield U., Inst. for Human Development.) **The social schemata technique as a projective device.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 423-429.—Studied the construct validity of a modified version of J. Kueth's social schemata technique. The major hypothesis was that the placement and replacement responses of pairs of silhouette figures to which unfavorable attitudes were ascribed would be more distant than the distances between figures to which more favorable characteristics were attributed. When the data of 160 male college students, performing under 5 sets, 2 directions of set, and on 2 tasks, were analyzed, the direction of set effect, i.e., favorable or unfavorable characterizations of stimuli, was significant. Positive sets led to significantly closer placements than negative sets but only on the free-placement method. Findings suggest that the replacement technique possesses far less validity than the free-placement method. (27 ref.)—*Journal abstract.*

Rorschach Test

6907. **Berry, Joyce H.** (U. Kentucky) **The Rorschach Inkblot Test as an indication of empathy.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4980-4981.

6908. **Campo, Vera & de Santos, Diana R.** (2484 Salguero St., Buenos Aires, Argentina) **A critical review of the shading responses in the Rorschach: I. Scoring problems.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 3-21.—The shading responses seem to be scored, currently, in a chaotic and often inconsistent manner. The genesis of this situation is shown through a review of the works listed in the bibliography. The confusion in this field is attributed to (a) the different meanings assigned to the term "shading"; (b) the use of aprioristic theoretical frames of reference; (c) the attribution of aprioristic symbolic meanings to the content of such responses; and (d) the meanings of anxiety. The crucial factor is thought to be the S's experience, what he does with the stimulus material, and how he elaborates it. The perceptual-experiential approach proposed by E. G. Schachtel and B. Klopfer's scoring system with some qualitative modifications is endorsed. (20 ref.)—*Journal abstract.*

6909. **Hays, James R.** (U. Georgia) **An analysis of the function of color in the Rorschach.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4994.

6910. **Rausch de Traubenberg, Nina.** *La pratique du Rorschach.* [The use of the Rorschach.] Paris, France: Presses Universitaires de France, 1970. 208 p. 12 F.

6911. **Raychaudhuri, Manas.** (Rabindra Bharati U., Calcutta, India) **Relation of creativity and sex to Rorschach M responses.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 27-31.—In an attempt to relate the Rorschach human movement (M) productivity

with sex, creativity, and test-identified psychosexual orientation of the respondent, the M responses of female and male normal, creative male and female, "non-masculine" male and "non-feminine" female Ss (N = 120) were analyzed. It was revealed that (a) high M productivity was associated with creativity, femininity in males, and with the female sex, (b) sex differences in the creative Ss, as well as masculinity in females was not associated with statistically significant differences in M productivity. Findings are accounted for mainly in terms of differential sex-role demands and the female sex's efforts to overcome indirectly the sociocultural restrictions. (19 ref.)—*Journal abstract.*

CLINICAL PSYCHOLOGY

6912. Baker, David; Telfer, Mary; Richardson, Claude E., & Clark, Gerald R. (Elwyn Inst., Pa.) **Chromosome errors in men with antisocial behavior: Comparison of selected men with Klinefelter's syndrome and XYY chromosome pattern.** *JAMA: Journal of the American Medical Association*, 1970(Nov), Vol. 214(5), 869-878.—A total of 876 males in prisons and facilities for the mentally ill and mentally retarded underwent cytogenetic screening. Of the 23 Ss identified with sex chromosome errors, 7 with 47,XYY chromosome pattern and 8 with Klinefelter's syndrome were compared. Both groups displayed tall stature and elongated lower segments; the XYY males averaged 3 in. taller than the Klinefelter males. In contrast to 47,XYY males, Klinefelter males uniformly displayed atrophic testes and buccal smears positive for sex chromatin. Facial acne, ulcerous varicosities of the legs, and neurological disorders were inconsistent features of both groups. The Klinefelter males of this series displayed a mean IQ of 80 as opposed to 84 for the 47,XYY males. A wide spectrum of criminal offenses and psychopathology, including psychosis, was manifested in both groups. (23 ref.)—*Journal summary.*

6913. Bentz, W. Kenneth & Edgerton, J. Wilbert. (U. North Carolina, Medical School, Chapel Hill) **The consequences of labeling a person as mentally ill.** *Social Psychiatry*, 1971(Jan), Vol. 6(1), 29-33.—Interviewed a random sample of 1,405 rural residents to determine their attitudes about mental illness and the extent of tolerance for the mentally ill in terms of their willingness to interact with ex-mental patients. The generally accepted proposition that rejection results when a person is labeled as mentally ill was tested. Results do not support or refute their proposition, but do indicate a trend toward greater acceptance of mental illness and the mentally ill by the public. (French & German summaries) (19 ref.)—*Journal abstract.*

6914. Boutin, Roger. (Queen Elizabeth Hosp., Montreal, Quebec, Canada) **Research "by immersion"? Diseases of the Nervous System**, 1970(Nov), Vol. 31(11, Suppl.), 105-108. Proposes that psychiatry should take steps to adapt to the changing social conditions and needs of the modern world. It is suggested that the public exposure of psychiatrists is insufficient in quantity and quality. A remedy is seen as the involvement of psychiatrists in open-line telephone conference programs and other areas of direct communication with the public.—*P. Hertzberg.*

6915. Fischer, R. (Ohio State U., Div. of Behavioral Sciences) **Über das Rhythmisch-Ornamentale im**

Halluzinatorisch-Schöpferischen. [Concerning the rhythmic-ornamental tendency in creative hallucinatory experiences.] *Confinia Psychiatrica*, 1970, Vol. 130, 1-25.—Normal, creative, schizophrenic, and ecstatic states are conceived as symbolic (i.e., perceptual-behavioral) interpretations on the perception-hallucination continuum of increasingly higher levels of arousal. These states are experienced in terms of increasing data content and increasing rate of data processing, and may result in a creative (artistic or religious) state. Eventually, however, the rate of processing cannot keep step with the ever increasing data content—the flood of inner sensation—and results in the schizophrenic "jammed computer" state. At the peak of ecstatic states, interpretive activity ceases. In biocybernetic terminology, there is no data content from without and therefore, no rate of data processing from within the only content being the reflection of the mystic in his own program. The abstract-geometric-rhythmic-ornamental tendencies which prevail during aroused states on the perception-hallucination continuum are not a function of individual talent. Creative experiences and conversion of a religious nature can also be evoked by induction—with or without drugs—a state of central (ergotropic) excitation. (53 ref.)—*English summary.*

6916. Freed, Earl X. (Veterans Administration Hosp. Alcohol Research Lab., Lyons, N.J.) **Alcoholism and manic-depressive disorders: Some perspectives** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 62-89.—Reviewed experimental and theoretical literature in order to clarify some issues on the relationship between alcoholism and manic-depressive disorders. An early link between manic-depressive disorders and alcoholism was established in the classical dipsomania where periodic irresistible cravings for alcohol were manifested. A number of researchers and clinicians have emphasized alcohol's "enabling" or "releaser" effect, and self-administration to recast emotional homeostasis. The evidence for causal relationships between alcoholism and affective disorders is unimpressive although there is substantial evidence that many manic-depressive patients use alcohol intemperately. Although investigation into effects of alcohol upon mood have tended to be frustrated, there appears to be some agreement that excessive drinking seeks a degree of tension relief in alcohol. Similarities between alcoholism and affective disorders have been stressed. (137 ref.)—*S. R. Diamond.*

6917. Gaines, Rosslyn. (U. California, Inst. of Human Development, Berkeley) **Experiencing the perceptually-deprived child.** *Journal of Learning Disabilities*, 1969(Nov), Vol. 2(11), 559-565.—Suggests that the perceptually-deprived child can experience his world more fully with intensive parental assistance. Perceptually-deprived children are defined as children having reduced perceptual information intake due to sensory limitations, e.g., blindness, deafness, neurological disorder, or retardation. Experiencing is defined as the normal human capacity to be aware of, and respond to the physical environment, including persons and groups. The unique psychological, social, and cultural difficulties which beset normal parents and prevent adequate experiencing and interaction with perceptually-deprived children are described. Solutions are proposed. (17 ref.)—*Journal abstract.*

6918. Gainotti, Guido. (U. Perugia, Clinic for Nervous & Mental Diseases, Italy) **Considerations**

doctor-patient relationship and the need for an understanding between the 2 are examined. Various types of doctor-patient relationships and the manner in which they are best achieved, i.e., according to the patient's personality, are discussed. Various analytic and conflicting theories pertaining to psychiatric semeiology are examined whereby a phenomenological approach is proposed to aid the patient in adjusting to and integrating with his world. (English summary)—*S. Maze.*

6926. **Reiss, David.** (National Inst. of Mental Health, Bethesda, Md.) **Variables of consensual experience: III. Contrasts between families of normals, delinquents and schizophrenics.** *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 73-95.—From a selective review of the literature it was predicted that: (a) normal families would experience their environment as patterned, logical, and masterable (environment-sensitive); (b) members in families of delinquents would experience themselves in their own universe where others' behavior and opinion was irrelevant (distance-sensitive); and (c) families of schizophrenics would experience the environment as confusing and hostile and would strive toward shared, stylized, and distorted notions of it as a means of mutual protection and support. An array of experimental findings, using objective measures from a card-sorting procedure, confirmed most of these predictions. It is suggested that an overall model of consensual experience remained a plausible explanation of family performance but that an individual information processing model was equally plausible. 3 distinctive contributions of the present methods and concepts are discussed: their provision of a typology of families based on objective classificatory techniques, the possibility of bypassing notions of the ideal and defective in family life, and the study of families' interaction with their communities. (40 ref.)—*Journal abstract.*

6927. **Rosenhan, David & London, Perry.** (Eds.) (Swarthmore Coll.) **Theory and research in abnormal psychology.** New York, N.Y.: Holt, Rinehart, & Winston, 1969. xvi, 552 p.—Presents a collection of papers covering the field of abnormal psychology. Topics covered include (a) development and dynamics of human behavior, (b) personality dysfunction, and (c) positive social behaviors. The book provides cross-references to major texts in abnormal psychology.

6928. **Timsit-Berthier, Martine & Dongier, M.** (State U., Liège, Belgium) **Nouvelles recherches sur la signification de la réponse photomyoclonique en psychiatrie.** [New research on the significance of the photomyoclonic response in psychiatry.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 201-220.—The photomyoclonic phenomenon is of muscular origin and is clearly differentiated from the photoconvulsive response of cortical derivation. These physiological microreflexes evoked by visual stimulation are abnormally diffused in certain patients. The authors report 115 cases found among nearly 2000 EEG examinations conducted on normal, neurotic, psychosomatic, psychotic, and organic Ss. Computer analyses were made of EEG and clinical variables. The response has 2 components: in the palpebral and periorbital muscles and in the rhythmic displacement of the eye by the oculomotor muscles. The response is significantly more often found among psychotic than neurotic patients, and is significantly more common in neurotic than in normal Ss.—*H. King.*

6929. **Veil, Cl., et al.** (Elan Research Center, Paris, France) **Bilan psychologique, socio-professionnel, psychopathologique et physiopathologique à un an de distance de l'intoxication oxycarbonée aiguë: Rapport scientifique final (mai 1970).** [Psychological, socio-professional, psychopathological and physiopathological balance-sheet one year following acute carbon monoxide intoxication: Final scientific report (May 1970).] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 343-398.—Examined 800 victims of acute intoxication by carbon monoxide 1 yr. later and their records compared with a matched control group of 20 Ss. The carbon monoxide victims generally carried identifiable sequelae of a serious and varied nature; often unknown to the person or benign, and in other instances seriously impeding activity. These aftereffects, the most characteristic of which were attested by EEG abnormalities (few normal tracings with many anomalies present, particularly slowed or irritative anomalies) and by defects in visual retention (lower scores on the Benton test), are often associated but do not appear to constitute a strictly individualized syndrome. (93 ref.)—*H. King.*

PERSONNEL

6930. ———. **Training in psychiatry.** *British Medical Journal*, 1969(Feb), Vol. 1(5641), 394-395.—The Royal Medico-Psychological Association has worked hard at the formulation of principles of psychiatric training at all levels. Employing a questionnaire and personal interviews, the opinions of individual teachers were explored. Their opinions were found to differ in the emphasis placed on psychological perceptiveness, scientific study of behavior, ability to relate to psychiatric patients, descriptive psychiatry, and therapeutic outlook. Reports were published on the present state of postgraduate education in Britain, which indicated that in a few areas the arrangements for postgraduate education in psychiatry were well ahead of those in other clinical subjects.—*I. Halev.*

6931. **Blaylock, Jerry N.** (Columbia U.) **Characteristics of nurses and of medical-surgical patients to whom they react positively and negatively.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4796-4797.

6932. **Blumberg, Richard W.** (U.S. Army MFSS, Ft. Sam Houston, Tex.) **Training clinical specialists for behavioral observation.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 568-570.—Reviews some concepts and skills associated with clinically meaningful behavioral observation. These concepts have led to a course segment on observation for training army social work/psychology specialists. A description of this instruction is given.—*Journal abstract.*

6933. **Bordeleau, J. M., Pelletier, P., Panaccio, L., & Tetreault, L.** (St-Jean-de-Dieu Hosp., Montreal, Quebec, Canada) **Authoritarian-humanitarian index in a large mental hospital.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 166-174.—Delineates authoritarian or humanitarian attitudes in a mental hospital treatment team according to age of the S, education level, amount of time spent with the patient, and seniority as a hospital employee. A questionnaire supplied data on 209 hospital employees, 15% of the population selected at random. Age is in negative correlation with humanitarian index for male and for female personnel. The older the hospital worker, the less

humanitarian is his attitude towards psychiatric patients and therefore the more authoritarian his attitude is. Education level is a more important factor, even more so than the age of the respondent. Humanitarian score is directly related to the education level. Finally, attitude of the personnel does not seem to be influenced by the length of time actually spent with the patient nor by the seniority as hospital worker. It is concluded that to render more human the attitude of personnel like that of the present sample, recruiting should favor younger persons with a higher degree of education.—*Journal summary*.

6934. Carbajal de Carozzo, Gladys. (489 Paseo Paradi, Lima, Peru) **Ein Versuch zur Erforschung der Einstellungen gegenüber psychisch Kranken.** [An investigation concerning research on negative attitudes toward the mentally ill.] *Social Psychiatry*, 1971(Jan), Vol. 6(1), 34-39.—Investigated the attitudes toward mental patients held by different staff groups at a psychiatric and neurological clinic. 12 personnel groups were distinguished according to assignments and rank, and their attitudes tested by semantic differential profiles, social distance scales, and the Custodial Mental Illness Ideology Scale. Significant differences were found correlating with occupational and educational levels. Implications of these findings for therapeutic community involvement of all clinic personnels are discussed, emphasizing the difficulties in effecting major program changes. (French summary) (28 ref.)—*English abstract*.

6935. Carkhuff, Robert R. & Griffin, Andrew H. (American International Coll.) **Selection and training of functional professionals for concentrated employment programs.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 163-165.—72 out of 150 employees were selected for a program of inservice training in interpersonal skills. The top 22 of these employees were selected for a 10-hr communication training program in empathy. The best 14 trainees then completed 100 hr. of systematic training in the effective helping process and on the skills necessary to train others to be effective helpers. Ratings of communication levels were made. The conclusions emphasized the principle of selection and the principle of training, both of which were considered effective in the development of human resources. "The application of systematic selection and training methodologies to the development of lay personnel as functional professionals makes effectiveness in social action programs possible and provides a model for the helping professions."—E. J. Kronenberger.

6936. Dell Orto, Arthur E. (Michigan State U.) **A Guttman facet analysis of the racial attitudes of rehabilitation counselor trainees.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3870.

6937. Duffy, John C. (U. Minnesota, Medical School) **Emotional Issues in the lives of physicians.** Springfield, Ill.: Charles C Thomas, 1970. ix, 92 p. \$6.50.

6938. Felton, Geraldene & Patterson, Mary G. (U. Hawaii) **Shift rotation is against nature.** *American Journal of Nursing*, 1971(Apr), Vol. 71(4), 760-763.—Explores "some of the literature on circadian rhythms to see how work assignments to various shifts by means of permanent, rotating, or on-call schedules might affect the health of nurses as well as their relationships to patients and institutions." The internal timing of the body circadian rhythms is subject to the influence of rhythmic environmental variation. Some evidences of disruption of this rhythm are restlessness, nervousness,

being awake or sleepy at inappropriate times, headache, gastrointestinal irregularities, anorexia, fatigue, slower RT, and error proneness. It is concluded that shift work and rotating assignments in the administration of nursing services are relevant to the health of nurses and their quality of practice and work performance. (15 ref.)—S. R. Diamond.

6939. Kish, George B., Solberg, Kristen B., & Uecker, Albert E. (Roanoke Coll.) **The relation of staff opinions about mental illness to ward atmosphere and perceived staff roles.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 284-287.—The Ellsworth version of the Opinions about Mental Illness Scale and the Ward Initiative Scale (WIS) for staff were administered to 77 ward personnel of 5 psychiatric wards. Various interrelationships were found. The conventional aides seemed to discourage autonomy and promoted submission whereas the nontraditional aides tended to discourage submission. The nurses felt that control of the patients is what is expected of them. Yet, conversely, the nurses were less conventional than the aides. There was a significant concern for the importance of insight and the maintenance of neatness and order on the ward.—E. J. Kronenberger.

6940. Lazarus, Arnold A. (Yale U.) **Where do behavior therapists take their troubles?** *Psychological Reports*, 1971(Apr), Vol. 28(2), 349-350.—Discusses the opinion that insight-oriented and behavioral therapies should address entirely different problems. The tendency to establish competing factions between insight and action therapy is considered to be like proclaiming that penicillin is better or worse than vitamins. Increased awareness and personal understanding through self-exploration is a viable goal in and of itself—especially for relatively well-functioning behavior therapists. It is noted that many behavior therapists are undergoing psychoanalysis or some other form of nonbehavioral psychotherapy. A table listing 23 behavior therapists' choices of personal therapy is included. *Journal abstract*.

6941. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Attitudes toward death held by staff of a suicide prevention center.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 650.—Found that 21 19-58 yr. old staff members of a suicide prevention center had fears of death similar to those held by matched controls, as measured by 2 fear of death scales, developed by D. Lester, and L. J. Collett and D. Lester. Staff members, however, showed less fear of death than controls and a more consistent attitude toward death.—*Author abstract*.

6942. Mitscherlich-Nielsen, Margarete. (20 Myliusstr., Frankfurt am Main, W. Germany) **Was macht einen guten Analytiker aus? Literaturübersicht und kritische Erwägungen.** [What makes a good analyst? Literature review and critical thoughts.] *Psyche, Stuttgart*, 1970(Aug), Vol. 24(8), 577-599.—The selection procedure to which applicants for psychoanalytic training are subjected is unsatisfactory. There is no unanimity concerning the criteria which might guide training boards. Psychoanalysis is research and therapy, yet the requirements for applicants from the therapeutic and scientific standpoints are, in a sense, at odds. The scientific status which is accorded psychoanalysis must influence the selection criteria for the new generation. The exclusion of lay analysts evidently prevents many creative talents from gaining entry to psychoanalysis.

None of the positive trait lists has withstood criticism. There is agreement only on the view that no particular traits as such (e.g., intuitive talent) are decisive, but rather their being embedded in a specific context in the applicant's personality. The analytic capacity for ego-splitting also presupposes an intact ego. A particular risk is seen in pseudonormal applicants. (48 ref.)—*Journal summary*.

6943. **Moody, Philip M.** (U. Kentucky, Medical School) **Attitudes of nurses and nursing students toward alcoholism treatment.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 172-175.—Studied attitudes in 83 nurses and nursing students toward alcoholism treatment. Ss completed a questionnaire which contained the Custodial Attitude Inventory for assessing attitudes toward alcoholics, Srole's version of the F scale of authoritarianism, and questions on the occupation and educational level of the heads of their own households. Results indicate that Ss' attitudes of authoritarianism were associated with custodial rather than humanistic attitudes in treating alcoholic patients. It is suggested that nurses who treat alcoholics (a) be recruited from middle-class backgrounds, and (b) have low authoritarian scores. Such nurses may have a more humanistic attitude, conducive to the successful rehabilitation of alcoholics.—*A. Farfaglia*.

6944. **Morris, William C.** (U. Michigan) **The information influential physician: The knowledge flow process among medical practitioners.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4973-4974.

6945. **Mudd, John W. & Siegel, Richard J.** (Columbia-Presbyterian Medical Center, New York, N.Y.) **Sexuality: The experience and anxieties of medical students.** *New England Journal of Medicine*, 1969(Dec), Vol. 281(25), 1397-1403.—397 male medical students were administered a 95-item written questionnaire and were found to be more experienced sexually than college-educated men studied by Kinsey. Nevertheless, the average student has strong desires for sex education. An important component of the anxiety that he experiences in physician-patient relations results from sexual conflict. Personal sex experience or sense of confidence is not related to propensity to sexual conflicts and anxieties. There is strong evidence that anxieties inhibit professional objectivity. These anxieties were more marked during the earlier than the later yr. of medical school. The student's sexuality fits into a constellation of emotional factors that determines the integrated quality of his personality, and it is this overall quality that facilitates or inhibits optimal physician-patient interactions and communication. (24 ref.)—*Journal abstract*.

6946. **Neulinger, John; Stein, Morris I., Schillinger, Morton, & Welkowitz, Joan.** (City Coll., City U. New York) **Perceptions of the optimally integrated person as a function of therapists' characteristics.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 375-384.—Attempted to determine whether there is a consensus for the concept of mental health. 74 male and 40 female therapists from different professional orientations in a United States sample rank ordered their views of the optimally integrated person using a 20-paragraph personality questionnaire based on H. A. Murray's need system. Although Freudians were found to be more "conservative" in certain respects than Neo-Freudians and Sullivanians, greater agreement than disagreement

was generally obtained. Variation in rank order as a function of age, length of experience, and sex of therapists are discussed as are differences within a Czechoslovakian sample of 50 therapists.—*Journal abstract*.

6947. **Paiva, Rosalia E. & Haley, Harold B.** (Medical Coll. of Ohio, Toledo) **Intellectual, personality, and environmental factors in career specialty preferences.** *Journal of Medical Education*, 1971(Apr), Vol. 46(4), 281-289.—Grouped 459 students entering 6 medical schools according to career choices: general practice, internal medicine, surgery, psychiatry, or undecided. Data were gathered from a group of tests including the Study of Values: A Scale for Measuring the Dominant Interests in Personality (SV); the Rokeach Dogmatism Scale; the Medical College Admission Test (MCAT); and an extensive biographical inventory. General practitioners represented a middle group of the MCAT, favored religious values, tended to be Protestant, and came from small towns or rural areas. Internists did not differ significantly from other Ss, but their backgrounds were similar to surgeons in religion, size of town exposure to medicine, and interest in diagnosis and treatment or research. Surgeons scored highest in economic and lowest in social values. Psychiatrists and undecided Ss scored highest on the MCAT verbal and general information scales and were generally similar. Psychiatrists, however, were more interested in interpersonal aspects of patient care and placed more importance on social and aesthetic values than all other groups. Factors affecting career preference stability are discussed.—*S. Knapp*.

6948. **Salamone, Paul R.** (Syracuse U.) **The role of the para-professional: Present and future.** *Rehabilitation Research & Practice Review*, 1970(Fal), Vol. 1(4) 1-4.—Considered the role of the paraprofessional in public rehabilitation agencies. Most rehabilitation leaders agree that there are needs in this field, and many disabled, psychiatrically handicapped, or culturally disadvantaged do not receive effective rehabilitation services. The counselor aide should not be equated with a clerical helper. He should be trained to perform tasks e.g., case finding, screening, and interviews which are primarily information gathering. They should not perform tasks, e.g., vocational assessment, psychological testing, interpretation, or vocational and psychological counseling. Paraprofessionals in rehabilitation could act as liaison between clients and agency personnel. Pearl and Reissman suggested 2 functions: a healing function (role of listener), and service function (to cut red tape and obtain needed services for his clients). The paraprofessional should earn a respectable salary that grows from year to year; his job responsibilities should increase, but he should not be sidetracked into administrative or professional activities.—*A. M. Farfaglia*.

6949. **Semenoff, Boris.** (Edinburgh U., Scotland) **The equivalence of Rorschach and Zulliger's test in a selection context.** *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 11-12.—Presents corrected data which were given in a paper at the 6th Congress of Rorschach and Projective Techniques in Paris. The paper described the use of the Rorschach and Zulliger tests in the selection of candidates for training as counselors with the Scottish Marriage Council. Findings were (a) the Zulliger was more productive, yielding 50% more responses/card; (b) "reassessing frequencies as percentage of total R. certain categories showed significantly higher incidence in one

or other test," but in many cases the percentages were close; and (c) "scoring categories discriminated significantly between Accepted and Rejected candidates." It is concluded that ink blot techniques yield distributions of responses which are closely similar. Possible objective criteria, e.g., frequencies and ratios, do not appear to function consistently.—*A. Farfaglia.*

6950. **Sisson, Perry J.** (U. Georgia) **An Interaction process analysis of extended group counseling with psychiatry residents.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3887.

PSYCHOTHERAPY & ANALYSIS

6951. **Forrest, Gary G.** (U. North Dakota) **Transparency as a prognostic variable in psychotherapy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4457-4458.

6952. **Frankl, V. E.** (U. Vienna, Medical School, Austria.) **Meaninglessness: A challenge to psychologists.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 87-95.—Discusses feelings of meaninglessness reported by patients as manifestations of the existential vacuum. Since modern man no longer has the drives or instincts of animals or the traditions and values held by men in earlier periods to determine his actions, he often does not know what he must, should, or even wishes to do. The existential vacuum which results is considered to be an etiological factor in conformism, totalitarianism, and noogenic (nontraditional) neurosis. It is proposed that the will to meaning is the primary motivational force, that the existential vacuum is the result of frustration of this force, and that the will to power or pleasure are sublimations arising from this frustration. Meaninglessness is further considered to be 1 of the effects of reductionism, the totality of knowledge professed by specialists, especially in the sciences and education. Reductionism is described as the "nothing but" brand of nihilism, e.g., man is nothing but a computer, love is nothing but sublimated sex. It is concluded that the existential message is that man is "no-thing," that he is not an object and must never be reified. *S. Knapp.*

6953. **Freud, Anna.** (Maresfield Gardens, London, England) **Probleme der Lehranalyse.** [Problems of training analysis.] *Psyche, Stuttgart*, 1970(Aug), Vol. 24(8), 565-576. Therapeutic as well as didactic analyses heighten the sensitivity for the unconscious as a consequence of analyzing the patient's or candidate's own repressions. Beyond the requirements for patients, training analyses set the additional task for candidates to become their own objects for study. After a certain phase of training, they must not only surrender to the experience of the unconscious, but also direct their attention to psychoanalytic technique. The difference between the conscious motives of patient and training analysis (distress vs. training motivation) results in a difference of emphasis when analyzing id and ego resistances which may be decisive for the duration of the treatment. A substantial difference between the 2 types of analysis lies, however, in the circumstances surrounding the occurrence of transference. Since the training analyst and the candidate are involved in a practical professional relationship, the former always represent more than a mere shadowy figure or a mirror for the projection of infantile conflicts; this presents difficulties for the interpretation of transference phenomena.—*English summary.*

6954. **Friel, Theodore W., Berenson, Bernard G., & Mitchell, Kevin M.** **Factor analysis of therapeutic conditions for high and low functioning therapists.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 291-293.—45 therapists were rated on the variables empathy, regard, genuineness, concreteness, client self-exploration, immediacy, confrontation, and significant others during the 1st hr. of a therapy session and again during 3 randomly presented 3-min excerpts. Results are presented for low- and high-level functioning therapists. The low-functioning therapists were interacting but not attending to the client or the immediate relationship. The high-functioning therapists were capable of varying the interaction in response to the results of the interaction of the moment.—*E. J. Kronenberger.*

6955. **Gardner, Harry H.** (U. Chicago, Medical School) **Psychotherapy: Confrontation problem-solving technique.** St. Louis, Mo.: Warren H. Green, 1970. ix, 347 p. \$15.50.

6956. **Halleck, Seymour L.** (U. Wisconsin) **Therapy is the handmaiden of the status quo.** *Psychology Today*, 1971(Apr), Vol. 4(11), 30-34, 98.—All psychiatrists have realized that they could help certain patients much more if only the environment could be changed. When therapy is simply aimed at helping the patient to adjust to an unhealthy or unjust environment, the therapist is supporting the status quo. Psychiatrists and their organizations should pay close attention to the effects of political movements, technology, and public use of psychiatric opinions. Psychiatrists must stop relying exclusively on the disease model and also must train lay therapists since the medical degree is not necessary to practice good psychotherapy.—*E. J. Posavac.*

6957. **Israel, David A.** (U. Utah) **Psychotherapy: A process and outcome study in the treatment of hyperaggressive pre-adolescents.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3957-3958.

6958. **Junker, H. & Zenz, H.** (Justus Liebig U., Psychosomatische Clinic, Giessen, W. Germany) **Der Einsatz datenspeichernder und -verarbeitender Apparate für die Erforschung psychotherapeutischer Prozesse.** [The use of data storage and processing equipment in research on psychotherapeutic processes.] *Psyche, Stuttgart*, 1970(Sep), Vol. 24(9), 692-705. Transcripts of therapy sessions, which capture the verbatim interactions between patient and analyst, are of limited value for process research (and therapy supervision) because they do not consider the "vocal channel" through which affective information is transmitted. Auditory reproduction and audiovisual aids eliminate this defect, but confront the investigator with a surfeit of information so that selection criteria must be developed. Data classification and coding become major problems. The Chapple interaction chronograph paves the way for research utilizing computers which render data storage, coding, and analysis independent of investigator basis. The process analyzer connected with the language analysis apparatus in Giessen, West Germany, permits the seismographic investigation of microphenomena of the seismographic investigation of microphenomena of linguistic behavior. It functions as a sort of perceptual amplifier confronting the therapist with his own style of communication vis-à-vis the patient, and advises him of changes in the therapy process of which he may as yet be unaware. (52 ref.)—*English summary.*

6959. **Kusnetzoff, J. Carlos.** **Diferencias entre el análisis de adultos y de niños: Lenguaje verbal y**

pre-verbal. [Differences in the analysis of adults and children: Verbal and pre-verbal language.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 107-113.—1 of the major problems facing the analyst dealing with children is that of understanding their nonverbal language. The importance of nonverbal communication in adult analysis is emphasized with several examples contrasting the information gained from the content compared with the form and style of a communication. With children the role of nonverbal communication is even greater, but also is more difficult to interpret. The child displays a constantly changing, multifaceted pattern of behavior. However, in these nonverbal communications the child does display some themes quite clearly. A major difference in the interpretation of the child's nonverbal communication compared with the adult's is that with the adult one may rely primarily on auditory cues, listening for tone of voice, hesitation in speech, etc. With the child one must watch his activities, relying on his visible behavior to provide cues.—S. M. Halpin.

6960. Lesh, Terry V. (U. Lethbridge, Alberta, Canada) **Zen and psychotherapy: A partially annotated bibliography.** *Journal of Humanistic Psychology*, 1970(Spring), Vol. 10(1), 75-83.—P. Swartz.

6961. Lewis, Dorothy O. & Lewis, Melvin. (Yale U., Medical School) **Ethical and moral considerations in the management of the unwed pregnant minor.** *Social Psychiatry*, 1971(Jan), Vol. 6(1), 40-45.—Discusses 5 problem areas in the management of the unwed pregnant minor in the context of a case presentation. These areas include the rights of the individual minor herself, her infant, her parents or parent, society, and the unborn fetus. The importance of helping the minor and her parents arrive at a resolution for themselves is evident. In the event of incompetence, a recommendation is made for the formation of an advisory group. Guidelines for the tasks confronting this advisory group are offered. (French & German summaries)—*Journal abstract*.

6962. Neumann, Charles P. & Tamerin, John S. (Silver Hill Foundation, New Canaan, Conn.) **The treatment of adult alcoholics and teen-age drug addicts in one hospital: A comparison and critical appraisal of factors related to outcome.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 82-93.—Studied the different outcomes in adult alcoholics and teen-age drug addicts in an open-type hospital. Good success had been experienced with middle- and upper-class alcoholics. Adolescent drug addicts from the same social classes, however, failed to respond to the same psychotherapeutic program. Results indicate significant differences between the 2 groups regarding prognosis. In treating 22 adolescent drug addicts for 4 yr., without differentiation from other patients, it was found that in most cases Ss were brought to the hospital under pressure from law-enforcement agencies. These Ss demonstrated an unwillingness to conform, a defiant attitude toward the hospital, and a moderate amount of destruction of property and sexual acting-out. The most serious problem was their unwillingness to stop taking drugs. The alcoholics, however, came with a commitment to stop drinking.—A. Farfaglia.

6963. Ottenberg, Donald J. & Rosen, Alvin. (Eagleville Hosp. & Rehabilitation Center, Pa.) **Merging the treatment of drug addicts into an existing program for alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 94-103.—Describes a joint

program for alcoholics and drug addicts, in which addicts were integrated at a ratio of 1 addict to 3 alcoholics to provide a buffering effect. Rehabilitation centered around group therapy of an encounter type in an atmosphere of an interdisciplinary therapeutic community. In addition to group sessions of 2-4 hr. minithons of 12-18 hr. and marathons of 40-60 hr. were also used. There could be no use of violence, unauthorized drugs, or alcohol. 201 addicts (29 women) and 484 alcoholics (34 women) were treated together. Initial divisiveness gave way to successful therapeutic benefits. Results from alcoholic Ss were the same as before the merge, while drug addicts gave results that show promise, with the exception of older hard-core addicts. 6 recovered addicts from the program are working on the hospital's staff.—A. Farfaglia.

6964. Petrilowitsch, N. (U. Mainz, Neuro-Psychiatric Clinic, W. Germany) **Dialektische Psychotherapie.** [Dialectic psychotherapy.] *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 144-148.—Describes structural psychology as utilizing developmental steps, the structural level of maturity, in the characterization of human types. This system is contrasted with those using more rigid and 1 dimensional types. Special emphasis is placed on the ability of the creative personality to tolerate contrast and tension and arrive at creative synthesis. The dialectic principle applied to psychotherapy helps the patient to adopt a relative approach, rather than rigid attitudes, to areas of difficulty and provides for the enumeration of multiple alternatives. The patient acquires a knowledge of contrast through the configuration of thesis and antithesis. In interpersonal relations, nothing typical can be accepted without the atypical. This principle of complementary situational constellations is considered natural in the human condition.—*English summary*.

6965. Petrilowitsch, N. (U. Mainz, W. Germany). **Dialektische Psychotherapie zugleich ein Beitrag zur Psychopathologie von Neld und Missgunel.** [Dialectic psychotherapy along with a contribution concerning psychopathology of jealousy and ill will.] *Psychiatria Clinica*, 1970, Vol. 3(4), 193-204.—Extreme attitudes, as the analysis of habitual envy and ill will shows, have a special pathogenic potential. It is therefore, an essential psychotherapeutic task to help the patient to acquire a sense of proportion for the assessment of his environment. Dialectic therapy uses the dialectical stages of thesis, antithesis, and synthesis. The conflict laden and neurotically distorted thesis must be contrasted by the patient himself with antitheses, elaborating complete and realistic situations to illustrate them. The completions will lead necessarily to a relativization of his own initial attitude and to insight that situational constellations and human life histories show in principle a certain complementarity. Knowledge e contrario leads to coincidentia oppositorum, to a unity of opposites in the syntheses worked out and in that sense created by the patient. When the patient has learned to comprehend in each case the maximum and the minimum of possible opposites the path will have been cleared for the experience of a conciliatory solidarity, and for a sense of community of fate with his fellow humans.—*English summary*.

6966. Rosenkötter, Lutz. (6 Schulinstr., Ulm, W. Germany) **Die Verwendung des Strukturmodells und des Symbolbegriffes in der Psychoanalyse.** [The utilization of the structural model and of the symbol concept in psychoanalysis.] *Psyche*, Stuttgart, 1970(Sep).

Vol. 24(9), 641-656. —Presents a case history of a patient with hypertension in an attempt to illustrate the structural theory of the psychic apparatus and the psychoanalytic interpretation of neurosis as a disturbed formative-experiential process. The patient's disturbance consisted of a compulsively recurrent, ego-alien, unconscious misinterpretation of certain situations which reminded him of the unmastered oedipal authority situation. Following the infantile "solution" of ambivalence conflicts with the father by means of projective externalization, the conflict area remained split off from the maturational processes of the ego. The meaning of the psychosomatic reaction was a readiness for fight or flight which, defectively symbolized, corresponded to the misinterpreted situation. The revival of the infantile conflict in the transference permits the correction of the distorted symbolization. —English summary.

6967. Sahakian, William S. (Ed.) (Suffolk U.) **Psychotherapy and counseling: Studies in technique.** Chicago, Ill.: Rand McNally, 1969. xx, 568 p. —Presents salient portions of the major works of the principal contributors to the development of psychotherapy and examines a variety of psychotherapeutic systems in the light of their similar accentuations, various inflections, issues of disagreement and contradiction, and diverse fundamental approaches.

6968. Schorer, C. E. (Wayne State U., Medical School) **Improvement with and without psychotherapy.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 155-160. —Matched 55 adult psychotherapy outpatients for age, sex, diagnosis, and follow-up interval with 55 patients who had no treatment. At a mean interval of 5 yr., more treated (89%) than untreated (65%) Ss were judged improved globally and for target symptoms. Symptom relief seemed strongly correlated with the improvement of the treated; whereas, an additional enhancement of social skills was correlated with improvement of the untreated. The best predictors of improvement with treatment were signs of previous social effectiveness; whereas, for no treatment, the best predictors of improvement were the absence of depression, brief duration, and abrupt onset of symptoms. Improvement is attributed by treated Ss to improved understanding, and by the untreated to the practice of self-help. —Journal summary.

6969. Traux, Charles B. & Wittmer, Joe. (U. Florida) **The effects of the therapist focus on patient anxiety source and the interaction with therapist level of accurate empathy.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 297-299. —40 psychoneurotic patients were assigned to 1 of 4 resident psychiatrists for a 4-mo period. 20 were given a role-induction interview and the other 20 received no such role structuring. The Accurate Empathy Scale was used as a measure of therapeutic conditions. Samples of the therapy through tape recordings were obtained. 2 overall improvement measures significantly differentiated between the high and low accurate empathy groups with those high in accurate empathy indicating the better outcome. "The therapist's focus on anxiety source had a significant effect on outcome as measured in terms of the client's social ineffectiveness." The poorest outcome results were obtained when there was low accurate empathy and low focus on anxiety source. The best outcome occurred when there was high accurate empathy and a high focus on anxiety source. —E. J. Kronenberger.

6970. Widok, W. (Psychotherapeutic Clinic, Stuttgart, W. Germany) **Verlaufsbeobachtung und Erfolgs-**

beurteilung in der Psychotherapie. [Progress, observation, and evaluation in psychotherapy.] *Zeitschrift für Psychotherapie und Medizinische Psychologie*, 1970(Sep), Vol. 20(5), 184-195. —Reviews results of research by H. J. Eysenck and A. Dührssen. Principles of a special psychotherapeutic catamnesis are discussed with detailed differentiation from intratherapeutic progress observation posttherapeutic checks on success. Using the examples of significance, verification and evidence, the biopsychic duality of the therapeutic procedure and the transformation into a natural and intellectual, conceptual and judgmental system resulting from the duality are elucidated by way of interdepartmental research. The empirical possibilities for checks on success in stationary psychotherapy should be tested on a practicable model. (57 ref.) —English summary.

6971. Zifferstein, Isidore. (1819 N. Curson Ave., Los Angeles, Calif.) **Der Psychoanalytiker vor den Problemen der Gesellschaft.** [The psychoanalyst facing the problems of society.] *Psyche, Stuttgart*, 1970(Jul), Vol. 24(7), 541-552. —Regrets the retreat of analysts to their private practices in the midst of a society threatened by powerful inner and outer explosions. The common arguments favoring noninvolvement, e.g., preservation of scientific objectivity, maintenance of analytic incognito, and jeopardy of concentration on intrapsychic processes, are dismissed as rationalizations. It is concluded that social psychological mechanisms play a decisive role in the preservation of the status quo between ruler and ruled, and psychoanalysts can make an important contribution to the reactivation of these mechanisms. (15 ref.) —English summary.

Therapeutic Process

6972. Biran, S. (105 Jerusalem Ave., Jaffa, Israel) **Über Möglichkeiten und Wege, die Dauer der psychoanalytischen Behandlung zu verkürzen.** [Possibilities and means of shortening the length of psychoanalytic treatment.] *Zeitschrift für Psychosomatische Medizin und Psychoanalyse*, 1969(Jul), Vol. 15(3), 153-181. —Discusses the activity of the psychoanalyst as an accelerating factor in therapy and presents suggestions for a briefer form of analysis. Successful treatment accounts are presented as illustrative material. A patient with anxiety hysteria was asymptomatic following 169 sessions (3 1-hr sessions/wk), and an active homosexual was asymptomatic following 79 sessions (3 wk for 11 wk, followed by 46 sessions during the following 5 mo.). —B. A. Stanton.

6973. Clay, Dennis D. (Wayne State U.) **Relation of therapist interventions to freedom of communication.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4984.

6974. Safirstein, Samuel L. (Mount Sinai Medical Center, Inst. of Psychiatry, New York, N.Y.) **Institutional transference: Further consideration.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 149-154. —Presents evidence that institutional transference is a phenomenon that can be observed not only in schizophrenics, borderline conditions, and the schizoid personality, but also in personality disorders and people without a psychiatric diagnosis. A clinical example of a patient, a successful businessman who was not schizophrenic, is briefly cited; indication is given that many people could not function outside the structure of the protective institution. Those who use institutional trans-

ference in their object relations usually lack the feeling of autonomy and are unable to relate to others via individual transference. 2 kinds of transference are postulated: (a) individual transference, a higher-level transference which is not developed in some people because of lack of incentive and insufficient interpersonal interplay within the family early in life, and (b) a more primitive, less tension-provoking form of relatedness to the family as an institution and not to the different members as individuals. In this case, the individual grows up able to relate only through institutional transference.—*Journal summary.*

6975. Staples, Fred R. & Sloane, R. Bruce. (Temple U., Medical School) **Relation of speech patterns in psychotherapy to empathic ability, responsiveness to approval and disapproval.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 100-104.—8 male and 9 female outpatients (mean age = 23.8 yr.) with a neurosis or personality disorder served as Ss in a pilot study proposing to 3 hypotheses: (a) Ss who are most able to modify their behavior in order to obtain approval and avoid disapproval will show better in-therapy behavior; (b) Ss most able to perceive variations in the therapist's emotional behavior will be more aware of subtle reinforcements from the therapist and thus show better in-therapy behavior; and (c) Ss who show greater emotional reaction to the emotional distress of the therapist should be more motivated to avoid expressions of distress or disapproval by the therapist and thus produce better in-therapy behavior. Results show considerable support for the 1st and 2nd hypotheses and are less clear for the 3rd. It is suggested that direct measures of interpersonal behavior derived from behavioral analysis of the therapeutic process and may be valuable in predicting performance in therapy. *P. Hertzberg.*

6976. Traux, Charles B. & Wittmer, Joe. (U. Florida) **Patient non-personal reference during psychotherapy and therapeutic outcome.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 300-302. To test the hypothesis that patients verbalizing low levels of non-personal reference statements would show significantly better therapeutic outcome than patients verbalizing high levels of nonpersonal reference statements, measurements were taken of therapeutic outcome in 16 pairs of patients. Results indicate the importance of the patient to delve into his personal self to talk about himself and others who have meaning for him. It was noted that this process is so important that more techniques should be found to expedite vicarious learning techniques to help the patient verbalize more personal references. The patient's personal reference responses should be reinforced by the therapist to shape his verbal activity toward more self-disclosure and self-exploration.—*E. J. Kronenberger.*

Group Therapy

6977. Battegay, R. (U. Basel, Switzerland) **The group as link between sick and healthy community.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 3-10.—The amplifying effect of the group often means that it can better confront patients with their original social world than can individual psychotherapy. The individual can be observed in a social context and be guided into new encounters in a social

setting. For the inpatient, group psychotherapy combines both normalizing behavior therapy and the development of insight through analytic psychotherapy, while for the outpatient the group additionally provides a connecting link between hospital and society. It is true that individual therapy allows a deeper encounter than is possible in a group, which can skip the needs of an individual, but the group provides the sick individual with a refuge where he can both feel free and know that he is safe. Activating and imparting drive, on the one hand, and giving tranquility and support, on the other, are the antinomial principles of the therapeutic group which make it the ideal medium for social psychiatry. The group forms a bridge between the society of health and that of illness and allows the patient to experience human protection without having to pay the price of social separation. The group is the ground on which social interest can again grow but in which shelter and security can also be found.—*Journal summary.*

6978. Blay Neto, Bernardo. (Rua Itapeva, 490-110- Conj. 111, São Paulo, Brazil) **Some aspects of countertransference in group psychotherapy.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 95-98.—Discusses the countertransference aspects which are the criteria for the selection of patients for psychotherapy groups, the custom of working in the presence of Os, and the criteria for selecting such Os.—*Journal summary.*

6979. Chance, Erika. (U. California, Medical School, San Francisco) **Varieties of treatment contracts.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 91-94. The brief exploration of treatment contracts used in a variety of group methods suggests that skill in the use of so versatile a tool should be accompanied by extreme care in its application. Such care must be based upon a clear assessment of who is to be treated: the system or the individual? In either case the endeavor becomes more surely therapeutic if it is preceded by an exhaustive study of the client.—*Journal summary.*

6980. Chertoff, Harvey R. & Berger, Milton M. (Wright-Patterson Medical Center, Dayton, O.) **A technique for overcoming resistance to group therapy in psychotic patients on a community mental health service.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 53-61.—"The mental patient's self-esteem and self image have been so damaged through repeated failures in his interpersonal relationships that he is afraid to risk new ways of relating. Group psychotherapy, through multiple, simultaneous, multi-level transference reactions and the airing of differing viewpoints, provides an opportunity for a patient to experiment and to learn new methods of dealing with his conflicts and modifying his attitudes. However, the need to develop new ways to undermine resistance in patients continues to challenge us." The method of "supervised leaderless groups" is described. It is concluded that this approach provides "an excellent means of overcoming resistance while providing an opportunity for growth in social skills, self-esteem, and the sense of belonging . . . allow patients to reflect with the staff on the experience, to correct projective and perceptive distortions, and to interpret emerging themes while having a corrective emotional experience."—*J. Linnick.*

6981. Colman, Arthur D. (San Francisco Medical Center, Calif.) **Psychology of a first-baby group.**

International Journal of Group Psychotherapy, 1971(Jan), Vol. 21(1), 74-83.—Based on the assumption that "pregnancy as a normal developmental crisis requiring a new intrapsychic organization of personality" has a profound effect on the early mother-child relationship, the importance of treatment of women for whom this crisis threatens personal disintegration rather than growth was explored. The formation of the group and the dynamics in interaction are described. "In this situation of women early in their 1st pregnancy being brought together and followed through gestation, delivery, and 1st months of the mother-child relationship development, the group was intended as a discussion-learning situation rather than as a preventive mental health procedure.... This study shows that some pregnant women will, if allowed, take the opportunity to talk to each other in the presence of an interested doctor and will learn to use a group situation constructively. The group allows ventilation of anger, fears, and insecurities as well as providing the possibility of comparing notes on behavior appropriate to the new mothering role and maintenance and enhancement of the wifely one.... It seemed a valuable experience for the new mothers to see each other struggling with the same problems despite disparate prenatal attitudes." Personnel involved in maternal and child care services can learn about the psychological impact of successive "normal" life crises by observing such groups.—*I. Linnick*.

6982. **Derbolowsky, Udo.** (35 Papenhuder Str., Hamburg, W. Germany) **Mutual immunity in analysis groups and Freud's conception of abstinence.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 325-335.—Enumerates the regulatory arrangements suggested by Freud as a means of controlling the dangers which are inherent in the analytical process (i.e., restricting contact to therapy sessions, abstinence from satisfaction of the analyst's desires regarding the patient, etc.). In the process of providing psychoanalytical therapy to a group, additional problems arise from transferences, regressions, and repetitive acting out. The risk exists that patients might make other patients accessories to crimes in divulging criminal acts. Another danger is that through activated transference, patients, in their own acting out and transferences, may become guilty of actions committed against other group members. Attempts to safeguard the immunity of all group members are discussed in terms of modifications to the consideration of the group as a single organism which is treated as a single individual by the analyst.—*B. A. Stanton*.

6983. **Dies, Robert R. & Hess, Allen K.** (U. Maryland) **An experimental investigation of cohesiveness in marathon and conventional group psychotherapy.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 258-262.—Tested the validity of 2 hypotheses relating to cohesiveness in psychotherapy groups: (a) cohesiveness would show progressive improvement as a function of time spent in therapy, and (b) marathon groups would produce a greater degree of overall cohesiveness than more conventional groups. 3 experienced male therapists each conducted a 12-hr marathon and a 12-session short-term group with 5 male patients in each group. Results of audiotape ratings and analysis of questionnaires administered during the 1st, 4th, 8th, and 12th hr., and of postexperimental evaluations generally support

both predictions. Participants in the marathons discussed topics which were more personal, and displayed greater interpersonal attraction, trust, and emotional sharing.—*Journal abstract*.

6984. **Durkin, Helen E.** (Postgraduate Center for Mental Health, New York, N.Y.) **Transference in group psychotherapy revisited.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 11-22.—The concept of transference, especially its employment as a treatment technique, has often been misunderstood by its critics and misused by its practitioners. Although, as a term, it may be somewhat infelicitous, as an abstraction it unquestionably identifies clinical phenomena of crucial therapeutic significance. Its value stems from the fact that it captures the still-live past at the moment of its intrusion into the present. It is a here-and-now phenomenon with dynamic therapeutic potential. Its conceptual flexibility is attested to by the frequent changes it has undergone in the course of analytic history. In changing, it has reached a high level of complexity which renders it capable of illuminating more fully the infinite nuances of human relationships. Its adaptability to the evolution of science may still be demonstrated today in that its therapeutic usefulness is distinctly improved when the therapist views it in the perspective of modern science, as a process that has become mechanized to some degree and must be analyzed to restore its author's spontaneity. Some creative contributions to group therapy have grown out of dissatisfaction with analytic concepts: current innovations deserve appreciation and serious study. Current criticism of transference interpretation may serve the purpose, if weighed respectfully, of restoring fuller reciprocity between reason and emotion in analytic group psychotherapy. (24 ref.)—*Journal summary*.

6985. **Felger, Hubert L.** (New Jersey State Hosp., Greystone Park) **Chlorprothixene-enforced sleep for newly admitted patients with acute mental decompensation.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 46-51.—Describes the use of im administered chlorprothixene (taractan) in inducing sleep in newly admitted acutely disturbed patients. A pilot study had shown that 4 days of chlorprothixene administration (150-200 mg. im, every 3-4 hr.) produced sleep, closely paralleling physiologic slumber, without drowsiness or ataxia on arousal. Oral doses were given on the 5th day, following which all Ss were ambulatory, and most were reported as "symptom-free, friendly, social and cooperative." A modified sleep regimen was then instituted for 488 patients from 1966-1969 at a state hospital. Ss selected were those showing acute neurotic or psychotic decompensation. Overall results show that the sleep program offered a "practical treatment modality for rapidly controlling excitement, fright and aggressiveness in acute mental collapse." The program was also noted to reduce the number of persons needed to handle the patients and to shorten the total period of hospitalization. (18 ref.)—*P. McMillan*.

6986. **Fidler, Jay W. & Waxenberg, Sheldon E.** (Union County Psychiatric Clinic, Plainfield, N.J.) **A profile of group psychotherapy practice among A.G.P.A. members.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 34-43.—Attempted "to measure the patterns of group therapy practice in the United States," as well as "to delineate the types of patients in group therapy." Every 10th member of the

American Group Psychotherapy Association in the continental United States was sent a 1-page questionnaire. 73% (133) responded. "While the survey probably reflects accurately the facts about patients in groups led by therapists who see only a few groups and see them outside of custodial settings, it gives a minimal picture of large group practices and of institutional therapy." Data about marital groups, family, marathon, and childrens' groups are not included. A comparison with the findings of a 1961 survey done by Winik, Kadis, and Krasner shows "no pronounced changes" in the 1968 survey. "During the decade a shift occurred toward a lesser percentage of group therapists with medical degrees and a greater percentage with master's degrees." The trend is to work with more groups, in private practice settings. The popular number of patients in a group remains 8: session length is 90 min. Suggestions for broadening the range of this type of survey are noted.—*I. Linnick.*

6987. Friedman, Alfred S., et al. (Philadelphia Psychiatric Center, Pa.) **Therapy with families of sexually acting-out girls.** New York, N.Y.: Springer, 1971. vii, 214 p.

6988. Hotard, Stephen R. (Louisiana State U., Agricultural & Mechanical Coll.) **Increase in cognitive complexity: A comparison of human relations training and group psychotherapy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5624-5625.

6989. Parks, James C. (U. Georgia) **An interaction process analysis of a modified marathon with voluntarily institutionalized alcoholics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3883.

6990. Pittman, Frank S. & De Young, Carol D. (Emory U.) **The treatment of homosexuals in heterogeneous groups.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 62-73.—Concludes, from a survey of the literature, that when the therapist is not overly anxious about it, the homosexual is accepted in predominantly heterosexual groups; such groups can be useful in his treatment. It is also established that "mixed groups can provide a worthwhile adjunctive experience in treatment of homosexuality... [whereas] homogeneous homosexual groups can be as successful as individual treatment for homosexuality." To explore the effectiveness of mixed groups alone, 10 patients with problems of homosexuality are described in detail regarding past history and behavior in the group, as well as their progress in their adjustment. Among the conclusions reached are: "Homosexuality can be treated successfully, in patients who want to change, in predominantly heterosexual groups.... Problems of homosexuals can be treated successfully in mixed groups without disruptive anxiety or rejection on either side.... The presence of other homosexuals in a group is not always a bonus for a given homosexual and may create additional problems, particularly destructive rivalry.... The advantages in a homosexual's having close contact with members of the opposite sex and heterosexual members of the same sex seem very great... Homosexuals who do not want to change require a different approach from those who do.... Mixed-group therapy has a definite place in the treatment of homosexuals and homosexuality and can be used alone or in alternation or combination with marital therapy, individual therapy, homosexual couples' therapy, or perhaps even homogeneous homosexual groups."—*I. Linnick.*

6991. Rogers, Carl. (Center for Studies of the Person,

La Jolla, Calif.) **The group comes of age.** *Psychology Today*, 1969(Dec), Vol. 3(7), 27-31, 58-61.—Discusses the major events occurring in most therapy groups. Negative feelings often come out first since people seem to be testing the freedom of the group. Later people begin to reveal their own problems and begin to accept themselves. At this point the participants often refuse to accept superficial behavior on the part of those who are holding back. Many people feel positively changed after group therapy even months later. Several problems with group therapy are also discussed.—*E. J. Posavac.*

6992. Rosenfeld, David. **Nuevos enfoques en psicoterapia grupal: Introducción a las teorías de Jean P. Sartre.** [A new focus in group therapy: An introduction to the theories of Jean P. Sartre.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 41-62.—Provides an overview of Sartre's theories in hopes of providing a fresh viewpoint for the study of group development and group dynamics. For Sartre, a group does not exist as a measurable entity, but rather is an ongoing process. It is a constant struggle against "serialization" (those conditions where an individual feels himself to be merely one of many interchangeable parts with no unique self-identity), or alienation (where he feels completely alone). The development of a group provides for reciprocity in interactions, with all persons equal, yet unique. Sartre's ideas about the stages in the development of a group are discussed, and the phases seen over time in a group therapy situation are analyzed in terms of this theory.—*S. M. Halpin.*

6993. Roth, Sheldon & Stiglitz, Mark. (National Inst. of Mental Health, Bethesda, Md.) **The shared patient: Separate therapists for group and individual psychotherapy.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 44-52.—"2 therapists sharing the treatment of 1 patient is a delicate and controversial issue in psychotherapy.... This clinical material is drawn from experience with 23 patients whose age ranged from 16-30. 15 of the patients were treated in 2 different groups, each run by 1 of the authors. The remaining 8 patients were also in combined therapy with separate therapists, with the authors functioning as either their individual or group therapist." Aspects of the therapeutic process are discussed under the headings of transference effects, fusion, intensification of sibling rivalry, regression, working through, and increasing resistance to working through. "Of the 23 patients, there were none who did not reach their premorbid state: this was usually within the 1st yr. In terms of characterological change we can say that 5 (22%) had none, 12 (52%) had some, and 6 (26%) had considerable characterological change. Only 1 patient in each of the 2 groups dropped out of treatment." This technique is considered "a workable and productive form of treatment," and it is urged that therapists and patients who try this approach should stress "unambivalent commitment" to it.—*I. Linnick.*

6994. Ruitenbeek, Hendrik M. (Ed.) **Group therapy today: Styles, methods, and techniques.** New York, N.Y.: Atherton, 1969. 365 p. \$9.50.—Presents a history of group therapy and discusses the developments, successes, and current experimental techniques of the group approach to psychotherapy.

6995. Shere, Eugenia S. & Teichman, Yona. (Bar-Ilan U., Ramat-Gan, Israel) **Evaluation of group therapy with preadolescent girls: Assessment of therapeutic effects based on Rorschach records.** *International*

Journal of Group Psychotherapy, 1971(Jan), Vol. 21(1), 99-104.—The Rorschach test can be considered a valuable device for assessing therapeutic effects. In this study, a number of Rorschach variables pertaining to basic personality aspects revealed statistically significant differences, indicating the occurrence of positive changes in functioning. These Rorschach data were in agreement with the observations and clinical judgment of the therapist with regard to the girls' progress. It must be noted, however, that the observed therapeutic changes might also have been due to a maturation process over the time span of the therapeutic endeavor. Indeed, for clarification, it would have been desirable to use a matched nontherapeutic control group.—*Journal summary*.

6996. Vitalo, Raphael L. (McMaster U., Hamilton, Ontario, Canada) Teaching improved interpersonal functioning as a preferred mode of treatment. *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 166-171.—29 hospitalized patients were assigned to 1 of 3 treatment groups. Inter- and intrapersonal changes were noted. Results indicate that training was effective in increasing patients' interpersonal functioning in as few as 15 hr., and the functioning was transferable within the patients' lives. The training group displayed significant improvement in ward socialization behavior, but improved interpersonal functioning did not translate into immediate intrapersonal gain.—*E. J. Kronenberger*.

Behavior & Conditioning Therapy

6997. Allen, John S. (U. Illinois, Urbana-Champaign) Associative strategies, defensive style and paired associate learning: A therapy analogue. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5650.

6998. Bates, Henry D. & Zimmerman, Sandra F. (Veterans Administration Center, Research Unit on Aging, Bay Pines, Fla.) Toward the development of a screening scale for assertive training. *Psychological Reports*, 1971(Feb), Vol. 28(1), 99-107.—Designed a self-report scale to select constricted (nonassertive) candidates for assertive training. Test items sampled stimulus persons, situations, and overt and covert responses. The scale was administered to 600 undergraduates to assess reliability and validity. Coefficients of internal consistency and test-retest reliability were of acceptable magnitude. Constriction scores were related to, but distinct from, measures of dominance, deference, and autonomy. Constriction was positively associated with measures of neuroticism and fear and negatively related to extroversion and affiliation scores. Self-reports of satisfaction from environmental stimuli were inversely related to constriction scores. The assumption that constricted individuals are more complaint to external demands than their more assertive peers was supported by the finding that scholastic grades are a function of constriction level.—*Journal abstract*.

6999. Baum, Morrie. (Bishop's U., Lennoxville, Quebec, Canada) Flooding or response prevention or detainment or forced reality-testing: A note on nomenclature. *Psychological Reports*, 1971(Apr), Vol. 28(2), 558.

7000. Beech, H. R. (U. London, Inst. of Psychiatry, England) Changing man's behaviour. Baltimore, Md.: Penguin Books, 1969. 282 p. \$1.95(paper).

7001. Hughes, Howard H. (U. Georgia) An investigation of the assumptions of implosive therapy and

systematic desensitization using an animal analogue. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4996-4997.

7002. Johnson, Vernon S. (Iowa State U.) The behavior therapy controversy: A study on observer bias, reliability, and information. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5626-5627.

7003. Kanfer, Frederick H. & Phillips, Jeanne S. (U. Cincinnati) Learning foundations of behavior therapy. New York, N.Y.: John Wiley, 1970. ix, 642 p. \$10.95.

7004. Maleski, Eugene F. (U. Nebraska) The effects of contingency awareness and suggestion upon systematic desensitization: Unplanned therapist differences. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5001-5002.

7005. McFall, Richard M. & Lillesand, Diane B. (U. Wisconsin) Behavior rehearsal with modeling and coaching in assertion training. *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 313-323.—Selected 33 nonassertive undergraduates from their scores on the Conflict Resolution Inventory and assigned them to 3 groups. Groups A and B received 2 sessions of training in refusing unreasonable requests. The training was a standardized, semiautomated, laboratory analogue of behavior rehearsal therapy, consisting of overt or covert response practice, symbolic verbal modeling, and therapist coaching. Control Group C was led to believe that the assessment procedures were a form of behavioral training. Groups A and B improved dramatically in their assertive-refusal behavior on self-report and behavioral laboratory measures compared to controls. Covert rehearsal tended to produce the greatest improvement. The experimental methodology employed is discussed as a promising approach to the evaluation and development of behavior rehearsal therapy. (20 ref.)—*Journal abstract*.

7006. McPherson, Sandra B. & Samuels, Cyrille R. (Cleveland Guidance Center, O.) Teaching behavioral methods to parents. *Social Casework*, 1971(Mar), Vol. 52(3), 148-153.—The Cleveland Child Guidance Center set up a Child Management Group which used a didactic approach emphasizing social learning and reinforcement theory. 4 sets of parents whose children were exhibiting acting-out, aggressive, or hyperkinetic behavior were selected to participate in a 10-wk "course." 2 therapists, a psychologist and a caseworker, led the sessions. Analysis of the parents' responses to the evaluation forms, aimed at understanding of their expectation and the degree to which the group met their needs, and the therapists' view of these families and treatment course showed that behavioral methods did not complete the treatment program for the families. The children felt they were being manipulated and the object of a study. The project appeared to have limited success with children and families and to provide a basis for further therapy. Behavioral techniques are an additional tool for use with distressed children and families but do not replace discussion, play techniques, and counseling.—*M. W. Linn*.

7007. Sikkels, R. J., 't Hooft, M. A., & Ramsay, R. W. (U. Amsterdam, Psychological Lab., Netherlands) De functie van ontspanning bij systematische desensitatie. [The function of relaxing in systematic desensitization.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Jan), Vol. 26(1), 40-51.—Discusses the possible role of relaxation in the process of desensitization in behavior therapy for either

or both monosymptomatic and complex behavior problems. It is concluded that, to date, little attention has been paid to relaxation techniques and consequently their function in systematic desensitization has not been established. The maximum-habituation hypothesis by M. H. Lader suggests that the nonspecific effects of relaxation are probably important in the treatment of complex neurotic states.—*A. J. Ter Keurst.*

7008. **Stoner, John W.** (U. Utah) **An investigation of differences between alcoholics who volunteer and do not volunteer for aversion therapy treatment of alcoholism.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5009.

Special & Adjunctive Therapy

7009. **Abrams, Richard, et al.** (New York Medical Coll., Div. of Biological Psychiatry) **Lateralized EEG changes after unilateral and bilateral electroconvulsive therapy.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 28-33.—Obtained scalp-recorded EEG records before and after courses of unilateral or bilateral electroconvulsive therapy (ECT) in 85 depressed Ss. While the Ss did not differ in incidence of pretreatment slowing or asymmetry, marked differences were observed in the posttreatment records. The slowing seen after nondominant unilateral ECT was most pronounced over the side of treatment electrode placement (the right side in most cases), whereas the slowing after bilateral ECT was seen most often on the left. Possible anatomic, physical, and physiological bases for these findings are discussed. (18 ref.)—*Journal summary.*

7010. **Colbert, Lucy.** (Broadlawns Polk County Hosp., Des Moines, Ia.) **Debra finds herself.** *Nursing Outlook*, 1971(Jan), Vol. 19(1), 50-53. Describes the case of a 9-yr-old girl who was negative, angry, defiant, destructive, and who felt totally rejected. The nondirective play therapy method was used. This type of situation helps the child to grow by playing out his feelings of tension, frustration, insecurity, aggression, fear, bewilderment, and confusion. The role of the therapist is that of a warm, friendly, interested, and accepting person; she is not passive but is totally involved with the child and her activities and places herself at the child's level or lower. During the early sessions, the S threw things and displayed other angry behavior. She had been unwilling to risk more than a superficial involvement in the play therapy sessions to the point of not exposing her face. After 7 mo. of play therapy, she learned that it was all right to be angry, safe to relate to another person, that she was liked for herself regardless of her actions, and that someone understood her misery. Essentially she had learned to accept herself.—*A. M. Farfaglia.*

7011. **Conn, Jacob H.** (Johns Hopkins U., Medical School) **Hypnosynthesis.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 208-221.—Provides a description of the author's views of hypnotherapy, illustrated by case histories.—*M. V. Kline.*

7012. **Hartland, John.** **The approach to hypnotherapy: "Permissive" or otherwise?** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 153-154.—Questions the general applicability of the "permissive" approach to hypnotherapy. Certain national or cultural differences are noted. It is stressed that the method selected must be suitable, not only to the personality of the patient, but also to that of the therapist.—*M. V. Kline.*

7013. **Jakab, Irene & Howard, Margaret C.** (McLean Hosp., Belmont, Mass.) **Art therapy with a 12-year-old girl who witnessed suicide and developed school phobia.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 309-324.—Describes the therapeutic management of a patient, who when coming home from school witnessed the suicide of a man who shot himself in the head with a sawed-off shotgun. A mo. later she refused to go to school and exhibited panic and rage if attempts were made to force her. She did not speak of the traumatic event. In the hospital she was negativistic and uncooperative in verbal psychotherapy. After having drawn the picture of the suicide scene, she became able to talk about it and soon joined the school classes within the hospital. In this case, art therapy was the most suitable method for dealing with the phobic symptoms for it was the least threatening type of expression for the patient. It also served as catharsis. In art therapy she was able to deal with the repressed memory which brought into focus her own aggressive feelings and the separation anxiety. The dynamic factors in the patient's present psychological constellation and her life situation which underlie the illness are discussed as well as the choice of symptom, and the specific effects of the art therapy (28 ref.)—*Journal summary.*

7014. **Moorefield, C. W.** (U. Virginia Hosp.) **The use of hypnosis and behavior therapy in asthma.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 162-168.—9 patients with asthma were treated with hypnosis and behavior therapy. All Ss showed subjective improvement to a rather marked degree, except for 1 S who has had 3 slight attacks of asthma since the onset of her treatment.—*M. V. Kline.*

7015. **Van Delft, J., Barendregt, J. T., Diamant, J., & Ramsay, R. W.** (U. Amsterdam, Netherlands) **Hypnosis as a tool in analogue studies.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 171-174. In 2 studies, hypnosis was used to induce posthypnotically well-defined and measurable avoidance reactions. The influence of 2 therapeutic approaches on the avoidance reactions are compared.—*M. V. Kline.*

Drug Therapy

7016. **Albert, J. M., et al.** (Saint-Charles Hosp. Joliette, Quebec, Canada) **Effect of thiopropazine on 5-HIAA content in urine and cerebrospinal fluid of chronic schizophrenic patients.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 140-144.—The effect of thiopropazine on the 5-hydroxyindoleacetic acid (5-HIAA) content in urine and cerebrospinal fluid (CSF) of 26 chronic female schizophrenics has been studied and correlated with the symptoms of schizophrenia. After a 30-day withdrawal period, thiopropazine was introduced in a progressively increasing dose. The extrapyramidal and schizophrenic symptoms were graded according to the Buss Extrapyramidal Psychiatric Scale and Inpatient Multidimensional Psychiatric Scale (IMPS), respectively. 5-HIAA in urine and CSF was determined before and after the 15-day experiment. It was found that the level of 5-HIAA in urine is significantly decreased during thiopropazine therapy. A significant positive correlation between the severity of symptoms of schizophrenia and urine 5-HIAA was found. Ss with severe symptoms as measured by the IMPS, excrete more 5-HIAA in urine than Ss with mild symptoms. No correlation between the

content of 5-HIAA in urine and extrapyramidal symptoms was observed. The level of 5-HIAA in CSF showed a significant negative correlation with the level of 5-HIAA in urine at the beginning of the experiment. This correlation could not be found during the period of thioroperazine therapy. It is concluded that serotonin may contribute in the development of clinical symptoms of schizophrenia during active phases of the schizophrenic syndrome. Thus determination of 5-HIAA in urine and CSF may substantiate the clinical diagnosis. —*Journal summary.*

7017. Barcia, D., Martínez Carrillo, J. A., Morales, J. M., & Agüero, A. (U. Valencia, Spain) **Terapéutica psicofarmacológica de las neurosis: El problema de la personalidad y su influencia en los resultados terapéuticos.** [Psychopharmacological therapy of neurosis: The problem of personality and its influence on therapeutic results.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1970(Jan), Vol. 29(1), 2-38.—Studied a random population of 50 neurotic patients treated with drugs in an attempt to determine the influence of an S's personality on the therapeutic outcome. By using the mathematical method of correlation coefficients and canonical correlations, the existing correlations between symptoms and diagnosis (subforms of neurosis, e.g., obsessive neurosis and anxiety) were analyzed. Results show that diagnosis was made according to the most predominant symptom. Personality was examined with the Rorschach test and a high correlation was found between Rorschach's "anxiety syndrome" and the diagnosis of neurosis. Basic Rorschach items were divided into class intervals and a statistical distribution similar to that of diagnosis was noted. Therapeutic results were studied in relation to the above mentioned factors, and the canonical analysis showed that treatments were established according to the main symptom and only minor tranquilizers were effective. 7 Rorschach profiles were found to be significantly correlated with the therapeutic outcome and a prognostic item scale was developed on this basis. (English summary)—*S. Maze*

7018. Blackwell, Barry & Sternberg, Martin S. (Cincinnati) **Trial management in psychopharmacology: The roles and tasks of an industry physician.** *Journal of Clinical Pharmacology & New Drugs*, 1971(Mar), Vol. 11(2), 83-90. This review of the role of an industry physician in trial management emphasizes those aspects relevant to psychopharmacology. There are many occasions during the evaluation of a new drug when the "common observation and common sense" approach can bring trials to a meaningful conclusion, as can the industry physician's role in organization.—*P. J. Federman.*

7019. Borenstein, P., Dumaine, A., & Cujo, Ph. (Villejuif Psychiatric Hosp., Paris, France) **Effets cliniques et biologiques du Décanoate de Fluphénazine: A propos de 35 observations.** [Clinical and biological effects of fluphenazine decanoate. 35 cases.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 267-273. Presents a report of experience using fluphenazine decanoate in the treatment of chronic psychoses. 35 hospitalized patients, with an average age of 30 and duration of illness of 5-10 yr., received 300-400 mg injections im every 2 wk. Most had received other psychotropic medications before. 6 were rated as symptomatic cures; 6 marked improvements; 9 partial or temporary improvements; 13 failures and 1 exacerbation. The overall impression was mitigated: the product

aided some patients not helped by other drugs but produced some difficulties, e.g., extrapyramidal secondary effects.—*H. King.*

7020. Butterworth, A. T. & Watts, Robert D. (East Louisiana State Hosp., Jackson) **Treatment of hospitalized alcoholics with doxepin and diazepam: A controlled study.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 78-81.—Compared the efficacy of doxepin with that of diazepam in treating anxious-depressive symptomatology in alcoholic Ss. Hospitalized 20 55 yr old Ss were selected who had no evidence of psychotic disorder, organic brain damage, or serious liver damage. Ss' degree of anxiety and depression was determined by psychiatric interview, scores on the modified Brief Psychiatric Rating Scale and Zung's Self-Rating Depression Scale. Ss were given 25 mg of doxepin or 5 mg of diazepam 3 times/day for 3 wk. Greater improvement was shown by the doxepin-treated Ss. Side effects were more prominent in the diazepam group, but both drugs were well tolerated.—*A. Farber.*

7021. Caldwell, Anne E. (National Library of Medicine, Bethesda, Md.) **Origins of psychopharmacology: From CPZ to LSD.** Springfield Ill: Charles C. Thomas, 1970. xiv, 225 p.

7022. Corey, Margaret J., et al. (Dalhousie U., Halifax, Nova Scotia, Canada) **Chromosome studies on patients (in vivo) and cells (in vitro) treated with lysergic acid diethylamide.** *New England Journal of Medicine*, 1970(Apr), Vol. 282(17), 939-943.—In a prospective study of 10 patients given LSD there was no difference in frequency of chromosome breakage between samples obtained immediately before and 24 hr after treatment. In 11 patients treated over periods ranging from 24 hr to 8 yr. before sampling the frequency of chromosomal breaks did not differ from that found in untreated controls. In an in vitro study the frequency of chromosomal breaks was increased in replicate cultures from each of 10 Ss when 1 μ g/ml of LSD was added during the last 24 hr of culture. There is no cytogenetic evidence that LSD given therapeutically produces chromosomal damage. The chromosomal aberrations found after illicit use of the drug remain unexplained.—*Journal abstract.*

7023. Council on Drugs, American Medical Association. **Evaluation of lithium carbonate for treatment of manic-depressive psychosis.** *JAMA: Journal of the American Medical Association*, 1971(Mar), Vol. 215(9), 1486-1488.—Discusses lithium carbonate as a useful drug in treating manic-depressive psychosis. However, it should be used cautiously. Adverse toxicity may occur at doses that are close to therapeutic levels. Adverse reactions, whether mild, moderate, or severe, are examined for type and cause. Pharmacology, as well as diagnosis and preparations of the drug are discussed.—*Journal abstract.*

7024. Council on Drugs, American Medical Association. **Evaluation of doxepin hydrochloride (Sinequan).** *JAMA: Journal of the American Medical Association*, 1971(Mar), Vol. 215(12), 1967-1969.—Discusses doxepin hydrochloride and its effect in the causes doxepine hydrochloride and its effect in the treatment of symptoms of depression with or without accompanying anxiety in patients with neurotic or psychotic disorders. The incidence and severity of its adverse reactions are similar to those of other tricyclic antidepressant drugs. Precautions to be observed in the administration, pharmacology, as well as dosage and preparations are discussed.—*Journal abstract.*

7025. **Darling, Harry F. Haloperidol in 60 criminal psychotics.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 31-34.—Reports that out of 30 chronically assaultive patients, 20 improved substantially on haloperidol after the phenothiazines had been tried and failed. Over a 5-mo period of observation, Ss were no longer assaultive, were substantially less psychotic, and engaged in some socialization or activity. 67% showed maximal to moderate improvement. 30 patients, also criminally psychotic, but not chronically assaultive, were studied for comparison. These Ss had also been treated unsuccessfully with the phenothiazines; 77% in this group showed marked to moderate improvement. Side effects were mainly extrapyramidal and were easily controlled. Haloperidol did not cause the weight gain, edema, and oversedation often caused by the phenothiazines. Although conclusions based on a noncontrolled study must be made with reservations, results indicate that haloperidol can be effective in violently psychotic patients even after phenothiazines have failed. —*Journal summary.*

7026. **Davis, John M. & Fann, William E.** (Vanderbilt U.) **Lithium.** *Annual Review of Pharmacology*, 1971, Vol. 11, 285-302.—Reviews research leading to the establishment of lithium as an efficacious drug in the treatment of depression. This article deals mainly with the pharmacology of this drug including such areas as alteration of cerebral biogenic amine function, lithium-induced hypothermia behavioral-EEG effects, excretion of the drug, effect on sodium and potassium metabolism, and clinical side effects. (148 ref.) —*F. Weinstein.*

7027. **Demers, Robert & Heninger, George.** (Yale U., Medical School) **Pretibial edema and sodium retention during lithium carbonate treatment.** *JAMA: Journal of the American Medical Association*, 1970(Dec), Vol. 214(10), 1845-1848.—Observed pretibial edema in 9 consecutive manic-depressive patients who were ingesting therapeutic amounts of lithium carbonate. The edema was slight to modest in amount, occurred during periods of high sodium intake, and was associated with sodium retention. In 4 cases it spontaneously disappeared, even though the high sodium intake and lithium carbonate treatment continued. The pathogenesis of the edema cannot be specified, since the measurements of renal, cardiovascular, and hepatic functions obtained during the period of edema were not abnormal. Although urinary excretion of aldosterone was not increased by treatment with lithium carbonate, spironolactone—a specific aldosterone inhibitor—temporarily eliminated the edema, indicating that the tubular reabsorption of sodium has some role in the edema formation. —*Journal abstract.*

7028. **Eisenberg, Leon.** (Massachusetts General Hosp., Boston) **Principles of drug therapy in child psychiatry with special reference to stimulant drugs.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 371-379.—Drugs, properly employed as a single component of a total treatment program, can be helpful in realizing the goal of healthy development of children. 4 problem areas are discussed: (a) the reluctance to test drugs on children; (b) long-term effects; (c) the issue of who is being treated; and (d) social cost. Principles for the use of stimulant drugs with children are proposed. (23 ref.) —*Journal abstract.*

7029. **Gunne, Lars-M; Lidvall, Hans F., & Widén, Lennart.** (U. Uppsala, Psychiatric Research Center, Sweden) **Preliminary clinical trial with L-DOPA in narcolepsy.** *Psychopharmacologia*, 1971, Vol. 19(2),

204-206. Describes the administration of L-dopa to 3 male and 3 female chronic narcoleptics to determine whether long-term administration had an alerting effect comparable to that of amphetamine. 4 Ss completed 35-112 days of treatment, the final dose varying from 1.2-2.4 gm. Psychological tests and EEGs could not confirm the favorable effects reported by 3 of the Ss who completed treatment. A high incidence of side effects discouraged the recommendation of L-dopa for long-term treatment and Ss returned to their previous therapy of amphetamine without change in tolerance. —*P. Hertzberg.*

7030. **Haertzen, Charles A.** (National Inst. of Mental Health, Addiction Research Center, Lexington, Ky.) **Subjective effects of narcotic antagonists cyclazocine and nalorphine on the Addiction Research Center Inventory (ARCI).** *Psychopharmacologia*, 1970, Vol. 18(4), 366-377.—Compared the subjective effects of 2 doses of cyclazocine (.6 and 1.2 mg/70 kg), nalorphine (16 and 32 mg/kg), no-drug, and placebo with 32 opiate addicts using drug sensitive scales of the Addiction Research Center Inventory (ARCI) items. The effects of these narcotic antagonists were highly similar on ARCI scales and items. Both drugs produced a general drug effect, difficulty in focusing eyes, physical weakness, tiredness, poor motivation, moodiness, misery, anxiety, tension, hallucinations, changes in sensation and perception, and inefficiency of physical, cognitive, and social functions. Cyclazocine was 15-26 times more potent than nalorphine. The effects of cyclazocine and nalorphine were differentiated from the effects of other drugs such as morphine, pentobarbital, and LSD when the overall pattern of effect was considered. (29 ref.) —*Journal abstract.*

7031. **Hollister, Leo E.** (Veterans Administration Hosp., Palo Alto, Calif.) **The pharmacologist: Clinical investigator dialogue in evaluation of new psychotherapeutic drugs.** *Journal of Clinical Pharmacology & New Drugs*, 1971(Mar), Vol. 11(2), 77-82.—The studies outlined are concerned with toxicologic matters. Each of 4 phases of evaluation of a new drug asks a different set of clinical questions. The main point is that if a continuing dialogue is established between the animal pharmacologist, drugs can be screened by both investigators with less investment in time and money. —*P. J. Federman.*

7032. **Kramer, Milton; Whitman, Roy M., Baldrige, Bill J., & Ornstein, Paul H.** (Veterans Administration Hosp., Cincinnati, O.) **Dream content in male schizophrenic patients.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 51-58.—Studied the manifest dream content of 11 male paranoid schizophrenics by monitoring each S for 6 nights, and a total of 260 awakenings in which the overall rate of dream recall was 71%. Dream content was transcribed, coded, and scored using the Hall van de Castle system. Dream recall was obtained in pre- and posttreatment conditions, the latter using psychotropic medication (chlorpromazine, trifluoperazine, perphenazine, or thioridazine). It was found that the percent of dream recall and REM episodes did not change with clinical improvement. Drug treatment also resulted in (a) the suppression of verbal productivity in describing dreams; (b) a decline in dreams marked by aggressive social interaction and several interactions; (c) a decline in strange, relative to familiar, dream characters; and (d) a decline in emotions in dreams. —*P. Hertzberg.*

7033. **Lewis, J. W., Bentley, K. W., & Cowan, A.**

(Reckitt & Colman Pharmaceutical Div., Hull, England) **Narcotic analgesics and antagonists.** *Annual Review of Pharmacology*, 1971, Vol. 11, 241-270.—Discusses the methodology employed in the screening of animals for physical dependence and psychological approaches to dependence and self-administration of opiates. Factors influencing relapse to opioids in the drug addict and recent theories of tolerance and dependence of the morphine type are reviewed. Heroin dependence at present is mostly treated with narcotic antagonists such as methadone, cyclazocine, and naloxone. Newer therapeutic agents under study include morphine derivatives, oripavines, benzomorphans, piperidines, pyrrolidines, and 2 new series of cyclohexane derivatives. (305 ref.)—F. Weinstein.

7034. Lippedge, M. S., Rees, W. Linford, & Pike, D. J. (St. Bartholomew's Hosp., London, England) **A double-blind comparison of dothiepin and amitriptyline for the treatment of depression with anxiety.** *Psychopharmacologia*, 1971, Vol. 19(2), 153-162.—50 16-73 yr. old outpatients took part in a double-blind controlled comparison of 2 antidepressants: dothiepin and amitriptyline. Each S's psychiatric state was assessed by both self-rating and clinician-rated scales. Ss were followed up for about 3 mo. Results of the trial show that dothiepin was superior to amitriptyline at the 5% significance level in terms of its antidepressant activity. Dothiepin was better tolerated in relation to its side effects than amitriptyline. For relief of anxiety symptoms both drugs appeared equally effective. (21 ref.)—*Journal abstract*.

7035. Lubetkin, Barry S., Rivers, P. Clayton, & Rosenberg, Chaim M. (State U. New York, Stony Brook) **Difficulties of disulfiram therapy with alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 168-171.—In spite of many patient contacts, publicity, and the offer of money as a reward, alcoholic patients at a state detoxication center did not wish to become involved in an outpatient disulfiram (antabuse) program. During 4½ mo., only 10 patients received the required 6 dosages and were discharged on disulfiram. It is suggested that disulfiram can be effective, although temporarily, in helping alcoholics cope with current crises without drinking impulsively. Recommendations to encourage participation in such programs are (a) inhospital educational orientation, and (b) a program coordinator responsible for offering the disulfiram program to each patient.—A. Farfaglia.

7036. Martin, A., Masson, J. M., & Bossard, J. C. **Effets de l'Acétyllinate d'Heptaminol sur les troubles cardio-vasculaires consécutifs aux traitements neuroleptiques.** [The effects of acetyllinate of heptaminol on cardiovascular problems following treatment by psychotropic drugs.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 275-277.—Cardiovascular complications that result from high and prolonged doses of the phenothiazines are well known. Of the corrective drugs that have been used against orthostatic hypotension and tachycardia, acetyllinate of heptaminol seems to be exceptional. A dosage of 3 gm/day used following therapeutic prescriptions of simple phenothiazines, e.g., chlorpromazine, was found most effective in the control of tensional problems that develop in the course of prolonged treatment with neuroleptic agents.—H. King.

7037. McLaughlin, Blaine E. (U. North Dakota) **Unexpected failure of a satisfactory anti-depressive drug routine to control hostile expression in psychiatric out-patients.** *Diseases of the Nervous System*,

1970(Nov), Vol. 31(11, Suppl.), 88-91.—Describes part of a 1968 test using 22 female and 5 male outpatients suffering from psychotic or psychoneurotic depressions who were treated with norpramine (an antidepressant) and various tranquilizers as adjunctive and antianxiety agents for a period of from 4-46 days. Results show that depression was markedly improved under medication, but no improvement in the Ss' expressed hostility as was expected. It is concluded that hostile expression has nothing to do with depression and that coaxing an S to express his hostilities outwardly is not a rational method of hoping for improvement.—P. Hertzberg.

7038. Melin, Bengt. (Kalmar Hosp., Sweden) **Observations on the use of Beclamide (nydrane) in a child psychiatric clinic.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 119-120. Discusses the treatment of 40 7-18 yr. old patients exhibiting aggressiveness, psychomotor anxiety with restlessness, and/or cerebral damage with beclamide (benzchlorpropamide). Improvement was noted in 53-57% of the Ss treated with beclamide alone or in combination with therapy. It is concluded that the drug is effective in treating these disorders. Dosage recommendations are presented.—*Journal summary*.

7039. Pichot, P. & Debray, H. R. **Contribution à l'emploi de l'analyse multifactorielle (multivariate analysis) dans les essais thérapeutiques.** [Contribution on the use of multivariate analysis in therapeutic trials.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 240-246.—Compares the action of sulferidazine and thioridazine on the same rated symptoms, e.g., anxiety, affective inhibition and aggressive, oppositional behavior occurring under several nosologic categories. By means of clinical tests with 142 psychotic subjects certain methodological problems often met in psychopharmacologic research and their solutions by the statistical techniques of multivariate analysis are illustrated. The action of neuroleptic agents is mainly to reduce symptoms, but their efficacy will vary depending on the context of symptom occurrence. Placebo effects and the influence of special experimental attention can be partialled out by double-blind methods. To evaluate the specific drug action on target symptoms, however, homogeneous syndrome groups must be formed and the symptomatic elements specified in each.—H. King.

7040. Rossman, M., et al. (Central Islip State Hosp., Research Div., N.Y.) **The anti-anxiety effects of haloperidol and trifluoperazine in an outpatient neurotic population.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 130-133. Examined the antianxiety effects of haloperidol and trifluoperazine in a sample of 57 20-72 yr. old neurotic outpatients. Medication was prescribed double blind to a maximum of 1.50 mg. of haloperidol and 2.75 mg. of trifluoperazine daily for an average duration of 30 days. The profiles of unwanted effects regarding type and frequency and the attrition rate was different for each treatment form. While both drugs appear to be effective, no clear statement of superior efficacy can be drawn from the present data.—*Journal summary*.

7041. Sizaret, P., Anglade, P., & Simon, J. P. **Recherche d'un renforcement pharmacodynamique des neuroleptiques par le 1.035 M. D.** [Research concerning dynamic reinforcement of neuroleptic drugs by 1.035 M. D. (sureptil).] *Encéphale*, 1970(May), Vol. 59(3), 278-288.—Enumerates side effects incurred by patients taking progressively larger doses of neuroleptics for chronic psychoses. It is suggested that side effects

may be eliminated with a decrease in neuroleptic drug dosage accompanied by conjoint administration of a neuroleptic-potentiating drug (i.e., a vasodilator). Results of the administration of sureptil (a vasodilator) are reported for a group of 35 hospitalized patients including chronic schizophrenics and character disorders. The following neuroleptics (50-500 mg/daily) were administered: (a) chlorpromazine (12 Ss), (b) levopromazine (17 Ss), and (c) thioridazine (6 Ss). In 8 cases, a 2nd neuroleptic (haloperidol, neuleptil, or dipiperon) was administered. A placebo was also administered during the 1st 15-21 days of the investigation. Following 15 days of therapy and the replacement of all psychotropic drug treatment by a placebo, 4 Ss experienced slight behavioral improvement, 9 Ss slight aggravation of symptoms, and 15 Ss no behavioral change. Following 21 days, dosages of neuroleptics were doubled in the 9 Ss who had experienced aggravation of symptoms. The remaining Ss were given combined treatment with neuroleptics and sureptil. In all cases, side effects produced by larger doses of neuroleptics were eliminated without diminishing the desired behavioral response. —P. R. Shibelski.

7042. Smith, Marshall E. A controlled comparative study of doxepin and chlorthalidoxepoxide in psychoneurotic anxiety. *Journal of Pharmacology & New Drugs*, 1971(Mar), Vol. 11(2), 152-156.—In a double line study the antianxiety activity of doxepin was compared with that of chlorthalidoxepoxide in 2 homogeneous groups of psychoneurotic patients with target symptoms of anxiety/tension. The therapeutic effect of doxepin appeared earlier and resulted in a greater overall improvement than chlorthalidoxepoxide. Statistical analyses of the Hamilton Anxiety Scale showed that both drugs produced a significant improvement in symptoms of anxiety. Doxepin and chlorthalidoxepoxide were equally effective in their effect on both the general factor of anxiety and the bipolar factor representing somatization. Both drugs were tolerated and all side effects seen were mild in intensity. —P. J. Federman.

7043. van Praag, H. M. & Korf, J. (State U. of Groningen, Psychiatric Clinic, Netherlands) Endogenous depressions with and without disturbances in the 5-hydroxytryptamine metabolism: A biochemical classification? *Psychopharmacologia*, 1971, Vol. 19(2), 148-152. Studied the influence of iv administered probenecid on the 5-hydroxyindole-acetic acid (5-HIAA) concentration in the cerebrospinal fluid (CSF) in 15 Ss with vital (endogenous) depression and 15 nondepressive controls. The average increase of the 5-HIAA concentration in the CSF after probenecid administration was smaller in the depressive than in the control group. Moreover, the depressive group included Ss with a normal as well as Ss with a subnormal probenecid effect. This could mean, that the group of vital depressions encompasses 2 biochemically different categories: Ss with and Ss without demonstrable disturbances in the metabolism of 5-hydroxytryptamine in the brain. (20 ref.)—*Journal abstract*.

7044. van Praag, H. M. & Korf, J. (State U. of Groningen, Psychiatric Clinic, Netherlands) Retarded depression and the dopamine metabolism. *Psychopharmacologia*, 1971, Vol. 19(2), 199-203.—Demonstrated that the influence of iv administered probenecid on homovanillic acid concentration in cerebrospinal fluid was less pronounced in a group of 8 retarded depressive

Ss than in a group of 12 nonretarded depressives and 12 nondepressive controls. The figures corresponded to that found in Parkinson patients. Findings suggest a decreased consumption of dopamine in the brain in retarded depression. This might be understood as an indication that, disorders of cerebral dopamine metabolism are related not so much to a specific nosological entity as to a given motor status, possibly that of hypokinesia.—*Journal abstract*.

7045. van Praag, H. M., Korf, J., & van Woudenberg, F. (State U., Central Isotope Lab., Groningen, Netherlands) Investigation into the possible influence of chlorinated amphetamine derivatives on 5-hydroxytryptamine synthesis in man. *Psychopharmacologia*, 1970, Vol. 18(4), 412-420.—In test animals, 4-chloro-N-methylamphetamine (CMA) and 4-chloroamphetamine (4-CA) cause a decrease in the cerebral 4-chloroamphetamine (4-CA) cause a decrease in the cerebral 5-hydroxytryptamine (5-HT) and 5-hydroxyindoleacetic acid (5-HIAA) concentrations; they exert no appreciable influence on catecholamine concentrations. In 15 depressive patients, these compounds had a therapeutic effect on depression. In terms of antidepressant effect, they resembled not so much the nonchlorinated amphetamine derivatives as the true antidepressants. The question of whether the influence of CMA and 4-CA on the 5-HT metabolism is based on inhibition of 5-HT synthesis is considered. No arguments to support this hypothesis were found; findings obtained did support the postulate that these compounds are 5-HT depleters. A possible explanation of the antidepressant effect of chlorinated amphetamine derivatives is offered (33 ref.)—*Journal abstract*.

HOSPITAL CARE & INSTITUTIONALIZATION

7046. Adler, M., Burkhardt, H. P., & Dirlich, G. (Steghitz Clinic, Neurosurgery Div., Berlin, W. Germany) Über die Tischordnung beim Essen auf einer offenen, gemischten, psychiatrischen Station: Eine orientierende Studie und Überlegungen zu einem Modell. [Concerning the seating arrangements during meals in an open, mixed psychiatric ward: An oriented study and foundation for a model.] *Social Psychiatry*, 1971(Jan), Vol. 6(1), 46-51. Observed the seating arrangement at meals of an open-door, mixed, psychiatric ward. Clusters of seating arrangement correlated with the variables, agreeable-nonagreeable, and with the degree of illness. A statistical model for such social-psychological questions is proposed which questions the correlations mentioned. The number of different social constellations is described as growing many times faster than the number of test persons. The seating arrangement skewed the data so that the cumulative scores were distorted in terms of social relations, and was influenced by the sequence of entering the dining room. It is concluded that multivariable analyses of such a complex problem cannot produce a testable hypothesis and that only single-variable analyses are appropriate strategies for this type of research. (French summary)—*English abstract*.

7047. Almond, Richard. (Stanford U., Medical School) The therapeutic community. *Scientific American*, 1971(Mar), Vol. 224(3), 34-42.—In this new approach to treating mental disturbance, the hospital

great deal of insight into the interpersonal interaction for both the investigators and the participants. S. M. Halpin.

7059. Nigro, Samuel A. (Case Western Reserve U., Medical School) **A psychiatrist's experiences in general practice in a hospital emergency room.** *JAMA: Journal of the American Medical Association*, 1970(Nov), Vol. 214(9), 1657-1660. Emphasizes the need for psychologically sound techniques in managing emergency-room patients because of the frequency of psychological problems. A psychiatrist related his reaction upon returning to part-time general practice in a suburban general hospital emergency room and managing 469 patients in 5 mo. Patients were assigned 1 of 9 categories as indicators of the degree of psychological attention needed. More than $\frac{1}{2}$ of the sample had "pure" medical-surgical problems. More than $\frac{1}{4}$ had problems primarily of psychological origin. Less than 12% were physically sick enough for admission; psychiatric help was recommended for 8%. The need for psychological attention was generally evident, either with the patients or relatives or both. The frequency of psychological problems indicates that medical facilities are in a psychosocial epidemic. The psychiatrist felt his perception of and way of dealing with patients was markedly affected by his specialty training in comparison to his prepsychiatry practice.—*Journal abstract*.

7060. Quilelli Corrêa, Roberto A., et al. (Federal U. of Rio de Janeiro, Medical School, Brazil) **Uma Experiência de comunidade terapêutica.** [An experience with a therapeutic community.] *Arquivos Brasileiros de Psicologia Aplicada*, 1970(Jun), Vol. 22(2), 69-83. - Presents tests from speeches by employees from the Pinel Hospital, Rio de Janeiro, Brazil, which were included in the 9th Congress of Neurology, Psychiatry, and Mental Health. Different theories on the ideal aims and goals of a therapeutic community are discussed, stressing individual attention and the benefits to be derived from the individual acting within a group setting. The therapeutic experience at the hospital is also considered with regard to its successes and shortcomings. —P. Hertzberg.

7061. Rowe, Daniel S., et al. (Yale U., Medical School) **A hospital program for the detection and registration of abused and neglected children.** *New England Journal of Medicine*, 1970(Apr), Vol. 282(17), 950-952.—Describes a program developed to facilitate early identification of abused and neglected children that includes a registry of such patients and a committee of staff members who are particularly qualified to deal with such problems. During the 18 mo. since the inception of the registry, 118 patients have been listed in the registry: 37 have evidence of abuse, 69 of neglect, and 12 are thought to be at high risk of maltreatment. The program appears to have increased the level of staff awareness of these problems, promoted early identification and led to thorough investigation, active intervention, and follow-up observation. A report to the Committee does not replace the mandatory formal report to the State Health or Welfare Department, and the Committee's tasks include assistance to the house officer in fulfillment of this responsibility.—*Journal abstract*.

7062. Walker, Robert & Ascí, Marguerite. (Veterans Administration Hosp., Brockton, Mass.) **Evaluation of an experimental rehabilitation ward for chronic mental patients.** *Rehabilitation Literature*, 1971(Feb), Vol. 32(2), 40-41, 50.—To examine the effect of a nontraditional ward atmosphere in a Veterans Admin-

istration Hospital caring for chronically ill patients. 30 Ss were exposed to employment opportunities in a sheltered situation, with emphasis on paid-daytime work. Comparisons were made of the adjustment of these Ss prior to and subsequent to their exposure to this program. The results show measurably higher social adjustment. Although the degree of living independence was not significant, the level of employment rose from virtually total unemployment to 13% of full employment restoration over the 3 yr. of the follow-up.—S. L. Warren.

7063. Zaenglein, Mary M. (U. Notre Dame) **A study of communications, status, and perceptions in mental hospital organizations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4891.

PSYCHOANALYTIC INTERPRETATION

7064. Derbolowsky, U. (35 Papenhuder Str., Hamburg, W. Germany) **Drei-Stufen-Technik der Traumdeutung innerhalb psychoanalytischer Verfahren.** [Three-stage technique of dream interpretation in a psychoanalytic management.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Nov), Vol. 20(6), 247-256.—Describes a 3-stage technique of dream interpretation. In the 1st stage the dream is expressed by the patient. In the 2nd stage its complementary inversion as immediate distress of the patient is worked out by the therapist. In the 3rd stage dream content is worked out. This technique is seen to offer optimum integration in a non-iatrogenic-directive method. In group analysis every impulse can be worked out and reviewed by means of free group interactions. (36 ref.)—*English summary*.

7065. Lowenfeld, Henry & Lowenfeld, Yela. (350 Central Park West, New York, N.Y.) **Die permissive Gesellschaft und das Überich: Freuds Gedanken zur Kulturentwicklung, vom Standpunkt der Gegenwart betrachtet.** [The permissive society and the superego: Freud's thoughts concerning the development of civilization from the standpoint of present considerations.] *Psyche, Stuttgart*, 1970(Sep), Vol. 24(9), 706-720.—Discusses Freud's ideas about the development of civilization and its dilemma between freedom and restriction of drives, derived from his study of the conflict in neurosis, which have been remarkably confirmed by the events and the change of the cultural climate of the last 50 yr. Sexual freedom has considerably transformed the manifestations of the neuroses; however, it has not produced greater mental health but only new neurotic constellations. The lesser repression of infantile sexuality has reduced the control of aggression. However, the hostility against culture which forces the individual to restrict his libidinal and aggressive drives has increased. In a period of cultural stability, the infantile, irrational demands of the superego which conflicted with the mature superego could be worked out in the analytic process. The protecting and controlling function of the superego could be left to the influence of the surrounding society. However, it is concluded that the present societal structure confronts psychoanalysis with entirely new tasks.—*English summary*.

7066. Rasper, H. O. (13 Josef Schraffl Str., Innsbruck, Austria) **Kriminalität und Perversion als Manifestation von Über-Ich-Isolierung und Liebesunfähigkeit: Untersuchung der Selbstbekenntnisse im Prosawerk Jean Genets.** [Criminality and perversion as manifestations of super-ego isolation and inability to love:

Investigation of self-confessions in the prose of Jean Genet.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Nov), Vol. 20(6), 223-235.—Examined the largely confessional prose of Jean Genet, particularly, *The Diary of a Thief*. An attempt is made to isolate indications of early childhood trauma. Perversion and crime were 2 of the main themes in Genet's literary works. Illustrative material is presented to substantiate the claim that Genet never solved his Oedipal conflict. It is suggested that Genet used his writing as a therapeutic modality in attempting to effect a catharsis for his asocial behavior. (English summary)—*B. A. Stanton*.

7067. Sarwer-Foner, G. J. (Queen Elizabeth Hosp., Montreal, Quebec, Canada) **Human territoriality and its catexis. Diseases of the Nervous System**, 1970(Nov), Vol. 31(11, Suppl.), 82-87.—Theorized that territoriality is present in man as well as lower animals, noting the differences between ethological concepts of instincts and the psychoanalytic ones that are applied to humans. Human territoriality involves cathecting geographic space and symbolized personal space. "including man's intrapsychic visualizations of his intellectual interest, activities, and social sign posts of positioning in relationship to his fellows...." It is believed that this symbolized form of human territoriality enhances psychoanalytic knowledge of instincts. (69 ref.)—*P. Herizberg*.

PSYCHODIAGNOSIS

7068. Ables, Billie S. (U. Kentucky, Medical School) **The use of the Draw-A-Man Test with borderline retarded children without pronounced pathology. Journal of Clinical Psychology**, 1971(Apr), Vol. 27(2), 262-263.—Emotional or organic problems in children contributed to an underestimation of intellectual functioning when using the Draw-A-Man Test (DAM). With children of borderline intellectual functioning, who demonstrate no evidence of emotional or organic problems, the DAM closely approximated the Stanford-Binet or WISC results. Results suggest the usefulness of the DAM as a brief screening device for children with borderline intelligence.—*E. J. Kronenberger*.

7069. Barker, Harry R., Fowler, Raymond D., & Peterson, Lars P. (U. Alabama) **Factor analytic structure of the short form MMPI items in a VA hospital population. Journal of Clinical Psychology**, 1971(Apr), Vol. 27(2), 228-233.—9 factors were retained from a factor analysis of the short form MMPI on 1,575 hospital Ss. A computer operating system (MATLAN) was used. An explanation of each factor is presented. Results support traditional research and code typing, and the unitary nature of certain subtest items. An alternate scoring scheme is suggested as is further empirical research.—*E. J. Kronenberger*.

7070. Berger, Josip & Mladinovic, Vera. (Neuropsychiatric Clinic, Belgrade, Yugoslavia) **Dijagnostički stereotipi kliničkih psihologa i psihijatara. [Diagnostic stereotypes of clinical psychologists and psychiatrists.] Revija za Psihologiju**, 1970, Vol. 1(1), 5-9.—Investigated the similarities and differences of the "typical case" for 4 nosological categories in clinical practice (psychoneurosis, schizoid personality, adolescent crisis, and border case) by Q-sort (70 items). 7 clinical psychologists and 8 psychiatrists described the "typical case." Homogeneity of the descriptions revealed substantial differences within individual descriptions in

both groups of judges. Homogeneity indices were higher in the psychologist group, but the difference (except for adolescent crisis) was not significant. Significant differences in homogeneity of descriptions of different categories were found in both groups. Correlations of diagnostical stereotypes between psychologists and psychiatrists ranged from .02 to .78. Large variations of correlation coefficients were found in all categories. Since the coefficients of homogeneity in this study were higher than in validation studies of individual clinical information, 3 different explanations are possible: (a) the Q-sort technique is biased in favor of stereotyped descriptions, (b) usual criteria for validation of clinical descriptions are inadequate, and (c) clinicians are incapable of rationally integrating accumulated information. (English abstract) (16 ref.)—*A. Fulgosi*.

7071. Bersoff, Donald N. & Grieger, Russell M. (Ohio State U.) **An interview model for the psychosituational assessment of children's behavior. American Journal of Orthopsychiatry**, 1971(Apr), Vol. 41(3), 483-493.—Presents an interview strategy with primary focus on behavior analysis and the concomitant uncovering of antecedent and consequent conditions that elicit, reinforce, and perpetuate that behavior. Its goal is to acquire relevant information that will contribute to decisions about desired changes in behavior.—*Journal abstract*.

7072. Cleobury, J. F., Skinner, G. R., Thouless, M. E., & Wildy, P. (St. Augustine's Hosp., Canterbury, England) **Association between psychopathic disorder and serum antibody to herpes simplex virus (Type 1). British Medical Journal**, 1971(Feb), Vol. 1(5746), 438-439.—Examined the sera of a small series of patients for herpes simplex virus antibody. 3 clinically-defined groups of patients were compared: (a) 13 aggressive psychopaths, (b) 14 psychiatric controls, and (c) 13 general hospital patients. The 1st group had an unusually high average kinetic neutralization constant against Type 1 herpes simplex virus.—*Journal summary*.

7073. De Wolfe, Alan S. (Veterans Administration Hosp., Downey, Ill.) **Differentiation of schizophrenia and brain damage with the WAIS. Journal of Clinical Psychology**, 1971(Apr), Vol. 27(2), 209-211. Studied WAIS subtest patterns in schizophrenic and non-lateralized brain-damaged patients. 3 criteria involving Digit Span, Comprehension, and Vocabulary were formulated. These criteria were cross-validated. Results support the hypothesis that chronic schizophrenic and nonlateralized brain-damaged patients can be distinguished by their WAIS subtest performance. *E. J. Kronenberger*.

7074. Fowler, Raymond D. & Athey, Elizabeth B. (U. Alabama) **A cross-validation of Gilberstadt and Duker's 1-2-3-4 profile type. Journal of Clinical Psychology**, 1971(Apr), Vol. 27(2), 238-240.—25 hospital patients, whose MMPI profiles met the rules for Gilberstadt and Duker's 1-2-3-4 profile type, were rated by 3 judges on a checklist of complaints, traits, and by symptoms. In general, the results of this study support to some degree the actuarial system of Gilberstadt and Duker. There was, however, little agreement with respect to diagnostic labels.—*E. J. Kronenberger*.

7075. Goldstone, Marcia G. (Purdue U.) **Differences in prognosis for psychotherapy as a function of client race. Dissertation Abstracts International**, 1971(Feb), Vol. 31(8-B), 4992-4993.

7076. Gonzales, M. Garcia-Pardo. **Sobre el problema de la paranoia alcoholica. [On the problem**

personality characteristics of hospitalized narcotic addicts on the MMPI. *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 174-181.—4 groups of male addicts were administered the Lexington Personality Inventory which is composed of MMPI items and other true-false statements describing personal traits, social attitudes, and subcultural role descriptions that differentiate individuals. A multiple discriminant analysis of the MMPI and other psychometric data were accomplished. Patients were more egocentric, defensive, sexually confused, and socially maladaptive. Profile difference contrasted voluntarily and involuntarily hospitalized patients. The total sample approximated the 4-2-8 actuarial code which is different from prior studies indicating the 4-9 or 9-4 profile.—*E. J. Kronenberger.*

7087. **Citron, B. Philip, et al.** (U. Southern California, Medical School) **Necrotizing angitis associated with drug abuse.** *New England Journal of Medicine*, 1970(Nov), Vol. 283(19), 1003-1011.—Studied 14 young drug abusers with a necrotizing angitis indistinguishable from periaortitis nodosa. The 6 women and 8 men had used narcotics, stimulants, hallucinogens, and depressants. Methamphetamine, alone or in combination with heroin or LSD, was used commonly. The clinical presentation varied from a complete lack of symptoms in 5 patients to pleomorphic systemic signs and symptoms with renal failure, hypertension, pulmonary edema, and pancreatitis. The vascular changes of necrotizing angitis, including arterial aneurysms and sacculations, were noted in the kidney, liver, pancreas, and small bowel at selective angiography. Postmortem findings in 4 patients revealed generalized vascular changes of differing age, including chronic and healed lesions. Because of the multiplicity of injected substances with the high probability of contaminations the exact etiologic agent in these cases is not clear; however, methamphetamine appears to be a common denominator.—*Journal abstract.*

7088. **Guidroz, Fay T.** (Louisiana State U., Agricultural & Mechanical Coll.) **Evaluation of four treatment approaches for drug addiction.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5623.

7089. **Hendricks, William J.** (California Rehabilitation Center, Corona, Calif.) **Use of multifamily counseling groups in treatment of male narcotic addicts.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 84-90.—Random sampling of approximately 1/3 of the male residents who participated in multifamily counseling groups indicates that those who had this experience made a more acceptable adjustment in outpatient status than did male outpatients who were not exposed to this treatment intervention. 1 yr. after release, 41% of the sample remained in outpatient status. This compares favorably with the 1-yr follow-up rate of 21% for all male outpatients. The selective factors involved in both residents and family members volunteering to participate in multifamily counseling groups and their probable higher motivation to overcome the addiction process are to be noted.—*Journal summary.*

Alcoholism

7090. **Ando, Haruhiko & Hasegawa, Etsuko.** (Gifu, Prefectural Hosp., Neuropsychiatric Clinic, Tajimi, Japan) **Drinking patterns and attitudes of alcoholics and nonalcoholics in Japan.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 153-

161.—Conducted an investigation in Tajimi, Japan between May 1964 and September 1967, using 133 alcoholic and 150 nonalcoholic Japanese men. Early drinking behavior is described in terms of age of 1st drink, who offered the 1st drink, occasion of 1st drink, and beginning of heavy drinking. Present drinking is described in terms of incidence or occasion, principal drinking place, beverage preference, foods eaten with the beverage, average quantity, maximum quantity, mood when intoxicated, and taste of beverages. Attitudes toward drinking are discussed in relation to self-estimate of drinking, attitude toward alcoholics, family attitudes, and effects of drinking.—*S. R. Diamond.*

7091. **Cohen, Miriam; Liebson, Ira A.; Failace, Louis A., & Speers, Wendell.** (Baltimore City Hosp., Md.) **Alcoholism: Controlled drinking and incentives for abstinence.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 575-580.—Reports a demonstration of abstinence and controlled drinking in 4 white, male alcoholics which indicates that excessive drinking can be moderated by reinforcement contingencies. Ss could earn money each time that they abstained or stopped drinking after a priming dose for 1 day. The magnitude of reinforcement required for maintaining abstinence or moderation was a function of the priming dose of alcohol and the delay of reinforcement. Results suggest that controlled drinking may be maintained if the reinforcers dispensed to the alcoholic are made contingent on moderate drinking.—*Journal abstract.*

7092. **Dichter, Marvin; Driscoll, Geneva Z., Ottenberg, Donald J., & Rosen, Alvin.** (Eagleville Hosp. & Rehabilitation Center, Pa.) **Marathon therapy with alcoholics.** *Quarterly Journal on Alcohol*, 1971(Mar), Vol. 32(1-A), 66-77.—Studied marathon therapy with alcoholics in an inpatient treatment community directed by an interdisciplinary staff. 10 marathons were conducted with 8-10 patients and 3-5 therapists. The 1st 100 alcoholics who participated were compared to 137 who did not receive marathon therapy. A 57% improvement was found at follow-up (4-18 mo. later) when 83 of the marathon Ss were contacted, as compared to 53% improvement for nonmarathon Ss, with 120 contacted. Principal limitations and cautions are discussed with respect to the participants, the marathon itself, the therapists or leaders, and the environmental setting. *A. Farfuglia.*

7093. **Dunn, James H. & Clay, Margaret L.** (U. Michigan, Mental Health Research Inst.) **Physicians look at a general hospital alcoholism service.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 162-167.—Almost 1/2 of the physicians who responded to a questionnaire concerning a general hospital alcoholism service referred patients to the program and reported favorable attitudes toward it. Complaints about the program were minimal. Better long-term treatment and a larger outpatient recovery program were the most important improvements suggested. It is concluded that alcoholic rehabilitation can function effectively in a general hospital without interrupting the hospital environment.—*A. Farfuglia.*

7094. **Garlie, Norman W.** (U. Utah) **Characteristics of teenagers with alcohol related problems.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4544.

7095. **Goldstein, Gerald & Shelly, Carolyn H.** (Veterans Administration Hosp., Topeka, Kan.) **Field dependence and cognitive, perceptual and motor skills**

in alcoholics: A factor analytic study. *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 29-40. -Studied the presence of field dependence in alcoholics to other aspects of cognitive functioning by factor analysis. Field dependence was measured with the Witkin Rod and Frame Test (RFT), while subtests of the Halstead Neuropsychological Battery and the WAIS were used to evaluate aspects of cognitive functioning. The strategy employed was to determine how RFT performance fits into the factor structure of these other tests. 50 male alcoholics, mean age 45, with no organic brain syndrome, were tested. Results indicate that more Ss had mild intellectual impairment than would be found in a comparable group of nonalcoholics. However, their tendency to be field dependent cannot be easily related to this mental deficit. Ss showed normal language function, and normal elementary perceptual and motor abilities, but impaired ability on tasks involving motor speed and manual dexterity. (16 ref.) *A. Farfaglia.*

7096. **Gozali, Joav & Sloan, Jack.** (U. Wisconsin, School of Education, Milwaukee) **Control orientation as a personality dimension among alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 159-161. -Compared 55 alcoholics and 98 nonalcoholics, using Rotter's Internal-External Control Scale as a measure. Internal control refers to the perception of positive and/or negative events as being a consequence of one's own actions and under personal control; external control refers to the perception of positive and/or negative events as being unrelated to one's own behaviors and beyond personal control. Results indicate that alcoholic Ss were significantly more internally oriented, perhaps accounting for their belief that they could control their drinking. A 2nd study with 101 alcoholics (given the MMPI in addition to Rotter's Scale) is described. It is concluded that although internally oriented persons are considered "healthier," internal orientation "may contribute to a person's proclivity to become an addict." It is suggested that alcoholism treatment programs should consider modification of the alcoholic's control orientation. —*A. Farfaglia.*

7097. **Gross, William F. & Carpenter, Linda L.** (Veterans Administration Hosp., Lexington, Ky.) **Alcoholic personality: Reality or fiction?** *Psychological Reports*, 1971(Apr), Vol. 28(2), 375-378. -Administered the 16 PF to 266 male alcoholics when they voluntarily entered a 60-day treatment program at a Veterans Administration hospital. Ss scored significantly higher than the standardization group on 6 scales and significantly lower on 6 other scales. Data support the view that chronic alcoholics are a distinct personality type. —*Journal abstract.*

7098. **Hardy, Richard E. & Cull, John G.** (Virginia Commonwealth U., Richmond) **Vocational satisfaction among alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 180-182. -Studied the differences between the expressed vocational interests (Kuder Vocational Preferences) of alcoholics and their actual occupations prior to admission to a state vocational rehabilitation and treatment center. Ss were 93 alcoholics and 72 nonalcoholics. Both groups showed a preference for social service and clerical rather than mechanical occupations. Alcoholic Ss had fewer such jobs and, from performance on verbal intelligence tests, were less suitable for them. The strong preference for social service work may be explained in part by the fact

that Ss were being assisted by social service workers. —*A. Farfaglia.*

7099. **Hudson, Richard M. & Rhodes, Robert J.** (Pioneer Fellowship House, Seattle, Wash.) **A follow-up study of tuberculous skid row alcoholics: II. Hospital and posthospital attitudes and care.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 116-122. -Studied the behavior and feelings of tuberculous skid row alcoholics toward a sanitarium and its staff. 15 Ss were interviewed approximately 9 mo. after discharge, and were asked to tell how their tuberculosis was discovered, whether hospitalization had helped them, and their attitudes toward the staff. 5 Ss discovered their tuberculosis as a result of X-rays taken on admission to jail, and 3, after participating in a mobile X-ray. 12 Ss felt that hospitalization had helped them. The favorable feeling toward the staff was the most significant experience in interpersonal relationships. 13 Ss felt that some type of transitional halfway house would benefit the tuberculous alcoholic. 13 Ss received posthospital treatment at a health clinic. Although most had drunk while hospitalized, Ss indicated that they would have welcomed treatment for their alcoholism. —*A. Farfaglia.*

7100. **Kearney, Michael.** (U. California, Riverside) **Drunkenness and religious conversion in a Mexican village.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 132-152. —"As in much, if not most, of rural Mexico, drunkenness is endemic in the Zapotec-mestizo town of Istepeji, Oaxaca. In Istepeji drunkenness frequently results in a specific syndrome of alcoholism, developing in middle-aged men, which involves extreme personality and behavioral changes ... [The] epidemiology and symptomatology of this syndrome, related folk beliefs and practices, and role of religious conversion as a means of escape from institutionalized social patterns compelling reluctant individuals to drink" are discussed. It is suggested that "the main motivation to drink was to intensify emotional experience as a means of momentarily transcending a negatively perceived social and geographic environment." —*S. R. Diamond.*

7101. **Keehn, J. D.** (York U., Toronto, Ontario, Canada) **Reinforcement of alcoholism: Schedule control of solitary drinking.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 28-39. —Analyzes alcoholism in the light of the stimulus-response-reinforcement paradigm which stresses the positive and social consequences of drinking. This analysis must be subtly applied to solitary drinking. Alcohol has the important property of facilitating social interaction. Extraschedule effects are discussed. How "social transactions could function both to generate and maintain solitary drinking [are discussed] by reference to the phenomena of reinforcement schedules, discriminative functions of punishment, multiple-schedule control, and behavioral byproducts of intermittent reinforcement." (19 ref.) *S. R. Diamond.*

7102. **Kish, George B.** (Roanoke Coll.) **CPI correlates of stimulus-seeking in male alcoholics.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 251-253. —100 hospitalized male alcoholics were administered the CPI and the Sensation-Seeking Scale (SSS). The findings suggest that stimulus seekers were more comfortable, poised, and dominant in social situations; less well socialized; more immature, irresponsible, independent, and nonconforming; more intelligent, flexible, adaptable, and changeable in temperament; and more

masculine in their interest patterns than nonstimulus seekers. A cautionary note with regard to the interpretation of these findings is presented.—E. J. Kronenberg.

7103. Lucero, Rubel J., Jensen, Karl F., & Ramsey, Catherine. (Hazelden Rehabilitation Center, Center City, Minn.) **Alcoholism and teetotalism in blood relatives of abstaining alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar). Vol. 32(1-A), 183-185. Studied the relationship between teetotalism and alcoholism. 40 abstaining 26-70 yr. old alcoholics served as Ss. Periods of sobriety varied from 6 mo. to 20 yrs. 119 grandparents, 356 parents, aunts, and uncles, and 165 siblings of the Ss were identified. Alcoholism and teetotalism were found in an inverse relationship. It was found that if a member of a family was an alcoholic, 82% of the time there was at least 1 other alcoholic in the family. Clustering of alcoholism in some families, although from a very restricted sample, was apparent from the data. "If social learning is the only factor in teetotalism and alcoholism it might be predicted that a decrease in teetotalism would be associated with a decrease in alcoholism. . . ."—A. Farfaglia.

7104. Majchrowicz, Edward & Mendelson, Jack H. (St. Elizabeths Hosp., Washington, D.C.) **Blood concentrations of acetaldehyde and ethanol in chronic alcoholics.** *Science*, 1970(May). Vol. 168(3935), 1100-1102.—Studied 15 adult male alcoholic volunteers before, during, and after a 10-15 day period of experimentally induced intoxication. Blood acetaldehyde concentrations ranged from .11-.15 and from .04-.08 mg/100 ml when blood ethanol concentrations ranged from 1-400 mg/100 ml after consumption of bourbon or grain ethanol, respectively. No dose or dose-time relationships were found between blood ethanol concentrations and blood acetaldehyde concentrations during any phase of the study. *Journal abstract.*

7105. McCusker, Jane; Cherubin, Charles E., & Zimberg, Sheldon. (Harlem Hosp. Center, New York, N.Y.) **Prevalence of alcoholism in general municipal hospital population.** *New York State Journal of Medicine*, 1971(Apr). Vol. 71(7), 751-754.—Investigated the extent of alcoholism at Harlem Hospital. 151 patients admitted to 2 male and 2 female medical wards during a 3-wk period were studied. 33 Ss were incapable of being interviewed. The remaining 118 supplied the data for investigation. The diagnosis of alcoholism was made on the basis of the Alcohol Abuse Scale developed by S. Zimberg. The prevalence rate of alcoholism was determined by age and sex. Total prevalence was 47%: 60% of the males and 34% of the females. The house staff diagnosed only 50% of the Ss as alcoholics, however, they made only 1 false positive diagnosis.—*Journal summary.*

7106. Miller, Byron A., Pokorny, Alex D., Valles, Jorge, & Cleveland, Sidney E. (Veterans Administration Hosp., Houston, Tex.) **Biased sampling in alcoholism treatment research.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar). Vol. 31(1-A), 97-107.—Identifies and describes a series of sources of sampling bias, and illustrates the effects of these sources with findings from an alcoholism treatment project. The 12 types of case losses in alcoholism treatment research are (a) varying definitions of alcoholism, (b) case selection from special populations, (c) reputation of the treatment program, (d) refusal of referral, (e) rejection of applicants, (f) failure to report after acceptance into a treatment program, (g)

exclusion from study protocol, (h) drop-outs during treatment, (i) living or moving beyond feasible follow-up distance, (j) deaths, (k) inability to trace cases, (l) refusal to participate in follow-up interviews. A representative group of published studies, considered in terms of biased sampling, is critically examined. (42 ref.)—S. R. Diamond.

7107. Morin, J. Y. & Courtois, Paul. **Alcoolisme, maladie sociale.** [Alcoholism, social malady.] *Annales Médico-Psychologiques*, 1970(Jul). Vol. 2(2), 221-235.—After considering several definitions of the term social illness—whether a problem of the social body itself, or something transmitted from the individual to society or from society to the individual—the problem of alcoholism is discussed from the historical and cultural viewpoint. The hypothesis is offered that alcoholism is the result of the strong value that society places on production and consumption to the neglect of instinctual satisfaction. Alcohol itself is considered the symbol of the ultimate in consumption, disappearing completely as a commodity once consumed and signifying "merchandised pleasure" to a society already rigidly centered on work, production, and efficiency.—H. King.

7108. Rathod, N. H. & Thomson, I. G. (St. Christopher's Day Hosp., Horsham, England) **Women alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar). Vol. 32(1-A), 45-52.—Compared 30 alcoholic women, married at least once and whose drinking was associated with repeated psychosocial dysfunctioning for at least 5 yr., to 30 alcoholic men matched for age, duration of marriage, educational attainment, and social class. 4 areas of Ss' history were tested: (a) family history, (b) adverse experiences in early life, (c) adult interpersonal relationship of S and spouse, and (d) previous psychiatric illness. Data were collected from the Ss, their spouses and children, and previous medical records. Group psychotherapy and Ss' written life story were added sources of information. Results confirm the impression of B. Rosenbaum that (a) women alcoholics have experienced more deprivation than men alcoholics by having lost a parent in childhood, (b) as children, the women have been subjected to significantly more emotional traumas, and (c) as adult personalities, they emerge more maladjusted than men. (21 ref.)—A. Farfaglia.

7109. Rosenblatt, S. M., et al. **Patients admitted for treatment of alcohol withdrawal syndromes: An epidemiological study.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar). Vol. 32(1-A), 104-115.—Studied the relationship between the incidence of the alcohol withdrawal syndrome and the social characteristics of the neighborhoods from which the patients come. The addresses of 567 men admitted for treatment of alcohol withdrawal syndromes were plotted. Information from 1960 census data for Brooklyn, New York established the racial distribution, degree of overcrowding of the housing units, median annual income, median education, percentage of unemployed, and number of households that have remained in the tract since 1955. Ss tended to come from overcrowded areas of low income, educational level, and residential stability. The rates for venereal disease, juvenile delinquency, tuberculosis, and homicide were high. The same socioeconomic factors which create unstable communities are also related to admissions for alcoholic psychoses.—A. Farfaglia.

7110. Rosin, Arnold J. & Glatt, M. M. (Guy's Hosp., London, England) **Alcohol excess in the elderly.**

Quarterly Journal of Studies on Alcohol, 1971(Mar), Vol. 32(1-A), 53-59.—Studied the occurrence of problem drinking in people over the age of 65. 67 psychiatric and 36 geriatric Ss over 65 yr. of age provided details of social background, patterns of drinking, and factors precipitating excessive drinking. Women outnumbered men in a ratio of 3:2. 46% of the psychiatric group and 36% of the geriatric Ss lived alone. Ss' pattern of drinking fell into 2 categories: (a) long-standing excessive drinkers, and (b) those whose previous innocuous drinking was exacerbated by the effects of aging. In 43 Ss habitual excessive drinking was the most common factor in their drinking problem. Personality factors, e.g., neuroticism, self-indulgence, egocentricity, and a reliance on alcohol as a psychological support, were obvious in 16 Ss of the 1st category. Ss' drinking problems from the 2nd category were related to illness or environmental stress in old age. It is concluded that environmental circumstances are more prominent than personality factors in the elderly.—A. Farfaglia.

7111. Rubington, Earl. (Northeastern U.) **The changing skid row scene.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 123-135.—Studied changes occurring in the skid row social system and their consequences for alcoholics and their would-be helpers, on and off skid row. A false equation of behavior (drunkenness) with setting (skid row) had come to equal inappropriate drinking (alcoholism); thus, the skid row symbol had drawn attention from millions of developing problem drinkers. Denial is the major defense of the alcoholic, who finds a powerful ally in the skid row symbol. In the past, skid row types were (a) workers (seasonal migratory labor); (b) victims (there because of natural disasters, wars, family break-up, etc.); and (c) seekers (engaging in deviant pursuits). Unlike the old stereotype, new residents will be multiple-problem persons. Skid row is a vanishing social system with a declining population of deviants, and a rising rate of violent internal crime. Because of these changes, there will be a greater variety of troubles for control agents. (23 ref.)—A. Farfaglia.

7112. Sands, Patrick M. & Hanson, Philip G. (Veterans Administration Hosp., Houston, Tex.) **Psychotherapeutic groups for alcoholics and relatives in an outpatient setting.** *International Journal of Group Psychotherapy*, 1971(Jan), Vol. 21(1), 23-33.—Describes the treatment of alcoholics in use at the Texas Research Institute of Mental Sciences in Houston. "The kind of groups organized, frequently differing in respect to size, composition, and goals, have included orientation groups, spouses' groups, couples' groups, singles' groups, and an experimental group." Each group is described and its advantages discussed. An alcoholic's need for "a continuous significant and meaningful relationship with a group in order to maintain a productive life without alcohol" is implied, but emphasis is directed toward accumulating more evidence.—I. Linnick.

7113. Smith, James W. & Brinton, George A. (Shadel Hosp., Seattle, Wash.) **Color-vision defects in alcoholism.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 41-44.—Studied whether the high incidence of defects in color vision in alcoholics might indicate a genetic predisposition to alcoholism and cirrhosis. 172 male and 33 female alcoholic patients were tested at the beginning of their treatment with Ishihara plates for color vision. Ss who showed defects on their 1st test were retested at the end of the treatment period.

65 male and 13 female Ss were initially scored as defective in red-green color vision. On retesting them after treatment, 17 male and 5 female Ss showed deficiencies. The number of Ss showing significant defects on retesting indicates that the rate of red-green color vision defectiveness in alcoholics is essentially the same as that in the general population. Vitamin depletion, common in alcoholics, seems a likely explanation for the temporary color-vision defects.—A. Farfaglia.

7114. Sobell, Linda C., Sobell, Mark B., & Schaefer, Halmuth H. (Patton State Hosp., Calif.) **Alcoholics name fewer mixed drinks than social drinkers.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 493-494.—Found that Gamma type alcoholics (N = 25) were deficient in a basic response repertoire for names of types of mixed alcoholic drinks as compared with matched sample of social drinkers (N = 25) and alcoholic bartenders (N = 10). The deficiency is interpreted as a learning deficit.—*Journal abstract*.

7115. Wanberg, Kenneth W. & Horn, John L. (Ft. Logan Mental Health Center, Denver, Colo.) **Alcoholism symptom patterns of men and women: A comparative study.** *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 40-61.—Tested the hypothesis "that different patterns of alcoholism do exist, and that these patterns will be found among a population of [men and women] labeled 'alcoholics'." Data were gathered with the Drinking History Questionnaire, a 68-question inventory, selected for appropriateness in providing information about drinking symptoms and related behavior. Ss were 1657 men and 365 women admitted to the Alcoholism Division of a mental health center. Results show that persons who come to treatment for alcoholism perceive themselves as different along dimensions of symptom severity, drinking style, derived benefits, and associative problems from drinking. Linear composites are found among variables measuring drinking symptoms and behavior. (24 ref.)—S. R. Diamond.

7116. Wilkinson, A. Earl; Prado, William M., Williams, Woodrow O., & Schnadt, Frederick W. (Veterans Administration Hosp., North Little Rock, Ark.) **Psychological test characteristics and length of stay in alcoholism treatment.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 60-65.—Studied 132 male Ss, with a mean age of 44 and a mean problem-drinking history of 11 yr. through test batteries to assay the utility of the tests as predictors of treatment outcome. Each S was given the following tests: the Shipley-Hartford, Allport-Vernon Scale of Values, Kuder Preference Record, Worchel Self-Activity Inventory, EPPS & MMPI, and a biographical data questionnaire. Results indicate that for this alcoholism treatment (90-day) program utilizing a multidisciplinary approach and group psychotherapy, 3 of the psychological tests administered (Shipley-Hartford, Kuder, and Allport-Vernon) contributed nothing toward predicting successful completion of the program. The EPPS and the MMPI made limited contributions. The Worchel Self-Activity Inventory, however, has potential for predicting success along with some biographical data. Tests of self-disclosure are more effective than intellectual and cognitive tests in predicting program completion. (16 ref.)—A. Farfaglia.

Suicide

7117. Day, George. **Suicide: English style.** Per-

spectives in Biology & Medicine, 1971(Win), Vol. 14(2), 290-300.—Discusses causes of suicide attempts and illustrates with case histories the difference between endogenous depression and "dispiritment." It is stated that a feeling of shame almost invariably accompanies an attempt.—J. Crabbe.

7118. Greer, Steven & Bagley, Christopher. (King's Coll. Hosp., London, England) **Effect of psychiatric intervention in attempted suicide: A controlled study.** *British Medical Journal*, 1971(Feb), Vol. 1(5744), 310-312.—Presents a follow-up study of all patients presenting at the casualty department of King's College Hospital during the 1st 6 mo. of 1968 with deliberate self-poisoning or self-injury. Of 211 patients, 204 (97%) were traced after a mean interval of 18 mo. (range 1-2 yr.). Despite official hospital policy, 22% had not been seen by a psychiatrist before discharge; these 44 untreated patients were compared with the remaining 160 who had received either brief (1 or 2 interviews) or more prolonged psychiatric and social help. Subsequent suicidal attempts occurred significantly more often among untreated than among treated patients, prolonged treatment being associated with the best prognosis. The same trend was observed in respect to actual suicide. These findings held when the untreated and treated groups were controlled for other variables which were found to be correlated with outcome. Results indicate that psychiatric intervention is associated with a significant reduction in subsequent suicidal behavior. (15 ref.)—*Journal summary.*

7119. Jones, G. E. (Shenley Hosp., St. Albans, England) **Suicidio: Una aproximación clínica a su comprensión y predicción.** [Suicide: A clinical approach to understanding and prediction.] *Revista Argentina de Psicología*, 1970(Sep.), Vol. 2(5), 114-123.—Attempted to delineate those factors common to the presuicide patient which may allow the psychologist to predict that he does have a potential suicide to deal with. The significance of the following is emphasized: (a) apparent complacency accompanied by implicit rebellion against the restrictions in a situation; (b) inability to operate in situations without a great deal of structure; and (c) an inability to relate to others coupled with a general pessimism. The appearance of the 1st 2 in the same patient is, in particular, considered highly indicative.—S. M. Halpin.

7120. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Completed suicide and longevity.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 662.—Found that suicide rates in the United States were significantly higher in Western than in Eastern states, using a method developed by D. Lester. This phenomenon was characteristic of all 48 continental states.—*Author abstract.*

7121. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Geographical location of callers to a suicide prevention center: Note on the evaluation of suicide prevention programs.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 421-422.—Describes a method of evaluating the effectiveness of suicide prevention centers in which the location of callers to the center is compared with the location of suicides in the community. It is proposed that this method can serve to inform an agency whether it is reaching into the appropriate areas of a community and the agency can adjust its out-reaching activities accordingly.—*Journal abstract.*

7122. Sendbuehler, J. M., Bland, B. A., & Nemeth, G. (Queen Elizabeth Hosp., Montreal, Quebec, Canada) **Attempted suicide: I. Some statistical and psychiatric parameters.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 59-68.—Describes characteristics of a sample of 222 consecutive cases of attempted suicide seen in a Canadian hospital from 1962-1969. Emphasis was on the external and internal environment of the Ss with suggestions for future therapy and research. Suicidal Ss were analyzed regarding (a) the general population, (b) diagnosis and referral to treatment, (c) method of attempted suicide, (d) medical illness and accident proneness, (e) pregnancy and postpartum disorders, (f) attempts by calendar mo., (g) attempts by day of wk., and (h) social class. (17 ref.)—P. Hertzberg.

Crime

7123. Bennett, Walter H. (Mississippi State U.) **Assaultive and nonassaultive criminal behavior among rural offenders: An analysis of external restraints and degree of involvement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4912.

7124. Carroll, James L. & Fuller, Gerald B. (Canadian Penitentiary Service, Kingston, Ontario) **An MMPI comparison of three groups of criminals.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 240-242.—Nonviolent, violent, and sexual groups of criminals were compared on the basis of MMPI performance. The nonviolent group differed from the sexual group on L, K, Pd, Pa, Sc, and Ma scales. The nonviolent and violent groups differed on the L scale. The age factor was a significant variable, and when this was controlled, the nonviolent group differed from the other groups on F, Sc, and Ma scales. The nonviolent group appeared to be hostile, confused in thinking, and manifested the most deviant personality picture.—E. J. Kronenberger.

7125. Cowden, James E., Peterson, William M., & Pacht, Asher R. (Wisconsin Dept. of Health & Social Services, Madison) **The validation of a brief screening test for verbal intelligence at several correctional institutions in Wisconsin.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 216-218.—The Wide-Range Vocabulary Test and the Otis Quick-Scoring Mental Ability Tests were administered to 80 1st admissions to correctional institutions. Regression equations were constructed to derive a table of IQ equivalents for a broad range of age groups. The IQ equivalents on the Wide-Range Vocabulary Test were correlated with Otis IQs as well as WAIS IQs. Moderately high positive correlations were obtained. The Wide-Range Vocabulary Test represented a valuable addition to the screening battery. Future research is discussed.—E. J. Kronenberger.

7126. Gendreau, Paul & Suboski, Milton D. (Trent U., Peterborough, Ontario, Canada) **Classical discrimination eyelid conditioning in primary psychopaths.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 242-246.—Compared conditioning rates of 29 psychopaths and 24 nonpsychopaths on classical eyelid discrimination. Psychopaths produced fewer CRs to both extinction and CS+ over 3 instructional sets. Although less responsive, psychopaths were not poorer discrimination learners according to a signal detection analysis of the data. Psychopaths' CR latency, amplitude, and slope

were similar to those of nonpsychopaths. Results suggest that psychopaths are not inferior conditioners to negative reinforcement, but rather that they employ different response sets than nonpsychopaths. (19 ref.)—*Journal abstract.*

7127. Goodwin, Donald W., Crane, J. Bruce, & Guze, Samuel B. (Washington U., Medical School) **Felons who drink: An 8-year follow-up.** *Quarterly Journal of Studies on Alcohol*, 1971(Mar), Vol. 32(1-A), 136-147.—Studied drinking problems in 223 convicted male felons in an 8-yr follow-up to an investigation carried out just before Ss were released from prison. The original study had revealed that 43% of the Ss were alcoholics and 11% were questionable alcoholics. In the follow-up study 94% of the group was located. Of the 176 Ss interviewed, 118 had experienced social, psychological, or medical problems associated with drinking. Differences between alcoholic and nonalcoholic Ss were: (a) $\frac{1}{2}$ the blacks were alcoholics and $\frac{1}{4}$ of the whites; (b) sociopathy was twice as common among the alcoholics; (c) of the 13 Ss who received a dishonorable discharge from the military services, 12 were alcoholics; and (d) as civilians, the alcoholics were more often arrested, reported more symptoms of depression, and had more familial psychopathological problems than the non-alcoholics. 38 of the 93 unequivocal alcoholics were in remission, all but 2 without psychiatric treatment. (21 ref.)—*A. Farfaglia.*

7128. Hammer, Max. (U. Maine) **Hypersexuality in reformatory women.** *Corrective Psychiatry & Journal of Social Therapy*, 1969(Win), Vol. 15(4), 20-26.—Discusses the difference between hypersexuality and promiscuity and the former's occurrence in reformatories for women.—*M. B. Merk.*

7129. Hare, Robert D. & Quinn, Michael J. (U. British Columbia, Vancouver, Canada) **Psychopathy and autonomic conditioning.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 223-235.—Utilized a delayed, differential paradigm to investigate electrodermal, cardiac, and vasomotor conditioning in 18 psychopathic, 18 nonpsychopathic, and 18 "mixed" inmates. 3 tones, each 10 sec. long, were presented 16 times each in random order, alone, or followed by a shock or slide of a nude female. The psychopaths gave very little evidence of differential electrodermal conditioning. However, they acquired differential cardiac and digital vasomotor responses just as readily as did the nonpsychopaths to the CS followed by shock or by slides. Neither group gave any evidence of differential cephalic vasomotor conditioning. The psychopaths exhibited a lower level of tonic electrodermal activity and were less electrodermally responsive than were the other Ss. There were no differences between groups in tonic heart rate or in cardiac or digital vasomotor responsivity. However, the psychopaths responded to shock with cephalic vasodilation while the nonpsychopaths responded with vasoconstriction. (34 ref.)—*Journal abstract.*

7130. Kilpatrick, Dean G., Cauten, Nelson R., & Roitzsch, John C. (U. Georgia) **Psychopathy, repression-sensitization, and anxiety.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 615-618.—Investigated the hypothesis that psychopathic prisoners classified on the basis of MMPI profiles should have lower scores on the Repression-Sensitization (R-S) scale than prisoners manifesting psychiatric disturbance or normal prisoners. MMPIs from 144 male prisoners were scored for the R-S

and MA scales. Analyses of variance indicate that Ss manifesting psychiatric disturbance had higher R-S and MA scores than normal or psychopathic prisoners. There was no difference between normal and psychopathic prisoners. In view of an r of .84 between R-S and MA scores, it is concluded that the 2 scales apparently measure the same thing. Implications of the findings for the diagnostic classification and prediction of response to treatment of prisoners are discussed. (21 ref.)—*Journal abstract.*

7131. Raychaudhuri, Manas & Mukerji, Kamal. (Rabindra Bharati U., Calcutta, India) **Rorschach differentials of homosexuality in male convicts: An examination of Wheeler and Schafer signs.** *Journal of Personality Assessment*, 1970(Feb), Vol. 35(1), 22-26.—In an attempt to cross-validate the W. M. Wheeler and R. Schafer signs of homosexuality in the Rorschach, 60 male adult convicts of a Calcutta jail, were divided into 4 equal groups: active homosexual, passive homosexual, sex-role disturbed, and heterosexual normals. The protocols of the individually administered Rorschach were examined for both Wheeler and Schafer signs of homosexuality. Statistical analyses reveal that while Wheeler's signs could differentiate only homosexuals (active and passive) and sex-disturbed convicts at .05 level of significance, Schafer's signs can differentiate most of the studied groups at level of significance varying between .01 and .05. Failure of the Schafer signs to distinguish between active and passive homosexuals as well as between sex-disturbed and heterosexuals is discussed with reference to the characteristics of prison subculture. (19 ref.)—*Journal abstract.*

7132. Roth, Loren H. (Federal Penitentiary, Lewisburg, Pa.) **Territoriality and homosexuality in a male prison population.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 510-513.—Reports observations on a prison population of 1,220 men, 107 of whom were known to be homosexuals. 14 of these Ss were known as forced homosexual "rapists." It was found that rapists, as well as other homosexuals, were concentrated in cell blocks, rather than in dormitories. It was found that, on the average, 1 rapist lived in the company of 3 or 4 other homosexual men in a specific territory. This living arrangement was regarded as having the practical effect of reducing the number of fights, and the possibilities of several rapists ganging up on less aggressive inmates.—*P. Hertzberg.*

7133. Russon, Gordon W. **Basic attitude in delinquency.** *Corrective Psychiatry & Journal of Social Therapy*, 1969(Win), Vol. 15(4), 38-48.—Traces the development of a list of traits indicative of attitudes which seem to be common to the motivation of delinquent behavior. The revised list contains 35 items as given in the text and as used in case assessment conferences—usually after the client has been under observation for 3 mo.—*M. B. Merk.*

7134. Swanson, Richard M. (U. Colorado) **Personal control, personality and behavior in a correctional setting: The clarification of a concept.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5644.

7135. Wolfgang, Marvin E. (U. Pennsylvania, Center for Studies in Criminology) **Who kills whom.** *Psychology Today*, 1969(Oct), Vol. 3(5), 54-56, 72-75.—In many major surveys it has been shown that most homicide victims are related to, are friends of, or are at least acquaintances of the murderer. This high proportion is found in the United States, England, Denmark, and

Africa. "Homicides . . . in general, are angry, impulsive acts usually committed during the heat of an argument." Reasons are suggested for various forms of murder among acquaintances.—E. J. Posavac.

Juvenile Delinquency

7136. Beck, Louis M. (Louisiana State U.) **Self-reported delinquent behavior in the adolescent and preadult careers of lawyers and ministers: A comparison.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4897.

7137. de Assis Repetto, Beatriz H. (Catholic U., Rio de Janeiro, Brazil) **Pesquisa sobre a agressividade em delinquentes juvenis.** [Investigation of aggressiveness in juvenile delinquents.] *Arquivos Brasileiros de Psicotécnica*, 1968(Sep), Vol. 20(3), 30-38.—Tested 14-20 yr. old delinquent boys (10 guilty of homicide and 15 involved in other crimes) and 30 normal controls for aggressiveness. Ss were given the Mira and Lopez Myo Kinetic Psychodiagnostic technique (MKP) and results were statistically analyzed. It was found that means between S groups did not differ significantly, but that differences within each of the S groups was very significant. Because of this result, quantitative analyses were made of each test within the MKP. The influence of personality vs. socioeconomic factors on delinquency is discussed in relation to these results.—P. Hertzberg.

7138. Dea, Kay L. (Columbia U.) **Concept of self in interpersonal relationships as perceived by delinquent and non-delinquent youth.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4893.

7139. Dean, Katherine I. (Florida State U.) **Father absence, feminine identification, and assertive-aggressiveness: A test of compulsive masculinity among institutionalized Negro juvenile delinquents.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4912-4913.

7140. Forer, Lois G. **No one will listen: How our legal system brutalizes the youthful poor.** New York, N.Y.: John Day, 1970. 352 p. \$8.95.

7141. Hook, Ernest B. & Kim, Dong-Soo. (Albany Medical Coll., N.Y.) **Prevalence of XYY and XYY karyotypes in 337 nonretarded young offenders.** *New England Journal of Medicine*, 1970(Aug), Vol. 283(8), 410-411.—Investigated the extent to which the XYY genotype is associated with antisocial behavior in children and adolescents. All inmates of 2 institutions housing nonpsychotic juvenile offenders with IQs over 70 were investigated. Results show that 4 cases of XYY karyotype were identified in the 337 investigated males. This incidence is roughly 8 times higher than the newborn rate which is 1.4/1000. All 4 Ss had committed offenses before age 11. All 4 Ss had heights in the upper quartile when compared with other institutionalized Ss, whereas IQs were 15 points lower than matched institutionalized controls.—B. A. Stanton.

7142. Kulik, James A., Sarbin, Theodore R., & Stein, Kenneth B. (U. Michigan) **Language, socialization, and delinquency.** *Developmental Psychology*, 1971(May), Vol. 4(3), 434-439.—Proposes that language or word knowledge generally, and delinquent slang and conventional vocabulary specifically, are related to delinquent conduct. A slang test was constructed and validated on samples of 100 matched pairs of delinquents and nondelinquents, 100 randomly selected pairs of

delinquents and nondelinquents, and 505 high school males. A 28-item slang test was found to be related to delinquency at a high level of confidence. Results indicate that while slang knowledge is positively related to delinquency, conventional vocabulary is negatively related and that both types of word knowledge enhance the distinction between delinquents and nondelinquents when used jointly in a prediction equation. It is suggested that in the socialization process delinquents learn more from the delinquent subculture than they do from the conventional institutions of society. (16 ref.)—*Journal abstract.*

7143. Levinson, Boris M. **Household pets in training schools serving delinquent children.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 475-481.—Conducted an exploratory survey on the use of animals in farm programs and domestic animals for pets in training schools. 112 out of 150 questionnaires (48% sample of children, 35% sample of institutions) were returned from children's training schools located in the United States. 38 schools which had farm programs indicated that cows and hogs were the most popular farm animals. 46 schools which permitted their children to own pets stated that dogs and cats were the most popular pets. In most schools children and staff cooperated in caring for the pets. The school census was not related to the ownership of pets. The questionnaire elicited many volunteered comments regarding pet ownership in the training schools. The therapeutic potential of pets is discussed.—*Journal abstract.*

7144. Redfering, David L. (Ball State U.) **The effect of group counseling on the connotative meanings of selected concepts held by delinquent adolescent girls in a state training school.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4473.

7145. Severy, Lawrence J. (U. Arkansas) **A review of social learning theories and exposure to delinquency.** *Rehabilitation Research & Practice Review*, 1970(Fal), Vol. 1(4), 37-50.—Outlines several learning theories which are of interest, and relates them specifically to exposure to delinquency and its consequences. Association is distinguished from exposure. The process in which a person incorporates that which he has been exposed to is studied. Formulations which deal with the process question are surveyed: social learning theories, process question, interactionists, differential association, reference group theory, and identification. A comparison of theoretical and conceptual sections is made. The social learning theories concerning delinquent behavior are presented. It is clear that the distinction between acquisition and performance has relevance for the counselor with respect to his orientation concerning his client's delinquent behavior. The counselor must identify and ascertain the strength of the association between his client and the associates which are exposing him to delinquent behavior. The counselor must also emphasize that exposure in and of itself does not lead directly to performance. (15 ref.)—A. M. Farfaglia.

7146. Severy, Lawrence J. (U. Colorado) **Exposure to antisocial behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5612.

7147. Silverman, Ira J. (Ohio State U.) **Compulsive masculinity and delinquency.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4914-4915.

7148. Van Dinter, Norbert R. (U. Northern Colorado) **The relationship between sports participation, attitudes toward sports, social-economic status, and**

the self-concepts of male problem youth. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3943.

Homosexuality & Sexual Deviation

7149. Pustel, G., Sternlicht, M., & Deutsch, M. (Willowbrook State School, Staten Island, N.Y.) **Feminine tendencies in figure drawings by male homosexual retarded dyads.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 260-261.—Ss were 18 pairs of adolescent and adult institutionalized mentally retarded male homosexuals. Each pair was composed of a masculine (active) and a feminine (passive) homosexual partner. Each S was asked to draw a self-image and an animal drawing. A strong feminine tendency, more pronounced among the passive than among the active homosexuals, existed in the drawings of these Ss. This result was also revealed in the animal drawings.—E. J. Kronenberger.

7150. Weinberg, Martin S. (Indiana U., Inst. for Sex Research) **Homosexual samples: Differences and similarities.** *Journal of Sex Research*, 1970(Nov), Vol. 6(4), 312-325.—Examined social and psychological adjustment differences among 3 sources of homosexuals in New York City and San Francisco. A questionnaire was distributed to members or patrons of the Mattachine Society, social clubs for homosexuals, and bars catering to homosexuals. Respondents from the different sources were compared with χ^2 tests. Similar differences were found in both cities between respondents from the different sample sources. That is, Mattachine respondents were older, more stable in residence and employment, and had considered themselves homosexual for a longer time. They had fewer friends, less contact with the homosexual subculture, and less acculturation to this subculture. Respondents from bars catering to homosexuals were the most concerned about their homosexuality becoming known and reflected the greatest restlessness in their changing of jobs and residence. On the scales of psychological adjustment, no significant differences were found between respondents from different sources. It is concluded that the systematic differences that exist are a function of the structural character of the different sample sources.—E. B. Jaffa.

7151. Wilson, Marilyn L. & Greene, Roger L. (New Mexico Highlands U.) **Personality characteristics of female homosexuals.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 407-412.—Tested the hypothesis that female homosexuals have personality profiles that differ from those of female heterosexuals, but are not pathological in nature. 46 normal (neither receiving or seeking professional help nor institutionalized) female homosexuals and 46 female heterosexuals completed the CPI, Eysenck Personality Inventory, and EPPS. There was only a slight personality pattern difference between the groups and neither group showed a pathological personality pattern.—*Journal abstract*.

MENTAL DISORDER

7152. Amidolare de Arias, Ana M., Coprez, Susana; Franzi, Adriana, & Leicach, Edgardo. (U. Salvador, Buenos Aires, Argentina) **El curso de psicoprofilaxis como elaboración de depresión post-parto.** [The course of psychoprophylaxis as an elaboration of post-partum depression.] *Revista Argentina de Psicología*, 1970(Sep), Vol. 2(5), 124-128.—Describes 1 patient's

reaction to pregnancy and childbearing, including the postpartum depression. The value of counseling during the later months of pregnancy in lessening this depressive stage is discussed.—S. M. Halpin.

7153. Burton, D. A. (Towers Hosp., Leicester, England) **A factor analysis of the Edwards Personal Preference Schedule and 16 PF in a psychiatric population.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 248-251. 80 patients were administered the EPPS and the 16 PF. A factor analysis of the test results yielded 12 factors with 7 factor clusters on the EPPS having considerable variance in common with the 16 PF. An explanation of 12 factors is presented. In general, it was felt that the EPPS and the 16 PF relate meaningfully to each other. It was also noted that the results do not provide as impressive a demonstration of the purity of the EPPS scale as they do of reproducing Cattell's 2nd-order factors.—E. J. Kronenberger.

7154. Crowe, Raymond R. & Colbach, Edward M. (U. Iowa, State Psychopathic Hosp.) **A psychiatric experience with Project 100,000.** *Military Medicine*, 1971(Mar), Vol. 136(3), 271-273.—Project 100,000 defines an attempt by the military to induct yearly 100,000 men who would normally not be admitted into service because of physical or educational deficiencies. A study was conducted in Vietnam to determine if Project 100,000 personnel were more likely to sustain psychiatric breakdown, to be noneffective, and to be given different diagnoses than personnel who were admitted to the service in normal channels. Experience at the psychiatric clinic demonstrated that the number of patients seen from the Project 100,000 cohort was 10 times as great as that seen from the regular service corps. There was no difference in the 2 groups in terms of diagnosis or severity of illness. Approximately twice as many project personnel were referred for administrative separation as were nonproject personnel. Possible explanations for these discrepancies are discussed.—G. A. Chum.

7155. Davidson, Park O. & Watkins, Robert E. (U. Calgary, Alberta, Canada) **Repressor-sensitizer differences in psychiatric patients on repeated exposures to film induced stress.** *Psychological Reports*, 1971(Feb), Vol. 28(1), 159-162.—Presented a stressful film twice to 39 psychiatric patients divided into 3 groups on the basis of their Repression-Sensitization scale scores. Skin conductance was monitored during the films and an adjective checklist completed after each film. Differences among groups fell just short of statistical significance on both stress measures. The effects of the repression-sensitization personality dimension do not seem to account for as large a part of the variability in psychiatric patients' ability to cope with stress as they do in studies using normal Ss.—*Journal abstract*.

7156. de Fundia, Toba A., Draguns, Juris G., & Phillips, Leslie. (Juan Fernandez Hosp., Buenos Aires, Argentina) **Culture and psychiatric symptomatology: A comparison of Argentine and United States patients.** *Social Psychiatry*, 1971(Jan), Vol. 6(1), 11-20.—Compared discrete manifestations and dominance patterns of symptomatology in biographically, socially, and diagnostically matched sets of 54 male and 42 female patients in Argentina and in the United States. Argentine males exhibited more passive symptomatology, coupled with avoidance of others, and emphasis on affect. Differences between the females in the 2 countries were similar in activity-passivity, but were accompanied by emphasis on thought in Argentina, and affect and

action in the United States. Parallels are noted between these findings and the results of comparative research with normal Ss in the 2 countries. Findings are discussed as supporting (a) R. Diaz Guerrero's (see PA, Vol. 41:15126) theoretical formulations on the prevailing sociocultural premises in Latin and North America; and (b) the view of psychopathology as an exaggeration and caricature of the normal, culturally mediated modes of adaptation. Methodological issues in comparing hospitalized patients across culture lines are discussed and the findings reported are traced to the interacting factors of patient behavior, community judgment, psychiatric impression, and hospital influence. (French & German summaries) (52 ref.)—*Journal abstract*.

7157. Diethelm, O. (Payne Whitney Psychiatric Clinic, New York, N.Y.) **Mania: A clinical study of dissertations before 1750.** *Confinia Psychiatrica*, 1970, Vol. 13(1), 26-49.

7158. Eisenthal, Sherman & Harford, Thomas. (Boston U., Medical School) **Correlation between the Raven Progressive Matrices scale and the Shipley Institute of Living Scale.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 213-215.—There was a substantial correlation between the Progressive Matrices and the Shipley Institute of Living Scale scores for 100 neuro-psychiatric patients. It is suggested, however, that the 2 instruments were not sufficiently similar to be interchangeable. The Shipley assigned more than twice as many patients to an impaired category as did the Progressive Matrices. Neither test significantly differentiated diagnostic categories. The culture-fair quality of the Matrices was not demonstrated. E. J. Kronenberger.

7159. Fenz, Walter D. (U. Waterloo, Ontario, Canada) **Heart rate responses to a stressor: A comparison between primary and secondary psychopaths and normal controls.** *Journal of Experimental Research in Personality*, 1971(Mar), Vol. 5(1), 7-13.—Assessed cardiac activity in anticipation of, and in response to a stressor in 10 primary and 10 secondary psychopaths, and in controls, who were selected on the basis of multiple objective criteria, including the Eysenck Personality Inventory, Lykken's Activity Preference Questionnaire, a modified version of the MA scale, and the MMPI. Reliable group differences were observed, which were interpreted in terms of stimulus deprivation due to institutionalization and the chronic need for stimulation of young psychopaths.—*Journal abstract*.

7160. Hunger, J. (U. Waldau, Bern, Switzerland) **Gedanken zur Irrtumskategorie als Wahnkriterium.** [Thoughts concerning categories of error as criterion for delusions.] *Psychiatria Clinica*, 1970, Vol. 3(4), 241-253.—With the help of ontological criteria as formulated by N. Hartmann and the ontological basic model of the subject-object relationship, delusions can be described as a disturbance of the patient fitting himself into his particular life sphere. This adjustment depends on the acts of thinking and perceiving, but even more so on affective attitudes ("emotional-transcendental acts"—of hoping, expecting, experiencing, fearing, loving, etc.). A brief characterization of these various human modes of experiencing and adjusting shows that the rational-cognitive element—emphasized in the diverse attempts at interpreting criterion of error—plays only a subordinate role, and should no longer be used in defining delusions.—*English summary*.

7161. Irizarry, Raymond. (Security Treatment Center, Middletown, Conn.) **Anxiety, repression and varieties**

of anti-social behavior in psychopaths. *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 56-61.—To determine if psychopaths with low anxiety are afflicted with a variety of neurosis, 17 psychopaths reporting low and 15 reporting high anxiety were examined with a variety of projective techniques. The use of repressive defenses, accuracy of cognition, and existence of areas of intrapsychic conflict were compared. Variance analyses indicate that the low anxious psychopaths represented a mixture of psychopathic types with a wide range of use of repressive mechanisms. Analysis of uncommon themes on the TAT produced a list of apparent appropriateness for both types of Ss. (20 ref.)—*Journal abstract*.

7162. Loeb, Armin; Beck, Aaron T., & Diggory, James. (Horizon House, Philadelphia, Pa.) **Differential effects of success and failure on depressed and nondepressed patients.** *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 106-114.—It was hypothesized and supported that a small success on a "seemingly irrelevant task" would increase the performance level and self-esteem of depressed patients. Furthermore, while initial success improved the performance of depressed patients on the repetition of a task, initial failure improved the performance of non-depressed patients. (18 ref.)—R. Denis.

7163. Miskimins, R. W., Braucht, G. Nicholas; Wilson, L. T., & Berry, K. L. (Colorado State U.) **Self-concept and psychiatric symptomatology.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 185-187.—Considered the relationship between various self-concept configurations and a large number of specific psychiatric-behavioral symptoms. 346 Ss completed the Miskimins Self-Goal-Other (MSGO) Discrepancy Scale, and psychiatric-behavioral symptomatic information was obtained on these Ss from 34 symptom ratings by a psychiatrist or psychologist following an interview. The relationships within 5 factors are discussed. Results indicate that self-concept measurement is applicable to patients with psychotic symptomatology and that "the addition of such information as 'perceived evaluations of others' and direction of discrepancies adds dimensions necessary to reflect these forms of maladjustment." E. J. Kronenberger.

7164. Misra, S. L. (Army Hosp., Delhi, India) **Effect of birth order, education and rank status on insecurity.** *Psychology Annual*, 1969(Mar), Vol. 3, 17-19.—Administered Maslow's Security-Insecurity Inventory to 60 normal and 60 psychiatric patients matched for birth order, education, and military rank. Results indicate that 1st born, low educated, and low rank Ss tended to manifest more insecurity than later born, higher educated, and higher rank Ss. (15 ref.)—S. Knapp.

7165. Molholm, Lois H. (Ohio State U.) **Female mental patients and normal female controls: A restudy ten years later.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4908.

7166. Müller-Braunschweig, Hans. (U. Giessen, Psychosomatic Clinic, W. Germany) **Zur Genese der Ich-Störungen.** [Concerning the genesis of ego-disturbances.] *Psyche, Stuttgart*, 1970(Sep), Vol. 24(9), 657-677.—Pathogenic interactions with parents during early infancy often bring about the internalization of tension-laden introjects which permanently overtax the integrative and control functions of the ego. A detailed case history illustrates how traumatic stimulation by the mother produces an archaic subsystem of the ego which

preserves early, primitive ego states. The maternal introject, strongly cathected, cannot be integrated, but remains isolated. An entire sequence of interactions, affects, and situations is chained into an unintegrated "program." In certain situations (love relations, transference in analysis) which trigger this isolated system, the enfeebled ego reacts with intensified defenses and regressions so that the boundary between self and object may become blurred. (36 ref.)—*English summary.*

7167. Myers, Richard W. (Iowa State U.) **Effects of motivational incentives on GATB "F" and "M" subtest performance with hospitalized neuropsychiatric patients.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4470.

7168. Pasternack, Stefan A. (National Naval Medical Center, Naval Hosp., Bethesda, Md.) **Evaluation of dangerous behavior of active duty servicemen.** *Military Medicine*, 1971(Feb), Vol. 136(2), 110-113.—In an approximately 1-yr period, 34 cases of dangerous behavior as a primary reason for hospitalization were examined. Background behavior revealed parental brutality, school and learning difficulties, personal experience with violent death, compulsive fire setting, and torturing of pets as important precursors of violent behavior in adult life. These individuals tended to be somewhat schizoid, have poor ego-defense mechanisms, sadomasochistic relationships with spouses or relatives, a history of fugue states, and a readiness to attack others. Crimes of violence tended to occur in individuals who had been threatened by others or who had a history of alcoholism and drug abuse. A combination of these factors should be used by the physician to detect potential criminal behavior.—*G. A. Clum.*

7169. Pethő, B. & Szilágyi, A. (Neurological & Psychiatric Clinic, Budapest, Hungary) **Von der nosologischen Lage des Ekbom-Syndroms: Beitrag zur Weiterentwicklung der Symptomatologie Körperlich begründbarer Psychosen.** [The nosological situation of the Ekbom syndrome: Contribution to the improvement of symptomatology of organic mental disorders.] *Psychiatria Clinica*, 1970, Vol. 3(5), 296-319.—Analyzes results of the catamnestic findings in a case of Ekbom's syndrome and offers 2 recommendations: a sharper delineation of the syndrome, and expansion of the symptom spectrum. A case is described which is characterized by a chronic organic syndrome, a normal state of consciousness, fusion and disintegration of Gestalt, narrowing of the environment, isolated transitional negative and positive symptoms, and intact higher functions. It is suggested that the symptom spectrum of the transitional syndrome be expanded and named the "organotropic psychosyndrome" which would offer better nosological possibilities for differentiation between endogenous and exogenous psychoses. (English summary) (62 ref.)—*B. A. Stanton.*

7170. Sarwer-Foner, G. (Queen Elizabeth Hosp., Montreal, Quebec, Canada) **An object relationship evaluation of depressive illness: I. Patients who still relate to external objects.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 69-81.—Presents a clinically based intermediary phase of work with depressed patients in which the Ss are grouped in terms of their capacity to form object relationships. Factors involved in their illness, e.g., symptoms and related psychodynamic tendencies, behavioral concomitants and manifestations, personality and characterological correlates, are measured on a 5-point scale. The effec-

tiveness of different therapeutic technicalities is assessed in terms of this material (35 ref.)—*P. Herzberg.*

7171. Serafica, Felicissima C. (Clark U.) **Object concept in deviant children.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 473-482.—Tested 8 4 8 yr. old children manifesting deviant development on a scale devised by I. Uzgis and J. Hunt for visual pursuit and permanence of objects, using (a) preferred, and (b) neutral objects. Ss responded as if they had attained the 6th stage of object concept development, although consistency of performance varied between preferred and neutral objects. (28 ref.)—*Journal abstract.*

7172. Spiegelberg, U. & Betz, B. (Psychiatric Clinic of Stuttgart Citizens' Hospital., W. Germany) **Sozial- und Erlebnisfeld bei Neurosen und Psychosen. (Klinisch-statistische Untersuchung).** [Social and situational field with neuroses and psychoses (clinical and statistical investigation).] *Zeitschrift für Psychotherapie und Medizinische Psychologie*, 1970(Sep), Vol. 20(5), 199-207.—Investigated the occurrence of disruptive situations prior to onset of psychotic or neurotic illness in a random sample of 1,001 patients in a neuropsychiatric clinic. Correlations were ascertained between diagnostic groups, age groups, sex, and resulting situational disruptive complexes (economic situation, residential conditions, occupational circumstances, external isolation, marital contact, etc.). Poor economic circumstances and occupational and intrapersonal conflicts were found more frequently in neurotics than in psychotics. All disruptive environmental situations were more frequent in neurotics than in controls (neurological patients), whereas, psychotics were distinguished from controls only in terms of the frequency of occupational and intrapersonal problems. In addition, occupational and intrapersonal problems were found with greater frequency in younger Ss. *English summary.*

7173. Stillman, Stephen. (Ohio State U.) **Mental illness and peer group popularity.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 202-203.—31 patients in an exit unit and 12 staff members made sociometric nominations of most healthy, least healthy, best known, and least known from a list of 39 ward patients. "The results suggest that degree of mental health is related to quantity of social interaction and that patients and staff closely agree in their ratings of patient health-sickness."—*E. J. Kronenberger.*

7174. Vatankeh, H. M. (U. Isfahan, Psychiatric & Psychotherapeutic Polyclinic, Iran) **Psychoneurotische Störungen bei Frauen im Bezug zu Ihrem Sozialstatus.** [Psychoneurotic disturbances in women in connection with their social status.] *Confinia Psychiatrica*, 1970, Vol. 13(1), 50-56.—Describes experiences with 290 Iranian women of various ages seen within 30 mo. for psychoneurotic and psychosomatic disturbances. In 290 Ss, the illness was obviously related to social situations. There were 3 main groups: Ss with marital problems, Ss with hereditary constellations, and Ss in whom professional and training handicaps were pathogenic. In all groups, tensions and conflicts occurred from specific attitudes and circumstances (seclusion and subordination) in which Iranian women are living. Meeting with Western forms of living made these attitudes doubtful. Ss causing many Ss to be insecure and fearful. Ss experienced their social status as suppressing their personalities. Chronic situations of denial brought about frustrations and self-directed aggressions. Open aggression was observed only in those Ss suffering chiefly from

psychosomatic disturbances, while in the 2 1st mentioned groups there prevailed depressive, phobic, and anxiety reactions. None of the Ss, with the exception of 2 in the 3rd group, had spontaneously attempted to find a solution or to break loose. A fatalistic attitude and deeply rooted resignation combined with ideas of moral value hindered them. Disease served as a means of evading a decision of choice between old tradition and new Western forms of life. (32 ref.)—*Journal summary.*

7175. Weissman, Myrna M., Paykel, Eugene S., Siegel, Risé, & Klerman, Gerald L. (Yale U., Medical School) **The social role performance of depressed women: Comparisons with a normal group.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 390-405.—Compared the social role performance of 40 acutely depressed 25-60 yr. old women with a matched nonsymptomatic normal group, using a semistructured interview. Results indicate that depressed Ss were significantly more impaired in all roles. The degree of the depressive's impairment in intimate interpersonal relations provides a significant context for understanding symptom formation and treatment processes. (29 ref.)—*Journal abstract.*

7176. Woodruff, Robert A., Clayton, Paula J., & Guze, Samuel B. (Washington U., Medical School) **Hysteria: Studies of diagnosis, outcome, and prevalence.** *JAMA: Journal of the American Medical Association*, 1971(Jan), Vol. 215(3), 425-428.—Summarized the results of a number of recent studies of hysteria. There is evidence that hysteria, defined by objective criteria, is a syndrome distinct from other psychiatric syndromes, distinct from medical illness in which there are multiple complaints, and distinct from cases in which conversion symptoms occur in relative isolation. The central clinical feature of hysteria is any array of complaints spread throughout the symptom review. This concept of hysteria has been useful as an instrument of research, and serves as an important aid of the process of decision making for a group of patients whose management is difficult. (15 ref.)—*Journal abstract.*

Neurosis & Emotional Disorder

7177. Borcham, John. **An atypical depressive record.** *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 3-6.—Describes the case of a 73-yr-old Czechoslovakian refugee who developed a neurotic depression after his escape to England in 1939. During 25 yr. of psychiatric care, there was a worsening in his ability to play a part in the lives around him and a loss of belief in himself, e.g., loss of appetite was accompanied by a feeling that he was unworthy of proper food. The Rorschach test shows a lively personality suffering from a persecutory anxiety, with unconscious content concerning latent homosexuality and castration fantasies. The diagnostic picture comes into the general area of a hysterical anxiety state. Because of the atypicality of the Rorschach record, a clear diagnosis is difficult. The diagnosis is that "of a depressive reaction, concerning unconscious guilt, against a background of hysterical character structure." The depression is reactive to environmental stress and results in the impoverishment of a basically lively personality.—*A. Farfaglia.*

7178. Flomenhaft, Kalman. (U. Denver) **Treatment of emotionally disturbed adolescents.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4273.

7179. Ihilevich, David & Gleser, Goldine C. (Shiawassee County Community Mental Health Center, Owosso, Mich.) **Relationship of defense mechanisms to field dependence-independence.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 296-302.—Reexamined the relationships between defense mechanisms and field articulation using 50 male and 60 female psychiatric patients. It was found that (a) Ss who relied excessively on "global" defenses (turning-against-self and reversal) were more field dependent than Ss who relied on "differentiated" defenses (turning-against-object and projection); and (b) Ss who did not rely on any 1 defense were intermediate on field articulation. Knowledge of major defense allowed for prediction of cognitive style, but knowledge of cognitive style permitted prediction of only clusters of defenses. Characteristic defense appeared to be a function of both cognitive style and learning experience. When matched for defense style, men were more field independent than women on the Embedded Figures Test, but not on the Figure Drawing Test. Reversal was the most effective as a defense against anxiety for males, but not for females as judged by Repression-Sensitization Scale scores. (23 ref.)—*Journal abstract.*

7180. Kimsey, Larry R. & Frost, Mary. (U. Texas, Southwestern Medical School, Dallas) **Long term camping for emotionally disturbed boys.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 35-40.—Describes "an unusual and encouraging approach to the treatment of emotionally disturbed boys." A survey based on the case histories of 50 8-14 yr. old boys enrolled in the Dallas Salesmanship Club Boys Camp for an average of 16 mo. is reported. The 840-acre wooded camp area includes a lake for swimming and boating, and campers live in tents which they design and build. The boys, accepted on the basis of need, have been unable to receive help from other available treatment programs, including psychiatric hospitalization and outpatient psychotherapy. Adequate adjustment for life is the goal for each camper, and it is estimated that 70% make satisfactory adjustment during the postcamp period. Although no formal education is attempted during the camp experience, the boys "learn from source material in the experience curriculum." Follow-up studies indicate that the majority successfully reenter school at their appropriate age-grade level. "Although developed outside traditional psychiatric concepts," the camp offers an opportunity for psychiatrists and health workers to reappraise methods of dealing with the emotional problems of children and adolescents. (15 ref.)—*P. McMillan.*

7181. Kirby, Franklin R. (Michigan State U.) **Family drawings, individual/group identity and growth.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4998.

7182. Olczak, Paul V., Donnerstein, Edward; Hershberger, Thomas J., & Kahn, Irwin. (Northern Illinois U.) **Group hysteria and the MMPI.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 413-414.—Reinvestigated the plausibility of an hysterical personality following a labeled case of a group conversion reaction. 96 high school students, including those who manifested the symptoms, were administered 100 items from the MMPI, including the Hysteria scale. Chi square analysis showed significantly more females manifested hysterical physical symptoms than males, while the over-all analysis of variance, although in the

expected direction for females, indicated no significant sources. Results support the traditional view of hysteria being a "female syndrome" but were equivocal concerning "personality view" that a particular personality leads to a specific set of symptoms.—*Journal abstract.*

7183. Portnoy, Sanford M. (U. Massachusetts) **Power of child care worker and therapist figures and their effectiveness as models for emotionally disturbed children in residential treatment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5005.

7184. Reynolds, Susan C. (Columbia U.) **The relationship between ability to read and the meaning and expression of emotion: A study of lower class, institutionalized boys with anti-social behavior problems.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5636.

7185. Serber, Michael. (Atascadero State Hosp., Calif.) **Drug dealing paranoia.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 529-530.—Presents case histories of "drug dealing paranoia," a recently observed clinical entity, which have been successfully treated in 2 of 3 cases. Onset of paranoid symptomatology was the direct result of selling drugs in a "drug scene." The paranoid symptoms observed ranged from moderate to severe, and complete remission of symptoms in all cases reported occurred within 1 wk. after cessation of drug dealing and temporary physical removal from the drug environment. In areas where drug use is extensive this syndrome is likely to be exhibited by patients who seek attention and thrills by becoming "amateur" drug dealers. Minor tranquilizers were prescribed in 2 of the 3 cases.—*Journal abstract.*

Psychosis

7186. Engel, W. King & Meltzer, Herbert. (National Inst. of Neurological Diseases & Stroke, Bethesda, Md.) **Histochemical abnormalities of skeletal muscle in patients with acute psychoses.** *Science*, 1970(Apr), Vol. 168(3928), 273-276.—In an experiment with 29 acutely psychotic patients (mostly schizophrenic), histochemical abnormalities of a myopathic type were demonstrated in skeletal muscle biopsies from 13 Ss and were generally correlated with elevation of the "muscle" type isoenzymes of creatine phosphokinase in Ss' serum. The incidence was much higher than found in normal controls, hospitalized neurotic psychiatric patients, or parents of acutely psychotic patients. A diazo-coupling type of "alkaline phosphatase" reaction was particularly useful in identifying abnormal muscle fibers.—*Journal abstract.*

7187. Layne, Ottis L. & Yudofsky, Stuart C. (Baylor Coll. of Medicine, Houston, Tex.) **Postoperative psychosis in cardiectomy patients: The role of organic and psychiatric factors.** *New England Journal of Medicine*, 1971(Mar), Vol. 284(10), 518-520.—Studied 58 cardiectomy patients and 20 patients undergoing major vascular surgery to assess the roles of organic factors, sleep and sensory deprivation, and psychiatric factors in the development of postoperative psychosis. $\frac{2}{3}$ of the cardiac patients were psychologically evaluated before operation, and extensively interviewed and encouraged to discuss the emotional aspects of their surgery. Findings include a 14% overall prevalence of postoperative psychosis in cardiectomy patients, with increased percentages in males, older patients, patients undergoing aortic-valve replacement, those with neurologic and

other organic abnormalities, and those expressing minimal preoperative anxiety. The preoperative psychiatric interview was associated with a reduction of postoperative psychosis by 50%. Results support the contention that postoperative psychosis in cardiectomy patients is multidetermined.—*Journal abstract.*

7188. Maller, O. (Pardessia Government Mental Hosp., Tel-Aviv, Israel) **The therapeutic community with chronic patients: II.** *Psychiatric Clinica*, 1970, Vol. 3(4), 205-220.—Describes the therapeutic community (TC) as being an integral means for the treatment of the mentally ill in an open pluralistic and osmotic society. The TC does not strive to rebuild but to readapt the patient to conditions of society, especially with respect to the long-term patient who requires more caution and time. The dynamics between role, motivation, and reward differ in the neurotic, the acute psychotic, and the chronic psychotic patient. The TC transcends other forms of therapy (e.g., family therapy, group therapy, milieu therapy) in that the staff must play a polarizing role. The main tasks of a polarized TC are to encourage communication which leads to mutuality, responsibility, self-realization, and increased understanding.—*Journal summary.*

7189. Paul, Michael L., Cramer, Hinrich, & Bunney, William E. (U. California, Neuropsychiatric Inst., Los Angeles) **Urinary adenosine 3',5'-monophosphate in the switch process from depression to mania.** *Science*, 1971(Jan), Vol. 171(3968), 300-303.—In experiments with patients on 2 metabolic research wards, marked elevations of urinary adenosine 3',5'-monophosphate occurred on the day of rapid switch from a depressed into a manic state in 1 male and 5 female 20-45 yr. old patients with manic-depressive illness. This further indicates the importance of biochemical changes in this illness. It is suggested that this increase might serve a trigger function for the process by which catecholamines are elevated during the manic phase of the illness. (18 ref.)—*Journal abstract.*

Schizophrenia

7190. Altschule, Mark D. & Nayak, Ullhas. (Harvard Medical School, Boston, Mass.) **Epinephrine-cyclizing enzyme in schizophrenic serum: Preliminary report.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 51-52.—Examines the hypothesis that schizophrenia is based on the excessive transformation of epinephrine to adrenochrome. Studies were made of the activity of the cyclizing enzyme in human serum. Serum was prepared, using venous blood from 30 normal 16-75 yr. old Ss. The blood of 13 schizophrenic patients, 11 with chronic disorders and 2 with recent onset of symptoms, was also studied. The normal range was from 1.75-6.75 uu M/ml/hr. The values in the 11 chronic schizophrenic Ss lay between 1.25 and 2.8; the 2 Ss with recent onset had values below 1 uu M/ml/hr. It is concluded that an "epinephrine-cyclizing catalyst is present in normal human serum. Its activity is not increased in schizophrenia." (26 ref.)—*P. McMillan.*

7191. Brenman, Sheila L. (U. Illinois, Urbana-Champaign) **Modeling and impression management in male process schizophrenics.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5615.

7192. Brown, Frederick W., Lowinger, Paul, & Tsao, Elaine. (Wayne State U., Medical School) **Which patients fail to improve? Diseases of the Nervous**

System, 1970(Nov). Vol. 31(11, Suppl.), 145-148.—Analyzed the 1957-1962 records of psychiatric hospital patients to determine the characteristics of schizophrenic and psychoneurotic Ss who did not improve during hospitalization. Ss included 924 patients who improved and 271 who were unimproved. 38 variables are reported, and more differences were found between the unimproved and improved schizophrenics. The unimproved schizophrenics were more often involuntarily admitted, less frequently married, lower in social class, or less likely to have a college education than the improved schizophrenics. The unimproved schizophrenics received less psychotherapy, and were less likely to have received phenothiazine treatment during hospitalization. In both diagnostic categories, the unimproved Ss were characterized by a more insidious onset of the illness, a worse initial prognosis, a shorter course of hospitalization, and less insight at the end of hospitalization.—*Journal summary*.

7193. Butterfield, William H. (U. Michigan) **A further examination of the learning behavior of a group of near-mute schizophrenics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5017.

7194. Cammer, Leonard. (110 E. 82nd St., New York, N.Y.) **The delusional process in schizophrenia.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 117-121.—Delusions and other thought disorders in schizophrenia are nonspecific responses to disturbed brain function; these are considered to be of a primary disorder. Equally important are the delusions which are nonspecific adaptations to anxieties generated by any threat to biosocial integrity; these are related to secondary, adaptive processes. The onset and characteristics of each delusion, the setting in which it appears, and the nature of the associated symptom complex help to establish the existence of schizophrenia and to define its clinical and pathologic status.—*Journal summary*.

7195. Campbell, Michael L. (U. Kentucky) **Premorbidity and the generalization of conflict in schizophrenics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4984.

7196. Cockburn, Kathleen A. (Boston U., School of Nursing) **Behavioral responses of schizophrenic patients to increased awareness of sensory stimuli.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5441-5442.

7197. Dinoff, Michael; Finch, A. J., & Skelton, Herbert M. (U. Alabama) **The stability of chronic schizophrenic speech on a standardized video-tape interview.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 191-194.—12 chronically hospitalized schizophrenic Ss were tested and then retested 1 wk. later using the standardized videotaped interview. Stability over time was obtained along with high test-retest correlations.—*E. J. Kronenberger*.

7198. Edgley, Charles K. (State U. New York, Buffalo) **Vocabularies of motive and the social definition of schizophrenia: An exploratory study.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4900-4901.

7199. Gorelick, Linda E. (Ohio State U.) **Affiliation among schizophrenics: A new test of the "social censure hypothesis."** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5622.

7200. Huber, R. John & Stiggins, Richard J. (U. New Hampshire) **Double-aspect perception and social interest.** *Perceptual & Motor Skills*, 1970(Apr), Vol.

30(2), 387-392.—Investigated the responses of 284 Ss to 3 double-aspect stimuli. 250 Ss were males and females in the 1st, 3rd, 5th, 7th, and 12th grades; 34 Ss were hospitalized schizophrenics with a mean age of 21.7 yr. The response style of normal and pathological Ss on the 3 double-aspect stimuli was also compared. Significant differences in the number of human responses were found to be related to age and adjustment. (22 ref.)

—*Journal abstract*.

7201. Johnson, James E. & Petzel, Thomas P. (Loyola U., Chicago, Ill.) **Temporal orientation and time estimation in chronic schizophrenics.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 194-196.—A schizophrenic group of 40 hospitalized Ss and a control group of 40 Ss taken from the patient files of a general practitioner were utilized. Each S was interviewed about his past and asked to estimate the passage of time in 2 conditions. Schizophrenic Ss were not seriously deficient in reporting their own age when compared with normal Ss. For time estimation, evidence was found for temporal disturbance in brief intervals along with a trend in the direction of error. The data suggest that schizophrenics may experience time as passing more slowly than normals. "The conclusion of 2 psychiatric studies that temporal orientation becomes arrested in chronic schizophrenics after onset of their illness was disputed by the results of this study."—*E. J. Kronenberger*.

7202. Lawlor, Richard J. (Catholic U. of America) **Changes in the perceptual defense effect of process non-paranoid schizophrenics as a function of enhancement of the major set.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5000.

7203. Lovaas, O. Ivar; Schreibman, Laura; Koegel, Robert, & Rehm, Richard. (U. California, Los Angeles) **Selective responding by autistic children to multiple sensory input.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 211-222.—Reinforced 6 autistic, 5 retarded, and 5 normal children for responding to a complex stimulus involving the simultaneous presentation of auditory, visual, and tactile cues. After discrimination was established, elements of the complex were presented separately to assess which aspects of the complex stimulus had acquired control over the S's behavior. It was found that (a) the autistics responded primarily to only 1 of the cues, normals to all 3 cues, and retardates to 2 cues; and (b) conditions could be arranged such that a cue which had remained non-functional when presented in association with other cues could be established as functional when trained separately. Data fail to support theories that any 1 sense modality is impaired in autistic children. When presented with a stimulus complex, autistic Ss' attention was overselective. Findings are related to the literature on selective attention. Since much learning involves contiguous or near-contiguous pairing of 2 or more stimuli, failure to respond to 1 of the stimuli may be an important factor in the development of autism. (27 ref.)—*Journal abstract*.

7204. Marinow, Alexander. (Psychiatric Hosp., Bela (Roussenko), Bulgaria) **"Le soleil": Contribution à la psychopathologie de la schizophrénie chronique.** [*"The Sun": Contribution to the psychopathology of chronic schizophrenia.*] *Encéphale*, 1970(Jul), Vol. 59(4), 335-352.—Traces the case history of a chronic schizophrenic, nicknamed "The Sun," who has been under treatment since 1936. Statements made by the patient over a period of years are quoted to stress the degrees of

acute schizophrenia ranging from persecution fears to delusions of grandeur. The 2 worlds of the patient—the seminormal one of his environment and the private one of troubled psychosis in which he feels content and happy—are discussed. (2 p. ref.).—*I. Sirotnin.*

7205. **Mednick, Sarnoff A.** (New School for Social Research) **Birth defects & schizophrenia.** *Psychology Today*, 1971(Apr), Vol. 4(11), 49-50, 80-81.—The experimental-manipulation approach can be applied to the study of the origins of schizophrenia if one focuses on attempts to prevent schizophrenia. A study of 207 high-risk Danish children suggested that the children who did develop schizophrenia compared to those who did not, lost their mothers earlier, were more disruptive in class, behaved differently when associating words, were more aroused as measured by the GSR, and had experienced more severe pregnancy and birth complications. Programs are being developed on the island of Maritius to test the possibility of preventing schizophrenia using behavior therapy, conditioning, and substitute mothers.—*E. J. Posavac.*

7206. **Nichols, Nicholas H.** (U. Michigan) **The relationship between degree of maternal pathogenicity and severity of ego impairment in schizophrenic offspring.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5003.

7207. **Ostapczef & Ostapczef-Lavoine.** **Catatonie et syndrome extra-pyramidal.** [Catatonia and the extrapyramidal syndrome.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 256-261.—The complex syndrome of catatonia (negativism, stereotypy, hypertonia, etc.) is less often seen in its profound form today, as the result of improved institutional care and treatment methods. At the same time, extra pyramidal sequelae of psychotropic drug treatment for psychosis have become commonplace. The 2 cases described here are used to pose the question: To what extent may the extrapyramidal syndrome be an expression of catatonic communication? Beyond a certain degree of cure achieved with psychotropic medications, the commonly accompanying extrapyramidal syndrome may signify the persistence of a schizophrenic process.—*H. King.*

7208. **Parrish, Mary C.** (Mariallac School, Kansas City, Mo.) **Parents of autistic children: Their common needs and attitudes.** *Corrective Psychiatry & Journal of Social Therapy*, 1969(Win), Vol. 15(4), 14-19.—Attempted to determine if there is a commonality of attitudes toward child-rearing on the part of parents of autistic children. Instruments used were the EPPS and the Parental Attitude Research Instrument which showed that the greatest need for both parents together was for Deference and Abasement. Parents seemed to agree in child-rearing practices but mothers were characterized as being obsessive, irritable, and self-abasing. Fathers showed a strong need for deference. (21 ref.).—*M. B. Merk.*

7209. **Perlson, P. & Tobin, J. M.** (Northwest Psychiatric Clinic, Eau Claire, Wis.) **Treatment of psychic masochism in schizophrenic patients.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 122-129.—Treated 34 15-37 yr. old schizophrenics, who presented nonsexual, self-injurious behavior (psychic masochism), with a combined schedule of psychoactive drugs, (thioridazine, trifluoperazine, haloperidol, and perphenazine), transactional conceptualization, and deconditioning. 30 Ss achieved a significant degree of improvement. A hypothesis concerning the etiology of

this symptom complex, suggesting a possible relationship with the schizophrenic disorders, is offered. (54 ref.)—*Journal summary.*

7210. **Petrilowitsch, N., Winan, I., & Baer, R.** (U. Mainz, Neuropsychiatric Clinic, W. Germany) **Die Schizophrenen in strukturspsychiatrischer Sicht: II. Ergebnisse katamnestischer Untersuchung an 120 Kranken.** [Structural aspects of schizophrenia: II. Results of catamnesic investigation of 120 patients.] *Psychiatria Clinica*, 1970, Vol. 3(5), 257-273.—Presents catamnesic investigations on 120 patients to demonstrate that the symptom-productivity and intensity of the disease process can be measured by the succession of symptoms (i.e., the speed with which the symptomatological cross-sections change) and by the symptom capacity at any given time. One can differentiate polymorph-stabilized, relatively monomorph, as well as amorphous groups, finally among the delusional-systematized schizophrenics it is possible to differentiate between a polymorphous and a monomorphous form. The prognosis is better, the more polymorphous and turbulent the symptomatology. The polymorph-fluctuating form is closely related to the cyclothymic affective illness and nosologically should be classed as an affective psychosis. The polymorph-stabilized form occupies an intermediary position, while the amorphous and monomorphous forms represent the "malignant" schizophrenia. Among the delusional forms of schizophrenia, the polymorphous form has a substantially better prognosis than the monomorphous.—*English summary.*

7211. **Rubin, Gerald.** (U. Maryland) **Reduction of egocentrism in chronic-schizophrenic patients as a function of a conservation learning task.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5007-5008.

7212. **Rychlak, Joseph F., McKee, Douglas B., Schneider, William E., & Abramson, Yitzchok.** (Purdue U.) **Affective evaluation in the verbal learning styles of normals and abnormals.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 247-257.—Reports 3 studies on the influence of idiographic affective judgments of likability on the learning of CVC trigram materials among a total of 36 normals and 68 abnormals. The construct under study was termed reinforcement value (RV). It was hypothesized that whereas normals have been shown to acquire materials they judge to be positive more readily than those they judge to be negative in RV, an "RV-reversal" should be the case for abnormals. Findings on abnormals (primarily schizophrenics) were not unequivocally in line with an RV-reversal effect, but there was evidence in cross-validation to suggest that an abnormal learning style places less emphasis on acquisition of liked over disliked materials. A theory of learning based upon tautology is presented as explanatory of the findings. (28 ref.)—*Journal abstract.*

7213. **Sakamoto, Y.** (Sakamoto Hosp., Higashiosaka, Japan) **A study of the attitude of Japanese families of schizophrenics toward their ill members.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 365-374.—Investigates attitudes of Japanese families toward a schizophrenic family member, emphasizing differing recognition among family members. The closer (emotionally) a family member is to the ill member, the slower is his recognition of his mental illness. The mother is usually the last to recognize her son's schizophrenia, while outsiders are often 1st to recognize it. In cases of

physical illness, the opposite trend occurs. In Japanese families, members of the family are more oriented to the family and to society than to the individual. The lack of intrafamilial insight in the schizophrenic's family, however, seems, according to the literature, to exist in families in other countries. (15 ref.).—*English summary.*

7214. Seeman, Mary V. (U. Toronto, Toronto Western Hosp., Ontario, Canada) **Analysis of psychotic language: A review.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 92-99.—Presents conclusions derived from the study of psychotic language (a) language distortions that have been described in schizophrenic reactions are also found in neurotic and organic psychopathology; (b) tests of language can differentiate subcategories of schizophrenia; (c) language studies in schizophrenia have considered etiology in terms of attention defect, disturbed familial communications, regression to earlier development, and cultural stress, showing evidence for the 1st 2 factors; (d) studies with the deaf suggest that schizophrenic behavior need not result from cognitive dysfunctions; (e) schizophrenic language can serve expressive, neutralizing, wishfulfilling, distancing, binding, and personalizing functions; and (f) stages of recovery from a schizophrenic episode are accompanied by changes in language. (60 ref.).—*Journal summary.*

7215. Sendi, Smail B., Caldwell, Donald F., & Gottlieb, Jacques S. (Lafayette Clinic, Detroit, Mich.) **Comparative study of nailfold capillary structure in adult and childhood schizophrenia.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 14-19.—Examined a group of 30 psychotic and non-psychotic children (27 4-12 yr. old Ss, and 3 13-, 14-, and 16-yr-old Ss) regarding the capillary structures of their nailfolds and finger skin temperature. Both S groups showed an insignificant degree of plexus visibility. These groups disclosed a low degree (below 10%) of abnormal loops. A comparative evaluation of plexus visibility in childhood and adult schizophrenics indicates that plexus visibility could be diagnostic for a particular group of adult patients, contrary to childhood schizophrenics who have shown no sign of plexus visibility. 4 Ss registered low skin temperature, 3 exhibited plexus visibility, and 2 of the latter had organic psychoses. Data support the previous findings of the relationship between plexus visibility and finger skin temperature. Large numbers of a sample are required to pursue the significance of plexus visibility in the nailfold of Ss with childhood schizophrenia, and in a group of children with organic psychosis. (18 ref.).—*Journal summary.*

7216. Silverman, Lloyd H., Pettit, Tupper F., & Dunne, Edward J. (Veterans Administration Hosp., New York, N.Y.) **On the relationship between self-object differentiation, symbiotic experiences and pathology reduction in schizophrenia.** *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 118-128.—Studied the relationship between self-object differentiation and pathology reduction in schizophrenia. Data from a number of studies are presented in which a variety of symptomatic therapeutic interventions were utilized and the following 2 findings consistently emerged: (a) it was the initially more differentiated schizophrenics who responded to the interventions with significant reductions in pathology, and (b) accompanying this pathology reduction was diminished self-object differentiation. These findings were related to the therapeutic effect of symbiotic experiences on schizophrenics and theoretical

implications were suggested. (17 ref.).—*Journal abstract.*

7217. Stilson, Donald W., Walsmith, Charles R., & Penn, Nolan E. (U. Colorado, Medical School) **Effects of content on schizophrenics' ability to process information.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 571-574.—Examined the finding of R. Davis and R. Harrington (see PA, Vol. 33:1834) that schizophrenics were better able to process a given amount of information when the content of the task was abstract than when it was human. This finding was strengthened in a study of 25 schizophrenics, 25 nonschizophrenic psychiatric patients, and 26 hospital employees. The differential task performance of the schizophrenics is attributed to the greater amount of irrelevant information in the human task.—*Journal abstract.*

7218. Sutker, Patricia B. & Cauthen, Nelson R. (Tulane U., Medical School) **Paired-associate CVC learning with varied m' in schizophrenic patients.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 579-581.—Investigated the relationship between speed of acquisition in a paired-associate CVC learning task and scaled meaningfulness (m') in schizophrenics. 12 22-49 yr. old male Ss practiced on 3 lists (low, medium, and high m' level) of 10 stimulus-response pairs each. Findings indicate that rate of acquisition is a positive function of increasing m' in schizophrenic Ss.—*Journal abstract.*

7219. Williams, David L. (U. Maryland) **The development of consequences of models' responses as discriminative stimuli for generalized imitation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5010-5011.

Schizophrenia Treatment

7220. Blankenburg, W. (U. Freiburg, Psychiatric & Neuroclinic, W. Germany) **Tanz in der Therapie Schizophrenie.** [Dance in the therapy of schizophrenics.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 336-342.—Described the use of dance as a therapeutic modality in the treatment of schizophrenia. Various dances from different epochs in the history of dance were employed (e.g., Renaissance, Baroque). Dances and music from the Baroque period (e.g., minuet, polonaise) appeared to produce the best results in schizophrenic patients. Success was attributed to the ritualistic formality of these dances which was seen to be appealing to schizophrenic patients. (English summary) (29 ref.).—B. A. Stanton.

7221. Borenstein, P., Cujo, Ph., & Domaine, A. (Villejuif Psychiatric Hosp., Paris, France) **Effets électro-encéphalographiques du Décanoate de Fluphénazine.** [Electroencephalographic effects of fluphenazine decanoate.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 273-275. Studied effects of im 1970(Jul), Vol. 2(2), 273-275. Studied effects of im injected fluphenazine decanoate on the EEG in 34 chronic schizophrenic psychoses and compared the effects with those of fluphenazine chlorhydrate orally administered. The latter produce an unequivocal slowing in 80% of the patients. The basal rhythms were slowed to 1 cps with the appearance or augmentation of slow θ , usually diffuse. An increased sensitivity to hyperventilation was noted in 1/2 the cases. In contrast, decanoate did not produce significant EEG modifications in basal rhythms. An abundance of α was noted and, when used following the slowing influence of chlorhydrate, it reduced this and re-established normal

wave forms. No increased sensitivity to hyperventilation was noted. The action of fluphenazine decanoate on the EEG was comparatively less than that of major psychotropic agents in daily use, particularly that of fluphenazine chlorhydrate.—*H. King.*

7222. Spohn, Herbert E., Thetford, Paul E., & Cancro, Robert. (Menninger Foundation, Topeka, Kan.) **The effects of phenothiazine medication on skin conductance and heart rate in schizophrenic patients.** *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 129-139. Assessed the effects of chronically administered phenothiazine medication upon aspects of skin conductance and heart rate in 32 schizophrenic patients in 2 ways. Results, congruent with other studies, indicate that phenothiazines reduced the skin conductance level, elevated heart rate, and restricted frequency of specific and nonspecific reactivity in skin conductance and range of variability in heart rate. Moreover, it was shown that several of these effects were linearly related to daily dosage level. The implications of these findings for past and future uses of autonomically mediated psychophysiological variables in the study of phenothiazine-treated schizophrenic disorders are discussed. (15 ref.)—*Journal abstract.*

PSYCHOSOMATIC DISORDER

7223. Deree, Roland J. (Vanderbilt U.) **The relationship of social class and parental discipline practices to psychosomatic illness in young adults.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4917.

7224. Duret-Cosyns, S. & Luminet, D. **Les thérapies en médecine psychosomatique.** [Therapies in psychosomatic medicine.] *Acta Neurologica et Psychiatrica Belgica*, 1969(Feb), Vol. 69(2), 101-122.—Reviews difficulties encountered in the therapeutic management of psychosomatic patients. Patients must frequently be hospitalized as the result of severity of physical symptoms (i.e., hemorrhagic duodenal ulcers, malignant hypertension, or bronchial asthma). In such instances, collaboration between the internist and psychiatrist is of critical importance. The following forms of therapy are suggested as means of specific psychiatric intervention: (a) hypnosis in asthmatic crisis, (b) psychotherapy providing reassurance and relaxation in acute respiratory distress, and (c) analytically-oriented psychotherapy in severe ulcerative colitis. Problems include (a) the ambivalence and aggressiveness of physicians toward the neurotic attitudes and use of an illness as a defense against major psychosocial integration on the part of psychosomatic patients; and (b) the hospital environment and the attention provided by internists which tends to increase the patient's resistance to psychiatric treatment. Cases are presented to illustrate these problems. (German & English summaries) (17 ref.)—*P. R. Shibelski.*

7225. Levine, Matthew E. (Peter Bent Brigham Hosp., Medical Clinics, Boston, Mass.) **Depression, back pain, and disc protrusion: Relationships and proposed psychophysiological mechanisms.** *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 41-45.—Discusses the possibility of the existence of a psychophysiological mechanism in cases of associated depression, back pain, and disc protrusion. Earlier studies of animals have demonstrated swelling of intervertebral discs in situations of stress, and more recent studies indicate that

there may be a significant increase in the intracellular sodium of depressed patients, providing a possible explanation of the mechanism of stress-induced swelling. 2 cases are presented which illustrate important clinical features. Suggestions for a more conservative approach combined with psychiatric treatment are made, in light of the failure of surgical treatment in a significant number of patients, especially where depression plays a role in the development of symptoms. It is concluded that while traditional insight-oriented psychotherapy may not be indicated, psychiatric consultation could favorably affect the outcome in many patients.—*Journal summary.*

7226. Messner, K. (U. Freiburg, Medical Clinic, W. Germany) **Zur Schätzung der Intelligenz in einer psychosomatischen Klinik: Vergleich zweier Testbatterien.** [Estimation of intelligence in a psychosomatic clinic: Comparison of two test batteries.] *Psychologie und Praxis*, 1970(Jul), Vol. 14(3), 112-125.—Results of the HAWIE (German version of the WAIS) and Amthauer's Intelligence Structure Test (IST) were compared on the basis of a sample of 126 psychosomatically ill patients. The HAWIE has 10 subtests, the IST has 9. Factor analysis revealed 3 common factors which would account for both tests. A higher verbal component in the IST when compared with the HAWIE could not be proven by the data. The best estimate of intelligence in psychosomatically ill patients was made by means of an abbreviated HAWIE test which is based on 4 subtests and known as "WIP" in German. *R. F. Wagner.*

7227. Orbán, György & Szőnyi, Magda. (Medical U. of Szeged, Hungary) **A szokványos vetélések pszichoszomatikus vizsgálata.** [Psychosomatic examination of habitual abortion.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 383-401.—Since traditional medical diagnostics do not provide any satisfactory explanation or adequate therapy for Ss with spontaneous and habitual abortions, the subject is considered from a psychosomatic point of view. Complex psychological examinations were carried out in 29 cases. Results support the hypothesis that psychic factors and action mechanisms may play a part in precipitating abortions. A specific personality constellation involving a disposition for abortion was revealed. This constellation is manifested in life patterns that show certain similarities, in specific styles of living, typical ways of responding to stimuli, typical thought processes, and specific conflicts and defense mechanisms. Habitual abortion Ss (not including Ss with organic lesions) may be characterized symbolically as persons who "miscarry" not only in the course of their pregnancy, but also in several other spheres of their lives. Only by the simultaneous application of gynecological and psychotherapeutic methods may therapeutic result be expected. (Russian summary) (16 ref.)—*English summary.*

7228. Spoerri, Th. (Berne U., Psychiatric Polyclinic, Switzerland) **Autogenic training and psychosomatic disorders.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 354-364.—Discusses the rationale for the use of autogenic training alone, and in combination with other forms of therapy. The clinical and motor-affective-vegetative effects lie in the particular patient-therapist relationship made possible by autogenic training. In the group of psychophysiological disorders, indications are based on actual possibility of autogenic training to influence the primary or secondary emotional vegetative disturbance. Autogenic training is seen to be of most use

in the treatment of psychosomatic cardiovascular disorders. Observations regarding the practice of autogenic training, on complications by different disorders, and on diverse variations (e.g., pre- or parahypnotic autogenic training) are made. (33 ref.)—*Journal summary*.

CASE HISTORY

7229. Denber, Herman C. (Manhattan State Hosp., New York, N.Y.) **An unusual case of chlorpromazine agranulocytosis.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 134-139.—Describes an unusual case of agranulocytosis in a 46-yr-old white female which developed after a long period of treatment with various phenothiazines. It is suggested that this may be a gene-linked disorder in about 1:3000 cases. (19 ref.)—*Journal summary*.

7230. Gheorghiu, Vladimir. (Inst. of Psychology, Bucharest, Romania) **The influence of motivational factors on hypnotic susceptibility.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 169-170.—Describes the case of a woman suffering from functional aphonia. Treatment through hypnotic age regression was successful; however, she became refractory to hypnosis following a traumatic event. Motivation as a condition of hypnotic susceptibility is noted.—*M. V. Kline*.

7231. Greenleaf, Eric. (1700 LeRoy Ave., Berkeley, Calif.) **The red house: Hypnotherapy of hysterical blindness.** *American Journal of Clinical Hypnosis*, 1971(Jan), Vol. 13(3), 155-161.—Discusses the successful hypnotic treatment of a person suffering "hysterical blindness," and emphasizes the person's hypnotic experience.—*M. V. Kline*.

7232. Hughes, James E., Steahly, Lance P., & Bier, Martin M. (Walter Reed General Hosp., Washington, D.C.) **Marihuana and the diabetic coma.** *JAMA: Journal of the American Medical Association*, 1970(Nov), Vol. 214(6), 1113-1114.—Marihuana ingestion by a 21-yr-old man was followed by severe diabetic ketoacidosis. Following oral ingestion of marihuana, nausea, vomiting, diuresis, and an elevation of blood glucose level have been noted. It is speculated that when the stress of marihuana ingestion is greater than the adaptive capacity of the glucose-regulating system, diabetic ketoacidosis might evolve.—*Journal abstract*.

7233. Kolodny, Howard D., et al. (Queens Hosp. Center, Jamaica, N.Y.) **Acromegaly treated with chlorpromazine: A case study.** *New England Journal of Medicine*, 1971(Apr), Vol. 284(15), 819-822.—Short-term therapy with chlorpromazine, medroxyprogesterone acetate, and a combination of the 2 drugs was given to a 21-yr-old man with active acromegaly. Serial levels of serum growth hormone with the patient fasting and during 6-hr oral glucose tolerance tests were determined before treatment, during treatment, and between treatment periods. There was a marked decrease in fasting levels by the 12th day of each treatment period. On the 10th day of chlorpromazine therapy the fasting level was still above normal, though decreased from the base-line level. On the 12th and 17th days of this therapy fasting concentrations were near the normal range. The clinical manifestations improved during the course of chlorpromazine therapy. The known pharmacologic effects of chlorpromazine suggests that the site of its action on growth-hormone suppression is the hypothalamus. (19 ref.)—*Journal abstract*.

7234. Libo, Shirley S., Palmer, Carolyn, & Archibald,

Dorothy. (U. New Mexico, Medical School) **Family group therapy for children with self-induced seizures.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 506-509.—Explored the motivation for self-induced seizures in 2 photosensitive children, a 12-yr-old girl and a 10-yr-old boy. It was found that (a) supportive psychotherapy and family group therapy reduced guilt and anxiety in Ss and other family members enough to permit change in the family's pattern of handling S's symptoms; (b) the involvement of all family members, especially fathers, was essential in changing the family structure; and (c) behavioral control of this symptom is possible if families are able to alter their responses to the seizures and avoid unwittingly reinforcing them.—*P. Hertzberg*.

7235. Palem, R. M., Force, L., & Esvan, J. (St. Anne Hosp., Service of Neuropsychiatry, Toulon, France) **Hallucinations critiques épileptiques et délire: A propos d'un état de mal oculo-clonique.** [Hallucinations critical for both epilepsy and delusion: With respect to an oculo-clonic illness.] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 2(2), 161-190.—Presents a single case studied by clinical and EEG methods of interest from the viewpoint of both epilepsy and psychosis. The EEG has not yet been able to provide much specific information about hallucinatory or delusional states that allow a proper test of theory about their origin or mechanisms of action. A detailed study of the mental state of a patient suffering from oculo-clonic seizures, with their known connections with abnormal EEG tracing, may prove helpful. Three oculo-clonic seizures (epileptic nystagmus) are presented that are characterized by complicated visual hallucinations of a mystical nature closely connected with the abnormal electrical discharge. There was a more complex correspondence between the automatic and devotional phenomena and a chronic delusional organization based on these hallucinations.—*H. King*.

7236. Ribeiro da Silva, Athayde. **Problemas na área sexual.** [Problems in the area of sex.] *Arquivos Brasileiros de Psicologia Aplicada*, 1970(Jun), Vol. 22(2), 93-96.—Presents the case history of a 20-yr-old male with personality disorders attributed to a base of sexual neurosis. The family pattern included a violent father and submissive mother. The S manifested signs of an inferiority complex aggravated by an inferior physical appearance. A battery of psychological tests was followed by a recommendation of psychotherapy due to the recurrence of psychological impotence. *P. Hertzberg*.

MENTAL HEALTH & REHABILITATION

7237. Brooks, George W., Deane, William N., & Laqueur, H. Peter. (Vermont State Hosp., Waterbury) **Fifteen years of work therapy: Its impact on a mental hospital and its community.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl.), 161-165.—Discusses the reasons for the success and consequent failure of a work therapy program in which a group of mostly blue collar workers guided, trained, supervised, and evaluated patient workers and referred them for community placement. The program led to hardships both for hospital staff and patients. (22 ref.)—*P. Hertzberg*.

7238. Collingwood, Thomas R. (Hot Springs Rehabilitation Center, Ark.) **The role of adapted physical education and therapeutic recreation within reha-**

bilitation: A perspective. *Rehabilitation Research & Practice Review*, 1970(Fal), Vol. 1(4), 51-56.—Defines adapted physical education as a diversified program, adapted and changed to fit the abilities, problems, and physical limitation of the student or client. Therapeutic recreation refers to a broad spectrum of physical and social activities which facilitate an active involvement by participants in something pleasurable. At a simple level by participating in such programs, an individual can become more physically fit in order to develop hobbies, to become more active, to learn leisure time skills, and to undergo positive social and group experiences. On a deeper level, he can realize self-identification, overcome self-consciousness, develop self-confidence, express emotions naturally, respond to successes and failures, develop a better self-concept, and have the opportunity for self-evaluation along with self-satisfaction. Recreational services within rehabilitation are serving therapeutic purposes. A concentrated effort must be made to develop an awareness and a direction to structure recreation within rehabilitation to its full therapeutic potential. 5 suggested directions are made in order to implement the initiation of a recreational program.—A. M. Farfaglia.

7239. Dell'Apa, Frank. (U. Northern Colorado) **Congruence of counselor-client communication: A function of the rehabilitation process effectiveness with the correctional client.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4052-4053.

7240. Jackson, James L. (Texas Rehabilitation Commission, Austin) **Extended rehabilitation services for the mentally and physically handicapped.** *Rehabilitation Literature*, 1971(Feb), Vol. 32(2), 43-44.—Describes a project conducted by the Texas Rehabilitation Commission to demonstrate the value of extended rehabilitation services to mentally retarded persons who are currently ineligible for such services because of the severity of the disability and the length of time required for their care. The project provides extended sheltered workshop employment as well as extended community living services for 30 severely mentally retarded individuals. The results of this pilot project are not yet available.—S. L. Warren.

7241. Klein, Donald. (National Training Lab., Inst. of Applied Behavioral Science, Washington, D.C.) **Community: Who needs it.** *Psychology Today*, 1969(Dec), Vol. 3(7), 32-35, 62.—It is necessary to use the resources of the community in mental-health programs. Regardless of what therapy or rehabilitation is performed, people cannot become successful if the community does not accept them. All security which people possess ultimately comes from the community. The community mental-health centers which have been organized have been helpful. More needs to be known, however, about the interaction of the community and the individual with respect to mental health.—E. J. Posavac.

7242. Lane, Joseph M. & Barry, John R. (Armstrong State Coll.) **Recent research on client motivation.** *Rehabilitation Research & Practice Review*, 1970(Fal), Vol. 1(4), 5-25.—Reviewed some of the current research on client motivation for rehabilitation in terms of intrinsic and extrinsic variables. Regarding intrinsic motivation variables, the role of the self-concept and its influence on behavior and motivation is emphasized along with the concept of hope. A useful method has been the correlational technique where several personality measures are gathered for each client at the

beginning of the rehabilitation process. These measures are correlated with outcome criteria to determine which measures are predictive of the specified outcome. Reinforcement contingencies, behavior modification, sociological factors, client-counselor relationship, and attitudes toward disabled persons are discussed as extrinsic motivation variables. It is concluded that the concept of motivation encompasses all aspects of behavior. There is very little research dealing explicitly and directly with motivation for rehabilitation, and researchers differ in their use of the term. (59 ref.)—A. M. Farfaglia.

7243. Sahni, Ashok K. (Case Western Reserve U.) **Engineers, their motivation and their mental health: An exploration into the life history patterns and the motivation-hygiene theory.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4976-4977.

COUNSELING & GUIDANCE

7244. Fischlowitz, Merle. (St. Louis U.) **A philosophical model for examination of counseling theory.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3872.

7245. Hult, Ralph H. (U. Georgia) **The effect of communication channel variation on rater response.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3875.

7246. Malnati, Richard J. (Ohio U.) **An investigation of time-limited initial interview lengths and their effects on the level of therapeutic conditions.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3879.

7247. Matsuura, Larry N. (U. Northern Colorado) **The relationship of effective counseling to conceptual systems orientation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5002.

7248. Osthoff, Freda I. (U. Illinois, Urbana-Campaign) **Accurate empathy in helping profession trainees as related to reading experiences.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4471.

7249. Pierce, Paul A. (U. Massachusetts) **Client attitudes generated by varied interaction distances and counselor trunk lean in the dyadic counseling interaction.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3884.

7250. Saxon, John P. (U. Georgia) **The effects of interpersonal communication training methods and work-study programs provided rehabilitation counselors.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3886.

7251. Standish, John T. (Oregon State U.) **The use of tape-recordings to train counselors in the use of specific verbal communication skills.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3887-3888.

Marriage & Family

7252. Ely, Austin L. (Rutgers State U.) **Efficacy of training in conjugal therapy.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4988.

7253. Kadushin, Phineas; Waxenberg, Sheldon E., & Sager, Clifford J. (New York Medical Coll.) **Family story technique changes in interactions and effects during family therapy.** *Journal of Personality Assess-*

ment, 1971(Feb), Vol. 35(1), 62-71.—Employed the Family Story Technique (FST) to explore changes over the course of brief family therapy with 82 family members. Family interactions showed varied and interesting changes, including a reduction in hostility between mothers and children and a more realistic view of family relationships. Affect related condition scores suggest a decrease in projected anxiety and an increase in anger on the part of 38 adult females as well as a reduction in children's projected guilt. The FST appears to be a useful modification of the TAT for use in clinical work and research with families.—*Journal abstract.*

7254. Kogan, Kate L. & Wimberger, Herbert C. (U. Washington, Medical School) **Behavior transactions between disturbed children and their mothers.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 395-404.—Observed 10 4-6 yr. old children, from families who had sought help from a university child psychiatry clinic, in the laboratory in interaction with their mothers. Ss each tended to exhibit some unique and deviant occurrences of certain classes of behaviors, but the only respect in which they systematically differed as a group from the comparison sample of 10 nonclinic mother-child pairs was in the more frequent occurrence of strongly controlling behaviors on the part of the mothers. This control characteristically occurred in the context of some degree of high status on the part of the child, whereas comparison children tended to be displaying neutral status. Comparison mothers tended to exercise their control by directing their children what to do, and clinic mothers by nonacceptance of what their children had already done. 2 illustrative cases summarizing the application of sequence analysis methods to understanding the unique interaction styles of individual pairs are presented.—*Journal abstract.*

7255. Ostow, Mortimer & Cholt, Betty. (Jewish Theological Seminary of America, Bernstein Center, New York, N.Y.) **Marital discord.** *New York State Journal of Medicine*, 1970(Feb), Vol. 70(2), 257-266.

Proposes that complaints involving the marital partner, in person seeking marital counseling, often mask self-dissatisfaction. Personal problems which existed prior to the marriage will not be solved, and may even be exaggerated, by the marriage. Mittelman has suggested that the selection of a marriage partner may serve to perpetuate and renew pathology. Oberndorf has reported that the need to possess another person is the result of unresolved Oedipal needs. "Having conquered and possessed the parental figure in the form of husband or wife, the neurotic spouse may then find himself sexually inhibited for having dared to transgress the incest taboo." Neurotic ties in marriage may include: (a) a didactic spouse and a dependent spouse, (b) a commanding spouse and a detached spouse, and (c) competing spouses. "A classification of marital disturbances may be achieved by categorizing both husband and wife respectively as normal, merely reactive to a disturbed spouse, sexually disturbed, or excessively anathetic." The most frequently observed combination at the Bernstein Center is a husband with a sexual disturbance and a wife with excessive anathetic needs. (17 ref.) B. A. Stanton

Social Casework

7256. Getzel, George S., Goldberg, Jack R., & Salmon, Robert. (Columbia U., School of Social Work) **Supervising in groups as a model for today.** *Social*

Casework, 1971(Mar), Vol. 52(3), 154-163. Describes the group supervision method in relation to content, technique, and timing. Experience over several years led the agency to conclude that group approach was superior to traditional supervisory methods. Group supervision offered an opportunity for lateral help and proved more consistent with agency organization and life. M. B. Linn.

7257. Miller, Steven I. & Miller, Patricia. (Loyola U., Chicago, Ill.) **Social work concepts and language analysis.** *Social Casework*, 1971(Mar), Vol. 52(3), 142-147. In order to determine whether social work, as a distinct body of knowledge, may be assisted in changing some of its basic concepts through the use of philosophy, a year-long tutorial project was undertaken. Both remedial and substantive aid was given to a selected group of 7 students working in graduate programs in social work. The focal areas were (a) difficulty in understanding the genesis of abstract psychological terminology, (b) confusion as to how theoretical concepts relate to an analysis of psychological disorders; and (c) the general role of inference in diagnosing a psychological impairment. There were some difficulties in the students' comprehension of theoretical concepts. It was felt that some use of contemporary language philosophy can aid social work students in understanding abstract terminology.—M. W. Linn.

PHYSICAL HANDICAP

7258. Cannell, Robert T. (U. Missouri) **Effects of physical disorders on the adjustment of hospitalized children.** *Dissertation Abstracts International*, 1971(1 eb), Vol. 31(8-A), 3987.

7259. Koschene, Ruby L. (Colorado State U.) **An analysis of aggression: Normal and physically disabled teen-agers toward normal and physically disabled peers and laboratory animals.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5628.

7260. Sieka, Frank L. (State U. New York Buffalo) **Facial disfigurement: Impact on sex role evaluations and its relationship to acceptance of disability.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4889.

7261. Tringo, John L. (U. Kentucky) **The hierarchy of preference toward disability groups.** *Journal of Special Education*, 1970(Sum), Vol. 4(3), 295-306. Attempted to determine the existence and composition of a hierarchy of preference toward disability groups. A hierarchy of preference toward disability groups. A disability distance measure was scaled by the method of successive intervals and administered to 455 high school students, college students, and college graduates. A very high correlation coefficient between sample groups ($r = .94$) and between sexes ($r = .98$) indicated that a stable hierarchy of preference exists, despite a significant difference in absolute values. Age, education and sex of the Ss were found to affect the degree of social distance but not the relative position of a disability group in the hierarchy. *Journal abstract.*

Blindness & Visual Disorder

7262. Anderson, Edward T. (U. Illinois, Urbana-Champaign) **The development of a battery of power tests to predict job performance of the blind.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4638.

tion. Depending on the degree of cerebral metabolic disturbance and on the cerebral locale, there is a progressive continuum from the delirium tremens (via the protracted delirium) to the encephalopathy. Poor prognosis is recognized by the depth of consciousness and extent of neurological disturbance. Intensive vitamin B₁₂ therapy combined with chlormethiazole may prevent progression towards Wernicke's encephalopathy and arrest the disease process during its acute phase. (30 ref.)—*English summary.*

7284. Blonsky, E. Richard. (Northwestern U., Medical School, Chicago, Ill.) **The changing picture of parkinsonism: I. Neurological modifications resulting from administration of L-dopa.** *Rehabilitation Literature*, 1971(Feb), Vol. 32(2), 34-37.—Presents a brief review of the historical aspects and some of the basic biochemistry of L-dopa. The manner in which the symptoms of Parkinson's disease are affected by the drug is shown, as are the negative side effects. For those afflicted with the disease, emphasis is placed on eliminating their dependence on family and attendants. Physical and occupational therapy are considered important aspects of such a rehabilitation program. A group approach, besides being more economical, eliminates the laying on of hands—the parent-child symbol—that perpetuates dependency. S. L. Warren.

7285. Boyd, A. E., Lebovitz, Harold E., & Pfeiffer, John B. (Duke U., Medical Center) **Stimulation of human-growth-hormone secretion by L-dopa.** *New England Journal of Medicine*, 1970(Dec), Vol. 283(26), 1425-1429. Studied the effect of L-dopa, a precursor of CNS catecholamines, on growth-hormone secretion in a group of patients with Parkinson's disease undergoing treatment with the drug. Oral doses (.5 gm.) caused a significant rise in plasma growth hormone in patients initially starting therapy or on chronic therapy for as long as 11 mo. The rise in plasma growth hormone persisted for 120 min. after the administration of the drug. The L-dopa-induced rise in plasma growth hormone could not be blocked by either oral or iv glucose administration. Data suggest that a dopaminergic mechanism in the median eminence or a norepinephrine-sensitive site in the hypothalamus or limbic system may be involved in the regulation of growth-hormone secretion. Furthermore, patients with Parkinson's disease, on L-dopa therapy, appear to be under the influence of elevated plasma growth hormone for a substantial part of the day.—*Journal abstract.*

7286. Brody, Jacob A., Chase, Thomas N., & Gordon, Edna K. (National Inst. of Neurological Diseases & Stroke, Epidemiology Branch, Bethesda, Md.) **Depressed monoamine catabolite levels in cerebrospinal fluid of patients with parkinsonism dementia of Guam.** *New England Journal of Medicine*, 1970(Apr), Vol. 282(17), 947-950.—Depressed levels of homovanillic acid, the principal catabolite of dopamine, and 5-hydroxyindoleacetic acid, the major product of serotonin degradation in brain, were found in the cerebrospinal fluid of 7 Guamanian patients with parkinsonism dementia. Homovanillic acid concentrations in spinal fluid of 6 Guamanians with amyotrophic lateral sclerosis were also significantly lower than those observed in 6 Guamanian controls, although higher than those found in the patients with parkinsonism dementia. Monoamine catabolite levels in patients with parkinsonism dementia and amyotrophic lateral sclerosis on Guam were similar to those found in Americans with

idiopathic parkinsonism or classic amyotrophic lateral sclerosis, respectively. An alteration in cerebral monoamines similar to that previously found in classic Parkinson's disease may thus attend the parkinsonism-dementia syndrome of Guam. (23 ref.)—*Journal abstract.*

7287. Celestia, Gastone G. & Barr, Arlene N. (U. Wisconsin, Medical Center) **Psychosis and other psychiatric manifestations of levodopa therapy.** *Archives of Neurology*, 1970(Sep), Vol. 23(3), 193-200.—45 Ss with Parkinson's syndrome received 250 and/or 500 mg. of levodopa in oral dose. After the initial test Ss received 1,000 mg. of levodopa daily in 4 divided doses for 3 days. Dosage then increased by no more than 250 mg. every 3rd day until Ss showed beneficial results, or until they developed side effects, or until a total daily dose of 8 gm. was reached. Psychiatric manifestations occurring in 16 of 45 Ss included psychoses, acute anxiety, euphoria, and other phenomena. 14 of the 16 Ss developed generalized dyskinesia. Psychotic disorders emerged only after several wk. of maintenance on a dose that had been well-tolerated initially. Benefits of levodopa usage far outweigh shortcomings, particularly since psychic side effects can be reversed through dose modification or use of an antidepressant. Catecholamines and other brain monoamines appear to be implicated in etiology of psychotic disorders. Data on animals reveal levodopa administration is related to increase in content of brain norepinephrine, associated with excitement and sham rage. Animal data related to dopamine administration suggest its direct involvement in generating abnormal behavior. (25 ref.)—S. E. Gavin.

7288. Council on Drugs, American Medical Association. **Evaluation of levodopa for parkinsonism: Levodopa (Dopar, Larodopa).** *JAMA: Journal of the American Medical Association*, 1971(Mar), Vol. 215(12), 1969-1972.—Discusses levodopa which has proven to be highly effective for the treatment of parkinsonism. However, it may cause a number of adverse reactions. The most common untoward effects are gastrointestinal disturbances (nausea, vomiting, anorexia), cardiovascular effects (orthostatic hypotension, minor disturbances of cardiac rate and rhythm, flushing), psychic reactions, and involuntary movements. Precautions in the administration of the drug, pharmacology, as well as dosage and preparations are discussed.—*Journal abstract.*

7289. Dewhurst, K. (Littlemore Hosp., Oxford, England) **Personality disorder in Huntington's disease.** *Psychiatry Clinica*, 1970, Vol. 3(4), 221-229.—The complex interaction of genetic and environmental influences in Huntington's disease results in successive generations (including those unaffected) living in deteriorating social circumstances. Their social decline may be due to incapacitating neurological sequelae, e.g., dementia, dysarthria, and ataxia, or it may arise from a concomitant psychiatric cause, e.g., a personality disorder often complicated by chronic alcoholism, criminality, or promiscuity. Such a nonspecific behavior disorder often precedes the classical neurological picture of Huntington's disease by about 10 yr., and it may appear in unaffected members of these families. The presence of severe personality disorders in 2 generations of a large Huntington's pedigree is described. A father and 2 sons (all of whom developed Huntington's disease) had premorbid personalities characterized by well marked behavior disorders. The fact that a 3rd brother (free from the Huntington's gene) together with 3 half-siblings from the same mother and an unaffected

father, all developed severe personality disorders suggests that adverse environmental factors rather than a deleterious gene, are more likely to cause a personality disorder.—*Journal summary.*

7290. DiGiacomo, Joseph N., Fahn, Stanley; Glass, Joel B., & Westlake, Robert J. (U. Pennsylvania) A case with Gilles de la Tourette's syndrome: Recurrent refractoriness to haloperidol, and unsuccessful treatment with L-dopa. *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 115-117.—A 38-yr-old patient with the characteristic symptoms of Gilles de la Tourette's syndrome including motor tics and explosive utterances had been treated with both psychotherapy and haloperidol. Haloperidol gave complete relief of symptoms, but after 5 yr. the symptoms returned despite increase in the dosage to 20 mg/day. The patient was admitted to a psychiatric ward, withdrawn from all medicines, and then treated with chlorpromazine at a level of 900 mg/day; in addition, L-dopa was started and increased to 6 mg/day over 7 wk. The chlorpromazine-L-dopa treatment produced no significant changes in symptoms. During the 8th wk., these medicines were discontinued and haloperidol was again started. Within 3 wk. of resuming haloperidol, all explosive utterances and tics were absent.—*Journal abstract.*

7291. Geschwind, Norman. (Boston City Hosp., Neurological Unit, Mass.) Current concepts: Aphasia. *New England Journal of Medicine*, 1971(Mar), Vol. 284(12), 654-656.—The apparently simple classification which most clinicians have been taught based on an expressive-receptive dichotomy is misleading and should be abandoned. The most important distinction in disorders of language output is between fluent and nonfluent aphasias. Patients with the latter produce little speech, which is uttered slowly with great effort and with poor articulation. By contrast, the patients with fluent aphasias produce well articulated, long phrases or sentences with a normal grammatical skeleton, having normal rhythm and melody. The speech is abnormal, however, since despite the many words produced, it is often remarkably devoid of content. The term "anomic aphasia" describes a fluent aphasia with essentially normal comprehension and repetition.—*S. R. Diamond.*

7292. Goodding, Patricia J. (U. Missouri) Syntactic structures used by children with minimal cerebral dysfunction. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5054-5055.

7293. Luriya, A. R., Kononov, A. N., & Podgornaya, A. Ya. Rasstroistva pamyati v klinike anevrizm perednei soedinitel'noi arterii. [Memory disturbances in anterior communicating artery aneurysms.] Moscow, USSR: Moscow U. Press, 1970. 121 p. 52 K.

7294. Minnigh, Els C. The changing picture of parkinsonism: II. The Northwestern University concept of rehabilitation through group physical therapy. *Rehabilitation Literature*, 1971(Feb), Vol. 32(2), 38-39, 50.—Describes a hospital's program of treatment for Parkinson's disease. Feeling that the individual approach was not only too limited, but actually served to reinforce the disabling effects, the new approach stresses group therapy, utilizing the combined efforts of the medical, nursing, physical, and occupational therapy staff. The goal is to emphasize independence throughout the hospital stay. This is in recognition of the fact that the administration of L-dopa may result in remarkable remission of physical symptoms but it does not influence motivation or dependency habits.—*S. L. Warren.*

7295. Samra, Khairy; Riklan, Manuel; Levita, Eric, & Cooper, Irving S. Psychological correlates of anatomically verified thalamic lesions in parkinsonians. *Journal of Nervous & Mental Disease*, 1971(Feb), Vol. 152(2), 96-105.—Studied parkinsonians who had undergone chemo- or cryothalamectomy and subsequently died of causes unrelated to surgery. Pathological study revealed that the surgical lesion affected mainly the ventrolateral nucleus of the thalamus. Lesion placement was found to involve largely pallidothalamic pathways, thalamocortical circuits, and thalamothalamic interconnections. Psychological correlates of lesion characteristics were based on pre- and postoperative ratings of behavioral status, with emphasis being placed on perceptual, cognitive, and emotional functions. It is suggested that postoperative psychological alterations accompany bilateral surgery more frequently than unilateral operations and appear related to changes in nonspecific and activating components of adaptive behavior. Moreover, the preoperative psychological status of a patient is more highly related to his postoperative psychological condition than to the site or size of the surgically imposed lesion centered in the ventrothalamic region.—*Journal abstract.*

7296. Spring, Carlton J. (Stanford U.) Same-different reaction time for letters in dyslexic and normal children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3974-3975.

7297. Van Dongen, H. R. & Van Harskamp, F. Een verkorte vorm van de W. A. I. S.: De waarde van het Doppelt I.Q. in een neurologische patiënten groep. [A shortened form of the W. A. I. S.: The value of the Doppelt I.Q. with a group of neurological patients.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Nov), Vol. 25(10), 665-667. Ss. 54 patients in a neurological clinic, were victims of brain tumors, strokes, atrophy, epilepsy and other neural defects. It was found that a correct prediction of the IQ scores on the complete WAIS could be found with the use of J. E. Doppelt's (see PA, Vol. 31:3024) short form of the WAIS in 61% of the cases with a standard error of 4 IQ points. It is concluded that the usage of the Doppelt test was justified with patients who tired early when administered the complete WAIS. *A. J. Ter Keurst.*

7298. Viukari, Matti. (Rinnekohti Inst. for Mentally Retarded, Majalampi, Finland) Brain function, carbon dioxide, anticonvulsants and tranquilizers, spinal fluid pH in brain diseases. *Behavioral Neuropsychiatry*, 1970(Dec), Vol. 2(9-10), 2-5.—Discusses the important role of carbon dioxide linked with potential of hydrogen (pH) for brain function in possibly regulating terminal oxidation and electron transport, and its resemblance to the action of anticonvulsants and tranquilizers. Little attention is paid to abnormal pH values found in spinal fluid in neurological diseases. Further observations of abnormally high spinal fluid pH values in mentally retarded epileptics are reported. It is suggested that it would perhaps be worth investigating pH, potential of carbon dioxide, bicarbonate, buffering capacity, glucose, and lactic acid in spinal fluid, and their correlations with EEG measurements in neurological and mental diseases. (28 ref.)—*Journal abstract.*

Brain Damage

7299. Burgess, Michael M., Kodanaz, Altan; Ziegler, Dewey, & Greenburg, Howard. (U. Missouri) Prediction

of brain damage in two clinical populations. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 523-532.—Examined 15 intellectual and 12 sensory motor variables as predictors of brain damage in 57 neurological and 68 psychiatric Ss. Results obtained via Student's *t* tests and multiple-regression analyses demonstrate that it is possible to predict brain damage in both clinical populations. Specific conclusions were: (a) as single predictor variables, sensory motor measures are superior to intellectual measures; (b) brain damage as measured behaviorally is consistent across the 2 populations; (c) there is a greater incidence of false positives in a psychiatric than a neurological population; and (d) multiple-variant prediction seems to hold promise for identification of brain damage. (16 ref.)—*Journal abstract*.

7300. Dominik, Witosława; Nowicka-Gawęcka, Halina, & Owsianowska, Teresa. (Medical Academy, Poznan, Poland) *Późne skutki psychologiczne zamkniętych urazów czaszki*. [Late psychological results of closed cranial injuries.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 191-204.—Examined 51 patients who had suffered brain concussion or confusion. Ss continued to complain of such symptoms as headaches, impoverished memory, and excessive sensitivity, often several years after the accident. Clinical tests and case studies were employed to evaluate Ss' conditions. It was found that in all cases several disturbances in the cognitive sphere (loss of memory and concentration, ability to plan and forecast) and the emotional sphere (sensitivity, the weakening of emotional control, depression) were present. It is suggested that the background for these disturbances may be organic damage to the CNS or disfunction in the adaptive mechanism appearing immediately after the injury. The advantages of the case study method for research of this type are discussed. (Russian summary)—*English summary*.

7301. Fowler, Roy S. (U. Washington, Medical School) *A simple non-language test of new learning*. *Perceptual & Motor Skills*, 1969(Dec), Vol. 29(3), 895-901.—Describes a paired-associate learning test which uses familiar household objects and is independent of spoken language. The test was patterned after the Wechsler Paired-Associate Learning Test (PALT) of the Wechsler Memory Scale. The Wechsler test has been used for many yr. to evaluate learning in brain-damaged Ss. It is, however, of no use when the S has a speech deficit. The object test was designed to be used when language deficits exist. 160 normal Ss were given both the PALT and the Non-Language Object Paired-Associate Learning Test. Ss were divided into 20 Ss of each sex in each of the following age groups: 30.6-40.5 yr., 40.6-50.5 yr., 50.6-60.5 yr., and 60.6+ yr. The tests were of comparable difficulty level. Norms are given. The object test is easy to give and should prove to be of considerable value in evaluating the new learning ability of brain-damaged Ss. (20 ref.)—*Journal abstract*.

7302. Kilpatrick, Dean G. (U. Georgia) *The Halstead Category Test of brain dysfunction: Feasibility of a short form*. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 577-578.—Although the Halstead Category Test is one of the best indicators of brain dysfunction among the subtests of the Halstead-Reitan Neuropsychological Test Battery, it has been used infrequently by psychologists in clinical settings. The feasibility of a short form was considered. For the test protocols of 41 16-76

yr. old Ss the *r* for errors on odd items and total errors was .90, on even items and total errors, .99. Ss were all neurological or psychiatric patients, with the exception of 10 used to obtain local norms. The split-half correlation was .97. Research on the discriminative power of a short form was discussed; a short form is apparently feasible for use by the psychologist.—*Journal abstract*.

7303. Lansdell, H. (National Inst. of Neurological Diseases & Stroke, Bethesda, Md.) *A general intellectual factor affected by temporal lobe dysfunction*. *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 182-184.—Attempted to compute the general factor with loading on a variety of tests, and to demonstrate that the factor score estimates were related to the extent of the lesions regardless of side. The Differential Aptitude Tests and the Wechsler-Bellevue Intelligence Scale were utilized as instruments. "Extent of surgery, or neuropathology, on the left was related to scores on the verbal factor and on the right to scores on the speed factor: the relation to scores on the general factor was independent of side of lesion."—E. J. Kronenberger.

7304. Luria, A. R. *Metody issledovaniya vysshikh korykovykh funktsii pri lokal'nykh porazheniyakh mozga (sindromnyi analiz)*. [Methods for examination of higher cortical functions in local lesions of the brain (syndromic analysis).] In A. R. Luria, "Vysshie korykovye funktsii cheloveka i ikh narusheniya pri lokal'nykh porazheniyakh mozga." (See PA, Vol. 44:16023) 303-460.—Considers the methods of examination employed particularly those of neuropsychology, in cases of local lesions of the brain: preliminary conversation with the patient followed by the presentation of examination procedures in cases involving (a) motor functions, (b) audiomotor coordination, (c) higher cutaneous-mesthetic functions, (d) higher visual functions, (e) memory processes, (f) impressive speech, (g) expressive speech, (h) writing and reading, (i) arithmetic, and (j) thought processes. 28 pertinent figures and tracings are included along with illustrative materials incorporated into the text.—J. D. London.

7305. Luria, A. R. *Narusheniye vysshikh korykovykh funktsii pri lokal'nykh porazheniyakh mozga*. [Impairment of higher cortical functions in local lesions of the brain.] In A. R. Luria, "Vysshie korykovye funktsii cheloveka i ikh narusheniya pri lokal'nykh porazheniyakh mozga." (See PA, Vol. 44:16023) 81-302.—Considers in great experimental and theoretical detail a number of major topics: (a) some fundamental problems in research on higher cortical functions in local lesions of the brain, (b) impairment of these functions in temporal lesions, (c) their impairment in occipital and occipito-parietal lesions, (d) their impairment in sensorimotor lesion, and (e) their impairment in frontal lesion. Included are the latest advances in the subject, and an illumination of "the basic facts" of the new discipline of neuropsychology. 83 pertinent drawings and tracings, exclusive of tables, are provided along with illustrative materials incorporated into the text.—J. D. London.

7306. Luria, A. R. *Vysshie korykovye funktsii cheloveka i ikh narusheniya pri lokal'nykh porazheniyakh mozga*. [Higher cortical functions in the brain and their impairment in local lesions of the brain man.] Moscow, USSR: Moscow U., 1969. 504 p. (2nd ed.)

7307. Obrzut, John E. & Thweatt, Roger C. (Northern Arizona U.) *An investigation of the Sherman Mental Impairment Test: A normative study*. *Journal of*

Clinical Psychology, 1971(Apr), Vol. 27(2), 224-225. —The Sherman Mental Impairment Test was administered to 100 Ss. The results noted were: (a) brain-injured children had a slower reaction score and found fewer letters than the brain-injured adults; (b) normal children had a faster RT score, and found fewer letters than their adult counterparts; (c) Sherman's cutoff scores can be applied to both children and adult groups when using the RT score; (d) the letter finding score adult norms cannot be applied to children; (e) some possibilities for misclassifying Ss were noted; and (f) accuracy of classification is not dependent upon the sex of the S.—E. J. Kronenberger.

7308. Simpson, C. Dene & Vega, Arthur. (Northwest Nazarene Coll.) **Unilateral brain damage and patterns of age-corrected WAIS subtest scores.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 204-208.

The WAIS was administered to 88 brain-damaged patients and 50 controls as a part of the Halstead-Reitan Neuropsychological Test Battery. Age-corrected WAIS subtest scores were used. A total of 11 unilateral brain-damage signs were identified. These signs were then applied to individual patient protocols and to previously reported data and the result indicated support for the use of the signs. "The possibility of using the results of the paired-comparisons procedure as a type of screening test for the presence of unilateral brain damage is promising." It is suggested that if 4 or more signs are present for either right- or left-hemisphere damage then a diagnosis may be made in that direction.—E. J. Kronenberger.

7309. Thonisen, Poul. **Benton-testen.** [The Benton Test.] *Skolepsykologi*, 1970, Vol. 7(3), 189-204.—Describes the Benton Revised Visual Retention Test for brain-damage. Its use in Denmark is recommended. P. Mylon.

Epilepsy

7310. Calcedo Ordóñez, A. (U. Cadiz, Medical School, Spain) **Epilepsia y contenido vivencial: A propósito de un caso de "dreamy state."** [Epilepsy and recalled content. In relation to a case of "dreamy state."] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1970(Jan), Vol. 29(1), 43-50. Discusses the case of an 18-yr old male epileptic suffering from psychosensory ("dreamy state") crises, the symptoms of which included sleep walking, convulsions from an early age, and guilt and inferiority feelings due to family problems. By examining the recalled past experiences during these crises, the therapist was able to delve into the personal conflicts of the patient and aid him therapeutically. The S's family, professional, and medical problems were discussed during 15 sessions with the therapist. Further treatment entailed administering 2 tablets of trinitride h forte day, forbidding alcohol and exercise, restricting the intake of liquids, and taking many urine tests. Upon suffering 5 subsequent crises, the modification of the S's recalled past experiences was noted although the phenomenological structure of these crises still persisted. The case was observed over a 5-yr period. (English summary)—S. Maze.

7311. Geller, Martin & Christoff, Nicholas. (City U. New York, Mt Sinai School of Medicine) **Diazepam in the treatment of childhood epilepsy.** *JAMA Journal of the American Medical Association*, 1971(Mar), Vol. 215(13), 2087-2090. Treated 38 epileptic children with

a variety of seizure types with diazepam (valium) orally. The median duration of treatment was 2 yr. Dosages ranged from 3-60 mg/day depending upon patient tolerance and seizure response, although the usual effective dose was 15 mg/day. Seizure suppression was good to excellent in 29 children. The best results were seen in those with petit mal and other minor seizures. Side effects were few and usually limited to drowsiness. Diazepam is a very safe and effective long term anti convulsant in some seizure disorders of childhood. —*Journal abstract.*

7312. Lison, Michel P. (U. São Paulo, Medical Faculty of Ribeirão Preto, Brazil) **Crises tónicas axiais e crises acinéticas: Estudo clínico longitudinal de pacientes tratados com derivados benzodiazepínicos.** [Axi-tonic seizures and akinetic seizures: Clinical study of patients treated by benzodiazepines.] *Arquivos de Neuro-Psiquiatria*, 1970(Dec), Vol. 28(4), 347-356. Investigated the clinical changes of 2 Ss with axotonic seizures and 10 Ss with akinetic seizures treated by nitrazepam. Rapid reduction in frequency of the axotonic seizures occurred. The best result was obtained in 1 S with isolated seizures, resulting from an infantile myoclonic encephalopathy with hypsarhythmia abolished after 2 mo. of treatment. The other S presented the Lennox syndrome, there was decrease in intensity and frequency of other types of seizures which were occurring associated to the axotonic seizures but new types of seizures developed during the treatment. The occurrence of infectious processes aggravated the clinical picture of 1 S. Among the Ss with akinetic seizures, 5 presented rapid reduction in frequency and severity of seizures after the 1st day of treatment, in 4 Ss the seizures were abolished on the 1st day of treatment. Relapses or intensification of the clinical picture were observed in 5 Ss. The increase of dosage had an inconstant effect. (17 ref.)—*English summary.*

7313. Lison, Michel P. (U. São Paulo, Medical Faculty of Ribeirão Preto, Brazil) **Espasmos em flexão: Estudo clínico longitudinal de pacientes tratados com Nitrazepam (Mogadon).** [Massive spasms. Clinical study in patients treated by nitrazepam (mogadon).] *Arquivos de Neuro-Psiquiatria*, 1970(Dec), Vol. 28(4), 336-346. Investigated the changes of the clinical picture of 12 epileptic patients with massive spasms when treated by nitrazepam. Treatment was satisfactory in 11 patients. In 2 cases seizures were abolished after the 1st day; in 9 there was marked reduction of the intensity of spasms after the 1st day. It was observed that (a) spasms continued, although the amplitude and violence of muscular contraction were reduced, (b) partial seizures occurred in some patients, and (c) the massive aspect of myoclonia disappeared. The decreasing the repetitive tendency of the seizures. The time interval between the onset of massive spasms and the beginning of the treatment with nitrazepam did not influence the results obtained with nitrazepam. Partial seizures relapsed in 7 patients and were related to decrease of the drug or to infectious processes. Infectious processes of the respiratory tract were frequently seen after the beginning of the treatment. During the treatment 7 patients developed generalized seizures for the 1st time. Symptom and behavior changes were observed when the late tonic seizures developed, suggesting the installment of the Lennox syndrome. (18 ref.)—*English summary.*

7314. Loiseau, P. & Cohadon, F. (Hosp. Saint-André,

Cours d'Albret, Bordeaux, France) **Considérations sur les épilepsies partielles continues et leurs relations avec les épilepsies somato-motrices.** [Considerations concerning epilepsy partialis continua and its association with somato-motor epilepsy.] *Encéphale*, 1970(Jul), Vol. 59(4), 362-389.—Presents case observations of patients with typical Jacksonian and myoclonic seizures who have also evidenced epilepsy partialis continua (EPC). EPC is a form of epilepsy marked by clonic muscular contractions during the intervals which exist between major convulsions. Surgical intervention showed demonstrable evidence of causative factors: subdural hematoma in 1 case and advanced syphilis in another. Associations are made between EPC and somato-motor epilepsy on the basis of symptomatology and EEG findings in these 2 cases. Particular problems associated with the establishment of a diagnosis of EPC on the basis of EEG findings are discussed. (35 ref.)—P. R. Shibelski.

7315. Roth, G. (Vienna City Hosp., Neurological Clinic, Austria) **Epilepsia est morbus non possessio.** [Epilepsy is a disease and not a possession.] *Confinia Psychiatrica*, 1970, Vol. 13(1), 67-72.—Discusses a manuscript not yet edited (Codex cremifanensis No. 70) of the Benedictine Monastery (Kremsmünster, Austria), which was written before the year 1320 by the Friar Wernherus Medicus, and includes a chapter on epilepsy. The concept that epilepsy is a disease and not a possession, that it is to be treated with diet and purgation, not through exorcism, relates to the somatic interpretation of psychopathological conditions in the primary literature of the Middle Ages. (18 ref.)—*Journal summary*.

MENTAL RETARDATION

7316. Angenent, H. L. **A frame of reference in the observation of institutionalized subnormals.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 107-112.—Investigated which factors influence an institutional staff's judgments of—and therefore the education of—the institutionalized subnormal. Interviews with staff on the characteristics of 39 female and 61 male 8-21 yr. old slightly feeble-minded patients revealed 67 items. Ss were rated for the presence or absence of a particular behavior by 3 staff members. Analysis revealed 4 general factors which accounted for approximately 66% of the total variance: (a) intelligence, (b) vital and egoistic needs, (c) agreeableness, and (d) excitability. 2 other factors, sex and age, also increased the amount of variance accounted for to approximately 79%. The characteristics of each factor are described and briefly discussed. It is concluded that this model can aid in developing theories of treatment for mentally subnormal children.—S. Knapp.

7317. Bishop, Frank; Bass, Francesca, & Anderson, Eileen. (Royal Children's Hosp., Parkville, Victoria Australia) **The use of groups in the evaluation of mental retardation.** *Australian Journal of Mental Retardation*, 1970(Mar), Vol. 1(1), 23-26.—A group of trained personnel of different disciplines observed several groups of 6-8 children for a minimum of 4 observations of approximately 1½ hr. each. The team was to diagnose the difficulty of the child. Apparently no formal instructions were used to confirm the findings. 41 children were diagnosed. The advantages and disadvantages of the procedure are discussed. The following

assessments were made on each child: his awareness of other children and adults, to whom the child made approaches, how he approached others and his reactions, and the pattern of activity for the whole group. Parents also participated in the evaluation.—C. L. Nicholson.

7318. Brown, Joy A. (U. Northern Colorado) **The relationship of physical stigmata, intellectual functioning, and performance profile in mongolism.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3987.

7319. Christodorescu, D., Negulici, Eugenia; Zelingher, Roza, & Tăutu, C. (G. Marinescu Hosp. Bucharest, Romania) **Conversion reactions in Klinefelter's syndrome.** *Psychiatria Clinica*, 1970, Vol. 3(4), 230-340.—Reports 4 cases of Klinefelter's syndrome with conversion reactions. 1 patient was also a hysterical psychopath and another exhibited hysterical traits in the projective tests (Rorschach and TAT). The parameters of the personality of Klinefelter Ss predisposing them to the manifestation of functional disorders are discussed. (28 ref.)—*Journal summary*.

7320. Coleman, Richard. (U. North Carolina) **Klinefelter's syndrome: A review of the research.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 103-106.—Since H. Klinefelter's 1942 description of the syndrome bearing his name, further research has attempted to refine and expand his preliminary findings. Thus far histological and karyotyping studies have yielded equivocal results. Malignant neoplasm, diabetes mellitus, genetic factors, and maternal age have each been cited as etiologically related to Klinefelter's syndrome. While a discrepancy in incidence figures continues to exist, there has been general agreement that the highest frequencies have occurred at the upper limits of mental retardation. (24 ref.)—*Journal summary*.

7321. D'Akon, S. O. (U. New South Wales, School of Sociology, Kensington, Australia) **Concepts of retardation in industrial society.** *Australian Journal of Mental Retardation*, 1970(Jun), Vol. 1(2), 38-39. Society views mental retardation with alarm, partly due to the industrial demands for production. This view is perpetuated by the belief that the IQ is definitive. Thus, the only way to rehabilitate the mentally retarded is within the productive form. The institution for the profound mentally retarded is regarded as being outside the society. There is much literature about the work that the mentally retarded can do, and there are lists of vocations for the mentally retarded. As a result, those defined as mentally retarded are devalued, as are those working with the mentally retarded.—C. L. Nicholson.

7322. Fong, Louella J. (Purdue U.) **Stimulus discriminability and color-form preference in normal and retarded children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5019-5020.

7323. Gunzburg, H. C. **Symposium on "normalization": II. The hospital as a normalizing training environment.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 71-83.—Reports that only 20-30% of patients in hospitals for the subnormal actually need nursing and medical care. It is suggested that hospitals be reorganized to prepare the patients for more normal conditions. The need is discussed for (a) an operational philosophy, (b) multidisciplinary leadership, (c) a planned variety of different professional skills, (d) an integrated planning program relating to normal life practices, (e) an operational policy relating to work training, (f) involvement of nonclinical staff, (g) social

education in the institutional home, and (h) living units (where patients are prepared for community living). It is concluded that the institutional framework has more flexibility and potential for this work than traditions and practices have indicated. (15 ref.)—S. Knapp.

7324. Hasazi, Joseph E. (U. Miami) **The relationship of attentional, motivational, and visual-perceptual variables to response latency in developmental retardates.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5623-5624.

7325. Heaton-Ward, W. Alan. (Stoke Park Hosp. Group, Bristol, England) **The role of the hospital in the mental subnormality service.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 57-61.—Considers the criticisms of hospitals for the mentally subnormal and their staffs. The lack of an integrated service (where the hospital is part of the community service) is considered a major barrier in the improvement of facilities. The need for (a) assessment as an ongoing process; (b) long-term, short-term, and day care; (c) multidisciplinary teams; (d) revised nurses' training programs; (e) smaller institutions; and (f) a larger psychiatric staff are discussed. The increase in volunteers is described as reducing some of the barriers between the hospitals and the community.—S. Knapp.

7326. Kindberg, Margaret N. (Ohio State U.) **Imitation of a peer model by severely retarded institutionalized boys.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5605-5606.

7327. Lucker, William G. (George Peabody Coll. for Teachers) **The effects of environmental stimulation on the perceptual thresholds of high-active and low-active mentally retarded persons.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5031.

7328. MacMillan, Donald L. & Keogh, Barbara K. (U. California, School of Education, Riverside) **Normal and retarded children's expectancy for failure.** *Developmental Psychology*, 1971(May), Vol. 4(3), 343-348.—Administered a series of block designs, $\frac{1}{3}$ of which were interrupted prior to completion to 60 normal and 60 retarded children. Ss were divided among 3 instructional conditions which defined interruption as success, failure, or neutral. Repetition choice was noted and Ss were asked why certain tasks had not been finished. Interruption was perceived differently by normals and retardates. Retardates perceived interruption as personal failure, normals did not. Although retardates exhibited a success orientation on repetition choice under the success condition, interruption was still seen as due to personal inadequacies.—*Journal abstract*.

7329. Mulhern, Thomas & Baumeister, Alfred A. (U. Cincinnati) **Effects of stimulus-response compatibility and complexity upon reaction times of normals and retardates.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 75(3), 459-463.—Compared the RTs of 40 male undergraduates and 40 retarded males across 5 levels of complexity and 2 of stimulus-response (S-R) compatibility. Stimulus complexity was varied between Ss and S-R compatibility within Ss. The main effects of intelligence, complexity, and compatibility were all significant, as were the Intelligence \times Complexity, Complexity \times Compatibility, and Intelligence \times Compatibility interactions. Results are discussed in terms of an information-processing deficit for the retardates.—*Journal abstract*.

7330. Nielsen, Bøgill. (Frekeriksgaard School, Copenhagen, Denmark) **Hjælpeklasselevers intelligens-**

struktur. [The structure of intelligence of borderline children.] *Skolepsykologi*, 1970, Vol. 7(3), 178-188.—Presents a descriptive and correlational study of borderline children in a special school. Boys have a more uneven structure and higher IQ than girls, who profit more from education.—P. Mylov.

7331. Nirje, Bengt. **Symposium on "normalization": I. The normalization principle: Implications and comments.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 62-70.—Describes the normalization principle as making available to the mentally subnormal, "patterns and conditions of everyday life which are as close as possible to the norms and patterns of the mainstream of society." 8 facets of such a process are discussed with implications and methods of implementation for the mentally subnormal: (a) normalization of their daily, weekly, and yearly rhythms; (b) normal developmental experiences of the life cycle; (c) respect for their choices, wishes, and desires; (d) normal bisexual contacts; (e) normal economic standards; and (f) normal standards of physical facilities. It is concluded that application of the normalization principle profoundly affects not only the retarded but also those who work with them, their parents, and society in general.—S. Knapp.

7332. Pedersen, Jens M. **The physical environment of the mentally handicapped: I. Progress in building for the mentally handicapped.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 121-125.—Reviews the interaction of the medical, educational, and therapeutic disciplines with architecture in designing buildings for the mentally retarded. An innovative development in Denmark using institutional homes with a single bedroom for each resident is described. Recommendations for rooms for 2-4 residents in the case of the very young or severely multihandicapped are presented. The use of the central institution as an educational, occupational therapy, and observational center with patients in outlying residences is suggested. A research project in progress on the physical environment of the mentally retarded is described. It is concluded that prompt feedback from new facilities is necessary to prevent future mistakes and to develop new designs for rapid implementation.—S. Knapp.

7333. Pitt, David; Fenner, Frank; Ferris, A. A., & Evans, Jack L. (Children's Cottages Training Center, Kew, Victoria, Australia) **Prevention of mental deficiency by control of infectious diseases.** *Australian Journal of Mental Retardation*, 1970(Mar), Vol. 1(1), 9-22.—Research indicates that of the retarded in institutions 5-6% are there from causes of infectious disease other than rubella. These are acquired pre- and postnatally. 4 factors play an important part in determining whether fetal infection is established: maternal immunity, effectiveness of the placenta, capacity of the fetus to react, and virulence. Increasing the mother's immunity and the betterment of her health decreases the chances of fetal infection. Progress in the reduction of viral infection is noted. Geographical differences in the rate of certain infections is noted. New evidence that hepatitis plays an important role in mental retardation is noted and discussed.—C. I. Nicholson.

7334. Pitt, David, et al. (Children's Cottages, Kew, Victoria, Australia) **Lead poisoning in retarded children.** *Australian Journal of Mental Retardation*, 1970(Jun), Vol. 1(2), 58-60.—Lead poisoning in children has been reduced, but not eliminated. Some studies

indicate a higher incidence of blood lead levels in mentally retarded children. Previously undetected lead poisoning may be a factor in the mental retardation of some children. This study investigated blood lead levels in 30 mentally retarded children of unknown etiology and 20 disturbed children. No abnormal levels were found in the disturbed Ss. Of the 30 retarded Ss, 21 had signs of brain injury and 6 of these had high blood lead levels. An extension of the study to 121 children with brain damage of unknown cause found 3 with high lead blood levels. Causes are discussed. Some were known to chew toys, which may have been a source of lead.—C. L. Nicholson.

7335. Smith, Meryl C. (Grosvenor Hosp., Summer Hill, New South Wales, Australia) **Residential care of the severely and profoundly retarded child.** *Australian Journal of Mental Retardation*, 1970(Mar), Vol. 1(1), 30-33.—Presents the basic philosophy of the care of the severely mentally retarded—they are not babies, but humans, and must be helped from dependency to as great a degree of independence as possible. The routine of the day is discussed, with the techniques of developing this independence. Methods of fullest utilization of personnel are discussed, as well as use and placement of buildings. Voluntary personnel utilization is presented. A day's activity program is outlined. The program described is now in operation at the Grosvenor Hospital in Australia.—C. L. Nicholson.

7336. Sternlicht, Manny; Pustel, Gabriel, & Deutsch, Martin R. (Willbrook State School, Staten Island, N.Y.) **Suicidal tendencies among institutionalized retardates.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 93-102.—Examined the records of 33 male and 12 female suicidal retardates, drawn from the largest institutional cross-section of retardates in the United States, for a number of variables: (a) statistical parameters, (b) psychological correlates, and (c) personality dynamics. Statistical parameters covered include (a) the incidence of suicidal behavior, (b) IQs, (c) CA and length of institutionalization, (d) diagnostic classification, and (e) methods of suicide. The home backgrounds, behavioral profiles, and psychological nature of the attempted suicides were examined to provide psychological correlates. A detailed psychological analysis of a mildly retarded suicidal girl is presented in an effort to discover the personality dynamics of the suicidal retardate. A theory of retardate suicide is proposed. (25 ref.)—*Journal summary*.

7337. Stubblefield, Harold W. (Clover Bottom Hosp. & School, Donelson, Tenn.) **On being a pastor to the mentally retarded.** *Journal of Pastoral Care*, 1970(Jun), Vol. 24(2), 98-108.—Discusses the pastor's approach to the mentally retarded in terms of understanding the world of the retarded, clarifying his own feelings about the retarded, and a willingness to be flexible and creative in his approach.—O. Strunk.

7338. Turner, Gillian. (Grosvenor Hosp., Summer Hill, New South Wales, Australia) **X linked mental retardation.** *Australian Journal of Mental Retardation*, 1970(Jun), Vol. 1(2), 61-62.—Although there are a number of X-linked diseases associated with mental retardation, there is also a form in which the outstanding feature is their somatic normality. From 2,000 records at 1 institution, 170 males fell into the category of mainly normal features except that they were retarded. These Ss and their case histories were examined, excluding those who had a history of fits, head circumference 2 cm. more

or less than average, height below the 3rd percentile, 1 major or 3 minor congenital abnormalities, presence of neurological signs, and history of encephalitis or meningitis. A total of 23 remained. These were examined and it was found that 4 had family histories of X linkage without retarded brother, but 60% had an affected retarded male relative. The implications for genetic counseling are evident in X-linked cases.—C. L. Nicholson.

7339. Zarfas, D. E. (Ontario Dept. of Health, Toronto, Canada) **Symposium on "normalization": III. Moving toward the normalcy principle in a large government operated facility for the mentally retarded.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 84-92. Describes a program for treating the mentally retarded in an institutional facility which emphasizes learning-living rather than nursing-medical principles. The unit system is used to delineate the types of patients involved and the services needed. The hospital, educational, activity, and adult training and rehabilitation units are briefly described. Personnel and training programs are outlined. The difficulties, reactions of the staff, and progress of the program from 1968-1970 is reported. It is concluded that the goal of normalization, while not being accomplished, is being approached.—S. Knapp.

Learning & Motor Ability

7340. Anooshian, Yurajan B. (U. Northern Colorado) **A comparison of two instructional techniques for improving balance in profoundly and severely mentally retarded boys.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3927.

7341. Beasley, Nigel & Hegarty, John. (U. Keele, England) **The use of the Touch-Tutor with S.S.N. children.** *Journal of Mental Subnormality*, 1970(Dec), Vol. 16(31, Pt. 2), 113-118.—Studies learning in 35 male and female severely retarded 8-19 yr. olds using the Touch Tutor developed by A. Cleary and D. Packham (see PA, Vol. 43:14750). Ss were assigned to 1 of 4 teaching conditions in which (a) 1-, 2-, and 3-choice slides were presented progressively or mixed; and (b) the machine repeated the correct response and advanced to a new slide after correct or incorrect responses or advanced to a new slide only after the correct response, which the machine did not repeat. Data indicate that there were no significant differences in pre- and posttest scores for Ss in any of the groups, although 18% were able to match-to-sample before and after the program. It is concluded that a small number of severely retarded children can use machines employing match-to-sample but that further research is necessary before they can be introduced into the classroom.—S. Knapp.

7342. Berry, Franklin M., Joubert, Charles E., & Baumeister, Alfred A. (Columbus Coll.) **Single-letter cue selection and degree of paired-associate learning in retardates.** *Journal of Experimental Psychology*, 1971(May), Vol. 88(2), 196-204.—Trained 70 Ss from a residential institution for the retarded on redundant-stimulus paired associates (PAs) tasks in which the stimuli were trigrams and the responses single digits. Ss were response-pretrained and randomly assigned to 7 different groups: experiencing a different level of PA learning: 1, 2, 3, 5, 7, 2 perfect, or 8 overlearning trials. Ss were tested for digit recall to each letter from the trigrams presented singly, and performance was scored

according to either a single- or double-criterion method. Both of these modes of analysis showed 1st letters to be better recall cues than the other 2 (after 2 perfect trials) and a large increase in the effectiveness of 3rd letters after 8 overlearning trials. However, single-criterion scoring indicated that the amount of single-letter selection increased across trials, but the double-criterion scoring revealed that it was actually 2-letter usages which were more frequently employed with increasing degrees of PA learning. (17 ref.)—*Journal abstract*.

7343. Craft, James E. (Baylor U.) **Verbal paired-associate learning by educable mentally retarded and normal children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3949.

7344. Etaugh, Claire F. (Bradley U.) **Factors in learning stereometric discriminations in children.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 614. —Tested 30 retarded and 30 normal children in a 2-choice size-discrimination task to determine if young children form discriminations more rapidly with stereometric objects than with pattern stimuli. Findings support the importance of depth cues in the mastery of stereometric discrimination tasks, at best for 2-choice problems.—*P. Hertzberg*.

7345. Hayes, Charles S. (U. Iowa) **The frustration effect in normal and retarded children as a function of rewarded pretraining.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5624.

7346. Logan, Mary M. (U. Arizona) **The effects of type of reinforcement and source of reinforcer selection on institutionalized mental retardates.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5001.

7347. O'Connor, Colleen. (Texas Technological U.) **Day-to-day difference between dominant and non-dominant grip strength in preschool children.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 676. —Investigated the nature of bilateral asymmetry of grip strength with 10 normal and 10 retarded right-dominant preschoolers who performed 6 isometric contractions of each hand on each of 2 different days. The nondominant hand was more vulnerable to fatigue, while the dominance of right-grip strength was emphasized. A format for investigations to compare and evaluate N. C. Kephart's bilateral training hypothesis and C. H. Delacato's unilateral notion for the development of lateral dominance is suggested.—*P. Hertzberg*.

7348. Schaeffer, Richard F. (Florida State U.) **Errorless establishment of discrimination learning sets in retarded children using fading procedures.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5640.

7349. Touchette, Paul E. (Massachusetts General Hosp., Boston) **Transfer of stimulus control: Measuring the moment of transfer.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 347-354. —3 severely retarded adolescent boys acquired simple form discrimination errorlessly. Each was 1st taught to press a red key vs. a simultaneously present white key. After this discrimination had been established, black figures were superimposed on the red and white keys. Each correct response affected the next trial by delaying the onset of the red stimulus an additional .5 sec. Transfer of stimulus control to the figures was indicated when Ss responded correctly before the onset of the red stimulus. A series of errorless discrimination reversals was accomplished with this technique, during

which the number of trials to transfer systematically decreased with successive reversal. (19 ref.)—*Journal abstract*.

7350. Turnure, James E. (U. Minnesota) **Reactions to physical and social distracters by moderately retarded institutionalized children.** *Journal of Special Education*, 1970(Sum), Vol. 4(3), 283-294. —Investigated the orienting behavior of mentally retarded children under a variety of conditions, all involving a discrimination learning task. In Exp. I, the data from these Ss were compared with those available from a previous investigation which involved normal Ss of comparable MA and CA. It was found that, in many cases, the normal Ss showed nontask orientations to a greater degree than did the retarded Ss. An examination of those circumstances under which the retarded glanced more often indicated that these circumstances, often observed in the classroom, are inappropriate for adjudging retardates to be distractible. Exp. II added a social agent to the conditions for task performance, using Ss from Exp. I. The presence of an adult in the learning situation greatly increased nontask orientations. However, it was also shown that if cues are provided by the adult, they will be utilized by the Ss so that their glancing apparently represented information-seeking and not merely vacuous orientations to a salient social stimulus. Exp. III, using naive Ss, replicated the pattern of results found in Exp. II.—*Journal abstract*.

Training & Vocational Rehabilitation

7351. Bowersock, Roger B. (Florida State U.) **Effects of verbal, vicarious, and monetary reinforcement on the verbally stated interests of three rehabilitation clients.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4450-4451.

7352. Farrell, K. M. (Commonwealth Center, Melbourne, Victoria, Australia) **Problems of work placement for the mentally deficient.** *Australian Journal of Mental Retardation*, 1970(Mar), Vol. 1(1), 27-29. —Discusses the difficulty of placement in occupations for the mentally retarded. A description of the Australian Government employment services is given. Characteristics of the mentally retarded should be explained to the prospective employer. Many vocations are suitable for the mentally retarded with only some modification of routine, equipment, or technique. There are several positions the mentally retarded can fill, and some of these are listed. The need for vocational assessment and evaluation of the mentally retarded is emphasized. The role of the parents is discussed. Several problems of employment are highlighted, and possible approaches to their prevention and solutions are discussed.—*C. L. Nicholson*.

7353. Gaustad, Cebrun A. (U. North Carolina, Chapel Hill) **Shaping antisocial retardates toward increased resistance to immediate self-reinforcement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4991-4992.

7354. King, Susan H. (Louisiana State U., Agricultural & Mechanical Coll.) **The relationships between mental age, level of language functioning and social acceptability in the trainable mentally retarded.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5691.

7355. Neale, Marie D. (Monash U., Clayton, Victoria, Australia) **Elwyn Morey memorial lecture: Human**

potential. *Australian Journal of Mental Retardation*, 1970(Mar), Vol. 1(1), 4-8.—With norms and averages, there are deviances, at both extremes. The norms and standards are important as objective guides, but subject to fluctuations. Social scientists warn that we are moving toward a 2-class automated society—the essential and surplus citizens. An interdisciplinary team approach offers a means of reducing the number of surplus citizens by assaying their potential and fitting these citizens into society. Learning potential and educational achievement must be increased. The mental health of the individual is important in developing his potential. Therapy and rehabilitation to improve the mentally handicapped are discussed. General theoretical considerations of IQ scores are mentioned.—C. L. Nicholson.

7356. Van Der Maren, Jean M. (U. Louvain, Center of Psychodiagnostic Research & Psychological Consultation, Belgium) *Enquête a propos de 14 métiers et des capacités opérationnelles préalables à leur apprentissage par des adolescents handicapés mentaux.* [Inquiry about 14 professions and the learning operational capacities among mentally handicapped adolescents.] *Psychologica Belgica*, 1970, Vol. 10(2), 225-246.—Examines the question of specific abilities necessary for successful training of mentally handicapped adolescents. On the basis of a nondirective discussion with educators, a list of 61 professional requirements was elaborated. In the next stage, about 20 people, educators and employers, from each of the 14 professions selected judged the necessity of a given professional requirement for the respective jobs. An index of necessity was calculated for each of the requirements and jobs, classifiable into 4 categories: useless, accessory, required, and essential. Results show that professional abilities are more important for various forms of training than academic knowledge. Discrepancies between judgments of educators and employers are discussed. (English abstract) (26 ref.)—S. Slak.

PHYSICAL ILLNESS

7357. Abaffy, Mária & Takács, Judit. *Pszichológiai megfigyelések és tapasztalatok egy gyermekosztályon.* [Psychological observations and experiences in a pediatric ward.] *Magyar Pszichológiai Szemle*, 1970, Vol. 27(3), 415-421.—In the internal medicine ward with 40 beds in the Budapest Regional Pediatric Hospital, 780 patients over 3 yr. of age were treated during a 14-mo period. Psychological examinations were made in 200 cases, whenever the physician in charge of the case requested it. Results of examinations were considered and utilized in the course of subsequent physical examinations, treatment, and counseling. (Russian summary) (17 ref.)—English summary.

7358. Beard, Bruce H. (U. Oklahoma, Medical School, Oklahoma City) *The quality of life before and after renal transplantation.* *Diseases of the Nervous System*, 1971(Jan), Vol. 32(1), 24-31.—Reports the evaluation of 5 patients from a larger group previously studied, who had experienced renal failure, maintenance hemodialysis, and kidney transplantation. The study focused on the quality of life during the hemodialyses period prior to transplantation and up to the 1st 9 mo. following transplantation. "Repeated psychiatric interviews were conducted with each S, and specific note was made of each S's attitudes about self-esteem, relationships with family members, concept of values, areas of

active participation with his environment, and attitudes about his life prospects. Brief case reports are included for each patient. It was found that the quality of life experienced by the 5 Ss was "seriously marred" by their uncertain and unfulfilling existence. Although center hemodialysis prolonged their lives, it did not provide an acceptable existence. Ss were preoccupied with the fear of death, saw themselves as severely handicapped, and suffered damage to their self-esteem. Only those 2 Ss who reached the 9-mo posttransplant point experienced hope of returning to a normal existence. —P. McMillan.

7359. Bridgford, Margret H. (U. Colorado) *Self-conception and social rehabilitation of kidney transplant patients and chronic hemodialysis patients.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5615.

7360. del Dowiakowski, M. L. & Luminet, D. *Etude psychosomatique de 32 cas d'infarctus du myocarde.* [Psychosomatic investigation of 32 cases of myocardial infarction.] *Acta Neurologica et Psychiatrica Belgica*, 1969(Feb), Vol. 69(2), 78-89.—Presents a psychosomatic study of 32 male patients (under the age of 46) who sustained myocardial infarctions without having had any prior symptoms of hypertension. Ss were questioned, during 30-60 min. interviews, regarding attitudes concerning their fathers' occupational and educational backgrounds. Results show that 20 Ss had achieved more education and 14 Ss a higher level of occupational status than their fathers. All Ss described their fathers as being dominating, castrating, and perfectionistic. It was concluded that "the object relationships of the coronary patient are of a pregenital nature; the pseudo-identificatory investment of the father, through work, does not allow for any valid resolution of the oedipal problem. The coronary accident corresponds to a breakdown of this attempt at functional identification." (German & English summaries) (26 ref.)—P. R. Shibelski.

7361. Drunkenmölle, C. (Martin Luther U., Medical Clinic & Polyclinic, Halle-Wittenberg, E. Germany) *Klinische und neurosenpsychologische Untersuchungen bei funktionellen akralen Durchblutungsstörungen.* [Clinical and neurotic-psychological investigations with functional peripheral circulatory disorders.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 343-353.—Examined peripheral circulatory disorders in terms of organic and emotional etiological factors in 19 male and 5 female 21-54 yr. old Ss. Organic factors were investigated via peripheral rheography. Ss had a mean symptom duration of 10 1/2 yr. All Ss exhibited symptoms of spasm on rheography. Psychological factors were assessed via a questionnaire developed and used by the psychiatric department of the Berlin hospitals. Results of analysis of responses to the questionnaire show that Ss rated themselves as having an average of 10 physical and 9 psychological symptoms. The most common physical symptoms were migraine (13 Ss), tachycardia (11 Ss), and sexual disturbances (10 Ss), while the most common psychological symptoms were self-esteem anxiety states (10 Ss), inhibitions (9 Ss), poor self-esteem (9 Ss), and depressive states (9 Ss). The MMPI was administered to 22 Ss. Results show that all but 2 Ss exhibited a neurotic personality structure. (English summary) (47 ref.)—English summary.

7362. Fellner, Carl H. & Schwartz, Shalom H. (U. Wisconsin, Medical School) *Altruism in disrepute: Medical versus public attitudes toward the living*

organ donor. *New England Journal of Medicine*, 1971(Mar), Vol. 284(11), 582-585.—Examined how willing people actually are to donate a kidney to a stranger. Written questionnaires were administered to a random sample of 116 adults in a Midwestern city of 175,000 population. There is much evidence that the medical profession looks upon the motivation of the living organ donor with distrust and suspicion. If he is genetically related to the recipient, it is the family who is suspected of exerting undue pressure. If he is unrelated and not connected to the recipient by any emotional ties, he is suspected of being mentally ill or emotionally unbalanced, and almost all transplant centers will exclude him a priori from donation. By contrast, a substantial proportion of the public, especially among the young and well educated consider the use of the living organ donor—even for saving a stranger—to be a reasonable procedure and one for which they themselves might volunteer. Results of the questionnaire indicate that intentions to donate appear to ensue from a "desire to fulfill one's sense of moral obligation, regardless of intensity of guilt feelings."—*Journal abstract*.

7363. Frost, J. Ormond & Miller, Maurice. (New York U., Medical School) Vestibular function and hearing in children with prenatal rubella. *New York State Journal of Medicine*, 1971(May), Vol. 71(9), 971-973.—Studied the vestibular responses to caloric testing in 99 children with proved or suspected prenatal rubella. It was found that prenatal rubella can and frequently does cause impaired vestibular function, as found in 41% of the Ss. Of the 64 children in whom pure-tone audiograms could be obtained, 1/2 had impaired vestibular response while 1/2 had hearing loss. While hearing is more likely to be normal when vestibular function is normal and more likely to be impaired when vestibular response is impaired, the trend is not strong enough to make vestibular function a dependable basis for predicting hearing status. *Journal summary*.

7364. Gay, Richard L. (Michigan State U.) The relationship between psychopathology and cancer. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4992.

7365. Heller, Stanley S., et al. (Columbia U., Coll. of Physicians & Surgeons) Psychiatric complications of open-heart surgery. *New England Journal of Medicine*, 1970(Nov), Vol. 283(19), 1015-1020.—Clinical observation suggested that the prevalence and severity of postcardiotomy delirium had declined in recent years. It was reasoned that a comparative analysis of a current with an earlier sample would document this decline and perhaps aid in understanding the etiology of the delirium. 89 patients were selected at random from the adult operative schedule. In 67% mental status remained clear. The frequency of delirium preceded by a lucid clear postoperative interval declined from 38% in 1965 to 24% in 1969. In 9% there was an immediate organic brain syndrome. Decreased time required on cardiopulmonary bypass appears to be a primary factor in the reduction of frequency. Modifications in the environment of the recovery room after open-heart surgery may also have contributed to the decline. (15 ref.)—*Journal abstract*.

7366. Jenkins, C. David. (U. North Carolina, School of Public Health, Chapel Hill) Psychologic and social precursors of coronary disease: I. *New England Journal of Medicine*, 1971(Feb), Vol. 284(5), 244-255.—Reviews the literature from 1965-1969 on etiology

and modes of prevention of coronary disease. Studies relating social variables to coronary disease have been particularly fraught with contradictions. Evidence points to social mobility and status incongruity as greater than expected precursors of coronary disease. Before their illness patients with coronary disease differ from persons who remain healthy on several MMPI scales, particularly those in the "neurotic triad." Those developing coronary disease tend to report greater stress and tension. (96 ref.)—S. R. Diamond

7367. Julien, C. G. Les manifestations psychiatriques de la maladie lupique. [Psychiatric manifestations of lupus] *Encephale*, 1970(Jul), Vol. 59(4), 291-312.—Reviews reports of the incidence of psychiatric manifestations in patients having lupus erythematosus. While most reports indicate a greater incidence of psychiatric manifestations in females and children, the reported incidence of psychiatric manifestations varies from 12-52%. Acute psychiatric manifestations include: confusional psychosis, frenzy, impaired intellect, agitation, disorientation to time and space, and memory impairment. The confusional state is accompanied by visual and auditory hallucinations lasting from several days to several weeks. Stuporous states accompanied by akinesia, mutism, and progression toward a terminal comatose state have been documented. Chronic psychiatric manifestations include anxiety states, emotional instability, mild confusion, obsessional thought, and psychosomatic symptoms. In some cases, actual schizophrenia (paranoid) has been documented. Predisposing factors include prepsychotic personality, CNS lesions, and high dosage steroid therapy. The adjunctive use of neuroleptics and rauwolfia alkaloids to counteract psychiatric manifestations induced by high dosage steroid therapy is discussed. (86 ref.) P. R. Shubelski

7368. Leger, J. M., Lauth, B., & Garon, R. Peut-on parler des psychoses thyroïdiennes? [Can one speak of thyroid psychoses?] *Annales Médico-Psychologiques*, 1970(Jul), Vol. 212, 246-256.—Improved radioisotopic identification methods have made possible a greater precision of observation of the association between thyroid gland dysfunction and a disturbed mental state. 5 patients were carefully studied from biological and psychological viewpoints and the characteristic states of apathy and passivity in myxedema and a clouded consciousness with profound anxiety in hyperthyroidism were confirmed. The mechanism by which the experience of each type of patient interacts with his physical condition is discussed to better understand the genesis of the troubled mental state. H. A. May

7369. Lennon, Beatrice E., Rekasch, Jerold H., Patch, Vernon D., & Howe, Louisa P. (Harvard Medical School, Boston, Mass.) Self-reports of drunkenness arrests: Assessing drinking problems among men hospitalized for tuberculosis. *Quarterly Journal of Studies on Alcohol*, 1970(Mar), Vol. 31(1-A), 90-96.—Tested the accuracy of patient's replies concerning the frequency of police arrests on drunkenness charges. Psychiatrists or police interviewed men concerning vocational and drinking history. In a population of 30 men, 44% revealed or acknowledged arrests for drunkenness. 34% truthfully stated that they had no such arrests and 22% concealed them. Men who acknowledge their arrests tended to have more arrests than those who concealed them. — of the men admitted for hospital treatment of tuberculosis had been arrested for drunkenness, and 41%

of the men with such arrests were readmissions. 78% of the men with drunkenness arrests were 45-59 yr. old on admission to the sanitarium, while such arrests had occurred in 57% of the men under 45 and in 58% of those age 60 or more.—S. R. Diamond.

7370. Marquis, Kent H. (U. Michigan) **Effects of social reinforcement on health reporting in the household interview.** *Sociometry*, 1970(Jun), Vol. 33(2), 203-215.—Tested the effects of interviewing procedures of social reinforcement used in conjunction with other special interviewer behaviors in a field interview setting. 6 white female inexperienced interviewers were given 1-wk training covering different techniques. Ss then interviewed 429 white females on their own and their husband's health. Morbidity reporting in household interviews was generally known to be subject to large omission errors. Reinforcement appeared to produce a 25% increase in the number of such health items reported, but did not affect the reporting of number of visits to a physician. Reinforcement effects were not limited to reporting a narrow class of health information but did facilitate the mention of a wide variety of sicknesses. (18 ref.)—*Journal abstract*.

7371. Olch, Doris. (U. Washington) **Personality characteristics of hemophiliacs.** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 72-79.—40 2-21 yr. old hemophiliacs showed some differences in personality from normals and many resemblances to other chronically ill persons on the Rorschach, Draw-A-Person, and stories made up to verbal cues. A single hemophilic personality, however, was not evidenced; though hemophiliacs suffer common physical problems, reactions to and modes of dealing with difficulties were unique. (25 ref.)—*Journal abstract*.

7372. Osborne, David. (Mayo Clinic & Mayo Foundation, Rochester, Minn.) **Age and sex differences on MMPI factor scales ER-O and EC-5 in a medical population.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 245-246.—MMPI data from a group of 50,000 Mayo Clinic patients were obtained. Males scored higher than females on the Ego Resiliency Scale (ER-O) and lower on the Overcontrol of Impulses Scale (EC-5). Equations for the transformation of raw scores to T scores were presented for the ER-O and EC-5 scales.—E. J. Kronenberger.

7373. Peterson, Marianne. (Washington State U.) **Birth order effects in juvenile patients with diabetes mellitus.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5004.

7374. Wishnie, Howard A., Hackett, Thomas P., & Cassem, Ned H. (Massachusetts General Hosp., Boston) **Psychological hazards of convalescence following myocardial infarction.** *JAMA: Journal of the American Medical Association*, 1971(Feb), Vol. 215(8), 1292-1296.—Emotional problems during convalescence from myocardial infarction seriously hamper rehabilitation and the return to work. Of the 24 male and female patients studied, 21 rated themselves as anxious or depressed and 18 were judged by the examiner to require either a tranquilizer or antidepressant. Sleep disturbances occurred in 15 patients and disruptive family quarrels over aspects of convalescence occurred in 18 cases. There was a uniform tendency to avoid taking sedatives, to minimize symptoms during follow-up examinations, and to retain harmful habits. 11 patients did not return to work; 9 for psychological reasons, and those who did resume part- or full-time employment

experienced anxiety or augmentation of angina or dyspnea or both. Suggestions are offered which may help to lessen the emotional hazards of convalescence. (18 ref.)—*Journal abstract*

7375. Wrześniewski, Kazimierz. **Osobowość a zawał serca.** [Personality and myocardial infarction.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 165-176.—Reviews studies concerning the relationship between personality structure and the formation of myocardial infarction. 3 types of opinions are distinguished: (a) there is a coronary personality; (b) there is not a coronary personality, but certain personality features may be typical of those who incur myocardial infarction; and (c) persons with coronary heart disease do not differ in personality from healthy individuals. It is concluded that a connection between personality and the development of heart disease can exist only through emotional states experienced. (Russian summary) (73 ref.)—*English summary*.

COMMUNITY SERVICES

7376. Berlin, Irving N. (U. Washington, Medical School) **Professionals' participation in community activities: Is it part of the job?** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 494-500.—Professional involvement in community mental health centers and other inner city agencies, especially schools, requires a new kind of professional collaboration and participation in the community's social and political processes. The questions of whether involvement can be professional, effective, responsive to changing community needs, and survive conflicting pressures, and of whether these skills be taught are considered. (15 ref.)—*Journal abstract*.

7377. Draper, Michael; Hillel, Jean, & Albert, Jean-Marie. (Inst. de Recherches Psychiatriques de Joliette, Quebec, Canada) **Outline for a priority research program in community mental health: The Bayonne project.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11, Suppl), 175-179.—Describes plans for a sociological research project which involves the interrelationships between social, economic, and cultural factors and mental disorder in a semirural community. The project is planned as a cross-sectional investigation which will allow priorities to be scientifically established for program planning and lead to developments in community mental health.—P. Hertzberg.

7378. Heagarty, Margaret C., & Robertson, Leon S. (Cornell U., Medical Coll., New York, N.Y.) **Slave doctors and free doctors: A participant observer study of the physician-patient relation in a low-income comprehensive-care program.** *New England Journal of Medicine*, 1971(Mar), Vol. 284(12), 636-641.—Describes the drama of physicians in a comprehensive-care program groping toward egalitarian medical care. Egalitarian comprehensive medical care implies that everyone should have a personal physician capable of diagnosing the overall social and emotional context of disease as well as the disease itself. 12 postresidency fellows participated in this program during the 2-yr term of the experiment. The relation between middle-class physicians and lower-class patients is a drama in which staging can be blocked out by the lack of understanding of the conditions of poverty by the physicians, limited resources for communication by the patient, and misunderstanding of the meaning of manipulative actions by

both. A repertory company, rather than a single play including only the physician and the poor, seems advisable if the players are to carry out their roles effectively. (17 ref.)—*Journal abstract*.

7379. Hetznecker, William & Forman, Marc A. (Temple U., Health Sciences Center) **Community child psychiatry: Evolution and direction.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 350-370. —Considers sociocultural influences as preeminent in the development of community child psychiatry, with special emphasis on issues of social reform, race, and poverty. Current status of the field is discussed within the framework of a typology that identifies programs as being clinically adapted, socially adapted, or community adapted. (96 ref.)—*Journal abstract*.

7380. Tischler, Gary L. (Yale U., Medical School) **The effects of consumer control on the delivery of services.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 501-505.—A confluence of historical, social, and political forces has resulted in the emergence of increased pressure for community control over human resources, particularly in urban areas. A comprehensive mental health center's shift from institutional to consumer regulation is explored, and the impact of that transition upon the delivery of services is considered.—*Journal abstract*.

GERIATRICS

7381. de Ajuriaguerra, J., Steeb, U., Richard, J., & Tissot, R. **Processus d'induction dans les démences dégénératives du grand âge.** [Litigation of induction in the degenerative insanity of old age.] *Encéphale*, 1970(May), Vol. 59(3), 239-268.—Describes a study with a group of 18 degenerate patients, including old age home residents, factory workers, and young people of an elementary cultural level. The experiment involved induction of the law of balanced equilibrium, arbitrary laws, temporal succession law, and a probability law governing a contingent occurrence. Results indicate that deductive reasoning in the insane is far better preserved than inductive. Such patients are particularly handicapped when faced with induction of a rule in an unnecessary, predetermined event. The theory is confirmed that the aged do not adapt well to new occurrences or invention.—*I. Sirotnin*.

7382. Gottesman, Leonard E. (U. Michigan) **Organizing rehabilitation services for the elderly.** *Gerontologist*, 1970(Win), Vol. 10(4, Pt. 1), 287-293.—Nursing homes provide mostly basic and medical rehabilitation services and neglect psychosocial needs. Strategies for reorganization must take into account the influences on services of characteristics of the home itself, of its residents, its staff, the public it serves, and its administrator. Of these, the selection and training of the administrator is the most critical. (26 ref.)—*Journal abstract*.

7383. Lawton, M. Powell. (Philadelphia Geriatric Center, Pa.) **Institutions for the aged: Theory, content, and methods for research.** *Gerontologist*, 1970(Win), Vol. 10(4, Pt. 1), 305-312.—This search for a theoretical basis for institutional treatment of older people begins by acknowledging systems theory as a particularly useful conceptual background out of which to elaborate ideas about the interplay of society, the institution, and the aging individual. Some representative studies of institutions and institutional residents are

reviewed, and some methodological approaches to the study of institutions are suggested. (31 ref.)—*Journal abstract*.

7384. Lissitz, Samuel. (Robison Jewish Home, Portland, Ore.) **Theoretical conceptions of institutional and community care of the aged.** *Gerontologist*, 1971(Win), Vol. 10(4, Pt. 1), 298-304.—Presents an intensive review of some of the major theoretical concepts. The multidisciplinary nature of gerontology calls for more effective concepts. Such theoretical constructs can guide the training of research workers and practitioners. An attempt is made to formulate a Gestalt configuration theory that is based upon medicine, biology, sociology, psychology, and the other disciplines to interrelate more effectively the ego and the lives of the aged with their life space and subculture. Practitioners and research workers in gerontology need to think and to work in and on the 2 levels of theory and practice. Effective coexistence, but not peace, is desirable and is the goal of this paper. Here, stress assists the development of gerontology.—*Journal abstract*.

7385. Shea, Warren D. (Ohio State U.) **The conception of perception.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5679.

EDUCATIONAL PSYCHOLOGY

7386. Allen, Dwight W. (U. Massachusetts) **The seven deadly myths of education.** *Psychology Today*, 1971(Mar), Vol. 4(10), 70-72, 100.—Present educational institutions are dominated by several myths. These myths include beliefs that (a) children are stupid until taught, (b) rationality is good and emotions bad, (c) there is 1 best way to teach, (d) knowledge is stable, (e) learning only occurs in schools, (f) technology can rescue education, and (g) teachers should not be individuals. Alternatives could be developed if 10-15% of present budgets were allotted to voluntary experimental systems free of state and local control.—*E. J. Posavac*.

7387. Bardon, Jack I. (Rutgers State U.) **The internship of a middle aged industrial-school-clinical-community-developmental psychologist.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 5-15.—This presidential address to the Division of School Psychology describes the problems encountered in recruiting psychological personnel for a corporation whose major enterprise was the establishment of preschool service centers across the United States. Recruitment became a problem because most psychologists viewed the concept of education as a product with much disdain. Based on this experience, new insights into the role of school psychologist are presented. *H. Kaczkowski*.

7388. Blakey, Millard L. (Florida State U.) **The relationship between teacher prophecy and teacher verbal behavior and their effect upon adult student achievement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4615-4616.

7389. Braden, James N. (U. Missouri) **A study of the relationship between teacher, principal and student attitudes and organizational climate.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3801-3802.

7390. Clippinger, John; Martin, Clyde; Michael, Vernon, & Ingle, Joann. (Baker U.) **Personality characteristics of a liberal arts college population.** *Corrective Psychiatry & Journal of Social Therapy*,

1969(Win), Vol. 15(4), 27-37. Attempted to determine whether students from a liberal arts college are different from those at a state university. Test scores of the MMPI were used and then interpreted in terms of personality characteristics. (16 ref.)—*M. B. Merk.*

7391. Ellert, JoAnn C. **The Gerstmann syndrome: A caveat regarding its classroom use by the reading teacher.** *Journal of the Reading Specialist*, 1968(Dec), Vol. 8(2), 73-75, 78-80. Studied the Gerstmann syndrome and the validity of its use in the classroom on a developmental basis. The Gerstmann syndrome comprises finger agnosia, dysgraphia, dyscalculia, and right-left disorientation which points to a lesion of the left angular gyrus. Presently, there is scepticism about the Gerstmann syndrome. The Gerstmann syndrome is used as a screening device in the classroom to identify those children who are backward readers because of a cerebral cortical defect. As a result of experiments, difficulty in finger differentiation occurred 3 times more often among dyslexics than normal children. The association of finger agnosia with poor arithmetical accomplishments has also been suggested. It appears that the developmental use of the syndrome in the classroom may still serve a useful purpose in identifying backward readers who may have a cerebral cortical deficit. (20 ref.)—*A. M. Farfaglia.*

7392. Hambleton, Ronald K. (U. Toronto, Ontario, Canada) **An empirical investigation of the Rasch test theory model.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4035-4036.

7393. Harris, Linda S. (Stanford U., Inst. for Communication Research) **Readership study of the "Review of Educational Research."** *Report of the Institute for Communication Research, Stanford U.*, 1969(Feb), 88 p. Analyzed the responses of 572 members of the American Educational Research Association to a questionnaire concerning their use of and suggestions for improvement of the *Review of Educational Research*. Respondents were teachers, administrators, consultants, and researchers. 44% had PhDs and most were authors of journal articles, as well as active readers of other journals. Ss proposed changes to improve the writing style, editorial quality, and scope of the *Review*. 50% indicated a preference for an annual review rather than the current review. Overall use of the *Review* was found to be moderate, partly because the educational researcher tends to read issues only in his areas of specialization. Respondents indicated the *Review* to be useful in stimulating (a) current awareness, (b) learning about areas peripheral to one's specialty, and (c) information-seeking in connection with publications cited. Recommendations for changes in format and content are included.—*Journal abstract.*

7394. Haggaa, Einar. **Skolen som utviklingsmiljø.** [The school as milieu for development.] *Skolepsykologi*, 1969, Vol. 6(1), 11-25.

7395. Holtzman, Wayne H. (Ed.) (U. Texas, Coll. of Education) **Computer-assisted instruction, testing, and guidance.** New York, N.Y.: Harper & Row, 1970. xii, 402 p. \$10.

7396. Laubsch, Joachim H. (Stanford U.) **An adaptive teaching system for optimal item allocation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3961.

7397. McQuigg, Bruce. (Indiana U., School of Education) **Simulation: Focus on decision making in secondary education.** *Viewpoints*, 1970(Jan), Vol. 46(1),

49-111.—The simulation package is intended to provide a large group of students with a "controlled set of observations in a community and its schools." Because secondary school teachers are primarily concerned with 1 subject area, "the activities, problems, and experiences one wishes to simulate have to be of the nature that all secondary teachers would find of importance." Discussed are materials which deal with selecting a community in which to teach, analyzing the secondary schools as to their appropriateness for the individual, identifying important factors concerning the beginning teacher which are of import to the administrators in the school district, dealing with the parental involvement in the curriculum, working with underachievers, developing a rationale for choice of particular teacher organizations, and making decisions concerning student misconduct of a serious nature.—*I. Linnick.*

7398. Nord, Dennis L. (Iowa State U.) **A study of the effects of demand characteristics on college students' study behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5609.

7399. Roberts, Karlene H. (U. California, Berkeley) **Understanding research: Some thoughts on evaluating completed educational projects.** *ERIC-Stanford Calif.*, 1969(Jul), 29 p.—Presents a series of questions for use in the evaluation of research reports. The conceptualization, design, execution, analysis, and presentation of such reports are considered. (34 ref.)—*S. Knapp.*

7400. Smith, Louis M. & Geoffrey, William. (Washington U., Graduate Inst. of Education) **The complexities of an urban classroom: An analysis toward a general theory of teaching.** New York, N.Y.: Holt, Rinehart, & Winston, 1968. viii, 277 p. \$5.95.

7401. Smith, Louis M. & Geoffrey, William. (Washington U., Graduate Inst. of Education) **The culturally deprived child in the classroom and the school.** In L. M. Smith & W. Geoffrey, "The complexities of an urban classroom: An analysis toward a general theory of teaching" (See PA, Vol. 46 Issue 4) 202-227.

7402. Starkman, Stanley. (Chicago State Coll.) **Sociological criteria of professionalization with comments regarding school psychology.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 15-23.—Reviews the professionalizing characteristics of psychology and its various subgroupings. Some of the sociological criteria of the professionalizing process are applied to school psychology. The implications for the direction of future roles for school psychology are discussed.—*H. Kaczowski.*

ATTITUDE & ADJUSTMENT

7403. Alberti, Jean M. (State U. New York, Buffalo) **Self-Perception-In-School: Validation of an instrument and a study of the structure of children's self-perception-in-school, and its relationship to school achievement, behavior, and popularity.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4535-4536.

7404. Atsbrook, Eleanor Y. (U. Illinois, Urbana-Champaign) **Changes in the ethnocentrism of a select group of college students as a function of bibliotherapy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4536.

7405. Anderson, Thomas H. (U. Illinois, Urbana-Champaign) **Are a student's school-related behaviors**

dependent upon what is expected of him? *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4537.

7406. Apteekar, Lewis S. (U. Michigan) **Participant-observation study of the dynamics of student-teacher interaction and of peer group formation in a racially and socio-economically heterogeneous urban high school.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3945-3946.

7407. Arnfred, Axel H. **Kommentarer til Hamblin's rapport om indlaeringsforsøg.** [Comments on operant conditioning as a technique to school adjustment.] *Skolepsykologi*, 1970, Vol. 7(3), 165-177.—Questions the practice of operant conditioning with token rewards. It is asked whether we wish to raise children to administer their motivation in accord with "money" and "amusements" as a reinforcing agent.—P. Mylov.

7408. Baird, John L. (Oklahoma State U.) **An exploration of alienation of secondary school students participating in planned desegregation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3765.

7409. Buys, Christian J. (U. Colorado) **Effects of teacher reinforcement on classroom behaviors and attitudes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4884-4885.

7410. Chen, Shium A. (U. Pittsburgh) **The differences and relationships between amount of psychology courses and certain cognitive and affective behavior patterns.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3948-3949.

7411. Consalvo, Robert W. (Boston Coll.) **Attitudes and opinions of high school seniors toward the Catholic system of education and some future alternatives.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3979.

7412. Covey, Dixie S. (U. Utah) **Politics and personality: A multivariate analysis of student attitudes toward the new left movement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4985.

7413. Dunbar, Cuyler A. (Auburn U.) **A study of college environmental perceptions of designated groups of students, faculty, and staff in selected Community Colleges in Tennessee.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3897.

7414. Eberly, Charles G. (Michigan State U.) **Critical thinking, attitudes and values associated with fraternity membership.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3897-3898.

7415. Gillham, Bill L. (Oklahoma State U.) **The differences between achievement groups, intelligence groups, sex groups, and socio-economic groups in their perception of the same elementary classroom situations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3952.

7416. Griggs, Joe W. & Bonney, Merl E. (Educational Research Council of America, Cleveland, O.) **Relationship between "causal" orientation and acceptance of others, "self-ideal self" congruency and mental health changes for fourth and fifth grade children.** *Journal of Educational Research*, 1970(Jul), Vol. 63(10), 471-477.—Hypothesized that as children gain in understanding human behavior they (a) are more accepting of others, (b) develop greater self-ideal self congruency, and (c) perform better on a mental health analysis test. A program in "causal" understandings was taught to 232 4th-5th graders in 2 separate communities.

Sociometric changes for experimental Ss were highly significant ($p < .001$ in Community A and $p < .02$ in Community B) supporting the 1st hypothesis. Although no other significant differences were noted, experimental Ss showed greater self-ideal self congruency and performed better on the mental health test. Recommendations for the teaching of causal understanding in the schools are presented.—*Journal abstract*.

7417. Hart, Burns D. (Purdue U.) **Situational influences on student preference among four "types" of college professor.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3900.

7418. Houlihan, Margaret B. (St. Louis U.) **A comparison of personality and attitudes about teachers, classroom peers, and subject matter as found between eighth grade gifted high and low achievers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3957.

7419. James, Doyle J. (U. Southern Mississippi) **The effect of desegregation on the self-concept of Negro high school students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4464.

7420. Joesting, Joan A. (U. Georgia) **A comparative study of activists and nonactivists at a Southern black college.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3958.

7421. Johnson, Thomas A. (Oklahoma State U.) **A study of characteristics of fifth and sixth grade student leaders and followers in contrasting socio-economic settings.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3876.

7422. Katkin, Steven & Weisskopf-Joelson, Edith. **Relationship between professed values and emotional adjustment of college students.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 523-528.—Administered a test measuring 9 values, 5 relating to either dependency or individualism, to 94 male and 115 female undergraduates. Self-interpretation, self-actualization, and achievement were the individualistic values; relationship and support were the dependent values. Based on the Kleinmuntz College Maladjustment Scale and the Goldberg index of the MMPI, Ss were divided into 4 adjustment levels. 3 values differed significantly among the adjustment groups: self-interpretation, relationship, and achievement. There was a significant linear trend for each value, indicating an increase in adjustment level as preference increased for the 2 individualistic values and a decrease in level as preference increased for the dependent value. A comparison of adjustment groups' most frequently preferred value yielded results consistent with these findings. Results suggest that there is a relationship between value deviance and adjustment.—*Journal abstract*.

7423. Kitchin, William W. (U. North Carolina, Chapel Hill) **Relationships of autonomy and succorance to adult students' references, satisfactions, and performance in University Evening College classes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3858.

7424. Krupka, Judith W. (Michigan State U.) **Factors affecting territoriality in college students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3877-3878.

7425. Linton, Thomas H. (New Mexico State U.) **Sociocultural characteristics, alienation from school, and achievement among Mexican-American and Anglo sixth grade students.** *Dissertation Abstracts*

International, 1971 (Feb), Vol. 31(8-A), 3825-3826.

7426. Maier, Norman R. & Casselman, Gertrude G. (U. Michigan) **Problem-solving ability as a factor in selection of major in college study: Comparison of the processes of "idea-getting" and "making essential distinctions" in males and females.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 503-514.—Attempted to relate problem solving and academic major among 331 male and 281 female undergraduates through the use of 5 insight problems measuring 2 problem-solving processes: (a) generating the necessary idea for solution (idea-getting), and (b) making a distinction which prevents accepting a wrong answer as correct (making essential distinctions). Males scored significantly higher than females over-all, and in 4 of 9 subject matter groups. For both sexes, the mean for the physical science group was significantly higher than for the remaining groups (except the male biological science group). For the total population, although men scored significantly higher on both types of problems, women did better on the "idea-getting" problems than on those that require "making essential distinctions." Possible reasons for the superior performance of Ss in certain majors are discussed, as is the seemingly stable phenomenon of superior male ability in problem solving. (18 ref.)—*Journal abstract*.

7427. Martinez-Monfort, Antonio. (Louisiana State U., Agricultural & Mechanical Coll.) **Racial attitudes of high school students attending desegregated schools in a Southern metropolitan area.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4972-4973.

7428. McKanna, Robert A. (U. Missouri) **Characteristics and attitudes of high school informal student leaders.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3827-3828.

7429. Nelson, Paul C. & Phares, E. Jerry. (Kansas State U.) **Anxiety, discrepancy between need value and expectancy, and internal-external control.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 663-668.—Assigned 42 undergraduates to 3 groups differing in degree of internal-external control. Ss completed measures of anxiety, need value in the academic recognition area, expectancy for success in the academic area, need value in the area of love and affection, and expectancy for success in the love and affection area. Tests administered included Rotter's Internal-External Scale and the Academic Internal-External Scale. All measures were paper-and-pencil ones and were administered in an academic setting. It was predicted and generally demonstrated that external control of reinforcement is associated both with greater anxiety and with the discrepancy between need value and expectancy in the academic area. As expected, similar relationships did not obtain for the love and affection measures. Similarities between the anxiety and academic discrepancy scores are noted. (24 ref.)—*Journal abstract*.

7430. Owens, Eugene. (U. California, Los Angeles) **The effect of disconfirmed expectations on adjustment to cadet life at the United States Air Force Academy.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3717.

7431. Panawek, Gregory. (United States International U., San Diego, Calif.) **Relationship between knowledge of criminal law and attitudes and deterrents.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4557.

7432. Schmidt, H. E. (National Inst. for Personnel

Research, Johannesburg, South Africa) **Taylor's Manifest Anxiety Scale applied to two samples of white South African students.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 215-217.—Investigated the application of the MA scale in 2 South African samples: 251 1st-yr college students and 162 1st-yr university students served as Ss. University Ss were found to have significantly higher anxiety scores than college Ss. An item analysis was done and reliability coefficients of .8 were found. Results show that the MA scale, as a test for the measurement of anxiety, is about equally applicable to white college and university students in South Africa as to a similar sample in the United States.—*Journal abstract*.

7433. Seevers, Charles J. (U. Notre Dame) **Problems and psychological needs of Lutheran confirmands.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4572-4573.

7434. Shipman, Edwin A. (U. Northern Colorado) **A comparison of selected values and needs of employed and non-employed college students at the University of Northern Colorado.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3791-3792.

7435. Swain, Robert S. (U. Northern Colorado) **A comparison of the change in self concept of sixth grade pupils resultant from two motivational treatments.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5042.

7436. Vander Lind, James. (Ohio U.) **A study of the personality and biographical characteristics of certain campus leaders and nonleaders.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3890.

7437. Wangen, William R. (Oregon State U.) **A comparison between the attitudes of male resident hall students and student leaders toward specific acts of student behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3911.

7438. Weiner, Esther R. (Purdue U.) **Characteristics of attitude change as a function of time.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3890-3891.

7439. Williams, Marlot W. (Michigan State U.) **Problem solving persistence as a function of type of reinforcement and need for approval among college students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3892.

7440. Wirtz, Peter G. (U. Nebraska) **An analysis of attitude change among freshman women at the University of Nebraska as a result of an experimental sorority pledge education program.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3912.

TESTING

7441. Brink, Nicholas E. (U. California, Los Angeles) **The effect of item discrimination and range of item easiness on the standard error of ability estimates using the Rasch model.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3947.

7442. Bucky, Steven F. (U. Cincinnati) **The interaction between Negro and white preschool children and Negro and white experimenters and its effect on tests on motor impulse control, reflectivity, creativity and curiosity.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5616-5617.

7443. Caldwell, Mark B. & Knight, David. (Converse Coll.) **The effect of Negro and white examiners on Negro intelligence test performance.** *Journal of Negro*

Education, 1970(Spring), Vol. 39(2), 177-179.—15 male 6th grade Negro pupils were selected from 2 Negro elementary schools in a Southern city of 75,000. They were matched on grade level and scores on the CTMM and randomly assigned to 1 of 3 groups (A, B, or C). Using the revised Stanford-Binet Intelligence Scales, Group A was administered Form L by a Negro female followed by Form M by a white male within 1 wk. Group B was given the test in the same order with "a white examiner giving Form L and a Negro examiner giving Form M." Group C was administered both forms by "the white examiner." Using analysis of variance, results indicate no significant differences between groups at the .05 level. It is concluded that race of E administering the Binet is not a critical variable.—W. E. Sedlacek.

7444. Eysenck, H. J. An application of the Maitland Graves Design Judgment Test to professional artists. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 589-590.—The Maitland Graves Design Judgment Test purports to distinguish successful students in schools of visual arts, and unsuccessful students and the general population. A previous study had thrown doubt on these claims, and in the present experiment 50 well qualified art students and professors were administered the test. Their mean score was slightly inferior to that of a student population, none of whom had received any art teaching. It is concluded that the test does not succeed in measuring what it purports to measure. *Journal abstract*.

7445. Hagaman, Walter H. (U. Virginia) A comparative investigation of four methods of testing when stimulus materials are presented by a visual medium. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4621.

7446. Hammill, Donald & Wiederholt, J. Lee. (Temple U.) Appropriateness of the Metropolitan Tests in an economically deprived, urban neighborhood. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 49-50.

Investigated the appropriateness of the Metropolitan Achievement Test and the Metropolitan Readiness Test as measures of educational achievement of economically deprived urban children. A combination of low test reliabilities and high item difficulty led to the conclusion that these measures are to be used with caution with this type of child.—H. Kaczowski.

7447. Harries, James T. (State U. New York, Buffalo) The effects of visual and auditory distractibility factors on anxiety in a group test-taking situation. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4545.

7448. Hartlage, Lawrence C. & Lucas, David G. (Indiana U., Medical Center, Indianapolis) Scaled score transformations of Bender-Gestalt expectancy levels for young children. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 76-78.—Describes a method for the transformation of Bender performance into scaled score equivalents. The efficacy of the scaled score transformation is given.—H. Kaczowski.

7449. Ivens, Stephen H. (Florida State U.) An investigation of item analysis, reliability, and validity in relation to criterion-referenced tests. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4548.

7450. Jay, Rutledge L. (U. Arizona) Development of a social competence scale. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4549.

7451. Kimbles, Samuel L. (U. Southern California) A measure of cultural deprivation. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4552.

7452. Koehler, Roger A. (State U. New York, Buffalo) A comparison of conventional choice testing and various confidence marking procedures with respect to validity. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4552.

7453. Krauft, Conrad C. (Southern Illinois U.) The effect of test taking procedure and level of risk taking upon multiple choice test score magnitude and reliability. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3960-3961.

7454. Lambert, Nadine M. (U. California, Berkeley) An item analysis and validity investigation of Bender Visual Motor Gestalt Test score items. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 78-85.—Demonstrated the utility of standard item-analysis procedures for selecting the most reliable and valid items for scoring Bender Visual Motor Gestalt Test record. Data indicate that the score items that are most reliable and have the greatest discriminating power in predicting 7 and 10 yr. old Ss' behavior problems are not necessarily related to social status, ability level, or measured achievement.—H. Kaczowski.

7455. Mason, Evelyn P. (Western Washington State Coll.) Stability of differences in personality characteristics of junior high students from American Indian, Mexican, and Anglo ethnic backgrounds. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 86-89.—Reports the results of the final testing of participants in Project Catch-Up. The data support the significant differences found among ethnic groups and between sexes in the earlier studies.—H. Kaczowski.

7456. Pandey, R. E. (Lincoln U.) The SCAT and race. *Psychological Reports*, 1971(Apr), Vol. 28(2), 459-462.—Investigated whether the School and College Ability Test (SCAT) is biased against black students. 33 white and 47 black graduating college seniors were studied. Significant differences in the mean GPAs and SCAT percentile ranks earned by whites and blacks demonstrate that the SCAT is not a biased test. However, the SCAT seems a better predictor for females than for males. *Journal abstract*.

7457. Paulus, Dieter H. & Renzulli, Joseph S. A factor-analytic study of the First Grade Screening Test. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 57-59.—Investigated the empirical and rational structure of the First Grade Screening Test. The test is designed to sample handicaps that might impede school success. Expert opinion supported the rational determination of the individual test items. Empirical factor analysis suggests that for some items there is little relationship between the item and its rationally-derived category.—H. Kaczowski.

7458. Rankin, Larry M., (Hefnerbach, Stuart L. & Scoonover, Delmer L. (Iowa U.) A developmental study of PPVT temporal stability over two 6-mo. intervals. *Psychological Reports*, 1971(Apr), Vol. 28(2), 501-502.—Studied the temporal stabilities over 6 mo. of the various measures obtained on the Peabody Picture Vocabulary Test (PPVT) in 2 groups each of 17 kindergartners and 22 3rd graders. Test-retest within each kindergarten and 22 3rd graders intervened between administrations, the others were tested within the same school year. The correlations show age differences as well as the effects of the intervention of summer in the younger Ss.—*Journal abstract*.

7459. Reid, Wylmarie N. (U. Iowa) A comparison of the effects of pass-fail grading versus the effects of ABCDF grading on achievement, attitudes and

values. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4497.

7460. Rogers, Gilbert T. (Purdue U.) **Evaluation of three multivariate grouping techniques and biodata prediction of a multiple achievement-related personality criterion.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4975-4976.

7461. Ruchti, Gary E. (Oklahoma State U.) **Achievement motivation and item recall on objective examinations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4560.

7462. Skore, Marvin L. (Wayne State U.) **The use of the Bender Gestalt in assessing latent intellectual ability of culturally disadvantaged children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3972-3973.

7463. Smith, Barbara A. (U. Massachusetts) **Identification of alternative forms of specific learning disabilities.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3792.

7464. Van Mondfrans, Adrian P., Feldhusen, John F., Treffinger, Donald J., & Ferris, Donald R. (Purdue U.) **The effects of instructions and response time on divergent thinking test scores.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 65-71.—Examined the effects of varying instructions and response time in testing for divergent thinking on both the level of performance and the intercorrelations of divergent thinking subscores with each other and with IQ. The Torrance Tests of Creative Thinking (TTCT) were administered to 319 public schoolchildren in Grades 5, 8, and 11 under 4 different conditions. Results indicate that variations in testing conditions change the magnitude and nature of scores obtained on the TTCT.—H. Kaczkowski.

7465. Williams, Clive. (U. Iowa) **The pervasiveness of cognitive preferences.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4565.

7466. Wolff-Albers, A. D. & Mellenbergh, G. J. **Nederlandse versie van de AVL.** [The Netherlands version of the AVL.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Nov), Vol. 25(10), 664.—Presents a short report on the relative validity of the Netherlands version of Allport, Vernon, and Lindzey's (AVL; see PA, Vol. 34:6747) Study of Values. The test purports to measure the theoretical, economic, aesthetic, social, political, and religious "basic values" of Ss. Item analysis of the results indicate acceptable reliability of the test. The instrument is apparently designed for usage in the middle grades to assist in student counseling.—A. J. Ter Keurst.

SPECIAL EDUCATION

7467. Buckley, Robert M. (Illinois Inst. of Technology) **A developmental study of the effect of perceptual training upon motor performance.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5016.

7468. Hornowska, Stanisława. **Psychologiczne problemy kształcenia i terapii dzieci odbiegających od normy w Stanach Zjednoczonych.** [The psychological problems of education and treatment of mentally retarded children in the United States of America.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 205-224.—Presents a report on the educational system in the

United States and the education and treatment of the emotionally disturbed, mentally retarded, and children with specific reading problems. Existing theories and their application in psychological and pedagogical practice are considered. The role of behavior therapy in the psychotherapy of maladjusted children is discussed. Detailed examinations of institutions in the United States which treat these children are presented. Similar methods of reeducation of dyslexic children in Poland are described. (Russian summary)—English summary.

7469. Warner, Dolores. (U. California, Los Angeles) **A phonetic reading program for exceptional pupils.** *Journal of the Reading Specialist*, 1968(Oct), Vol. 8(1), 32-43.—Studied a phonetic reading program for pupils who were emotionally disturbed, mentally retarded, and neurologically impaired. The phonetic reading program emphasizes the relationship between sounds and letters as they are encountered by pupils within whole words, rather than as isolated utterances. 19 7-14 yr. olds participated in the project. Criteria on which the effectiveness of the program was judged pertained to (a) confidence of pupils regarding reading, (b) attitude of pupil toward reading, (c) knowledge of the sound of the letters, (d) improvement in reading, and (e) overall benefit of participation in the experimental phonetic reading program. The emotionally disturbed and mentally retarded Ss as well as the girls and pupils younger than the median age of 8 yr. performed significantly better. The neurologically impaired pupils appeared to be at a greater disadvantage in the acquisition of phonetic reading skills than the others because of their handicap in the sensory processes. In primary grades, these pupils can make significant progress.—A. M. Farfaglia.

Gifted

Remedial Education

7470. Compton, Carolyn L. (Stanford U.) **The relationship between intersensory integration skills and multisensory approaches in remedial readers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3988.

7471. Huber, Robert H. (Florida State U.) **The effects of locus of control and choice options in a contingency managed learning task.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4547.

7472. Keeven, Rita. (St. Louis U.) **An investigation of the effect of specific perceptual development techniques in remedial reading programs on reading achievement of children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3782.

7473. Lombana, Al E. (Florida State U.) **A study of a self-concept and achievement of students in a guided studies program at Tallahassee Junior College.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4586-4587.

7474. Paoni, Frank J. (Oregon State U.) **Reciprocal effects of sixth graders tutoring third graders in reading.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3993-3994.

7475. Ullmann, Charles A. (Dept. of Health, Education, & Welfare, Arlington, Va.) **Prevalence of**

reading disability as a function of the measure used. *Journal of Learning Disabilities*, 1969(Nov), Vol. 2(11), 556-558.—Proposes that the "years below grade" formula conventionally used to define reading disability (a) operates in an irregular manner, and (b) gives a picture of disability which is difficult to distinguish from normal variation in human ability. The use of this formula also causes the prevalence of reading disorders to appear larger as years of schooling increase. Other measures which may give a more conservative estimate of the prevalence of disability and may be more significant are suggested.—*Journal abstract*.

Sensory & Physical Handicaps

7476. Barkuloo, Herbert W. (U. Pittsburgh) **The effect of control of the physical environment of the classroom on the distractibility of deaf children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4582.

7477. Binder, Phyllis J. (Wayne State U.) **The relationship between verbal language and impulsivity in the deaf.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5614-5615.

7478. Bobkova, Lyudmila A. **Obuchenie vzroslykh glukhikh russkomu yazyku (I-IV klassy): Posobie dlya uchitelei.** [Instruction of the Russian language to deaf adults (I-IV grades): Textbook for teachers.] Moscow, USSR: Prosveshchenie, 1970. 119 p. 13 K.

7479. Brothers, Roy J. (George Peabody Coll. for Teachers) **Aural study systems for the visually handicapped: Effect of message length and frame of reference upon learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3986-3987.

7480. Conine, Tali & Brennan, William T. (Indiana U., Medical School) **Orthopedically handicapped children in regular classrooms.** *Journal of School Health*, 1969(Jan), Vol. 39(1), 59-63.—Directed the attention of the classroom teacher to health and safety aspects common to many orthopedically disabled pupils. The teacher is responsible for the pupil's physical and emotional health. The temporarily disabled child has a greater tendency to forget his limitations. Environmental considerations, e.g., railings, seat belts, comfortable clothing, hygiene conditions for lowered resistance; casts; crutches; canes; braces; artificial limbs; and wheel chairs are studied along with the particular requirements commonly prescribed. The teacher must assume an active role in the rehabilitation of the handicapped child by being a source of information to the medical team and a promoter of physical and emotional health and safety of the disabled student.—*A. Farfaglia*.

7481. Devine, Francis S. (U. Nebraska) **An attempt to increase specific reading vocabulary by means of programmed instruction among children with impairment of hearing.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3950-3951.

7482. Lewis, Marian & Coker, Gary. (Tennessee School for the Blind, Donelson) **The use of abacus contests to increase interest in mathematics.** *New Outlook for the Blind*, 1971(Feb), Vol. 65(2), 41-48.—1 of the problem areas of learning for sightless students, the arithmetic, led a school for the blind to introduce the Cranmer abacus method in their curriculum. Teachers attended a course in this method, underwent inservice training, utilized new textbooks, and made abacus

learning a game by arranging an abacus bee, an intramural abacus contest and one between sightless and sighted students with abacus and paper-and-pencil methods. The Cranmer abacus has proved to be the most effective computational tool leading "to a high degree of motivation, more effective conceptualization and increased speed in computation." The contests facilitated practice in use of the abacus and in creating more interest in it. Team selections, organization, rules for competition, and sample sheet score of the game methods are included.—*M. J. Stanford*.

7483. Lokerson, Jean E. (U. Maryland) **An investigation of visual perception and the psycholinguistic process: The comparative performance of first grade boys on the Illinois Test of Psycholinguistic Abilities and the Illinois Test of Psycholinguistic Abilities adapted for visual-perceptual impairment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3992-3993.

7484. Markides, A. (U. Southampton, England) **The speech of deaf and partially-hearing children with special reference to factors affecting intelligibility.** *British Journal of Disorders of Communication*, 1970(Oct), Vol. 5(2), 126-140.—Selected 58 deaf, 27 partially-hearing, and 25 normal 7- and 9-yr-old children from 6 schools. Ss completed 3 linguistic tests, an articulation test, and a speech intelligibility test. Significant inter-group differences were found for all tests with the normals performing better than the hearing-impaired, and the partially-hearing performing better than the deaf. Deaf Ss were 4-5 yr. and partially-hearing Ss were 2-3 yr. retarded in their vocabulary age, and this retardation increased with age. Older deaf Ss scored higher on intelligibility than younger deaf Ss, but this relationship was reversed in the partially-hearing. Boarding Ss did as well or better than day Ss on all tests. These findings and results from a questionnaire on speech education completed by 18 of the Ss' teachers are discussed. It is concluded that apart from inherent characteristics of the children, e.g., degree of hearing loss, the main factors which influence speech intelligibility "were the speech environment and level of educational aspiration set by each school, the degree and efficiency with which hearing aids were used and ... formal individual and group speech training." (22 ref.)—*S. Knapp*.

7485. Rasmussen, P. Vestberg. **Høreskadede børns læsefærdighed.** [Reading of hard-of-hearing children.] *Skolepsykologi*, 1970, Vol. 7(1), 17-25. A silent-word-reading test (OS 400) shows that hard-of-hearing children have a high frequency of reading errors. Discussed are the possible implications of this when screening for language problems among young schoolchildren. *P. Mylov*.

7486. Russell, Harry K. (Washington State U.) **The effect of order of presentation on the programmed learning of Braille.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5038.

Mental Retardation & Learning Disorder

7487. Ahlsmeyer, Donald E. (George Peabody Coll. for Teachers) **A study of the relationships between the influence of teacher suggestions and the performance of educable mentally retarded children on**

a digit-substitution task. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3985.

7488. Baumann, Karen S. (Oklahoma State U.) The effects of an educational program on the test performance of children with psychoneurological learning disabilities. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3865.

7489. Bricker, Diane D. (George Peabody Coll. for Teachers) Imitative sign training as a facilitator of word-object association with low-functioning children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3986.

7490. Cartwright, G. Phillip. (Pennsylvania State U.) The relationship between sequences of instruction and mental abilities of retarded children. *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 143-150.—40 educable mentally retarded adolescents randomly assigned to 2 groups received 2 different sequences of programed instruction. The 2 sequences (1 ordered, 1 random) consisted of 612 identical frames but the frames were placed in different orders for the 2 groups. No differences were found between the 2 groups on immediate learning, retention, or transfer. Results of correlational analyses were equivocal but there was some indication that different aptitudes were required by the 2 groups in order to make equivalent learning test scores.—*Journal abstract*.

7491. Champlin, John L. (George Peabody Coll. for Teachers) The efficacy of home setting in the language training of low-functioning echolic children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3988.

7492. Chavez, Ricardo. (U. Southern Mississippi) Effects of three physical education programs on selected physical fitness components of educable mental retardates. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3929-3930.

7493. Clinton, LeRoy P. (Columbia U.) Some effects of between-trials variability and initial response outcome on the alternation discrimination learning of mentally retarded adolescents. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3988.

7494. Cochran, Corydon E. (Oklahoma State U.) An experimental study of achievement of intermediate educable mentally retarded students. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4031.

7495. Dillon, William T. (Florida State U.) Studies of rigidity in institutionalized mentally retarded children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4584.

7496. Dyer, Charles J. (U. North Carolina, Chapel Hill) A model for supplementary early grade assistance by nonprofessionals for the culturally disadvantaged child. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3951.

7497. Eaglstein, Solomon A. (Indiana U.) Focusing strategy as used by normal and retarded children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4584.

7498. Elliott, Joseph A. (U. Michigan) Conceptualization in children with reading retardation. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4987.

7499. Esposito, Fred G. (Yeshiva U.) Contingency management applied to retarded preschool children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4542.

7500. Funk, Dean C. (Valley High School, Las Vegas, Nev.) Effects of physical education on fitness and motor development of trainable mentally retarded children. *Research Quarterly*, 1971(Mar), Vol. 42(1), 30-34.—Determined the effect of a physical education program on the physical fitness and motor development of 36 8-18 yr. old children classified as trainable mentally retarded. An experimental group of 18 Ss had a 30-min planned physical education program for 58 consecutive school days. The control groups had free play or teacher-directed recreational activity during this time. On 2 fitness test items, the shuttle run and sit-ups, the experimental group improved significantly. No other statistically significant results were obtained. (15 ref.)—*Journal abstract*.

7501. Gaskey, Nealon. (George Peabody Coll. for Teachers) A study of the relationships between stimulus attributes of words and the probability of words being recognized by educable retardates. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3990.

7502. Goodwin, Lane A. (U. Utah) The effects of two selected physical education programs on trainable mentally retarded children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3933.

7503. Gruber, Joseph J. (U. Kentucky) Implications of physical education programs for children with learning disabilities. *Journal of Learning Disabilities*, 1969(Nov), Vol. 2(11), 593-599.—Reviews theories on the integrated development of the child and research on normal and learning disabled children. It is suggested that physical education and recreation can contribute to the education of handicapped children. Psychologically, every child needs successful play experiences to develop a body image or self-concept. The development of knowledge and competencies in games, dancing, hobbies, nature, and sports can improve the general functioning of the handicapped in society. Specifically, physical education can contribute to the child's physical development, level of recreational skills, emotional development, intellectual achievement, and social competencies. (30 ref.)—*Journal abstract*.

7504. Harkins, Dorothy W. (U. Kentucky) The effect of a motor development program on motor and intellectual abilities of trainable mentally retarded children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3991.

7505. Haworth, Miriam A. (U. Nebraska) The effect of rhythmic-motor training and gross-motor training on the reading and handwriting abilities of educable mentally retarded children. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3991-3992.

7506. Huelsman, Charles B. (Ohio State U.) The WISC subtest syndrome for disabled readers. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 535-550.—WISC subtest patterns of 101 underachieving and 56 achieving 4th grade readers were determined and the results were contrasted with those from 20 previously published studies. Evidence indicates that the low information, arithmetic, and coding subtest pattern is characteristic of groups of disabled readers but not of individuals, and that significantly high performance IQs are characteristic of about 20% of underachievers. It is suggested that research be directed toward discovering the possible significance of low subtest scores rather than toward pattern identification. (26 ref.)—*Journal abstract*.

7507. Johnson, Ronald C. (U. Maryland) An eval-

uation of the effectiveness of speciality designed apparatus to aid mentally retarded subjects in learning ball catching skills. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3934.

7508. Joyner, Donald E. (U. Cincinnati) An investigation of the social relationships of educable mentally retarded children in Negro schools in five school districts of northeast Louisiana. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4586.

7509. Keogh, Barbara K., et al. Early identification of children with potential learning problems. *Journal of Special Education*, 1970(Sum), Vol. 4(3), 307-365.—Provides an overview with respect to identification of learning problems in 4 areas: physical-motor factors presented by M. Leydorf and discussed by R. Schain, perceptuomotor factors presented by K. Wedell and discussed by J. Switzer, cognitive and language factors presented by M. Faust and discussed by C. Stern, and emotional-social factors presented by J. Call and discussed by L. Liverman. Also, included are a general introduction and a general summary discussion. It is emphasized that: (a) the child and the environment are always in an interactive situation and both must be considered in diagnosis and treatment, and (b) there is a necessity for recognition of individual differences even at an early age. It was particularly stressed that the child must always be treated as a unique individual rather than as one in a large category. Although it was generally agreed that the variables are complex, there was optimism that research is making advances in identifying those characteristics which could then be modified to prevent later learning problems in children.—L. M. Glidden.

7510. Lewis, Juliet H. (U. Miami) The effect of a group procedure on selected parents of mentally retarded children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4553.

7511. McDonald, Norma L. (U. Denver) A study of creativity in educable mentally retarded children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4587.

7512. McGarvie, Douglas J. (Marquette U.) The impact of special education placement on the self-concept of adolescent educable mentally retarded students. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3993.

7513. Mitchell, Marlys M. (U. North Carolina, Chapel Hill) Analysis of Welsh Figure Preference Test scores of educable mentally handicapped children. *Training School Bulletin*, 1971(Feb), Vol. 67(4), 214-219.—Administered the Revised Art Scale (RA) of the Welsh Figure Preference Test (WEPT) to 183 intermediate-level special class educable mentally handicapped (EMH) children, to 48 normal 2nd graders, and to 47 normal 6th graders, all enrolled in public schools, to evaluate the responses of the EMH group in terms of sex, CA, MA, and IQ, and to compare these responses with scores of 2nd and 6th grade Ss. EMH children scored significantly lower than 6th graders equal to EMH Ss in mean CA, on both the RA and Don't Like (DL) Scales ($p < .001$ and $p < .01$, respectively), but were not significantly different from 2nd graders equal to EMH Ss in mean MA. A significant difference in scores of the EMH boys and girls was found on the RA Scale ($p < .05$) but not on the DL Scale. No significant differences between scores of the boys and girls in Grade 2 or in Grade 6 were found.—*Journal abstract*.

7514. Oldman, Kenneth R. (Case Western Reserve U.) Learning disabilities and reading: The teaching of reading to learning disabled children through linguistically oriented materials using Gestalt learning theory with the typewriter as the technique of presentation. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4388.

7515. Panda, Kailas C. (Indiana U.) Effects of social reinforcement, locus of control, and cognitive style on concept learning among retarded children. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4557.

7516. Pasewark, Richard A., Fitzgerald, Bernard J., & Gloeckler, Ted. (U. Wyoming) Relationship of Peabody Picture Vocabulary Test and Wechsler Intelligence Scale for Children in an educable retarded group: A cautionary note. *Psychological Reports*, 1971(Apr), Vol. 28(2), 405-406.—Studied the equivalence and relationship of Peabody Picture Vocabulary Test and WISC scores in a retarded population. 49 7-14 yr. old students in a class for the educable retarded served as Ss. The Peabody IQ consistently overestimated WISC Verbal, Performance, and full scale IQs. Interrelations between IQs from the 2 tests were low. A more cautious approach to use of the Peabody as a substitute measure for the WISC is suggested.—*Journal abstract*.

7517. Poteet, James A. (Purdue U.) Identification classification and characteristics of first grade students with learning disabilities in reading, writing and mathematics. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3994.

7518. Radabaugh, Martha T. (Ohio State U.) Locus of control and occupational adequacy of educable mental retardates. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4588.

7519. Schwarz, Ernest W. (U. North Carolina, Chapel Hill) The effects of a movement exploration program on educationally retarded boys and girls in grades one through four. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3941.

7520. Shapiro, Lillian P. (Columbia U.) Some factors affecting the ability of retarded children to discriminate between the letters "b" and "d." *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3994-3995.

7521. Shipe, Dorothy & Miezitis, Solvelga. (U. Ontario, Inst. for Studies in Education, Toronto, Canada) A pilot study in the diagnosis and remediation of special learning disabilities in preschool children. *Journal of Learning Disabilities*, 1969(Nov), Vol. 2(11), 579-592.—Examined (a) the feasibility of early identification of the perceptually-handicapped, and (b) the effectiveness of 2 remedial programs. 5 male and 2 female 4-6 yr. olds were selected from children referred to a clinic for possible perceptual handicaps. 4 Ss were assigned to a remedial program emphasizing language and cognitive development, and the others to a program focusing on visual-motor functioning. Ss attended the training programs for 2-4 mo. Results indicate that, because of emotional disturbance, immaturity, and great variability between cases, it was difficult to apply the label of perceptual handicap at so early an age. The type and degree of improvement bore little relationship to the type of program. A research strategy in which each child is used as his own control and the treatment is individually prescribed is suggested. (24 ref.) —*Journal abstract*.

7522. Siegel, Claire L. (Boston U.) **The effectiveness of play therapy with other modalities in the treatment of children with learning disabilities.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3970-3971.

7523. Sitko, Merrill C. (U. Michigan) **Input organizational strategies of educable mentally retarded and normal boys in free recall verbal learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3971-3972.

7524. Slater, Barbara R. (Hofstra U.) **Perceptual development at the kindergarten level.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 263-266. —Parents of kindergarten children, who were involved in an intervention training program involving perceptual development activities, were able to bring about perceptual improvement in potential learning disability children. Follow-up studies through the early grades in terms of academic progress were recommended. "If presently uninvolved parents can be brought into similar programs with more extensive parental training and a more extended period of child training, results may be more marked."—E. J. Kronenberger.

7525. Smith, Joan M. (U. Pacific) **Utilization of the Illinois Test of Psycholinguistic Abilities with educationally handicapped children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3973.

7526. Spelling, Kaj. **Intelligenstestning og indlæringsniveauer.** [Intelligence testing and levels of intelligence.] *Skolepsykologi*, 1970, Vol. 7(1), 34-40. —Presents parts of A. R. Jensen's (see PA, Vol. 44:14314) theory of intelligence, focusing on the education of borderline children in the schools.—P. Mylov.

7527. Stavrianos, Bertha K. (National Coll. of Education, Evanston, Ill.) **Can projective test measures aid in the detection and differential diagnosis of reading deficit?** *Journal of Personality Assessment*, 1971(Feb), Vol. 35(1), 80-91.—Comparison of Bender Gestalt Test, House-Tree-Person Projective Technique, and Rorschach test measures for good readers, and 3 types of poor readers among 325 6-11 yr. old socioeconomically advantaged boys indicated that high organic, constricted scores, and immature Rorschach patterns characterized poor readers. Lower organic scores and expansive reactions suggested emotional deficit. Withdrawn, constricted, dependent patterns, and high F- suggested specific deficit. Combined scores identified deficit and differentiated between emotional and specific deficit for 98%, and between organic and nonorganic deficit for 90% of cases. Projective tests can aid in diagnosis of reading deficit. (20 ref.)—*Journal abstract*.

7528. Tilley, Billy K. (U. Iowa) **The effects of three educational placement systems on achievement, self-concept, and behavior in elementary mentally retarded children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4590.

7529. Upson, P. G. (Tavistock Clinic, London, England) **The psychodynamics of reading disability: A pilot study.** *British Journal of Projective Psychology & Personality Study*, 1968(Dec), Vol. 13(2), 15-21.—Considered in detail the psychodynamic approach to the problem of reading disability, and subjected to experimentation 1 version of the underlying dynamics which may be involved. The importance of distinguishing between cases where emotional disturbance is the result of the reading disability and those where it is

the cause is emphasized, for reading disability can be viewed as a genuine neurotic symptom. The viewpoints of various psychiatrists and psychologists regarding the psychodynamic approach are considered. The following hypothesis is investigated: Is the father perceived by the male backward reader as weak and/or damaged? A detailed examination of 25 case files of backward readers was carried out and covered 2 areas: aggression, and parental roles. A control group (N = 12) of primary school boys of average intelligence and an experimental group (N = 8) of boys from remedial classes served as Ss. Ss were given a tachistoscopic recognition test, consisting of 12 pictures with each depicting a father, mother, and young boy in some kind of family situation. A 3rd group (N = 4) of boys who also were backward readers was included for comparison purposes. It is concluded that while clinical data offer some support for the hypothesis, the experimental pilot study did not produce any clear-cut evidence either way. Results do suggest that a "developmental arrest in the symbolization process . . . might play an important part in the aetiology of reading disability." (20 ref.)—A. Farfaglia.

Emotional Disorder

7530. Chew, Harold R. (U. Pittsburgh) **Using operant conditioning and contingency management in teaching arithmetic.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4583-4584.

7531. Fink, Albert H. (U. Michigan) **An analysis of teacher-pupil interaction in classes for the emotionally handicapped.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3990.

7532. Redding, James F. **Personality factors and family variables differentiating emotionally disturbed, emotionally handicapped and emotionally adjusted pupils.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5006.

7533. Saunders, Bruce T. (U. Maine) **The effect of the emotionally disturbed child in the public school classroom.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 23-26.—Tested the premise that treatment of emotionally disturbed children within the public school classroom is seriously curtailed by what Redl labels "germophobia" (group contagion). 3 groups of 4th, 5th, and 6th graders of varying degrees of social acceptance were so placed in social studies classes that the presence of behavioral contagion could be observed. The analysis of data indicated no significant difference between or among treatments.—H. Kaczowski.

7534. Urda, Michael A. & Snyder, Marjorie S. (Kent State U.) **The maladjusted reader: Whose responsibility?** *Journal of the Reading Specialist*, 1968(Dec), Vol. 8(2), 66-72.—Outlined an approach to emotionally maladjusted readers used at an educational child study center. The case of a 17-yr-old boy with average intelligence and reading level of 5th grade is illustrated. The S is passed from 1 school service to another. But each service deals with the child from its particular viewpoint; his maladjustment is never dealt with as a whole. The reading staff with the encouragement of the referring psychologist at the center was able to deal with the modification of the 3 problem areas of the maladjusted reader: change of specific characteristics in behavior, increase of reading ability, and assistance in interpersonal relations. Reducing the S's anxiety level was the 1st step to any real progress in reading. The

interdisciplinary team approach presents the most logical and effective approach in dealing with an emotionally disturbed child's disabilities. The reading teacher is the focal point.—A. M. Farfaglia.

7535. Bauer, Daryll D. (U. Virginia) **An analysis of self-concept in educable mentally retarded children as measured by the Self Social Symbols Test.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4582-4583.

COUNSELING & GUIDANCE

7536. Allen, George J. (U. Connecticut) **Effectiveness of study counseling and desensitization in alleviating test anxiety in college students.** *Journal of Abnormal Psychology*, 1971(Jun), Vol. 77(3), 282-289. —Selected 36 male and 39 female test-anxious undergraduates. 50 Ss were assigned randomly to 1 of 2 therapists for (a) desensitization alone, (b) study counseling alone, (c) a combination of study counseling and desensitization, and (d) a placebo procedure. 25 Ss were assigned to 2 control groups. The experimental design was a repeated-measures paradigm involving pre- and posttreatment assessment of self-report, physiological, and academic performance variables. Data were collected during an interview and immediately before midterm and final examinations. Results indicate that a combination of desensitization and study counseling was more effective in reducing physiologically measured anxiety and improving academic and examination performance than either technique alone. Desensitization and study counseling were not reliably different from each other, nor reliably more effective than the placebo procedure in improving academic performance. (29 ref.)—*Journal abstract*.

7537. Allen, George J. (U. Illinois, Urbana-Champaign) **The effectiveness of study counseling and desensitization in alleviating test anxiety in college students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5612-5613.

7538. Aubry, William E. (U. Arizona) **An analysis of a one-week workshop for developing self-actualization and effective interpersonal behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4446-4447.

7539. Becker, Margaret L. (U. Pittsburgh) **Relationship of change in personality variables in a graduate counselor education program.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4448-4449.

7540. Bengtson, Wayne R. (U. Northern Colorado) **A comparison of student self-concepts and student-counselor settings.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3866.

7541. Bouchillon, Bill G. (U. Tennessee) **A comparison of four techniques in the modification of expressed self-concept for low achieving college students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4538.

7542. Carkhuff, Robert R. (American International Coll., Center of Human Relations & Community Affairs) **A note on assessing outcome in social action.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 171-173. —Discusses the controversy among process studies in counseling and psychotherapy and outcome research. Treatment, training, and teaching were rated

and discussed in relation to a social action program designed to assist black students having difficulty in adjusting to predominantly white classes in newly integrated junior high schools. The importance of functionality, through step-by-step progressions of accomplishment, was underscored.—E. J. Kronenberger.

7543. Carlson, Stanley L. (U. Northern Colorado) **Differences in aptitude, previous achievement, and nonintellectual traits (personality, values, interest, and attitude toward mathematics) of freshmen mathematics majors and transfers from the mathematics major at the University of Northern Colorado.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3768.

7544. Clack, Ronald J. (Purdue U.) **Occupational prestige and vocational choice.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3868.

7545. Committee on Mental Health in the Classroom. **Mental health in the classroom.** *Journal of School Health*, 1968(May), Vol. 38(5-A), 3-44. —Prepared a revised report in the form of guidelines for teachers and other school health personnel from the kindergarten through Grade 14. Mental health is defined as that emotional adjustment in which a person can live with reasonable comfort, functioning acceptably in the community in which he lives. Suggested areas for guidance in teaching mental health in the classroom are given. Concepts, learning experiences, and materials are outlined under the following headings: (a) personality structure and development; (b) interaction of an individual with others, including influences of cultural patterns; (c) socioeconomic status and its influence on mental health; and (d) emotional climate in home and classroom. (4 p. ref.)—A. Farfaglia.

7546. Conyne, Robert K. (Purdue U.) **Facilitator-directed and self-directed sensitivity models: Their effect on self-perceptual change.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3868-3869.

7547. Cook, Frances J. (Kent State U.) **The use of three types of group procedures with ninth-grade underachieving students and their parents.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3869.

7548. Dew, Finis E. (West Virginia U.) **The effect of varying racial composition during group counseling undertaken to improve intergroup attitude among elementary school children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3870-3871.

7549. Fisher, James C. (Purdue U.) **Expectations of professional education personnel for the role and function of mental health consultants to schools.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4989.

7550. Foster, James A. (U. North Dakota) **An exploratory study of Holland's theory of vocational choice and Rotter's social learning theory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4458.

7551. Gamsky, N. R. (Cooperative Educational Service Agency No. 13, Waupun, Wis.) **Action research and the school counselor.** *School Counselor*, 1970(Sep), Vol. 18(1), 36-42. —In achieving its major goal, action research is basically oriented toward immediate and practical conclusions for specific situations rather than toward broad principles. Discussed are: (a) the nature of research and research models, (b) evaluation vs. research, (c) theory and criterion problems, (d) imple-

mentation of research and utilization of findings, (e) action research vs. traditional research, and (f) contrasting major emphases in action research. In any research, 3 key steps are involved: (a) formulating hypotheses; (b) implementing, testing, and converting ideas to reality; and (c) assessment and evaluation. The last, most crucial step has been virtually ignored.—S. M. Amatora.

7552. Gamsky, Neal R. & Lloyd, Faye W. (Cooperative Educational Service Agency No. 13, Waupun, Wis.) **Relationship of classroom behavior to visual perceptual deficiencies.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 60-61.—Scores on the Frostig Test of Visual Perception and the Maryland Pupil Classroom Behavior Scale were used to determine whether 409 kindergartners with perceptual learning difficulties also exhibit poor classroom adjustment. Positive significant correlations were found to exist among pupil behavior assessment and Frostig Subtests 2, 3, 4, and 5, and the composite Perceptual Quotient.—H. Kaczowski.

7553. Gayton, William F. **An evaluation of two short forms of the Stanford-Binet, Form L-M, for use with a child guidance population.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 355-357.—Examined the validity of the Terman-Merrill and Wright short forms of the Stanford-Binet, Form L-M. Both forms manifested a high degree of statistical correspondence with the full-scale Binet when used with 50 male 5-14 yr. old child guidance clinic patients. When a practical analysis was conducted, the abbreviated forms manifested certain deficiencies in predicting an individual's IQ classification.—*Journal abstract*.

7554. Geoghagan, James L. (U. Tennessee) **An action approach to group counseling: An experimental study.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4458.

7555. Gold, Sandra O. (Rutgers State U.) **The effect of counselor-client dissimilarity on counselor judgment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3952-3953.

7556. Goldstein, Harris S. & Peck, Rosalind. (State U. New York, Downstate Medical Center) **Cognitive functions in Negro and white children in a child guidance clinic.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 379-384.—Studied the IQs of 52 Negro and 40 Caucasian children attending an inner-city child guidance clinic. Scores on the WISC and the Goodenough-Harris Drawing Test (Draw-A-Man) were compared. Caucasian males ($n = 22$) scored significantly higher ($p < .001$) than Negro males ($n = 34$) only on the verbal part of the WISC. The similarities score of Negro males with low vocabulary scores was significantly higher ($p < .001$) than their vocabulary scores. Caucasian females ($n = 18$), however, achieved significantly higher scores ($p < .001$) than Negro females ($n = 17$) on verbal, performance, and full scale IQs as well as on the drawing test. The differences in presenting symptomatology of Negro and Caucasian girls is seen as a determinant of these cognitive differences.—*Journal abstract*.

7557. Gourley, Martha H. (U. North Carolina, Chapel Hill) **The effects of individual counseling, group guidance, and verbal reinforcement on the academic progress of underachievers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3873.

7558. Greene, Elaine F. (Columbia U.) **Counselor verbal behavior as a function of aggressive vs. submissive client demeanor: A content analysis of**

an initial interview analogue. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3953.

7559. Guthrie, Ouida L. (U. Northern Colorado) **The high school counselor's duties and responsibilities as perceived by counselors, principals, superintendents and counselor educators.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3874.

7560. Haggerty, Maureen. (U. Pittsburgh) **The effects of being a tutor and being a counselee in a group of self concept and achievement level of underachieving adolescent males.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4460-4461.

7561. Hamilton, Jack A. & Bergland, Bruce W. (American Inst. for Research, Palo Alto, Calif.) **Interactive relationships among student characteristics and group counseling methods.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 50-55.—Suggests a number of ways to improve field research on interactions among student characteristics and group counseling techniques. Problems encountered in implementing an experimental field study are used to demonstrate the efficacy of the suggestions.—H. Kaczowski.

7562. Hardwick, Mark W. (Michigan State U.) **An instrumented self-awareness program for college students: The evaluation and description of the effects of group composition and learning climate on selected self-concept and group experience variables.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3900.

7563. Hipple, John L. (U. Iowa) **Effects of differential human relations laboratory training designs on the interpersonal behavior of college students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4463.

7564. Hoyser, Elizabeth F. (Oregon State U.) **Therapeutic non-directive play with low achievers in reading.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3875.

7565. Kavanagh, John J. (St. Louis U.) **An investigation of the effects of sex similarities and differences on interaction and outcomes in encounter groups.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3876-3877.

7566. Kern, Roy M. (West Virginia U.) **The comparative effectiveness of a peer helper group counseling procedure and counselor oriented group counseling procedure on the adjustment of elementary school children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3877.

7567. Kish, George B. & Leahy, Louis. (Veterans Administration Hosp., Ft. Meade, S.D.) **Stimulus-seeking, age, interests, and aptitudes: An amplification.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 670.—Examined relationships among the Sensation Seeking Scale (SSS), Kuder-measured interests, and the Iowa Test of Basic Skills (Mathematics) in 97 male and female high school freshmen. Findings support those of previous studies which indicate that stimulus-seeking is positively related to scientific interests and a variety of intelligence and aptitude measures and negatively to clerical interests.—P. Hertzberg.

7568. La Fleur, Neal K. (Michigan State U.) **The separate and combined effects of models, reinforcement, and attentional variables on adolescent vocational behaviors.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3878.

7569. Lee, John E. (U. Mississippi) **"Piagetian"**

mental health criteria for elementary school children: An organizational and curricular approach. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4552-4553.

7570. Lewis, M. D. (Florida Atlantic U., Boca Raton) **Elementary school counseling and consultation: Their effects on teachers' perceptions.** *School Counselor*, 1970(Sep), Vol. 18(1), 49-53.—A representative sample of 3rd graders referred by their teachers were divided into 5 groups for a 12-wk experimental period. Pre- and posttests were administered to the teachers. These were forms containing 12 components of personal and social adjustment on which they rated the pupils on a 1-4 scale, and the Achievement-Oriented Behavior Scale, devised for the study to measure the work attitudes and skills associated with school achievement. The teacher rated each of the 15 variables on a 5-point scale. The null hypothesis was rejected since significant differences were found at the .05 level.—S. M. Amatora.

7571. Light, Louise L. & Alexakos, C. E. (Bluefield High School, W. Va.) **Effect of individual and group counseling on study habits.** *Journal of Educational Research*, 1970(Jul), Vol. 63(10), 450-454.—Randomly assigned 30 10th graders matched for IQ, socioeconomic background, and curriculum load to 3 treatments: (a) group counseling, (b) individual counseling, or (c) control. Pre- and postcounseling scores of Ss on Wrenn's Study Habits Inventory (SHI), teacher analysis of Ss' behavior on a 20-item scale, and Ss' grades were analyzed. Counseled Ss showed improved SHI scores, English grades, and ratings by teachers of English, science, and social studies. Geometry grades for counseled Ss remained the same, but for uncounseled Ss they deteriorated. Inter-group differences were significant for SHI scores, geometry grades, and ratings by English and geometry teachers. The sensitivity and reliability of the teachers in evaluating behavior and performance changes are discussed.—*Journal abstract.*

7572. Loughary, J. W. & Bowman, C. W. (U. Oregon) **Guidance information systems.** *School Counselor*, 1970(Sep), Vol. 18(1), 43-48.—Utilization of systems technology would be useful in improving the information aspects of counseling and guidance. A systems analysis approach involves: (a) determination of desired output of the system in operational terms, (b) identification of assumptions, (c) specification of input, (d) analysis of functions prior to assignment to person or machine, (e) statement of processes involved in relatively small components, and (f) evaluation of outcomes in terms of stated objectives. The systems approach increases the possibility of continued development and refinement of the system on a component by component basis.—S. M. Amatora.

7573. MacPherson, Lucille I. (Arizona State U.) **The effects of social class on females' perceptions of traditional sex-role adherence in occupations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4467.

7574. Maierhofer, Richard A. (U. Missouri) **Pupil behavior change through group counseling and teacher consultation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3879.

7575. Maynard, Peter E. (State U. New York, Buffalo) **Assessing the vocational maturity of inner-city youths.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4468.

7576. Mickelson, Douglas J. (State U. New York,

Buffalo) **The differential effects of facilitative and non-facilitative behavioral counselors upon student verbal information-seeking behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4469.

7577. Morrill, Richard A. (Michigan State U.) **Harmony of self-concept as a factor influencing the vocational development of upper-class and graduate male college students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3880-3881.

7578. Mrus, Frank. (Pennsylvania State U.) **Perception of verbal counselor behaviors: A factor analytic study.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4469-4470.

7579. Munson, Paul J. (U. Virginia) **An investigation of the relationship of values, and curriculum selection to vocational maturity.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4470.

7580. Olayinka, Moses S. (U. California, Los Angeles) **Effectiveness of two modes of counseling in assisting African students to adjust to the general university environment.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4470-4471.

7581. Oliver, Charles M. (U. Southern Mississippi) **A study of the effects of behavioral group counseling on self-actualization.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3881-3882.

7582. Osborne, William L. (Western Michigan U.) **The relation of dogmatism to dyadic counseling relationship congruency.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3882.

7583. Ray, R. S., Shaw, D. A., & Cobb, J. A. (Oregon Research Inst., Eugene) **The work box: An innovation in teaching attentional behavior.** *School Counselor*, 1970(Sep), Vol. 18(1), 15-35.—Presents the rationale, development, and essential characteristics of innovative techniques used by the counselor in working with children. Described in detail are particular sets of techniques for increasing attending behavior and building-in patterns of adaptive classroom behavior, while weakening the strength of maladaptive or "complaint" classroom behavior. Use of the work box, time out, and associated procedures begins a chain of events in which the child emits appropriate classroom behavior, with which deviant behavior is incompatible.—S. M. Amatora.

7584. Sanford, Aubrey C. (Louisiana State U.) **An investigation of the relationship between level of need for achievement and employment intentions among college juniors and seniors at Louisiana State University.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4337.

7585. Scott, C. Winfield. (Rutgers State U.) **Changes in follow-up data following marked changes in a counselor education program.** *Counselor Education & Supervision*, 1970(Spr), Vol. 9(3), 195-204.—Compares follow-up data for 2 groups of master's degree alumni of a counselor education program, 1 of which graduated before marked changes in the program occurred and the other thereafter. The questionnaire data represented 83.5% (N = 167) of the 1st group and 89.6% (N = 121) of the 2nd. Findings concerning the instructional program, advisement, and library services show significant improvement in appraisal reactions of alumni in 6 of 12 cases, some deterioration in 1, equivocal results in another, and no change in 4. Employment data show an increase from 42-71% of alumni in counseling and guidance positions. Professional membership data reveal

a significant trend toward identification with national organizations. It is concluded that significant changes in much follow-up data occurred after marked changes in the counselor education program and that these changes were generally in the direction of further professionalization of counseling and guidance.—*Journal abstract.*

7586. Searson, Thomas E. (U. Illinois, Urbana-Champaign) The effect of standardized ability test score interpretation upon selected self-perceptions of students. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4474-4475.

7587. Shafer, Bill W. (East Texas State U.) A study of behavioral and perceptual changes in counselor trainees as a result of resident and nonresident practicum programs. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4475.

7588. Stelter, Mervyn W. (East Texas State U.) Changes in self-perception, interpersonal orientation, and view of the nature of man of residence hall personnel. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4476.

7589. Stephenson, Patricia M. (Florida State U.) The relationship of personality congruence and achievement profile to upper-division change of major. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4497-4498.

7590. Survant, Ann D. (U. Kentucky) The use of a projective drawing technique as a verbal stimulus in a counseling interview. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3888.

7591. Tang, Kendel S. (U. Hawaii) Inducing achievement behavior through a planned group counseling program. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3888.

7592. Thomas, Bethel E. (Ohio U.) The use of Porter's Test of Counselor Attitudes to discriminate between action- and insight-oriented counselors. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3889.

7593. Thomas, Geraldine P. (U. Cincinnati) The identification of potential underachievers on the basis of color preference. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4476-4477.

7594. Till, Jacob E. (Florida State U.) A comparison of some Rogerian and Pauline concepts of the nature of man. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4477.

7595. Van Slyke, Robert S. (Washington State U.) The relationship of counselor attitudes to religious involvement and other selected factors. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3889-3890.

7596. Washington, Kenneth S. (U. Southern California) A comparison of the effectiveness of two group counseling formats. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4479.

7597. White, Charles L. (Oklahoma State U.) Attitudes toward advisement in a higher education setting. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3891.

7598. Whitmore, Harold L. (West Virginia U.) Group satisfaction: A function of the client selection procedures, using interpersonal needs. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3891.

7599. Wiersteiner, Samuel R. (Pennsylvania State U.) A Q study of the perceptions of the occupation of vocational teaching as held by two groups of

two-year community college students. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4512.

PERSONNEL

7600. Arnold, Donald J. (Indiana U.) Attitudes of public school and municipal recreation authorities in southwestern Ontario toward policies for the joint acquisition, development, and utilization of school facilities for school and recreational use. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4567.

7601. Blake, Jerry L. (U. North Carolina, Chapel Hill) An investigation of relationships between authoritarianism differences between principals and teachers and the subjective ratings assigned to teachers by their principals. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3800-3801.

7602. Bradley, Philip A. (U. Georgia) An analysis of the relationship of perceptions of the principal's performance, dogmatism and responses to change in organizational authority. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3802.

7603. Carnot, Joseph B. (Bowling Green State U.) A comparison of role expectations and personality variables: Ohio migrant and public school administrators. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4407.

7604. Fischer, James J. (Arizona State U.) Effects of a simulated society experience on interpersonal behavior of a junior college faculty. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4485-4486.

7605. Gies, Frederick J. (U. Missouri) Values concerning disadvantaged pupils in differing organizational climates. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3811.

7606. Hillman, Larry W. (Miami U.) Organizational climate, leadership characteristics and innovation in selected high schools of Ohio: A study of relationships. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3816-3817.

7607. Long, Roger L. (U. Virginia) The relationships between certain personality factors and the behavioral characteristics of elementary school principals. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4422.

7608. Snyder, Phillip C. (Ohio U.) A comparative analysis of the expectations of experienced advisers and experienced administrators toward the personality traits of a secondary education adviser in a developing country. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3842-3843.

7609. Thorsen, Byron W. (U. Iowa) Authority expectations for the academic deanship in local cosmopolitan colleges: A Q-analysis. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4499.

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7610. Arend, Paul J. (U. Virginia) The relationships between selected factors and the rated effectiveness of teachers of educable mentally handicapped pupils. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4401.

7611. Bajaj, Dev R. (Oklahoma State U.) The relationship of certain personality traits to selected professional and social attributes of Oklahoma male county field extension personnel. *Dissertation Ab-*

stracts International, 1971(Feb), Vol. 31(8-A), 3996-3997.

7612. Baty, Roger M. (Stanford U.) **The effect of cross-cultural inservice training on selected attitudes of elementary school teacher volunteers: A field experiment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3997.

7613. Becker, Calvin J. (U. North Dakota) **A study of selected personality variables among three groups of sophomore women elementary education students classified according to teacher attitudes following an off campus sophomore aide experience.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4448.

7614. Bentz, W. Kenneth; Hollister, William G., & Edgerton, J. Wilbert. **An assessment of the mental health of teachers: A comparative analysis.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 72-76. —Reports the findings of a survey designed to determine and compare levels of mental health among teachers, community leaders, and the general public. The data indicate that the overall mental health among the teachers and community leaders appears to be better than that of the general public.—H. Kaczowski.

7615. Borg, Walter R., Kelley, Marjorie L., Langer, Philip, & Gall, Meredith. **The mini course: A micro-teaching approach to teacher education.** Beverly Hills, Calif.: Macmillan Educational Services, 1970. 256 p.

7616. Bremer, Burdette D. (U. Northern Colorado) **Changes in student teacher dogmatism and attitudes as a function of cooperating teachers and grading systems.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3998.

7617. Brody, Ernest B. (Rutgers State U.) **A note on the validity of the Minnesota Teacher Attitude Inventory (MTAI).** *Journal of Educational Research*, 1970(Oct), Vol. 64(2), 67.—Classified 1,863 secondary school students into 2 groups: (a) Ss who planned to attend college, and (b) Ss who did not plan to attend college. Ss then rated 16 male and 25 female student teachers on a 5-point scale. These ratings were compared with the scores of the student teachers on the Minnesota Teacher Attitude Inventory (MTAI). Student teachers who scored high on the MTAI were rated more favorably by Ss who did not plan to attend college. Results are discussed as supporting the hypothesis that high scorers on the MTAI are judged more favorably by affectively than cognitively oriented students. Findings suggest the importance of considering the type of pupil with whom a particular kind of teacher might be most effective.—*Journal abstract*.

7618. Brun, Judy K. (Iowa State U.) **An observational method for studying classroom cognitive processes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4592.

7619. Bruno, Frank B. (Wayne State U.) **Life values, manifest needs, and vocational interests as factors influencing professional career satisfaction among teachers of emotionally disturbed children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3999.

7620. Crowl, Thomas K. (Columbia U.) **White teachers' evaluations of oral responses given by white and Negro ninth grade males.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4540.

7621. Donoghue, Paul J. (St. Louis U.) **A study of the relationship of basic encounter group experience to change in teacher attitudes towards students and**

towards self and to student perceptions of these teachers. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4001-4002.

7622. Dornack, Duane C. (U. Montana) **A study of attitude change in student teachers in two different types of student teaching situations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4002.

7623. Eriksson, Anneli. (School of Education, Malmö, Sweden) **Lärarenkäter om kreativitet i skolan.** [Teacher opinions about creativity in school.] *Pedagogisk-Psychologiska Problem*, 1970(Dec), No. 118, 63 p.—Reports results from 3 questionnaire studies designed to gather opinions of teachers regarding the teaching of student creativity. Teachers reported ambivalence toward creative students and the teaching of creativity, and considered student creativity to be often dysfunctional to their classroom presentation, but nonetheless an important objective of instruction.—*Journal summary*.

7624. Flanders, John N. & Norman, Douglas. (Tennessee Technological U.) **In-service training for teachers of rural Appalachian mountain children: A humanistic approach.** *Journal of Humanistic Psychology*, 1970(Spring), Vol. 10(1), 21-29. Summarizes a 3-yr humanistically based teacher-training program in the Upper Cumberland region of Tennessee. It is concluded that techniques of human relations training can change teachers' attitudes in a positive way. In a comparison of students whose teachers had received training with those whose instructors had not, both sets "tended, overall, to see teachers as hostile, authoritarian and rigid with little concern or love for others."—P. Swartz.

7625. Flinchbaugh, Robert W. (Ohio State U.) **Elementary teachers' perceptions of self concept correlates.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4543.

7626. Fuhrmann, Martha. (St. Louis U.) **Intern attitudes toward teaching and inner-city pupils: Extent and type of influence of cooperating teachers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4003-4004.

7627. Funk, C. Dennis & Carter, G. L. (Utah State U.) **The relationship between dogmatism scores and performance ratings among adult educators.** *Adult Education*, 1971(Win), Vol. 21(2), 46-55. Collected data by mail questionnaires from 486 out of 503 county extension workers with major responsibility for adult education programs in agriculture in 5 states. Dogmatism was measured by the Rokeach Dogmatism Scale (Form E) included in the questionnaire. Performance was determined by supervisor ratings using the paired comparison technique. Results indicate a slight negative relationship ($\gamma = .19$) between dogmatism and performance. This relationship was affected by the age and education level of the respondents. Open-minded Ss tended to be rated higher in performance than close-minded Ss. The use of the scale for screening potential personnel is considered.—*Journal abstract*.

7628. Gier, Dorothy L. (U. Michigan) **An investigation of dogmatism and stress of elementary student teachers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4004.

7629. Goldberger, Michael S. (U. Pittsburgh) **The effects of affective and cognitive training programs on the in-class behavior of physical education student teachers.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4519.

7630. Guskin, Judith T. (U. Michigan) **The social perception of language variation: Black and white teachers' attitudes towards speakers from different racial and social class backgrounds.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3954.

7631. Harris, Jody M. (Pennsylvania State U.) **An investigation of the applicability of the Allport, Vernon, and Lindzey Revised Study of Values scale for identifying and selecting teachers to staff the inner-city school, Grades 7 and 8.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4598.

7632. Harvey, William L. (Florida State U.) **A study of the cognitive and affective outcomes of a collegiate science learning game.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4383.

7633. Hefele, Thomas J. (State U. New York, Buffalo) **The role of teacher interpersonal communication factors in the graduate education of prospective teachers of the deaf and the influence of such factors on the academic achievement of deaf students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4598.

7634. Hennen, Florence E. (U. Minnesota) **A study of an actuarial method and a Markov model as approaches to the estimation of professional persistence among teachers: I and II.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4545-4546.

7635. Hiller, Jack H. (Southern Illinois U.) **Verbal response indicators of conceptual vagueness.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 151-161.—Verbal response measures designed to represent a construct termed vagueness were found in previous studies to correlate negatively both with student essay grades and with measures of teacher lecturing effectiveness. This experiment attempted to test the hypothesis that vagueness response frequency is inversely related to the communicator's command of knowledge. For the experiment, lecturers were given either a high- or low-knowledge lesson, and then were given relatively long or short periods of preparation before delivering their lectures. Vagueness was found to be higher in the low-knowledge group ($p < .005$), but no difference was found between preparation groups. A t test for scores on lesson comprehension tests given to each lecturer after his preparatory lesson further demonstrated the effectiveness of the knowledge treatments ($p < .05$, $N = 24$). In addition, a negative correlation between these test scores and the Ss' levels of vagueness ($r = -.33$, $p < .07$) supported the hypothesis.—*Journal abstract*.

7636. Ingle, Henry T. (Stanford U., Research & Development Center in Teaching) **A basic reference shelf on the new media and teacher training.** *ERIC-Stanford, Calif., Series 1*, 1968(May), 11 p.—Presents an annotated bibliography covering trends in teacher education, characteristics of the new media in education, and methodological issues. A list of periodicals and organizations is included. (18 ref.)

7637. Inman, Gerald D. (Michigan State U.) **A study of expectations held by intern teachers with selected personal characteristics for intern consultant role.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4007.

7638. Jacobson, Stanley I. (U. Maryland) **Differences between elementary and secondary school teachers in attitude and orientation toward pupils.**

Dissertation Abstracts International, 1971(Feb), Vol. 31(8-A), 4007.

7639. José, Jean & Cody, John J. (Gardenville Diagnostic & Adjustment Center, St. Louis, Mo.) **Teacher-pupil interaction as it relates to attempted changes in teacher expectancy of academic ability and achievement.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 39-49.—Investigated whether teachers' behavior toward students was influenced by false information, and whether students' IQ and achievement scores would also be influenced. Ss were 144 1st and 2nd graders taught by 18 teachers. The only significant differences found were in the main effect of grade level. Thus, false information did not seem to have an impact on students' IQ or achievement scores, or teachers' behavior. (17 ref.)—*E. J. Mason*.

7640. Katterle, Zeno B. (Michigan State U.) **A study in teacher aide expectations, satisfaction, effectiveness and tasks performed.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3781-3782.

7641. Khan, Abdul R. (Purdue U.) **Relationship between the personal values of teachers and their pupils.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3819-3820.

7642. Kidd, James E. (U. Virginia) **The influence of selected variables on the reinforcement rates of educators enrolled in a three week workshop on behavior modification.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4599-4600.

7643. King, Wilford R. (Stanford U.) **The effects of a T-group experience on teacher self-perception and classroom behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4009-4010.

7644. Knodel, Raymond W. (U. Northern Colorado) **A comparative study of two approaches to teaching mathematics and arithmetic methods to prospective elementary school teachers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4010-4011.

7645. Lamb, Ronald W. (U. Arizona) **Factors affecting cooperating teacher influence upon student teacher attitude and role perception.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4600-4601.

7646. Lawson, Dene R. (Stanford U.) **Indications of teacher ability to relate to students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4011-4012.

7647. Lytle, James H. (Stanford U.) **A study of interpersonal leadership styles of pre-service teacher trainees.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4012-4013.

7648. Mann, Jean B. (U. Michigan) **Dimensions of teacher ideology and their relationship to aspects of perceived work environment and job satisfaction in crisis secondary schools.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4264.

7649. Marten, Milton; Dunfee, Maxine, & Buffle, Edward. **Simulation: Focus on decision making in elementary education.** *Viewpoints*, 1970(Jan), Vol. 46(1), 1-48.—Describes Project Insite, a 5-yr teacher-education program which examined the old systems of education program which examined the old systems of teacher education, developed innovations, conducted experimentation, sponsored research, and produced teaching aids. The rationale for, planning of, and the materials produced in developing the simulated program are discussed.—*I. Linnick*.

7650. Maxey, James H. (U. Michigan) **The effects of**

interaction analysis training and sensitivity training on the verbal teaching behavior of pre-service teachers. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4013.

7651. McCain, Floyd E. (Indiana U.) **The effect of figural and verbal task demands during observation training on field articulation in prospective teachers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3964.

7652. McFarland, Gwen N. (George Peabody Coll. for Teachers) **Effects of sensitivity training utilized as in service education.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4013.

7653. McKain, Ann E. (U. Georgia) **An analysis of the process of behavior change in five teacher trainees employed as teacher-aides.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3964.

7654. Necco, Edward G. (U. Virginia) **The effects of labeling on teacher perceptions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4587.

7655. Nelson, Otis N. (U. Michigan) **Positive attitude changes toward handicapped children and special education in a beginning educational psychology class.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3786.

7656. Norris, Billy E. (Ball State U.) **A study of the self concept of secondary biology teachers and the relationship to student achievement and other teacher characteristics.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4579.

7657. Park, Young. (U. California, Los Angeles) **The junior college staff: Values and institutional perceptions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4496.

7658. Parsons, Jane L. (Stanford U.) **Anxiety and teaching competence.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4018.

7659. Peck, Lucy L. (Columbia U.) **A study of interpersonal sensitivity and interpersonal strength in teacher trainees.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4018-4019.

7660. Pfeiffer, Mark G. (La Salle Coll.) **Mental work criterion development through scaling: A technique for determining the intellectual structure of the college professor's job.** *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 643-652.—Presents a classification of the intellectual requirements of 8 classroom performance factors of university-level psychology teachers. Ss were 16 American and 14 German undergraduates enrolled in psychology courses in their respective countries. Guilford's Structure-of-the-Intellect model was employed as an intellectual referent. The magnitude of estimation scales derived from faculty and students at German and American psychology departments showed high agreement. (16 ref.)—*Journal abstract*.

7661. Roberts, Richard A. (Oklahoma State U.) **The relationship between the change in pupil control ideology of student teachers and the student teacher's perception of the cooperating teacher's pupil control ideology.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4020.

7662. Rothwell, Elizabeth A. (Auburn U.) **The relationship of personality traits, teacher attitude, anxiety level, and academic achievement to ratings of teacher interns.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4021.

7663. Sandford, May D. (Columbia U.) **The rela-**

tionship between home economics teachers' self-awareness and their perception of inner city seventh- and eighth-grade Negro girls' coping behavior related to problems with boys. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3790-3791.

7664. Schaefer, Joseph H. (St. Louis U.) **Personality factors and teaching influence.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4021-4022.

7665. Seltzer, Ronald. (U. Nebraska) **The relationship between teacher conformity to a behavioral model and student achievement and attitude in the first course of basic business.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4022.

7666. Tallant, Weldon J. (East Texas State U.) **Changes in pre-service teachers involved in a multi-cultural training program utilizing formal presentations, sensitivity training, planned social activities, and a cooperative living arrangement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4608-4609.

7667. Uchiyama, Andy & Lindgren, Henry C. (San Francisco State Coll.) **Ideal teacher concepts: Attitude shift after practice teaching.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 470.—Administered a 30-item forced-choice test of paired adjectives, characterizing more and less successful female elementary teachers, to 16 female practice-teaching supervisors, 16 female elementary practice teachers, and 16 female students enrolled in their 1st teacher-education course. Ss were asked to select the adjective in each pair that best characterized the ideal female elementary teacher. As predicted, practice teachers showed more agreement with supervisors, suggesting that their attitudes had shifted as a result of their teaching experiences and exposure to powerful models.—*Author abstract*.

7668. Vogt, Judith F. (U. Michigan) **A cross-cultural study (Lebanon and United States) of perceptual, attitudinal, and behavioral effects of the laboratory method in a teacher education course.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3976.

7669. Wood, Lonnie H. (U. Nebraska) **A study of the relationships between supervisors' ratings, objective observational data, student achievement and student attitude.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4027-4028.

7670. Yee, Albert H. & Fruchter, Benjamin. (U. Wisconsin) **Factor content of the Minnesota Teacher Attitude Inventory.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 119-133. Factor analyses of the Minnesota Teacher Attitude Inventory's (MTAI) 150 items were conducted to test the hypothesis that the MTAI contains more homogeneous and unidimensional measures of teachers' attitudes than are represented by the total score. A series of analyses applied to 368 MTAI responses of intermediate grade teachers with various computer programs, yielding a number of alternative analyses, resulted in the selection of a solution with 5 interpretable and meaningful factors, identified as: (a) children's irresponsible tendencies and lack of self-discipline, (b) conflict between teachers' and pupils' interests, (c) rigidity and severity in handling pupils, (d) pupils' independence in learning, and (e) pupils' acquiescence to the teacher. Their interpretation and significance for the psychological study of teacher behavior are discussed as well as comparison with earlier work by Horn and Morrison. (25 ref.)—*Journal abstract*.

SCHOOL LEARNING & ACHIEVEMENT

7671. Alexander, Larry; Elsom, Bill; Means, Robert, & Means, Gladys. (Oklahoma State U.) **Achievement as a function of teacher-initiated student-teacher personal interactions.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 431-434.—Rank ordered 40 undergraduates by past GPAs. The median break technique was used to form a high- and a low-GPA group. Ss within each of these groups were then randomly assigned to 2 treatments: Treatment I Ss were treated politely by the instructor but with no personal interest. Treatment II Ss were referred to by name, and the instructor initiated discussion with them. A 2×2 analysis of variance design was employed to analyze student performance on the 1st teacher-made achievement test. Treatment II Ss achieved significantly higher scores than did Treatment I Ss. High-GPA Ss achieved significantly higher scores than did low-GPA Ss. The interaction was not significant although treatment appeared to have a greater effect on low- than on high-GPA Ss.—*Journal abstract.*

7672. Asbury, Damon F. (Ohio State U.) **The effects of teacher expectancy, subject expectancy, and subject sex on the learning performance of elementary school children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4537.

7673. Berman, Graham & Eisenberg, Mildred. (Queen Elizabeth Hosp., Montreal, Quebec, Canada) **Psychosocial aspects of academic achievement.** *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 406-415.—Reviews some previous work on factors in academic achievement and reports a study using 270 final-yr high school students which correlates final-yr grades with IQ, family and socioeconomic data, and CPI scores in order to define the characteristics of the successful student within a culturally and economically homogeneous group. Certain personality traits were found to correlate with achievement, i.e., motivation, sense of well-being, independence, and conformity. Exceptionally high achievement correlated with high IQ, and it is suggested that identification with parents' values and life modes may be relevant. (24 ref.)—*Journal abstract.*

7674. Blanchard, Robert W. & Biller, Henry B. (Cape Cod Child Guidance Clinic, Pocasset, Mass.) **Father availability and academic performance among third-grade boys.** *Developmental Psychology*, 1971(May), Vol. 4(3), 301-305.—Divided 44 3rd grade boys matched for age, IQ, socioeconomic status, and presence or absence of male siblings into 4 equal groups: (a) early father-absent (beginning before age 5), (b) late father-absent (beginning after age 5), (c) low father-present (less than 6 hr/wk), and (d) high father-present (more than 2 hr/day). Class grades and academic achievement test scores were examined. The academic performance of the high father-present group was very superior to the other 3 groups. The early father-absent boys were generally underachievers, the late father-absent and low father-present boys usually functioned somewhat below grade level, and the high father-present group performed consistently above grade level. The relationship between father availability and motivation is discussed. (18 ref.)—*Journal abstract.*

7675. Broome, Billy J. (Louisiana State U.) **An investigation of the effects of teachers' expectations on the achievement in reading of first-grade boys.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4538-4539.

7676. Brott, Eugene C. (Oklahoma State U.) **A study of the effect of selected multiple-choice items on conceptual and factual orientation of students in general chemistry.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3999.

7677. Buck, Carol; Gregg, Rose; Harper, Mary, & Snider, Sandra. (U. Western Ontario, London, Canada) **The effect of kindergarten experience upon IQ test performance.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 62-64.—Investigated the relationship between IQ, kindergarten attendance, and social class. Results indicate that the kindergarten experience has a positive influence on test performance. Children from the lowest social classes profited the least from kindergarten experience.—*H. Kaczowski*

7678. Caffrey, Bernard & Klugh, Tom. (Clemson U.) **Effect of Saturday classes on grades and attendance.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 581-582.—Investigated the suggestion that lower grades are obtained by students who attend classes which meet on Saturday morning and that these low grades might be related to the tendency to "cut" Saturday classes. Data was collected from 605 undergraduates in Saturday classes and 332 undergraduates in weekday classes. There was a significant relationship ($p < .05$) between cuts and grades in both groups. Ss who cut more classes tended to make lower grades. The mean number of cuts for the weekday classes was 2.32; that for the Saturday classes was 2.22. Ss in the Saturday classes obtained higher grades ($p < .05$). Other variables affecting Saturday class attendance are discussed.—*Journal abstract.*

7679. Cain, Mary A. (Michigan State U.) **A study of relationships between selected factors and the school achievement of Mexican-American migrant children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3947.

7680. Campbell, Joyce H. (Florida State U.) **The effects of different types of training of visual discrimination, auditory discrimination, and visual-motor coordination on reading readiness test scores of kindergarten children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4376-4377.

7681. Carter, Dale L. (U. Tennessee) **The effect of teacher expectations on the self-esteem and academic performance of seventh grade students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4539.

7682. Carver, Ronald P. (American Inst. for Research, Washington, D.C.) **A test of an hypothesized relationship between learning time and amount learned in school learning.** *Journal of Educational Research*, 1970(Oct), Vol. 64(2), 57-58.—Tested the hypothesis proposed by J. Carroll (see PA, Vol. 37:8222) that the degree of learning, other things being equal, is a simple function of the amount of time during which the pupil engages actively in learning. Classroom examinations, intelligence test scores, and hours of study time reported by 48 introductory psychology students were evaluated. When learning ability was controlled, the correlation between amount learned and learning time was statistically significant. Considering the attenuating effects of the indicants, it is concluded that learning time is a highly important variable which should be taken into account in investigations of classroom learning.—*Journal abstract.*

7683. Clark, Margaret M. (U. Strathclyde, Glasgow, Scotland) **Reading difficulties in schools: A com-**

munity study of specific reading difficulties, carried out with a grant from the Scottish Education Department. Baltimore, Md.: Penguin Books, 1970. 144 p. \$1.45(paper).

7684. Cleminson, Ronald W. (U. Iowa) A comparative study of three fifth grade classrooms on five selected Piaget type tasks dealing with science related concepts. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4575.

7685. Clifford, Margaret M. (U. Wisconsin) Effects of competition on performance, interest, and retention with the use of a fifth-grade vocabulary-learning task. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5601.

7686. Cooper, Mary A. (U. Michigan) Adult social approval and the child's self-evaluation and task performance. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3949.

7687. Corrozi, John F. (U. Delaware) The effects of reading time, type of question, and instructional format on short and long-term retention of relevant and incidental prose material. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4539-4540.

7688. Dellas, Marie. (State U. New York, Buffalo) Effects of creativity training, defensiveness, and intelligence on divergent thinking. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4540-4541.

7689. DeWees, Joseph P. (U. Northern Colorado) A study to determine how efficiently sixth grade students use context clues to make meaning of strange words. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3770.

7690. Edwards, Dilawar M. (Indiana U.) The effects of an instructional session on the perception of single depth cues in two-dimensional pictorial materials by children aged 5 and 6. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4541-4542.

7691. Fowler, Delbert H. (U. Utah) The relationship of the advanced placement program in the Salt Lake City high schools of Highland, South and West to college achievement at the University of Utah. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3952.

7692. Frostig, Marianne & Maslow, Phyllis. (Marianne Frostig Center of Educational Therapy, Los Angeles, Calif.) Reading, developmental abilities, and the problem of the match. *Journal of Learning Disabilities*, 1969(Nov), Vol. 2(11), 571-574.—Discusses the article by S. A. Cohen (see PA, Vol. 45:6072) on the visual perception and reading. Problems involved in the creation of more efficient prescriptions for teaching reading are discussed. It is concluded that the cognitive and other abilities of an individual should be related to the different task processes at various stages of development and performance, so that the educator can choose the optimum method to help a particular child learn a particular task. (16 ref.)—*Journal abstract*.

7693. Gansneder, Bruce M. (Ohio State U.) Relationships among teachers' attitudes, students' attitudes, and students' achievement. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4381.

7694. Goza, John T. (East Texas State U.) An investigation of the academic potential, academic achievement, and personality of participants in an associate degree nursing program. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5442.

7695. Hanson, Robert R. (Purdue U.) Effects of peripheral stimuli reduction upon laboratory learning in industrial arts. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3918.

7696. Haveman, Jacqueline E. (U. Wisconsin) The effects of similarity and method of retention measurement in retroactive interference paradigms involving meaningful verbal learning. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4545.

7697. Hersen, Michel & Sudik, Ellen. (Fairfield Hills Hosp., Newtown, Conn.) Verbal conditioning as related to awareness and grade point average. *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 266-269.—80 female high school students, divided into high and low GPA groups and aware and unaware groups, were administered a verbal conditioning task. Similar I-We response increments over 80 trials were obtained for both groups. High GPA Ss did not have a higher proportion of aware Ss than low GPA Ss. Aware Ss, regardless of their GPA classification, revealed increments in their performance over the 4 trial blocks. "The conclusions are that (a) grade point average is unrelated to performance increments or the Ss ability to become aware of the experimental arrangements on the Taffel conditioning task, and (b) awareness of the response-reinforcement contingency is what the S primarily learns in the Taffel verbal operant conditioning paradigm." The results gave support for the cognitive-mediational position in verbal conditioning.—E. J. Kronenberger.

7698. Horn, Jerry G. (U. Colorado) Student risk-taking in explanation of biological events. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4546-4547.

7699. Jansky, Jeanette J. (Columbia U.) The contribution of certain kindergarten abilities to second grade reading and spelling achievement. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4549.

7700. Janssen, Piet J. (U. Louvain, Center for Psychodiagnostics, Belgium) Componenten van behaalde studieresultaten in enkele eerste kandidaturen: Een psychodiagnostische exploratie: I. Prolegomena. [Components of academic achievement in some curriculum-groups of freshmen: A psychodiagnostic exploration: I. Preliminary questions] *Psychologica Belgica*, 1970, Vol. 10(2), 181-199. Considers the problem of failures of freshmen in Belgium universities. Some preliminary discussion is presented concerning studies on intelligence, high school grades, and personality measures. (English abstract) (50 ref.) S. Slak.

7701. Jones, John P. (U. Georgia) A study of the relationships among intersensory transfer, intersensory perceptual shifting, modal preference, and reading achievement at the third grade level. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4038.

7702. Kelly, Bruce B. (U. Illinois, Urbana-Champaign) An analysis of various types of financial aid and academic achievement at the University of Illinois. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4550.

7703. Kepner, Henry S. (U. Iowa) An empirical investigation of retroactive effects on the retention of meaningful mathematical material. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4550-4551.

7704. Kern, Paul D. (Northern Illinois U.) **A study of the relationship among anxiety, self-esteem, and achievement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4551.
7705. Kinney, Robert G. (Washington State U.) **The effect of scholarship aid upon the academic achievement and persistence of Washington State University undergraduates.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3903.
7706. Klauber, Ramond W. (St. Louis U.) **The effects of failure on the academic achievement level of elementary school children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3959.
7707. Kleinfeld, Judith S. (Harvard U.) **The validity of the Sense of Fate-Control Scale and the relationship of beliefs about internal and external control and academic self-concept to school achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3960.
7708. Klingensmith, John E. (Iowa State U.) **Patterns of change in academic performance in college and their correlates with pre-college variables.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5606.
7709. Kokosh, John. (U. Minnesota) **Two-point MMPI code types and academic achievement.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 671-676. —Attempted to relate the 2-point MMPI code types of 128 male graduates to academic achievement. The highest GPA was obtained by 5 physics-zoology majors having the 27-72 code, and the lowest GPA was obtained by 7 sociology-history majors having the 89-98 code. Questions as to why certain code types are attracted more to 1 major than another and why they perform well or poorly in 1 major as compared to another are discussed. It is suggested that a study of personality types and the relation of these to academic and vocational behavior may be a fruitful approach rather than using personality traits alone as measured by particular scales.—*Journal abstract*.
7710. Lugo, James O. (U. Southern California) **A comparison of degrees of bilingualism and measure of school achievement among Mexican-American pupils.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4554.
7711. Marsalis, Lloyd W. (U. Southern Mississippi) **A study of the impact of attitudes on academic performance of students at the Mississippi State College for Women.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3962-3963.
7712. McNinch, George H. (U. Georgia) **The relationships between selected perceptual factors and measured first grade reading achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3965.
7713. Miller, Brian P. (Western Michigan U.) **A study of the relationships among student self-concept, teacher image, and ability grouping.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3966-3967.
7714. Morgan, Margaret K. (U. Kentucky) **The OPI, the ACT and university attrition: A discriminant analysis.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3906-3907.
7715. Nannay, Robert W. (U. Maryland) **The effectiveness of teaching a psychomotor task via forward and backward chaining.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3922.
7716. Niebrzydowski, Leon. **Analiza cech osobowości uczniów o różnym poziomie osiągnięć szkolnych.** [The analysis of personality traits in pupils of various standards.] *Przegląd Psychologiczny*, 1971, Vol. 1(21), 177-189.—Administered the Institute for Personality and Ability Testing High School Personality Questionnaire to 42 very good, 26 average, and 31 poor 6th-8th grade students. Good students were distinguished as having (a) strong superegos, (b) ingenuity and self-sufficiency, (c) self-respect, (d) emotional maturity and strong egos, (e) self-control, and (f) gentleness. Poor students were distinguished as being (a) impatient, (b) subjective, (c) demanding attention, (d) emotional and easily frustrated, (e) inclined to guilt and depression, and (f) inclined to capricious and neurasthenic tempers. The decisive differentiating factor was that which indicates high intelligence for the good Ss and low for the poor Ss. Average Ss differed from other Ss only in factors indicating stubborn adherence to aspirations and opinions, self-assurance, and independence. (Russian summary)—*English summary*.
7717. Olds, Richard E. (U. Michigan) **Response frequency in reading tasks under two schedules of information feedback.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3967.
7718. Pierce, Robert E. (U. Southern Mississippi) **The effect of monetary rewards on improved academic performance.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3885.
7719. Pomerantz, Norman E. (New Mexico State U.) **An investigation of the relationship between intelligence and reading achievement for various samples of bilingual Spanish-speaking children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4558.
7720. Puleo, Vincent T. (Yeshiva U.) **Preschool performance in relation to internal and external structure.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4559.
7721. Pulvino, Charles J. (State U. New York, Buffalo) **A study of individual "needs" and environmental "press" as they relate to alienation, anxiety, and students' grade point average.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4472-4473.
7722. Reed, Marvin D. (U. Maryland) **The effects of operant conditioning of study behavior among academically deficient college sophomores.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3886.
7723. Rodenhorn, Leo V. (Oklahoma State U.) **An examination of the importance of auditory-visual integration, visual-auditory integration, auditory memory, and visual memory to oral reading.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3968.
7724. Rogers, Joy J. (U. Michigan) **Student self-selection in a psychology course.** *Dissertation Abstracts International*, 1971, (Feb), Vol. 31(8-A), 3968.
7725. Ruhly, Velma M. (Wayne State U.) **A study of the relationship of self-concept, socioeconomic background and psycholinguistic abilities to reading achievement of second grade males residing in a suburban area.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4560-4561.
7726. Samson, Donald E. (U. Illinois, Urbana-Champaign) **An investigation of the effects of external and internal evaluation upon motivation.**

Dissertation Abstracts International, 1971(Mar), Vol. 31(9-A), 4561.

7727. Sanders, James R. (U. Colorado) **Short-term and long-term retention effects of adjunct questions in aural discourse: An extension of research on mathemagenic behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4561-4562.

7728. Schmidt, H. E. (National Inst. for Personnel Research, Johannesburg, South Africa) **Note on the relationship between academic success, creativity and motivational factors in architecture students.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 209-214.—Investigated the relationships between academic success, creativity, and motivational factors. 33 1st-yr architecture students completed (a) the Seeing Faults Test, a measure of creativity; (b) the MA scale; (c) the Continuous Coded Addition Test (CCAT), a measure of perseverance and similar aspects of work motivation; and (d) a newly constructed Work Attitude Scale (WAS). The intercorrelations between the MA scale, the WAS, and the CCAT indicate that these tests all measure some aspect of motivation. No correlation was found between these measures and the creativity test. Academic success correlated highly with the WAS and with some parts of the CCAT indicating that both scales would be useful tools for the prediction of academic success.—*Journal abstract*.

7729. Schrager, Zelig. (New York U.) **Auditory-visual integration and reading achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3969.

7730. Shaw, Ralph L. & Uhl, Norman P. (Emory U.) **Control of reinforcement and academic achievement.** *Journal of Educational Research*, 1971(Jan), Vol. 64(5), 226-228.—Investigated the relationship between children's locus of control scores and school achievement, as measured by reading scores, for low and upper-middle socioeconomic level (SEL) white and black groups. It was found that (a) the low SEL group (N = 104) had significantly higher external scores than the upper-middle SEL group (N = 107), and (b) that within the upper-middle group the blacks had higher external scores than the whites. However, within the low group, there was no relationship between race and external scores. Of the 4 groups, white low SEL, black low SEL, black upper-middle SEL, and white upper-middle SEL, the locus of control scores related to success in reading in only the latter group. It was found that the higher the external score, the lower the reading score. Findings are discussed in terms of their educational implications.—*Journal abstract*.

7731. Sheridan, Vivian A. (U. Maryland) **The relationship between the student's self concept as a learner and two types of independent study programs in the middle school.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3970.

7732. Smith, Dan F. (U. Miami) **A study of the relationship of teacher sex to fifth grade boys' sex role preference, general self concept, and scholastic achievement in science and mathematics.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4563.

7733. Smith, Israel L. (State U. New York, Buffalo) **Threshold of intelligence, creativity, and convergent and divergent achievement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4564.

7734. Smith, John M. (U. Maryland) **Relations among behavioral objectives, time of acquisition,**

and retention. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3973-3974.

7735. Sprenger, William D. (Pennsylvania State U.) **The effects of block size and mnemonic aids upon paired-associate learning of shorthand symbols.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4634-4635.

7736. Thomas, George E. (U. Maryland) **The influence of selected family background factors on reading readiness, reading achievement, and teachers' ratings of pupils in grade one.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4048-4049.

7737. Walker, John A. (U. Michigan) **Developing efficacy, sense of efficacy, and self-esteem through training.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3977.

7738. Watkins, Yancy L. (U. Georgia) **A comparison of third grade pupils reading at three levels of comprehension and their ability to recognize and apply certain structural words in selected tasks.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4025.

7739. Watts, Graeme H. (U. Illinois, Urbana-Champaign) **Learning from prose material: Effects of verbatim and "application" questions on retention.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4564-4565.

7740. Weiss, Louis. (Stanford U.) **Auditory discrimination and pronunciation of French vowel phonemes.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4051.

7741. Willie, Ralph L. (U. Southern Mississippi) **Relationships between social groups, achievement, intelligence, and class ranking in grades four, five, and six in a selected elementary school.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4566.

Prediction

7742. Abe, Clifford. (U. Arizona) **The prediction of academic achievement of Mexican-American students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4535.

7743. Akers, James C. (Oklahoma State U.) **A predictive validity study of the Metropolitan Readiness Tests.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3765.

7744. Beyer, Harold N. (Colorado State U.) **Predicted GPA and academic achievement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5614.

7745. Bryson, Rebecca A. (Purdue U.) **An examination of several linear, squared, joint function, and dummy variate terms for the prediction of college achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4968.

7746. Chase, Joan A. (U. Maine) **Differential behavioral characteristics of non-promoted children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4968.

7747. Farris, Marjorie F. (U. Georgia) **Abstractness of oral language as a predictor of first grade reading achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3773.

7748. Gates, John A. (West Virginia U.) **Selective factors in predicting success in learning basic sight words and first grade reading achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3773.

tation Abstracts International, 1970(Feb), Vol. 31(8-A), 3775.

7749. Hoehn, Jeannette G. (Ohio State U.) **Relationship of the achiever personality and the OAS to academic success and to the self concept.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3936-3957.

7750. Laliberte, Richard A. (Oklahoma State U.) **Multivariate statistical prediction/classification of students within instructional levels in selected ninth grade subjects: A comparison of the relative effectiveness of the multiple regression and discriminant models.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4970-4971.

7751. Ragland, Rae S. (U. Houston) **The conceptual organization of preschool children and its relation with early school achievement.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5005-5006.

7752. Solomon, Daniel; Scheinfeld, Daniel R., Hirsch, Jay G., & Jackson, John C. (Inst. for Juvenile Research, Chicago, Ill.) **Early grade school performance of inner city Negro high school achievers, low achievers, and dropouts.** *Developmental Psychology*, 1971(May), Vol. 4(3), 482.—Examined the hypothesis that high school completion and achievement level could be predicted from 3rd and 4th grade subject and conduct averages in a group of black inner city adolescents. Ss were (a) 37 male and female high achievers (HAs), (b) 41 low achievers (LAs), and (c) 47 dropouts. Averages significantly differentiated between male HAs and LAs and between female LAs and dropouts. No differences were found for male LAs and dropouts or for female HAs and LAs. Differences between HAs and dropouts were significant, especially for females. Later elementary records revealed the same patterns for the males, while by the 5th grade, female HAs and LAs were differentiated. 6th grade IQ scores revealed significant differences for females but not for males. Results suggest that "dropping out is more related to academic skill and ability for girls than for boys."—S. Knapp.

7753. Stevens, Norma Y. (U. Georgia) **A longitudinal study of biographical, intelligence, and personality variables in predicting achievement of Mexican theological students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4564.

7754. Tobiesen, Jon; Duckworth, Barbara, & Conrad, W. Glenn. (Schenectady County Child Guidance Center Inc., N.Y.) **Relationships between the Schenectady Kindergarten Rating Scales and first grade achievement and adjustment.** *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 29-36.—Summarizes an evaluation of the predictive efficacy of the Schenectady Kindergarten Rating Scales (SKRS). These scales are designed to identify children who are deficient in language, motor, cognitive, or social development. Results suggest that the SKRS is effective in identifying children who are likely to have learning or impulse control problems in the 1st grade.—H. Kaczowski.

Overachievement & Underachievement

7755. Bailey, Roger C. (Concord Coll.) **Self-concept differences in low and high achieving students.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 188-191.—Investigated differences in self-perceptions between 50 achieving college Ss and 50 underachieving

college Ss with below average college ability. The achieving Ss had (a) higher self-ratings on college ability, (b) higher desired levels of college ability, (c) smaller discrepancies between perceived and wished for levels of college ability, and (d) smaller discrepancies between their perceived and actual level of college ability than the underachieving Ss. "The results strongly suggest that a student's self-perception of his academic ability plays a crucial role in his academic performance."—E. J. Kronenberger.

7756. Hocker, Mary E. (U. Virginia) **Visual-motor characteristics of retarded readers and the relationship to their classroom behavior.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4383.

7757. Janes, Gary D. (U. Iowa) **Student perceptions, parent perceptions, and teacher perceptions of student abilities, aspirations, expectations, and motivations: Their relationship to under- and over-achievement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4548-4549.

7758. Kauffman, James M., Weaver, S. Joseph, & Weaver, Ann. (U. Virginia) **Age and Intelligence as correlates of perceived family relationships of underachievers.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 522. Administered the Lorge-Thorndike Intelligence Tests and the Family Relations Test (FRT) to 46 8-16 yr. old remedial readers. Pearsonian correlations between CA and total number of FRT responses assigned to family members were negative but non-significant. FRT responses indicating positive and negative feelings may be assigned by S to a member of his family or discarded into an imaginary "Mr. Nobody" figure. Number of FRT responses discarded into "Nobody" was positively correlated with CA ($p < .05$). IQ was positively correlated with number of positive FRT responses assigned to family members ($p < .01$). Results are interpreted as consonant with previous research in child development.—Author abstract.

7759. Lacher, Maury. (U. Michigan) **The life styles of underachieving, overachieving and normally achieving college students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4999.

7760. Mackler, Bernard. (Teachers Coll., Columbia U.) **Win.** *Psychology Today*, 1971(Apr), Vol. 4(1), 60-63.—The differences between 55 ghetto grade school children who were succeeding in school and 55 who were failing were studied using interviews, classroom observation, and standardized testing. Ss who were assigned to the advanced groups and who were above the average reading norms were those who were well-behaved. These Ss conformed to the school's definition of good behavior to the point of socially rejecting the children in the slowest groups. Children once assigned to the slowest group seldom if ever improved to the most advanced group.—E. J. Posavac.

7761. Verdiani, Fil. (Columbia U.) **A comparison of selected child rearing activities used with achieving and nonachieving male school children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4895-4896.

CURRICULUM & PROGRAMS

7762. Alford, Roy W. (U. Virginia) **Teaching mathematical concepts to rural preschool children through a home-oriented program.** *Dissertation Ab-*

tracts *International*, 1971(Mar), Vol. 31(9-A), 4373-4374.

7763. Ashbrook, James B. (Colgate-Rochester Divinity School, N.Y.) The small group as an instrument in personal growth and organizational change. *Journal of Pastoral Care*, 1970(Sep), Vol. 24(3), 178-192.—Reports on the way small groups are utilized at the Colgate-Rochester Divinity School.—O. Strunk.

7764. Baker, Merle E. (Marquette U.) A study of the effects of a semi-departmentalized program on attitudes and academic achievement. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3766.

7765. Beck, Ray & Talkington, Larry W. Frostig training with Headstart children. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 521-522.—Evaluated 2 groups of 15 Headstart children each in a northwestern state for test-retest changes on the Frostig Developmental Test of Visual Perception (FDTVP) and the Peabody Picture Vocabulary Test following training of the 1 group using Frostig-Horne materials. Significant between-group differences were observed only on FDTVP Area IV (position in space).—*Journal abstract*.

7766. Boshier, Roger. (U. Auckland, New Zealand) Motivational orientations of adult education participants: A factor analytic exploration of Houle's typology. *Adult Education*, 1971(Win), Vol. 21(2), 3-26.—Conducted a study (a) to test C. O. Houle's typology of "motivational orientation" in a New Zealand context, and (b) to develop a factor analytically based measure of motive for attendance. 233 adult education participants, selected at random from 3 institutions, completed the 48-item Education Participation Scale (EPS). A factor analysis and promax/varimax rotation yielded 14 1st-order factors which were subsequently intercorrelated, factor analyzed, and rotated to yield 2nd- and 3rd-order factors. In developing a model of adult education participation, it is proposed that participants are basically "being" or "deficiency" motivated. The concept of homeo- and heterostasis is discussed, and EPS factors purporting to measure these types of motivation are identified. Participation is shown to stem from motives more complex than those originally identified by Houle. (37 ref.)—*Journal abstract*.

7767. Brochu, Edith W. (U. Northern Colorado) A study of selected communication abilities of boys in all-male and traditional kindergarten and first grade classes. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4031.

7768. Burns, Paul C., Broman, Betty L., & Wantling, Alberta L. (U. Tennessee) The language arts in childhood education. (2nd ed.) Chicago, Ill.: Rand McNally, 1971. v, 446 p.

7769. Burton, Elsie C. (Ohio State U.) State and trait anxiety, achievement motivation and skill attainment in college women. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3929.

7770. Cawley, John F., Burrow, Will H., & Goodstein, Henry A. (U. Connecticut) Performance of Head Start and non-Head Start participants at first grade. *Journal of Negro Education*, 1970(Spr), Vol. 39(2), 124-131.—58 1st graders (primary Head Start sample) who had previously participated in a research project were compared with 77 secondary Head Start sample Ss and 78 non-Head-Start Ss on the Stanford Binet, L-M, the Illinois Test of Psycholinguistic Abilities, and scales of the Detroit Tests of Learning Aptitude. Data from the Peabody Picture Vocabulary Test comparing the 3

groups during kindergarten revealed no significant differences using t tests. Using profile comparisons, it is concluded that differences between Head Start and non-Head-Start children are infrequent and "probably attributable to chance." It is further stated that "it is difficult to attribute the lack of differences to any particular factor or series of factors, inasmuch as experimental and control groups were not intact from the beginning of preschool."—W. E. Sedlacek.

7771. Conroe, Ray M. (State U. New York, Buffalo) The effect of varying the number and nature of facilitative interpersonal conditions introduced during a didactic-experiential training program on trainee level of functioning. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5618.

7772. Cowen, Emory. (U. Rochester) Community: Mothers in the classroom. *Psychology Today*, 1969(Dec), Vol. 3(7), 36-39. Nonprofessional teacher aides, mothers in the community, were assigned the duty of giving individual attention to 1st, 2nd, and 3rd graders. Several cases are presented to illustrate how the teacher aides were able to devote individual attention to children who were showing signs of poor adjustment. After personal contact the children began to achieve and/or were much less of a distraction for the other children. The aides could see more children than the professional staff and often the teachers felt more comfortable with the aides.—E. J. Posavac.

7773. Dilts, Robert G. (U. Pittsburgh) Development and application of a cognitive verb list to facilitate analysis of mathematics textbooks. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4617-4618.

7774. Dugas, Edmond A. (Louisiana State U.) The influence of observers of the same race and a racially mixed audience on level of aspiration and gross motor performance of college males. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4516.

7775. Edwards, Robert W. (George Peabody Coll. for Teachers) A comparison of two physical education instructional approaches for teaching low motor ability college men. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3930-3931.

7776. Ferguson, Geraldine D. (U. California, Los Angeles) Mother-child interactions as predictors of school behavior. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4034.

7777. Gordon, George & Hyman, Irwin. (Edward N. Hay & Assoc., Philadelphia, Pa.) The measurement of perceptual-motor abilities of Head Start children. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 41-48.—Describes the development of a battery of perceptual and perceptual-motor integrative tasks that would be appropriate for administration to young disadvantaged children. Theoretical and practical implications of the results are discussed. H. Kuczkowski.

7778. Grobman, Hulda. (New York U.) Developmental curriculum projects: Decision points and processes: A study of similarities and differences in methods of producing developmental curricula. Itasca, Ill.: F. E. Peacock, 1970. xiv, 261 p. \$8.

7779. Hansen, John H. & Hearn, Arthur C. (U. Oregon) The middle school program. Chicago, Ill.: Rand McNally, 1971. ix, 378 p. \$8.75.

7780. Hayes, Mabel E. & Dembo, Myron H. (U. Southern California) A diagnostic-prescriptive ap-

- proach to preschool education. *Psychology in the Schools*, 1971(Jan), Vol. 8(1), 37-40.—Investigated the impact of a diagnostic-prescriptive program as a means of improving the school readiness of 50 disadvantaged preschoolers. The Illinois Test of Psycholinguistic Abilities (ITPA) was used to diagnose the language developmental patterns of the preschool children. Teachers were trained to use this information to provide an instructional program based on a curriculum developed around the subtests of the ITPA. Although significant differences between groups were found, experimental bias placed a limitation on the conclusions.—H. Kaczowski.
7781. Hellberg, Ray W. (Pennsylvania State U.) The relationship of concept learning to perception problem solving, and transfer through selected puzzle and design tasks. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4622.
7782. Hilpert, Frederick M. (U. Iowa) School district norms for ITED growth and difference scores and the relationship of student achievement to selected environmental characteristics. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4546.
7783. Kidd, Thomas R. (Central Connecticut State Coll.) An evaluation of a foundations of physical activity course. *Research Quarterly*, 1971(Mar), Vol. 42(1), 35-41.—Determined the effectiveness of a physical activity course in the areas of (a) attitude toward physical activity, (b) voluntary physical activity behavior, (c) self-assessment ability on selected physical fitness performances, and (d) knowledge of the principles and benefits of physical activity. Pre- and postquestionnaires and tests were administered to 64 control and 64 experimental male college freshmen on attitude, physical activity behavior, and knowledge. Pre- and postquestionnaires and tests on self-assessment were administered to the experimental group. Results show that attitude toward physical activity of the experimental group dropped significantly and that although voluntary physical activity of both the experimental and control groups dropped significantly, there was no significant difference between the 2 groups. Ss were significantly better able to assess themselves on selected fitness performances and significantly improved in knowledge after participating in the course.—*Journal abstract*.
7784. Knights, Ward A. (New Hampshire Hosp., Concord) A Gestalt approach in a clinical training group. *Journal of Pastoral Care*, 1970(Sep), Vol. 24(3), 193-198.—Using Gestalt psychology, therapy, and experiments as a basis for a clinical pastoral education program, informal evaluations indicate a generally positive learning experience and a positive report relative to the personal growth of the student participants.—O. Strunk.
7785. Kozar, Bill. (U. Iowa) The effects of a supportive and nonsupportive audience and their influence upon learning a gross motor skill. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4523-4524.
7786. Lay, Nancy. (Florida State U.) The effect of learning to swim on the self-concept of college men and women. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4525.
7787. Lipe, LeOra M. (Florida State U.) An investigation of aspiration and motor performance levels of Negro and white sixth-grade students. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4526.
7788. Lomen, Donald O. (U. Northern Carolina) Changes in self-concept factors: A comparison of fifth-grade instrumental music participants and non-participants in target and non-target schools in Des Moines, Iowa. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3962.
7789. McDonald, Kaye. (Arizona State U.) A comparison of the personality traits of participants and nonparticipants in high school interscholastic tennis programs for girls. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3935.
7790. McMinn, Gordon N. (United States International U., San Diego, Calif.) A course in human behavior for high school students. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4554-4555.
7791. McRaney, Kenneth A. (U. Southern Mississippi) A study of perceptual motor exercises utilized as an early grade enrichment program for the improvement of learning activity and motor development. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3935-3936.
7792. Mickey, Paul A. (Princeton Theological Seminary) Toward a theology of individuality: A theological inquiry based on the work of Alfred North Whitehead and David Rapaport. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4571.
7793. Mullis, Herman T. (U. Utah) Clustering university students: Its psychological and behavioral effects on perceptions of the university, personality variables, interaction patterns and integration into the university system. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4556.
7794. Noyce, Ruth M. (U. Missouri, Kansas City) An experiment in developing critical thinking abilities through persuasive communications. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4017.
7795. Noyes, Robert C. (Florida State U.) The effects of success and failure in physical performance upon state anxiety and bodily concern of college students varying in anxiety proneness. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4529.
7796. Rhodes, Edith A. (Louisiana State U., Agricultural & Mechanical Coll.) A comparative study of selected contemporary theories of creativity with reference to music education in the secondary schools. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5610.
7797. Sapp, Gary L. (U. Tennessee) The application of a contingency contracting system to the classroom behavior of Negro adolescents. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4562.
7798. Sciarra, Dorothy J. (U. Cincinnati) A study of the effects of male role models on children's behavior in a day care center. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4391-4392.
7799. Shore, Milton F., Milgram, Norman A., & Malasky, Charlotte. (National Inst. of Mental Health, Mental Health Study Center, Adelphi, Md.) The effectiveness of an enrichment program for disadvantaged young children. *American Journal of Orthopsychiatry*, 1971(Apr), Vol. 41(3), 442-449.—Using a special semistructured instrument, The Locus of Control Interview, an attempt was made to assess changes in feelings of powerlessness and helplessness—and their relation to cognitive changes—among 53 1st grade students (23 boys and 30 girls) in a follow through program. Besides the interview, Ss were given the Raven

Colored Progressive Matrices Test and the Metropolitan Reading Readiness Test. Results suggest that the pessimism often surrounding enrichment programs may be unwarranted, and that youth and inexperience may be positive attributes in teachers of disadvantaged children. —*Journal abstract.*

7800. Slevin, Robert L. (Louisiana State U., Agricultural & Mechanical Coll.) **The influence of trait and state anxiety upon the performance of a novel gross motor task under conditions of competition and audience.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3941-3942.

7801. Smith, Charles T. (U. Michigan) **The relationship of program characteristics of the Kalamazoo College foreign study programs to changes in participants' attitudes, values, or interests.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3909-3910.

7802. Smith, Herbert J. (U. Montana) **A comparative study of the Frostig Developmental Program for position in space visual perception.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3973.

7803. Smith, Merle E. (U. Michigan) **The effects of an experimental program to improve self concept, attitudes toward school and achievement of Negro fourth, fifth and sixth grade students.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3974.

7804. Teates, Thomas G. (Florida State U.) **A comparison of the performance of ISCS and non-ISCS ninth-grade science students on several Piaget-type tasks.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4581.

7805. Weaver, Yvonne J. (Arizona State U.) **The effects of entertainment reading by significant others to culturally deprived children on measures of verbal ability and self-concept.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4396-4397.

7806. Wrenn, Jerry P. (U. Maryland) **Videotape feedback as it influences elementary school children in their ability to perform a motor task.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3945.

Teaching Methods & Teaching Aids

7807. ———. **Experiments with film in the art classroom: Report of the Art Committee, Office of Field Development.** *Ontario Institute for Studies in Education, Curriculum Series*, 1970, No. 7, 25 p.

7808. Allen, William H. (U. Southern California) **Instructional media research: Past, present, and future.** *AV Communication Review*, 1971(Spr), Vol. 19(1), 5-18.—In an overall review of instructional media research covering the last 50 yr., but emphasizing the past 2 decades, research done by the military as well as work on TV and programmed instruction as teaching tools are highlighted. The present state of the art is outlined and future trends are discussed.—*D. E. Anderson.*

7809. Applegate, Gary B. (Washington State U.) **The development of an educational film demonstrating operant conditioning techniques: A supplement to established teaching methods.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4979.

7810. Barnes, Osby D. (U. Southern California) **The effect of learner controlled computer assisted instruction on performance in multiplication skills.**

Dissertation Abstracts International, 1971(Mar), Vol. 31(9-A), 4538.

7811. Barrish, Bernard. (Stanford U.) **Inductive versus deductive teaching strategies with high and low divergent thinkers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4029.

7812. Britt, Donald H. (U. Cambridge, Psychological Research Section, England) **An improved method for instructional development: Learner types.** *Audiovisual Instruction*, 1971(Apr), Vol. 16(4), 14-15.—When using computer-assisted instruction, it is not economically feasible to maintain a completely individualized program. It is suggested that individuals be classified into learner types (LTs), according to their responses to objective test batteries and other instructional tasks. Instructional programs can then be scientifically designed to fit the needs of large groups of individuals classified by LT. The unique response patterns which form a type are also the programming specifications for that type. 3 examples of different LTs—N, Q, and X—are provided.—*J. E. Shifren.*

7813. Brown, Robert W. (U. Southern California) **The effects of test anxiety level, feedback, and socio-economic strata upon programmed reading.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5616.

7814. Carr, Donna H. (U. Utah) **The development of number concept as defined by Piaget in advantaged children exposed to the Bereiter-Engelmann preschool materials and training.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3947-3948.

7815. Cuning, Charles J. (U. Iowa) **Changing student attitude toward programmed instruction and measurement of its effect.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4540.

7816. Dale, Edgar & Trzebiatowski, Gregory. (Ohio State U.) **A basic reference shelf on audio-visual instruction.** *ERIC-Stanford, Calif. Series 1*, 1968(Aug), 17 p.—Presents a brief description of audio-visual instruction and an annotated bibliography covering its history, design and operation, theory, and research. (22 ref.)

7817. Dasenbrock, David H. (Florida State U.) **A comparison of CAI and non-CAI student performance within individualized science instructional materials: ISCS: Grade seven.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4575.

7818. Diaz-Guerrero, Rogelio. (National U., Mexico City, Mexico) **La enseñanza de la investigación en psicología en Iberoamérica: Un paradigma.** [The teaching of research in psychology in Latin America: A paradigm.] *Revista Latinoamericana de Psicología*, 1971, Vol. 3(1), 5-36.—The teaching of research in psychology in Latin America is not a simple technical problem. The lack of tradition of research, the absence of economic backing, the flooding of ready-made conceptions and operationally defined tools from the industrialized countries pose unique questions. A paradigm is described which has thus far proved successful in teaching research attitudes and practices in Mexican students. The model is a large cross-cultural research program in which the students become aware of both techniques and the cultural differences that their local populations have vis-à-vis samples of another culture. Cross-cultural research is described as an excellent model, for it forces the realization of the large number of variables that intervene in human behavior. (66 ref.)—*English abstract.*

7819. Gallagher, Paul D. (Florida State U.) **An investigation of instructional treatments and learner characteristics in a computer-managed instruction course.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4543.

7820. Goodrich, Howard B. (U. Maryland) **An investigation of the differential effects of four different media on information acquisition and perception.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3775.

7821. Gordon, Lillian L. **A review of research of 1960-1967 to evaluate the consideration of the use of hypnosis as a psychological tool in a college level reading and study skills laboratory.** *Journal of the Reading Specialist*, 1968(Dec), Vol. 8(2), 58-65.—Reviewed the research and considered the use of hypnosis as a psychological tool in college level reading laboratories. In this type of laboratory, students may receive training in remedial and developmental reading, spelling, and skills for better study. Hypnosis is defined as a state of consciousness characterized by heightened responsiveness to a direct suggestion. The following 4 states of hypnosis are acceptable to most authorities: (a) mild hypnosis, (b) dream hypnosis, (c) somnambulism, and (d) hypnotic coma. Characteristics of an S who illustrates a high degree of susceptibility to hypnosis are summarized. In reviewing clinical studies where hypnosis is used in college laboratories to aid students, it has been found to be effective, e.g., a light trance where the student is awake and aware of what is going on could be used for concentration and motivation, while somnambulism, where the S loses all contact with his surroundings, could be used in counseling.—A. M. Farfaglia.

7822. Greene, Frederick L. (U. Northern Colorado) **A comparison of the effectiveness of two aural formats on the listening comprehension of fifth grade children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3990-3991.

7823. Gyi, Maung. (Ohio U.) **An experimental analysis of instructional methods for improving verbal organizational skills.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3954.

7824. Hamblin, Mary J. (St. Louis U.) **The effect of token exchange instruction and peer tutoring on I.T.A. reading ability of disadvantaged preschool children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3777-3778.

7825. Heiman, Marcia B. (U. Michigan) **Individualized instruction in the classroom.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3956.

7826. Heitzman, Andrew J. (State University Coll. New York, Geneseo) **Effects of a token reinforcement system on the reading and arithmetic skills learnings of migrant primary school pupils.** *Journal of Educational Research*, 1970(Jul), Vol. 63(10), 455-458.—Assigned 32 Negro migrant and 28 Caucasian 5-11 yr. olds attending a 6-wk summer school program to (a) a token reinforcement system, or (b) a conventional classroom. Pre- and postexperiment scores on the reading and arithmetic sections of the Wide Range of Achievement Test (WRAT) were analyzed. The reinforced group performed significantly better than the control group ($p < .05$). Considerable variation between treatment groups on the number of tokens dispensed was noted. Analysis of test scores revealed that the groups receiving more reinforcement performed significantly

better. Further analysis of treatment and racial differences indicate "that some factor associated with race may be a source of significant variation in the effects of token reinforcement." Implications for use of token reinforcement in the classroom are discussed.—S. Knapp.

7827. Herr, James F. (U. Missouri) **Illustrated instruction sheets as a supplement to teaching manipulative operations in graphic arts via video taped closed circuit television.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3918.

7828. Hunt, David E. (Ontario Inst. for Studies in Education, Toronto, Canada) **Matching models in education: The coordination of teaching methods with student characteristics.** *Ontario Institute for Studies in Education Monograph*, 1971, No. 10, 87 p.—Describes models to coordinate student characteristics with educational environments, and discusses how teachers can be trained to provide such environments. The term matching is used to capture the nature of person-environment relations, e.g., a structured lecture may be well matched to students who are compulsive and authoritarian, but poorly matched for independent students. Matching is used as a description of the interactive effects of person and environment. The 5 chapters describe matching models both in the classroom and in teacher training. The aim of the study is to convey the concept of matching as a way of thinking about the complexities of person-environment interaction in education. (5 p. ref.)—A. M. Farfaglia.

7829. Hytche, William P. (Oklahoma State U.) **A comparative analysis of four methods of instruction in mathematics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4006.

7830. Kasow, Harvey D. (U. Georgia) **The effect of differential prior instruction on word learning among kindergarten children.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3781.

7831. Layer, Harold A. (San Francisco State Coll., Audio Visual Center) **Ethnic studies and audiovisual media: A listing and discussion.** *ERIC-Stanford Calif., Occasional Paper*, 1969(Jun), 11 p.—Presents an extensive list of media for presentation to senior high school or college level audiences which deal with the history and present condition of nonwhite minorities in the United States. Materials are listed by subject matter: general ethnic, Asian-American, Negro, Mexican/Spanish-American, and native American studies. The medium, title, distributor, and availability of all materials are fully identified.—S. Knapp.

7832. Montor, Karel. (U.S. Naval Academy) **Affect of using a self-scoring answer sheet on knowledge retention.** *Journal of Educational Research*, 1970(Jul), Vol. 63(10), 435-437.—Tested the usefulness of the trainer-tester self-scoring answer sheet for increasing knowledge retention. 22 naval academy midshipmen served in an experimental group using the answer sheets. 20 other midshipmen took the same course under conventional teaching. Analysis of variance for quizzes indicates that no significant difference was attained between those receiving immediate feedback and those who did not. While not statistically conclusive, results suggest the possibility that immediate reinforcement may have 2 components: (a) whether the answer is right or wrong, and (b) why the answer is right or wrong. The importance of b is discussed for long-term retention.—*Journal abstract*.

7833. Nathan, Gerald D. (U. Nebraska) **A compar-**

ison of forward and backward chaining techniques for the teaching of meaningful verbal material. *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3967.

7834. Neufahr, James L. (Columbia U.) **An analysis of teacher-pupil interactions when instruction is individualized.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4041.

7835. Nitsos, James L. (U. Southern California) **The influence of introductory experiences on the cognitive and affective outcomes of linear programed instruction.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4627-4628.

7836. Olver, Joan K. & Taylor, Bob L. (Horace Mann Jr. High School, Denver, Colo.) **The effects of two methods of teaching social studies on immediate retention.** *Journal of Educational Research*, 1970(Jan), Vol. 63(5), 198-200. — Determined the differential effects on immediate retention of 2 methods of teaching social studies. 1 method incorporated immediate knowledge of the correct response while the other provided no knowledge of the correct response. Ss were 23 pairs of accelerated, 8th grade students and 19 pairs of slow, 8th grade students, matched for age, sex, level of ability, and score on a social studies achievement test. 2 series of treatments were used, and t tests were run to determine if there was a significant difference in the mean performance of the groups. Results indicate that (a) provision of knowledge of results in a method of teaching social studies material to 8th grade accelerated Ss had no significant effect on retention scores of the Ss; (b) provision of knowledge of results in a method of teaching social studies material to 8th grade, slow Ss had a positive and significant effect on the retention scores of the Ss; and (c) accelerated, 8th grade Ss scored significantly higher scores of retention than did slow Ss regardless of the method used. (21 ref.) *Journal abstract*

7837. Perry, Thomas K. (Michigan State U.) **The effects upon the learner of a compressed slide-audio tape presentation experienced in a learning carrel as measured by recall and application tests.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4019.

7838. Poel, Robert H. (Western Michigan U.) **Critical thinking as related to PSSC and non-PSSC physics programs.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3983.

7839. Prentice, Barbara S. (U. Arizona) **The effectiveness of group versus individual reinforcement in shaping attentive classroom behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4044.

7840. Renfro, John E. (U. Alabama) **Video reinforcement in health instruction.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3939.

7841. Rennels, Max R. (Illinois State U.) **The effects of instructional methodology in art education upon achievement on spatial tasks by disadvantaged Negro youths.** *Journal of Negro Education*, 1970(Spring), Vol. 39(2), 116-123. — Investigated the effects of "analytic" and "synthetic" instructional styles upon achievement of spatial perception by the disadvantaged urban Negro child. The analytic method involves teaching a visualization of perspective through observation of a whole object and the synthetic method involves teaching through demonstration of an object's parts. 2 intact treatment groups and 1 intact control group of 8th

graders in Kentucky (N = 78) were administered 3 Primary Mental Abilities subtests and 5 Spatial Problems Tests and the Embedded Figures Test in a pretest-posttest design. Using analysis of covariance and correlation, results indicate that the analytic method was "more successful for all Ss given this treatment." Correlations with the Embedded Figures Test were .45 for Spatial Relations and .31 for Perceptual Speed. — W. E. Sealock

7842. Rubin, Stephen. (Purdue U.) **Student personalities, classroom interactions and the evaluation of an anonymous feedback system in college classrooms.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5008.

7843. Schneiderwent, Myron O. (U. Northern Colorado) **The effects of using behavioral objectives in the instruction of Harvard Project Physics.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3984.

7844. Sears, Mary O. (Florida State U.) **Effects of a student centered procedure on the self-concepts and writing practice of college freshmen.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4563.

7845. Shapiro, George M. (U. Utah) **A programmed learning approach to the modification of disruptive classroom behavior.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3970.

7846. Thorpe, JoAnne West, Charlotte, & Davies, Dorothy. (Southern Illinois U.) **Learning under a traditional and experimental schedule involving master classes.** *Research Quarterly*, 1971(Mar), Vol. 42(1), 83-90. — Describes a study involving 32 classes of badminton (N = 732), 6 master teachers and 11 other teachers. 21 classes were scheduled under the master class plan in which students from 2 or 3 classes met in a combined group once wk and in their regular classes twice wk. 11 classes were scheduled under the traditional plan, in which classes met 3 times wk. Tests of knowledge and skill were administered prior to and after instruction. The sum of the 4 T scores was used as the overall skill measure. Estimates of reliability for the final tests ranged from .78-.91. Validity of the skill tests was established by using tournament rank as the criterion. Linear regression analyses indicate that classes were not equal in skill or in knowledge at the beginning of the study. Full models utilized in the regression analyses of the posttest, therefore, included the pretests as predictors. The traditional method of scheduling was superior to the master class method and within the master classes, the more experienced master teachers obtained better results than the less experienced. T tests for correlated samples including all of the Ss indicate that significant learning occurred between the pre and posttests for classes under both methods. — *Journal abstract*

7847. Tolliver, Don L. (Purdue U.) **A study of color in instructional materials and its effects upon learning.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3976.

7848. Wade, Screws E. **Media and the disadvantaged: A review of the literature.** *ERIC Stanford Calif*, 1969(Mar), 24 p. — Reviews the literature on media and the disadvantaged which indicates that media can be useful in extending frames of reference and providing models and motivation (b) can emphasize each individual's approach to learning and deemphasize the learning disadvantages with which some children come

to school; (c) can teach basic skills, but seem to be inadequate to teach assimilation skills; and (d) have greater difficulty in achieving noticeable success in a short period with older children or adults. (4 p. ref.)—S. Knapp.

7849. Weaver, Jack K. (Florida State U.) **A comparison of the drivocator system and the conventional classroom method of instruction for accomplishing driver and traffic safety education objectives.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4565.

7850. Weber, Walter I. (U. Maryland) **A comparative study of the effectiveness of two methods of instruction utilizing programed materials in a college remedial mathematics course.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3911.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

7851. Burns, Tom. (Ed.) (U. Edinburgh, Scotland) **Industrial man: Selected readings.** Baltimore, Md.: Penguin Books, 1969. 414 p. \$2.25(paper).

VOCATIONAL CHOICE & GUIDANCE

7852. Gross, Michael C. (U. Hawaii) **Interest inventory items as attitude eliciting stimuli in classical conditioning: A test of the A-R-D theory.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3953.

7853. Harris, Le B. (Florida State U.) **A comparison of the personality traits of accounting students, students in selected majors, and successful accountants.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4324-4325.

7854. Harris, Robert C. (U. Illinois, Urbana-Champaign) **The classification of achievement test items by cognitive factor definitions for selected standardized trade tests.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4642.

7855. Hoerner, Harry J. (Oklahoma State U.) **The effects of on-the-job counseling on employers' rating and job satisfaction of persons trained in selected Oklahoma MDTA classes during 1967-68.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3874-3875.

7856. Klipstein, E. & Steller, M. (Coll. of Pedagogy, Kiel, W. Germany) **Beziehungen zwischen dem Berufseignungstest (BET) und dem Intelligenz-Struktur-Test (I-S-T).** [Correlations between the Occupational Aptitude Test (BET) and the Intelligence Structure Test (I-S-T).] *Psychologie und Praxis*, 1970(Jul), Vol. 14(3), 103-111.—On the basis of a sample of 45 students enrolled in an occupational training class, results on the intelligence test could be predicted by the combined scores on the Occupational Aptitude Test for Physical Development, Applied Arithmetic, and Concept Similarities and Opposites. A correlation of $R = .78$ was obtained between the 2 measures. In a subsequent factor analysis of the 2 tests, a total of 6 factors could be extracted from the matrix, 5 of which were interpretable: logical-inductive thinking, linguistic-inductive thinking, deductive thinking, finger dexterity, and speed of perception.—R. F. Wagner.

7857. Nagely, Donna L. (Ohio State U.) **A compar-**

ison of college-educated working mothers in traditional and nontraditional occupations. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4556-4557.

7858. Schumaker, Benjamin J. (U. Michigan) **Characteristics of adult males who voluntarily seek career counseling services.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3887.

7859. Shah, Ifat. (U. Minnesota) **A cross-cultural comparative study of vocational interests.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5049.

7860. Sheridan, Albert J. (Case Western Reserve U.) **Performance correlates of motivational orientation.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5049-5050.

SELECTION & PLACEMENT

7861. Bennett, M. (U. South Pacific, School of Education, Suva, Fiji) **The Wire-Bending test applied to apprentice selection in Zambia.** *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 240-247.—Describes a test of manipulative skill and accuracy which (a) is suitable for group administration, (b) requires little or no formal education, (c) has a high degree of face validity, (d) is inexpensive, and (e) is suitable for administration to groups for whom English is a 2nd language.—S. Knapp.

7862. Brown, Stephen A. (Purdue U.) **Content, process and individual difference variables in interviewer decision-making.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5045.

7863. Dirks, H. (Kabel- und Metallwerke Guttenhoffnungshutte AG., Hanover, W. Germany) **Die Methodischen Grundlagen von Arbeits-, Leistungs- und Persönlichkeitsbewertungssystemen.** [The methodological basis of work, performance and personality assessment systems.] *Psychologia Africana*, 1970(Oct), Vol. 13(2-3), 124-137.—Attempts to develop a conceptual framework covering aspects of job and performance appraisal and personnel selection. On the basis of correlational and factor analytic studies, 4 fundamental categories are suggested for performance appraisal: (a) activity, the volitional aspects of behavior; (b) thinking, the utilization of technical competence; (c) human effectiveness, effectiveness in interpersonal relations; and (d) reliability, behavior in relation to the given norms of a structured task. It is suggested that these 4 categories cover the appraisal needs for lower and medium level jobs. Although an extension of the system may be necessary to cover higher level jobs, it is suggested that this not be accomplished at the expense of the basic model. Defined scales for each of the suggested categories are presented, and the problem of weighting is discussed. The development of objective criteria regarding careers, their evaluation, remunerative needs, and security is suggested.—English abstract.

7864. Dyer, Patricia J. (Columbia U.) **Effects of test conditions on Negro-white differences in test scores.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5686.

7865. Jones, Louis & Calvo, Elvira. (Psychological Corp., New York, N.Y.) **The BARSIT as a general ability screening test for Spanish-speaking adults in New York.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 513-519.—In response to a need to insure adequate

7875. McPeck, William C. (U. Denver) **A comprehensive analysis of the effects of affective course objectives and their relationship to cognitive learning in a navigation orientation course.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3965.

7876. Sullivan, Howard J., Schutz, Richard E., & Baker, Robert L. (Southwest Regional Lab. for Educational Research & Development, Inglewood, Calif.) **Effects of systematic variations in reinforcement contingencies on learner performance.** *American Educational Research Journal*, 1971(Jan), Vol. 8(1), 135-142.—72 ROTC Cadets participated in an investigation of the effects on learner performance of variations in (a) reinforcement contingencies for performance, and (b) knowledge of results for responses to mastery items inserted in instructional material. Ss receiving immediate feedback indicating the correct response for each en route mastery item scored significantly higher on the 100-item final test ($p < .05$) than Ss receiving delayed feedback for mastery-item responses. Each S could earn release from a maximum of 3 drill periods for acceptable test performance. Ss under the drill period contingency scored significantly higher than a comparable group had scored under a monetary contingency with a \$4 maximum. The findings suggest that improvements in instructional materials may not result in a corresponding increase in learner achievement unless an effective reinforcer is available for acceptable achievement.—*Journal abstract.*

TASK & WORK ANALYSIS

7877. Bálint, István; Murányi, Mihály, & Avar, Pál. (Industrial Hygiene Inst., Budapest, Hungary) **A pszichofiziológiai megterhelés és az alkalmazkodás vizsgálata kartográfiai dolgozóknál.** [Examination of psychological stress and adjustment in personnel engaged in cartographical work.] *Pszichológiai Tanulmányok*, 1968, No. 11, 377-392.—The performance of photogrammetrical measurements involves specific stress for the nervous system. Complex examinations of 37 workers engaged in this type of work have been made. They included psychological assessment of environmental and other work conditions, and the analysis of the psychophysiological factors in the work process. An attempt was made to reveal and grade stress factors occurring in the course of work. The 2nd part of the study which included psychological and psychiatric exploration as well as the neurological screening of the Ss, was carried out to analyze the effect of stress factors. According to data, stress factors have not caused any symptoms or serious complaints. Nevertheless, it seems advisable to introduce some improvements (ventilation, illumination) and to eliminate or lessen the stress effect of work done in alternating shifts. Moreover, it would be advisable to shorten working hr. Repeating examinations of this kind from time to time is considered to be highly desirable so that a trend in the relation of stress factors and adjustment could be studied over a considerable period of time. (Russian summary)—*English summary.*

7878. Ronan, W. W. & Prien, Erich P. (Georgia Inst. of Technology) **Perspectives on the measurement of human performance.** New York, N.Y.: Appleton-Century-Crofts, 1971. xi, 658 p.

7879. Smith, George L. (Oklahoma State U.) **An experimental investigation of some factors affecting operator performance on a microminiature inspection task.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4708.

7880. Smith, Mary C. (U. Maryland) **An experimental study of the effects of visual, auditory, and audiovisual transmission of information on a perceptual-motor task in nursing.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4798-4799.

PERFORMANCE & JOB SATISFACTION

7881. Feifer, Irwin. (New York U.) **Initial and subsequent adaptation of employees to frustrating innovations, as a function of need strength and positional expectations.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5046.

7882. Gibson, Dennis L., Weiss, David J., Dawis, Rene V., & Lofquist, Lloyd H. **Manual for the Minnesota Satisfactoriness Scales.** *Minnesota Studies in Vocational Rehabilitation*, 1970(Dec), No. 27, 51 p.—Describes the development of the Minnesota Satisfactoriness Scales (MSS) from supervisor ratings of 2373 workers. The MSS is scored on 5 scales: (a) Performance, (b) Conformance, (c) Dependability, (d) Personal Adjustment, and (e) an overall score for General Satisfactoriness. The text of the MSS and norms for 5 occupational groups (professional, managerial, and technical; clerical and sales; service; machine trades and bench work; and workers-in-general) are presented. Technical data on the reliability and validity of the MSS are included. (18 ref.)—*Journal summary.*

7883. Ivancevich, John M. & Donnelly, James H. (U. Kentucky) **Leader influence and performance.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 539-549.—Investigated the impact of incremental influence of the leader upon performance. French and Raven's classic topology of power was used. Incremental power was operationally defined as the combined referent and expert power of a leader. The 5 dimensions of power (reward, coercive, legitimate, referent, and expert) are measured on a rating scale. The 8 measures of performance were obtained from organizational records. 2 types of performance data were collected: (a) nonparticipating performance—excused absenteeism, unexcused absenteeism, and turnover; and (b) participating performance—market potential ratio, number and size of orders, efficiency rating, direct selling costs, and route density factors. Data were collected on 394 salesmen from 31 different sales branches of a company. The results generally support the 2 hypotheses: (a) incremental influence is related positively to participative performance measures, and (b) incremental influence is negatively correlated with nonparticipative measures of performance. (21 ref.)—*D. L. Dieterly.*

7884. James, Lawrence R. (U. Utah) **The development of criterion composites for creativity.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5046-5047.

7885. Kaufman, Harold G. (New York U.) **Work environment, personal characteristics and obsolescence of engineers.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5047.

7886. Milosavljević, Branko. (Iron Mines, Ljubija, Yugoslavia) **Doživljajni aspekt rada na strojevima površinskog kopa.** [Subjective difficulties of work on the surface mining machines.] *Revija za Psihologiju*, 1970, Vol. 1(1), 37-41.—Subjective reports were collected by means of a questionnaire from a group of 184 mining

machine operators on (a) incidence of after work difficulties (backache, leg ache, etc.), (b) operator-noted changes relevant for his health (weakening of hearing, loss of appetite, restlessness, headaches, etc.), (c) most unfavorable work condition (vibration, dust, temperature, etc.), and (d) the most critical day of the week and hours of the day. Data were analyzed with respect to the kind of the machine operated and the age of the operator, and compared with objective data from other studies. (15 ref.)—*English summary.*

7887. **Pastuović, Nikola.** (Worker's U. "Moša Pijade," Zagreb, Yugoslavia) **Odnos između staža na istom radnom mjestu i procjene uspešnosti i fenomena spontane selekcije radnika.** [The relationship between the length of stay on the same job and work efficiency, and the phenomenon of spontaneous selection of workers.] *Revija za Psihologiju*, 1970, Vol. 1(1), 43-48.—Findings indicate that a substantial fluctuation of more able workers toward more complex and better paid jobs (spontaneous selection) exists. When this is eliminated, a positive relationship between the length of stay on the same job and the efficiency rating can be determined.—*English summary.*

7888. **Rosenfeld, Michael & Zdep, S. M.** (American Inst. for Research, Pittsburgh, Pa.) **Intrinsic-extrinsic aspects of work and their demographic correlates.** *Psychological Reports*, 1971(Apr), Vol. 28(2), 359-362.—Used an objective paper-and-pencil instrument to identify 1,963 intrinsically and extrinsically oriented employees at each of 3 job levels. Analyses were conducted to determine the demographic correlates of this distinction. Results indicate that intrinsically oriented groups at the supervisory and salaried non-supervisory levels tended to be younger, better educated, and have more dependents than their extrinsically oriented fellow employees. Of the variables investigated, level of education possessed the largest consistent relationship with the intrinsic-extrinsic criterion.—*Journal abstract.*

7889. **Rothwell, Wade B.** (Auburn U.) **The relationship of certain predictive factors including personality traits to job success of graduates of stenographic and secretarial programs of public supported technical institutes and junior colleges in the state of Alabama.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 4055.

7890. **Schuster, Jay R. & Clark, Barbara.** **Individual differences related to feelings toward pay.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 591-604. In an attempt to assess an individual's perception of his pay, a questionnaire was administered that covered the motivational role of pay. The respondents were 800 professional employees in a major division of a large firm. The questionnaire data were split into 6 perceived measures of pay and compared to 4 variables: performance, educational level, pay, and age. A comparison of 12 pay determiners and the 4 variables is also presented. Results indicate that the 4 variables measured are related to pay satisfaction. The strongest relationship was between age and pay satisfaction.—*D. L. Dieterly.*

MANAGEMENT & ORGANIZATION

7891. **Argyris, Chris.** (Yale U.) **Intervention theory and method: A behavioral science view.** Reading, Mass: Addison-Wesley, 1970. x, 374 p. \$9.50.

7892. **Bolar, Malathi.** (1st National City Bank,

Bombay, India) **Measuring effectiveness of personnel policy implementation.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 463-480.—A questionnaire was developed to measure the effectiveness of personnel policy implementation within an organization. The questionnaire measured the 3 organizational aspects of perceived policy, agreement with the policy, and effectiveness of the policy, over 7 personnel policy dimensions. 4 companies were used to test the questionnaire (2 pharmaceutical and 2 engineering). Results indicate that the questionnaire provided a reliable and meaningful method to measure the effectiveness of personnel policy. In addition to yielding a comparative assessment of policy areas relative to effectiveness it also yielded a measure of internal effectiveness as compared to the objectives of top management. (19 ref.)—*D. L. Dieterly.*

7893. **Bons, Paul M., Bass, Alan R., & Komorita, S. S.** (U.S. Military Academy, West Point, N.Y.) **Changes in leadership style as a function of military experience and type of command.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 551-568. Examined the changes in leadership style over different levels of experience for the members of the 1965 graduating class of West Point. 7 dimensions of leadership were measured. The 596 cadets were required to describe, on a 20-dimension, 6-point scale themselves, their most preferred co-worker, their least preferred co-worker, and an ideal military officer. These descriptions yielded the 5 measures of assumed similarity between opposites, least preferred co-worker, most preferred co-worker, self-ideal, and self-esteem. In addition to these measures the dimensions of initiating structure and consideration were obtained from a modified version of the Fleishman Leadership Opinion Questionnaire. 4 levels of task pressure were conceptualized to account for the different types of leadership command experience each officer encountered on his initial assignment in the military. The posttest measures of the 7 leadership dimensions were obtained through mailed questionnaires sent to the officers about 18 mo. after the 1st testing. Results indicate that leadership style measures change over command experience and that different levels of command experience produce different types of changes. (23 ref.)—*D. L. Dieterly.*

7894. **England, George W. & Keaveny, Timothy J.** (U. Minnesota) **The relationship of managerial values and administrative behaviour.** *Manpower & Applied Psychology*, 1969(Win), Vol. 3(1/2), 63-75.—Studied the relationship between personal value systems and behavior in 72 managers varying widely on organizational and personal variables. Ss completed the Personal Value Questionnaire which required them to rate the importance of goals and ideas and the extent to which its meaning was viewed as successful, right, or pleasant. 34 moralists, 30 pragmatists, and 6 mixed-orientation Ss were distinguished. None were classed as affective. An in-basket task was used as a behavioral measure of decision making, action, and control and communication patterns. It was found that pragmatists were more concerned about factors reflecting (a) organizational success—industry leadership, profit maximization, and organizational efficiency, (b) control or possession of power; and (c) getting ahead. Moralists were more concerned about fellow employees and traditional or sociocultural factors. It is concluded that "identification of primary orientation contributes in a significant way to correlating managerial values and administrative be-

haviour." Some support is also given to the position that differences in concepts viewed as highly important and fitting one's primary orientation are related to differences in behavior.—S. Knapp.

7895. Fordyce, Jack K. & Raymond Weil. **Managing with people: A manager's handbook of organization development methods.** Reading, Mass.: Addison-Wesley, 1971. x, 192 p.

7896. Ghiselli, Edwin E. & Johnson, Douglas A. (U. California, Berkeley). **Need satisfaction, managerial success, and organizational structure.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 569-576.—Utilized a questionnaire to measure need satisfaction based upon Maslow's 5 need dimensions: security, social, esteem, autonomy, and self-actualization. Ss were 413 managers in a wide variety of different business and industrial establishments. The firms were categorized into those that were flat (few levels of management), or tall (many levels of management). A criterion measure of success was obtained by referencing the organizational level the individual attained to the average level reached by managers of the same age. Correlations were computed between the degree of satisfaction and achieved success. Results indicate that for managers in tall organizations there was little relationship between the degree of need satisfaction and success, while in flat organizations a positive relationship existed for the higher order needs.—D. L. Dieterly.

7897. Klein, Stuart M. & Maher, John R. (U. Kentucky). **Decision-making autonomy and perceived conflict among first-level management.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 481-492.—Tested 2 hypotheses: (a) decision-making autonomy is directly related to perceptions of conflict, and (b) the relationship is modified by the degree of congruence between the individual's perceptions of his own autonomy and the amount of autonomy he feels he should legitimately have. 400 Ss, selected at random, were drawn from the 1st-level management population of 12 manufacturing plants of a large industrial corporation. They were administered a 429-item questionnaire. 23 of these items were selected to provide a measure of perceived decision-making autonomy, perceived legitimacy of autonomy, and perception of conflict. The data on these 3 measures were submitted to an analysis of variance and the results supported Hypothesis a but not b. It is concluded that "the relationship between lack of decision-making autonomy and conflict strongly underscore the importance of autonomy to a manager carrying out his assigned duties." (26 ref.)—D. L. Dieterly.

7898. McDonald, Blair W. (U. Utah). **Factored dimensions of organizational climate.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5048.

7899. Miles, Raymond E. & Ritchie, J. B. (U. California, Berkeley). **Leadership attitudes among union officials.** *Industrial Relations*, 1968(Oct), Vol. 8(1), 108-117.—Studied the leadership attitudes of over 100 union officers holding positions at various levels in the union hierarchy. Their theories of how and by whom decisions ought to be made in their organizations are examined. Questionnaires were returned by 110 union officials. The study suggests that union leaders tend to advocate lower level participation in decision making and setting bargaining goals. They do not feel that this participation will result in improved decisions or reasonable bargaining goals. The value of increased lower level participation is viewed in terms of improved morale

and greater acceptance of decisions made by supervisors.—A. M. Farfaglia.

7900. Milkovich, George T. (U. Minnesota). **Toward a system of systems.** *Manpower & Applied Psychology*, 1969(Win), Vol. 30(2), 37-41.—Distinguishes similarities and differences of structural, process, and decision systems. Each system's approach is discussed for (a) purposes, (b) elements, (c) relationships and causality, (d) dynamic-static considerations, (e) operationalization, and (f) validation. It is concluded that none of the approaches considered is universally applicable, and that "each approach represents a way of looking at phenomena under study." (21 ref.)—S. Knapp.

7901. Oliver, George M. (Rensselaer Polytechnic Inst.). **Organizational climate and the personal values of managers: An exploratory field study.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3716.

7902. Peterson, Brent D. (Ohio U.). **Differences between managers and subordinates in their perceptions of three kinds of opinion leaders.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3717-3718.

7903. Rawlings, Joseph S. (Michigan State U.). **A comparative study of the self-perceived leadership behavior of public school superintendents and chamber of commerce executives.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3837-3838.

7904. Schneider, Benjamin & Bartlett, C. J. (Yale U.). **Individual differences and organizational climate: II. Measurement of organizational climate by the multi-trait, multi-rater matrix.** *Personnel Psychology*, 1970(Win), Vol. 23(4), 493-512.—Presents, in this follow-up article to the study by B. Schneider and C. J. Bartlett (see PA, Vol. 43:4580), the initial results of an organizational climate test (Agency Climate Questionnaire, ACQ) developed to be used with insurance agencies. The ACQ consists of 80 items, which were factor analyzed into 6 dimensions: managerial support, intraagency conflict, managerial structure, new employee concern, agent independence, and general satisfaction. The ACQ was administered to 125 managers and 386 agents representing 69 life insurance agencies. The data are analyzed to show the intralevel reliability, agent-agent reliability, manager-manager reliability, and interlevel relationships. The question is raised as to which view of the organizational climate should be considered absolute—manager, assistant manager, or agent—since there was a lack of congruence between their assessments. Results indicate that the ACQ developed is a reliable measure which may yield an approach to establishing viable criteria for selecting potential agents. (28 ref.)—D. L. Dieterly.

7905. Šebek, Levin & Peršić, Bogomir. (Faculty of Philosophy, Ljubljana, Yugoslavia). **Učjecaj majstora na produktivnost rada u maloj grupi.** [The foreman's influence on the productivity of the small work group.] *Revija za Psihologiju*, 1970, Vol. 1(1), 49-53.—In addition to daily productivity indices, daily ratings of the foreman's behavior by the employees were used as an indicator of the work group morale. 6 groups, each of 10-12 female workers, in 1 textile factory were Ss in this 3-mo study. A small positive correlation was obtained between daily ratings of the foreman's behavior and the daily productivity of the group. Such a small correlation was explained by the influence of a number of confounding factors which independently influenced the productivity and ratings. The length of job experience of

the foreman was singled out as probably the most important factor contributing to his popularity in the work group.—*English summary.*

7906. Singh, Gurdial. (Shree Ram Centre for Industrial Relations, New Delhi, India) **Styles of supervision and organisational effectiveness: An integrated view.** *Psychology Annual*, 1969(Mar), Vol. 3, 14-16.—Discusses the controversy over the effectiveness of various supervisory styles. Close (authoritarian) and general (democratic) supervisory styles and their theoretical backgrounds in traditional management and human relations schools are described. Contradictory evidence from studies on the productivity associated with both systems are noted. The nature of technology is considered. It is concluded that the productivity of a particular style of supervision is dependent on the tasks, the people, and the organizational design.—*S. Knapp.*

7907. Skrocki, Ralph C. (Western Michigan U.) **Perceived behavioral changes in first-line supervisors who participated in a basic management program.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3923-3924.

7908. Springer, Robert M. (George Washington U.) **An analysis of attitudes toward the legitimacy of supervisor influence in a military environment.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-A), 3721-3722.

7909. Stary, Dinko. (Workers U. "Moša Pijade," Zagreb, Yugoslavia) **Uklanjanje li metoda modifikiranog prisilnog izbora mogućnost pristranosti ocjenjivača.** [Does the modified method of forced choice eliminate the rater's bias.] *Revija za Psihologiju*, 1970, Vol. 1(1), 19-22.—The findings obtained on 68 industrial supervisors and 108 psychology students indicate that Highland and Berkshire's modified method of forced choice does not necessarily remove the rater's bias when he is determined to give biased judgments. Consequently, no advantage of the modified method over the classical one can be claimed.—*English summary.*

7910. Szyper-Perl, Sylvie. (Free U., Lab. of Industrial Psychology, Brussels, Belgium) **Systèmes d'attitudes et de valeurs comme déterminants psychologiques de l'état des communications dans un organisme bancaire.** [Systems of attitudes and of values as psychological determinants of the state of communications in a bank organization.] *Psychologica Belgica*, 1970, Vol. 10(2), 265-285.—Investigated factors related to efficiency of communications in a state controlled bank. A test battery, consisting of tests for motivations, need for security and power, attitudes, mass empathy, objectives, and resistance to frustration, was applied to members of financial, data-processing, and branch departments. Data show that important security need results from bureaucratic or administrative values and is negatively related to communications efficiency and positively related to institutional stability. People who disturb such stability are characterized by resistance to frustration and high degree of mass empathy. A number of other determinants of communications efficiency are discussed. (English abstract) (30 ref.)—*S. Slak.*

7911. Udo, Amanam A. (U. Utah) **Motivation of the worker: An analysis of the concept of motivation as a symbolic phenomenon.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4921-4922.

7912. Wood, Michael T. & Sobel, Robert S. (Ohio State U.) **Effects of similarity of leadership style at**

two levels of management on the job satisfaction of the first level manager. *Personnel Psychology*, 1970(Win), Vol. 23(4), 577-590.—Compared the effects of leadership style, as measured by the esteem for the least preferred co-worker, developed by Fiedler, to satisfaction as measured by the Job Description Index. Data were collected on managerial personnel in 21 United States Post Offices. The study was designed to test the hypothesis that the 1st-line managers working under 2nd-line managers whose leadership styles are similar are more satisfied than 1st-line managers whose superiors have a dissimilar leadership style. The results, based on a series of paired t tests, generally supported the hypothesis. (16 ref.)—*D. L. Dieterly.*

7913. Wyman, Forrest P. (U. Colorado) **A model for assigning personnel to work groups to facilitate group cohesiveness.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5689-5690.

SPECIAL ENVIRONMENTS

7914. Doll, Richard E. & Gunderson, E. Eric. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Group size, occupational status and psychological symptomatology in an extreme environment.** *Journal of Clinical Psychology*, 1971(Apr), Vol. 27(2), 196-198.—Data were obtained on 152 Navy enlisted men and 94 civilian scientists and technicians assigned to United States Antarctic stations for 1 yr. during 1964-1968. The only finding which suggested a relationship between group size and psychological symptomatology was that of hostility within the military contingent in early winter. There was a higher level of hostile feelings at the smaller stations. Differences in depression related more to military-civilian status than to group size. The military expressed more depression throughout the winter and more insomnia in late winter than the civilians.—*E. J. Kronenberger.*

7915. Luria, S. M. & Kinney, Jo Ann. (U.S. Naval Submarine Medical Center, New London, Conn.) **Underwater vision.** *Science*, 1970(Mar), Vol. 167(3924), 1454-1461.—Discusses the physical and psychological bases of visual distortions that occur underwater. Images of an underwater object are altered in apparent size and distance; color and brightness are changed, and outlines become less distinct. Factors contributing to such distortions are reviewed, including the type and source of water. Differences in resolution acuity and stereoscopic acuity for air and water are compared. Adaptation to visual distortion is reviewed, emphasizing factors which facilitate the adaptation process. The underwater environment permits studies of adaptation under natural rather than artificial conditions. (36 ref.)—*P. McMillan.*

7916. Narasaki, Shiro; Fukuda, Junichi; Kozaki, Masataka, & Takimoto, Nobuko. (Jikei U., Medical School, Tokyo, Japan) [On the fatigue of the civil air transportation crews observed from their visual functions: II. On the influence of the days of training flight to the visual functions of crews.] *Japanese Journal of Aerospace Medicine and Psychology*, 1969(Jun), Vol. 6(2), 35-41.—Assessed visual functioning tests of night vision, accommodative near point, depth, kinetic vision, vertical phoria, and horizontal phoria in 5 25-39 yr. old male flight engineers prior to and on the 1st, 2nd, and 3rd days of continuous training flights. Results demonstrate that prolonged accommodative near point was the 1st sign of fatigue. Vertical phoria and diminished visual acuity

accompanied by decreased kinetic vision occurred in response to fatigue. Night vision, however, was not significantly affected.—*English abstract.*

ADVERTISING & CONSUMER PSYCHOLOGY

7917. Britt, Stuart H. (Ed.) (Northwestern U., Graduate School of Management) **Consumer behavior in theory and in action.** New York, N.Y.: John Wiley 1970. xxv, 499 p. \$11.95.

7918. Hadley, John S. (U. Illinois, Urbana-Champaign) **The interaction of personality, products and strategic communications as viewed through a framework of perceived risk.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4700.

7919. Pellemans, Paul A. (Columbia U.) **Investigations on attitude and purchase intention toward the brand.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4335.

7920. Smart, Bradford D. (Purdue U.) **Reinforcement contingencies and induced product preference.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 5050.

ENGINEERING PSYCHOLOGY

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DRIVING & SAFETY

7921. Bracy, Lewis F. (U. Southern Mississippi) **An exploration of the relationship between personality factors and automobile accident proneness.** *Dissertation Abstracts International*, 1971(Feb), Vol. 31(8-B), 4967.

7922. Haward, L. R. **Personality of parachutists: I.**

Neuroticism, extraversion and stress tolerance. *Flight Safety*, 1969(May), Vol. 2(4), 12-15.—Tested the hypothesis that the higher casualty rate with lower risk level encountered in civilian parachuting exists because civilian parachutists as a group include a higher proportion of individuals prone to impaired behavioral efficiency during the critical phase of descent, and that it is these individuals who contribute to the higher casualty rate. A questionnaire was circulated to active participants in the sport, and 180 were received back. The questionnaire consisted of questions plus a standard personality questionnaire. The 2nd stage of the investigation consisted of individual tests of volunteer parachutists using special psychological tests together with physiological measures of stress resistance. It is already clear that the higher stress response of civilian parachutists ($N = 19$) represents a slightly greater risk than that borne by military paratroops in that stress-paralysis becomes more probable.—*S. R. Diamond.*

7923. Sreekumar Menon, A. (Sree Ram Center for Industrial Relations, New Delhi, India) **A study of psycho-physiological and sensori-motor factors involved in accidents and accident proneness in industry.** *Psychology Annual*, 1969(Mar), Vol. 3, 31-33.—Compared accident free, accident repeating, high accident, and low accident groups of workers on 29 components of sensorimotor ability and measures of psychophysiological functioning. Differentiating factors significant at or beyond the .05 level, found for accident free and accident repeating Ss and for high and low accident Ss, included (a) visual acuity, (b) visual discrimination, (c) depth perception, (d) muscular strength, (e) arm steadiness, (f) speed and accuracy of 2 hand coordination, and (g) tweezer dexterity in filling. It is concluded that this approach to investigations of accidents is promising, and that such prognosticating devices may be of use in employment and training programs.—*S. Knapp.*

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GENERAL

OBITUARIES

7924. Court, J. H. John C. Raven, M.Sc., F.B.Ps.S. (1902-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 47-48.—Briefly recounts the life of J. C. Raven known for his contribution to psychological theory and practice.—V. S. Sexton.

7925. Lee, D. M. Charlotte M. Fleming, M.A., Ed.B., Ph.D. (1894-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 45-46.—Briefly recounts the life of C. M. Fleming and her contribution to furthering "psychological knowledge and its relations with the practice of education in all its aspects."—V. S. Sexton.

7926. White, John G. Mahesh M. Desai, M.A., B.Comm., LL.B., Ph.D., F.B.Ps.S. (1903-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 45.—In this obituary, the contribution of M. M. Desai to establishing a place for clinical psychologists in England's health services is briefly recounted.—V. S. Sexton.

7927. Woodhead, Barbara. Emanuel Miller, M.A., F.R.C.P., D.P.M., F.B.Ps.S. (1893-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 47.—Briefly recounts the life of E. Miller known for his work in, and contributions to, child psychiatry.—V. S. Sexton.

7928. Wright, H. J. Charles Jackson, M.A., Ph.D., Dip.Ed., F.B.Ps.S. (1908-1969). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 46-47.—Briefly recounts the life of C. Jackson who is known for his work in pioneering postwar educational psychology.—V. S. Sexton.

HISTORY

7929. Brown, L. B. & Fuchs, Alfred H. (Victoria U., Wellington, New Zealand) Early experimental psychology in New Zealand: The Hunter-Titchener letters. *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 10-22.—Experimental psychology in New Zealand had an early start (1904) but only slowly separated from philosophy. In so doing, both the attitudes of philosophers and the nonexperimental traditions then prevailing in Great Britain had to be overcome—especially difficult since New Zealand ex-aminations were then set and marked in Great Britain. Titchener staunchly encouraged Hunter's pioneering efforts to work towards "experimental psychology" as a separate discipline, thus, contributing to the world spread of experimental psychology as well as simply bringing Wundtian psychology to North America.—C. M. Franks.

7930. Flugel, J. C. & West, Donald J. A hundred years of psychology. New York, N.Y.: International Universities Press, 1970. 394 p. \$12.

7931. Joynson, R. B. (U. Nottingham, England) The breakdown of modern psychology. *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 261-269.—The author's examination of the "generally accepted doctrine" of objective experiment leads him to agree with J. J. Gibson's contention that scientific psychology is ill-founded and its gains puny. Attempts to restrict inquiry to the study of external stimulation alone are shown to have repeatedly failed as have attempts to include internal conditions by indirect methods. The history of modern psychology is described as a record, not of scientific advance, but of intellectual retreat.—V. S. Sexton.

7932. Juhasz, Joseph B. (Bennington Coll.) Greek theories of imagination. *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 39-58. The historical antecedents of our present conception of what is a "mental image" are traced back to its Greek origin. The history of the concept of imagining, of the concept of image, is inextricably intertwined with the history of the theory of knowledge. The Greek's preoccupation with the means whereby knowledge is obtained led them to the concept of "imagining" and a tying together by Aristotle of seemingly diverse phenomena under 1 rubric. The swing away from empirical, objective knowing during the Middle Ages prepared the ground for the late resurgence of the visual and other metaphors for the process of imaginal knowing in the age of science and reason—and for their unquestioned acceptance as the truth (as "the way things are") by today's man in the streets. In paying attention to the "participant" senses, to the total and undivided involvement of the haptic world, we are moving away from a dualistic and aseptic approach to nature and to ourselves.—C. M. Franks.

PHILOSOPHY

7933. Dubinin, N. P. (Inst. of General Genetics, Moscow, USSR) *Filosofskie i sotsiologicheskie aspekty genetiki cheloveka*. [Philosophical and sociological aspects of human genetics.] *Voprosy Filosofii*, 1971(Jan), Vol. 25(1), 36-45.—Owing to man's consciousness, there is a program of social inheritance as well as one of biological inheritance. The rapidity of the former compensates for the slowness of the latter. Modern genetics does not support views postulating the biological degeneration of man. Criticism is leveled at opinions according to which the genetic nature of mankind requires major alteration if it is to escape destruction due to biological factors. In order to intervene into the heredity of man without spiling its unique character, it is first necessary to gain a deep understanding of his genetics, and the relationship between his genetic and social programs. (English summary)—I. D. London.

7934. Gvishiani, D. M., Mikulinskii, S. R., & Yaroshevskii, M. G. (State Committee on Science &

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7925. Lee, D. M. Charlotte M. Fleming, M.A., Ed.B., Ph.D. (1894-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 45-46.—Briefly recounts the life of C. M. Fleming and her contribution to furthering "psychological knowledge and its relations with the practice of education in all its aspects."—V. S. Sexton.

7926. White, John G. Mahesh M. Desai, M.A., B.Comm., LL.B., Ph.D., F.B.Ps.S. (1903-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 45.—In this obituary, the contribution of M. M. Desai to establishing a place for clinical psychologists in England's health services is briefly recounted.—V. S. Sexton.

7927. Woodhead, Barbara. Emanuel Miller, M.A., F.R.C.P., D.P.M., F.B.Ps.S. (1893-1970). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 47.—Briefly recounts the life of E. Miller known for his work in, and contributions to, child psychiatry.—V. S. Sexton.

7928. Wright, H. J. Charles Jackson, M.A., Ph.D., Dip.Ed., F.B.Ps.S. (1908-1969). *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 46-47.—Briefly recounts the life of C. Jackson who is known for his work in pioneering postwar educational psychology.—V. S. Sexton.

HISTORY

7929. Brown, L. B. & Fuchs, Alfred H. (Victoria U., Wellington, New Zealand) Early experimental psychology in New Zealand: The Hunter-Titchener letters. *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 10-22.—Experimental psychology in New Zealand had an early start (1904) but only slowly separated from philosophy. In so doing, both the attitudes of philosophers and the nonexperimental tradition then prevailing in Great Britain had to be overcome—especially difficult since New Zealand examinations were then set and marked in Great Britain. Titchener staunchly encouraged Hunter's pioneering efforts to work towards "experimental psychology" as a separate discipline, thus, contributing to the world spread of experimental psychology as well as simply bringing Wundtian psychology to North America.—C. M. Franks.

7930. Flugel, J. C. & West, Donald J. A hundred years of psychology. New York, N.Y.: International Universities Press, 1970. 394 p. \$12.

7931. Joynson, R. B. (U. Nottingham, England) The breakdown of modern psychology. *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 261-269.—The author's examination of the "generally accepted doctrine" of objective experiment leads him to agree with J. J. Gibson's contention that scientific psychology is ill-founded and its gains puny. Attempts to restrict inquiry to the study of external stimulation alone are shown to have repeatedly failed as have attempts to include internal conditions by indirect methods. The history of modern psychology is described as a record, not of scientific advance, but of intellectual retreat.—V. S. Sexton.

7932. Juhasz, Joseph B. (Bennington Coll.) Greek theories of imagination. *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 39-58.—The historical antecedents of our present conception of what is a "mental image" are traced back to its Greek origin. The history of the concept of imagining, of the concept of image, is inextricably intertwined with the history of the theory of knowledge. The Greek's preoccupation with the means whereby knowledge is obtained led them to the concept of "imagining" and a tying together by Aristotle of seemingly diverse phenomena under 1 rubric. The swing away from empirical, objective knowing during the Middle Ages prepared the ground for the late resurgence of the visual and other metaphors for the process of imaginal knowing in the age of science and reason—and for their unquestioned acceptance as the truth (as "the way things are") by today's man in the streets. In paying attention to the "participant" senses, the total and undivided involvement of the haptic world, we are moving away from a dualistic and aseptic approach to nature and to ourselves.—C. M. Franks.

PHILOSOPHY

7933. Dubinin, N. P. (Inst. of General Genetics, Moscow, USSR) *Filosofskie i sotsiologicheskie aspekty genetiki cheloveka*. [Philosophical and sociological aspects of human genetics.] *Voprosy Filosofii*, 1971(Jan), Vol. 25(1), 36-45.—Owing to man's consciousness, there is a program of social inheritance as well as one of biological inheritance. The rapidity of the former compensates for the slowness of the latter. Modern genetics does not support views postulating the biological degeneration of man. Criticism is leveled at opinions according to which the genetic nature of mankind requires major alteration if it is to escape destruction due to biological factors. In order to intervene into the heredity of man without spoiling its unique character, it is first necessary to gain a deep understanding of his genetics, and the relationship between his genetic and social programs. (English summary)—J. D. London.

7934. Gvishiani, D. M., Mikulinskii, S. R., & Yaroshevskii, M. G. (State Committee on Science &

Technology, Moscow, USSR) **Sotsial'nye i psikhologicheskie aspekty izucheniya deyatel'nosti uchénogo.** [Social and psychological aspects in the study of the activity of the scientist.] *Voprosy Filosofii*, 1971(Mar), Vol. 25(3), 83-92.—Discusses modern science as a special form of activity with its own particular social and psychological aspects. Structural changes in the organization of scientific endeavor make imperative the clarification of the ways in which organizational forms influence the intellectual activity and motivation of the scientist. Meanwhile, the fact that the organization of scientific activity may not keep up with changes in its character presents a continual difficulty. However, it does not follow from this that the organization of scientific endeavor is in itself incompatible with freedom of research or destructive of scientific creativity. The rational organization of scientific endeavor, by taking into account the special character of scientific work and the properties of interpersonal relationships, aims to create an intellectual climate that is conducive to the realization of the creative potential of individual researchers. (English summary)—*J. D. London*

7935. Jones, Hardy E. (U. Wisconsin) **Kant's principle of personality.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6112

7936. Osipenko, I. **O kul'ture umstvennogo truda.** [On the cultivation of mental work.] *Dushkal'nye Voprasy*, 1970(Dec), Vol. 43(12), 64-68.—Discusses Lenin's prescriptions for cultivating useful habits for mental work in general. *J. D. London*

7937. Przelencky, M. (Warsaw U., Poland) **O znachenii teorii modelei v logike émpiricheskoi nauki.** [On the significance of the theory of models in the logic of empirical science.] *Voprosy Filosofii*, 1971(Mar), Vol. 25(3), 127-135.—Discusses the applicability of the theory of models in the logical analysis of empirical theories. Its use for the study of the semantics of empirical languages is seen as opening up new possibilities, as illustrated by the procedures of widening the language of empirical theory through the addition of new terms. Major attention is directed to the problem of interpretation of the language under examination. (English summary) *J. D. London*

7938. Rybak, David. **Existential behaviorism: A transactionalistic approach to self-determination.** *Canadian Psychologist*, 1971(Apr), Vol. 12(2), 243-247.—Describes existential behaviorism as a transactionalistic approach to the free will-determinism controversy in psychology. This relativistic view gives equal importance to both schools, advocating that self-determination involves the free choice of shaping one's own destiny using, perhaps, a knowledge of cause and effect principles of behavior. (French abstract)—*Journal abstract*

7939. Sevast'yanov, V. I. & Ursul, A. D. (Inst. of Philosophy, Moscow, USSR) **Kosmicheskaya éra: Novye vzaimootnosheniya obshchestva i prirody.** [The cosmic era: New interrelationships between society and nature.] *Voprosy Filosofii*, 1971(Mar), Vol. 25(3), 107-116.—Discusses the consequences of man's penetration into space evoking a call for new attitudes in order to "place the achievements of space exploration at the service of mankind." (English summary)—*J. D. London*

7940. Smirnov, G. L. **K voprosu o kontseptsii sotsialisticheskogo tipa lichnosti.** [On the conception of man as a socialist type.] *Voprosy Filosofii*, 1971(Jan), Vol. 25(1), 26-35.—Describes the general social and

personality characteristics of the man who may be termed socialist in type as distinguished from other types historically known. This man assimilates, in the form of "character traits," the basic characteristics of the new social environment along with the values of a socialist ideology. The latter organically include a new attitude toward work and other people since this new type of man reflects the real properties of a new social environment. However, the general socialist type includes subtypes that reflect the social heterogeneity of the past which lingers on. Social heterogeneity in a socialist society need not be an obstacle but may be viewed as a condition for the development of diversity. (English summary)—*J. D. London*

7941. Iugarinov, V. P. **Filosofiya soznaniya.** [Philosophy of consciousness.] USSR: Mysl', 1971. 72 K.—Presents a philosophical study of consciousness based on generalizations achieved in modern neurophysiology, general and social psychology, cybernetics, bionics, and semiotics. Consciousness was analyzed in its ontological and social aspects. Significance of the information concept in cybernetics, the problem of signs and symbols, machine thinking, and the problems of social psychology are discussed.—*J. Haley*

PARAPSYCHOLOGY

7942. ———. **Autumn review meeting of the Institute for Parapsychology, FRNM.** *Journal of Parapsychology*, 1970(Dec), Vol. 34(4), 271-284.—Presents summaries of 19 reports which were read at the Foundation for Research on the Nature of Man in September 1970.

7943. FitzHerbert, Joan. **The nature of hypnosis and paranormal healing.** *Journal of the Society for Psychical Research*, 1971(Mar), Vol. 46(747), 1-15

Integrating an explanation of the phenomena described in works by W. Sargant, S. Black, and N. Miller, hypnosis is described as somewhat analogous to fetal life—the trance as regression to an infantile state, and the hypnotist as a mother figure. The hypothesis suggesting intimate mother-child communication prior to 2 yr. of age, which may be confused for ESP communication with God, is cited. In a deep trance, ESP abilities, freed from repression, increase in telekinetic power. The interaction of telekinetic mental energy with another mental energy field may affect all matter. Therefore, visualizing physical healing by suggestion in deep hypnotic trances becomes the resultant produced by telekinetic activity. Similar mechanisms are described for autonomic learning and divine healing. (18 ref.)—*G. J. Frankel*

7944. Schmidt, Helmut. (Inst. for Parapsychology, Durham, N.C.) **PK experiments with animals as subjects.** *Journal of Parapsychology*, 1970(Dec), Vol. 34(4), 255-261.—Attempted in 2 experiments to use pleasant or unpleasant stimuli to activate the possible psychokinesis ability of animals and lower forms of life. The basic apparatus was a binary random number generator (RNG). In some exploratory tests with a cat, the RNG was connected to a heat lamp placed with the S in a cold room. A total of 9,000 numbers generated resulted in 4,615 occasions on which the lamp turned on and provided the S with heat. In Exp. II cockroaches served as Ss. Ss were placed on a shocking grid, also connected with the binary RNG, in order to see if the Ss could influence the apparatus so as to avoid the electric shock. It was found that they received more, not less.

than the expected number. A confirmatory test showed the same direction of scoring: a total of 25,600 numbers generated by the RNG resulted in 13,109 shocks, a deviation of 309 more than expected by chance. It is suggested that the random generator did not produce the numbers as physics would predict, but the generated numbers depended on the later effect they caused.
—*Journal abstract.*

7945. **Thouless, Robert H.** Experiments on psi self-training with Dr. Schmidt's pre-cognitive apparatus. *Journal of the Society for Psychical Research*, 1971(Mar), Vol. 46(747), 15-21.—Utilizing H. Schmidt's (see PA, Vol. 44:4322) electronic apparatus for pre-cognitive experimentation, in which the S has to decide which of 4 colored lights will be in circuit when he presses a key, the E tested himself (8 batches of 100 trials) daily for 3 wk. The 1st batches aimed at success in pressing down the correct key, while aiming for failure in the next batch, hoping to achieve a differential effect from the 2 conditions. The E reported statistically insignificant results of attempts to find evidence of learning. Although the experiment appears to be a failure in finding a psi task learning device, because some suggestion of a learning effect did occur, further experimentation is encouraged.—*G. J. Frankel.*

THEORY & SYSTEMS

7946. **Burger, Henry G.** (U. Missouri, Kansas City) **Diachrony and arbitrage: Neglected factors in operant psychology.** *Current Anthropology*, 1971, Vol. 12, 171-178, 188-189.—The perhaps dominant school of psychology is operant behaviorism, made operational by Skinner's group as behavior modification. It is based on responses near in time and place to stimuli—appropriately, responses of pigeons, rats, and aphasics. But the normal human brain has a distinctive part (the angular gyrus) which enables cognition to bypass emotion, hence enabling symboling. Culture is the institutionization of symboling by interchanging past and future times, near and distant places. Navajo Indians avoid government gifts because of past experiences. Potlatches interequalize the irregularities (in time and space) of fish runs. Puberty rites create obligations that overcome tropical protein deficiencies. Such spatio-temporal spreadings are environmental realities that hardly fit the rigid laboratory. Such interlinkages require field work. Operant-boasted successes disappear when one pursues them beyond their artificial environment, especially into a non-Anglo environment. 5 field situations are cited. (16 ref.)
—*Journal summary.*

7947. **Gibson, James J.** (Cornell U.) **The legacies of Koffka's principles.** *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 3-9.—Among the founding fathers of Gestalt psychology, Koffka is the only one to have written a book of principles. But the laws of vision that he proposed, apart from the facts that he established, have not been verified over the years; e.g., the phenomenon of figure-on-ground is not universal. The concept of structure remains ambiguous. And yet his book, more than any other of its time, set the psychology of perception on its present course.—*C. M. Franks.*

7948. **Hindeland, Michael J.** (U. California, Berkeley) **Edward Bradford Titchener: A pioneer in perception.** *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 23-28.—Titchener, born in England

but heavily indoctrinated with the German (Wundtian) tradition, stressed psychology as the science of "mind" or "consciousness," which 2 concepts he subtly distinguished. To study these phenomena, he turned to Asch-type introspection. Through introspection, 3 elements basic to perception were isolated—sensation, image, and affect. Sensation, the most important and the most basic element, was defined as any sense process that could not be further analyzed by introspection. In his 35 yr. of work in perception, Titchener published 10 books and over 200 articles—many devoted to the defense of introspection as a valid and reliable means of observation. While both introspection and much of the data he collected are highly suspect, Titchener is still to be viewed as very much responsible for making psychology scientific and experimental.—*C. M. Franks.*

7949. **Hudson, Liam.** (U. Edinburgh, Scotland) **The choice of Hercules.** *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 287-292.—Discusses the position of psychology between the polar extremes defined by the arts on the 1 hand and physical sciences on the other. The limitations of excessive empiricism are cited. The need to explore other alternatives—the structural, the phenomenological, and the anthropological—is recognized. It is felt that such exploration might even result in the kind of paradigm change which psychology now needs.—*V. S. Sexton.*

7950. **Radner, Michael & Winokur, Stephen.** (Eds.) (McMaster U., Hamilton, Ontario, Canada) **Minnesota studies in the philosophy of science: IV. Analyses of theories and methods of physics and psychology.** Minneapolis, Minn.: U. Minnesota Press, 1970. ix, 441 p. \$12.50.

7951. **Sjöberg, Lennart.** (U. Göteborg, Sweden) **The new functionalism.** *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 29-52.—Reviews the development of E. Brunswik's probabilistic functionalism. Brunswik's major contribution is considered to be his consistent emphasis on the importance of ecology. Brief reviews are presented of recent applications of probabilistic functionalism in perception, learning, and applied psychology. A mentalistic approach to psychology is considered as an alternative to functionalism. (3 p. ref.) *Journal abstract.*

7952. **Taylor, James G.** **Phantom theories: A reply to Mr. Vine.** *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 281-285.—Intended as a reply to I. Vine who attacked the present author's article on the role of axioms in psychological theory, this paper discusses theories that are unreal by reason of internal inconsistency but are not recognized as such. Such theories are termed phantom theories because they are incapable of performing the task for which a theory is designed, i.e., providing a tentative model that will serve to describe the operation of a real system in nature.—*V. S. Sexton.*

7953. **Westland, Gordon.** (U. Surrey, Guildford, England) **A note on the sub-philosophy of psychology.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 23-26. Proposes that the unwillingness among psychologists to think about what they do and say in analytical terms creates problems at a level below that of genuinely philosophical problems. It is contended that this sub- or prephilosophical level of confusion makes the real problems more obscure and difficult to grasp. It is argued that this level is the level of terminology. Difficulties caused by loose word usage cannot be ignored. (15 ref.)—*V. S. Sexton.*

EDUCATION & TRAINING

7954. Blumen, G. Une année de fonctionnement de la commission provisoire d'enseignement de la psychiatrie. [One year of functioning of the Provisional Commission on Psychiatric Education.] *Annales Médico-Psychologiques*, 1970(Dec) Vol. 253, 786. Reports on the actions of the French Provisional Regional Commission on Psychiatric Education, established in 1969. The 2nd part of the report deals with problems arising from the imposition of new educational forms for the teaching of psychiatry.—H. E. King.

PROFESSIONAL DEVELOPMENTS

7955. Cavers, David F. (Harvard U. Law School) The legal control of the clinical investigation of drugs: Some political, economic, and social questions. *Daedalus*, 1969(Spring) Vol. 98(2), 427-448. The multiplication of experiments incidental to the testing of drugs having similar powers, but with trivial differences related to questions of private rights over them complicates the application of general legal and professional principles. The duplications involved in the so-called "me too" drugs do not change the basic demands upon all who experiment with human Ss. The effort to establish effective governmental controls may in time produce a major shift in the responsibility for carrying out drug investigations.—R. F. Creegan.

7956. Curran, William J. (Harvard Medical School, Boston, Mass.) Governmental regulation of the use of human subjects in medical research: The approach of two federal agencies. *Daedalus*, 1969(Spring) Vol. 98(2), 542-594.—Prior to the passage of regulatory statutes there was a major effort to canvass opinion in the hospitals and research centers, and to determine the facts concerning current practice and self-regulation. The operation of administrative rules and of acts of Congress alike have been reviewed by additional questionnaires and symposia. 3 broad guidelines for regulation have received wide approval in almost all regulatory bodies: protection of the welfare of Ss, obtaining informed consent, and assessment of the risks and potential benefits of a specific investigation.—R. F. Creegan.

7957. Edsall, Geoffrey. (Massachusetts Dept. of Public Health, State Lab., Boston) A positive approach to the problem of human experimentation. *Daedalus*, 1969(Spring) Vol. 98(2), 463-479.—R. F. Creegan.

7958. Freund, Paul A. (Harvard U.) Introduction to the issue "Ethical aspects of experimentation with human subjects." *Daedalus*, 1969(Spring) Vol. 98(2), vii-xiv.—Since the 1950s funds for medical and related research have increased many times, and so has experimentation with human Ss. This issue of *Daedalus* offers some 15 statements on the ethical problems involved, and has articles by experts in some of the behavioral sciences as well as legal and medical specialists. Some articles discuss substantive issues, while others are concerned with procedures for arriving at ethical judgments and putting them into effect.—R. F. Creegan.

7959. Freund, Paul A. (Harvard U.) Legal frameworks for human experimentation. *Daedalus*, 1969(Spring) Vol. 98(2), 314-324. The legal frameworks relate not only to governmental regulation of practice, but to precedents in suits brought by patients or their families as a consequence of medical failures whether or

not caused by errors or illegal actions. Structural measures within a research community are in many cases more directly effective, but the ethical standards of the individual doctor will have the last word in some cases, and so education and factors affecting general views are involved. Cases are cited in the elaboration of these and secondary points.—R. F. Creegan.

7960. Jonas, Hans. (New School for Social Research) Philosophical reflections on experimenting with human subjects. *Daedalus*, 1969(Spring) Vol. 98(2), 219-247.—R. F. Creegan.

7961. Mead, Margaret. (American Museum of Natural History, New York, N.Y.) Research with human beings: A model derived from anthropological field practice. *Daedalus*, 1969(Spring) Vol. 98(2), 361-386.—The confidence of the public towards whole branches of science depends in large measure upon opinions concerning the ethical standards and consistency of practitioners. Society by sanctioning and supporting science implies a certain trust, and the scientist seeks to maintain that. The appropriate model for the human experimental S is the informed participant in science, and nothing could be more different than the human guinea pig. Difficulties in maintaining the ideal are severe in some urban hospital settings, no less than in some areas of anthropological field research. Reasons for trying to do so are pragmatic, as well as purely ethical, and are sufficiently convincing once the scientist understands them.—R. F. Creegan.

7962. Moore, Francis D. (Harvard Medical School, Boston, Mass.) Therapeutic innovation: Ethical boundaries in the initial clinical trials of new drugs and surgical procedures. *Daedalus*, 1969(Spring) Vol. 98(2), 802-822.—The 1st use of ether anesthesia, the 1st injection of insulin, and the 1st use of liver extract are a few examples among thousands that could be cited of potentially dangerous initial therapeutic trials. Risk exists in all such cases, and may be minimized but not eliminated by nontherapeutic experiments along related lines. There is need not only for some legal regulation but for professional guidelines sensitive to the risks and values of specific clinical areas. Whether consent of the S can be truly informed is still debated, and where no one knows all the risks no one is totally informed. There is danger that overregulation at the legal and professional levels will slow the progress of the health sciences, so 1 type of personal and social risk is balanced against other types.—R. F. Creegan.

7963. Parsons, Talcott. (Harvard U.) Research with human subjects and the "professional complex." *Daedalus*, 1969(Spring) Vol. 98(2), 325-360.—R. F. Creegan.

7964. Rurstein, David D. (Harvard Medical School, Boston, Mass.) The ethical design of human experiments. *Daedalus*, 1969(Spring) Vol. 98(2), 523-541.—R. F. Creegan.

INTERNATIONAL PSYCHOLOGY

GENERAL BOOKS & REFERENCE WORKS

7965. Gibbons, Don E. & Connelly, John F. (Eds.) (U. Portland) Selected readings in psychology. St. Louis, Mo.: C. V. Mosby, 1970. ix, 273 p. \$4.95 (paper).—Presents papers from psychological literature as a supplement to an introductory psychology textbook. Topics covered include biological foundations, learning, motivation, and developmental, abnormal, and applied psychology.

METHODOLOGY & RESEARCH TECHNOLOGY

7966. Brewer, Marilyn B., Campbell, Donald T., & Crano, William D. (Northwestern U.) **Testing a single-factor model as an alternative to the misuse of partial correlations in hypothesis-testing research.** *Sociometry*, 1970(Mar), Vol. 33(1), 1-11.—Criticizes the use of partial correlations to test hypotheses about the nature of relationships among psychological variables on the grounds that the model underlying such use of partialing does not allow for the effects of measurement error or unique factor components. It is suggested that the factor structure underlying the intercorrelations always be examined before the single-factor model is rejected in favor of a 2-factor model. Reanalyses of the data from several studies involving partial correlation are presented to illustrate this alternative procedure. (28 ref.)—*Journal abstract*.

7967. Droege, Robert C. (U.S. Dept. of Labor, Manpower Administration, Washington, D.C.) **Effectiveness of follow-up techniques in large-scale longitudinal research.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 27-31.—Recorded the success of techniques used to obtain follow-up occupational and educational information from Ss retested 2 and 7 yr. after being tested in Grade 12. Information was successfully obtained from 18,796 Ss at the 2-yr. follow-up and from 15,100 Ss at the 7-yr follow-up. Results show that (a) primary reliance should be placed on obtaining information by letters, because of their effectiveness and low cost; (b) a variety of secondary sources can be used if the information cannot be obtained from the S; (c) nearly 100% follow-up success is possible if detailed data are not required; and (d) a variety of techniques is required when detailed information must be obtained.—*Journal abstract*.

MODELS & MATHEMATICAL MODELS

MATHEMATICS & STATISTICS

7968. Afonja, Biyi. (U. Wisconsin) **Some Bayesian considerations of the analysis and choice of a class of designs.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5695-5696.

7969. Altin, Murray. (Macquarie U., North Ryde, New South Wales, Australia) **Statistical theory: Behavioral science application.** *Annual Review of Psychology*, 1971, Vol. 22, 225-250.—Presents a critical examination of developments in statistical theory, mainly between 1967 and 1968, which are relevant to behavior science. Important areas include (a) simultaneous inference, (b) multivariate analysis, and (c) nonparametric theory. (71 ref.)—*P. Herizberg*.

7970. Al'terman, A. Z., Rastrigin, L. A., & Solomonov, S. L. (Riga Polytechnical Inst., USSR) **Informatsionno-stolostnaya otsenka takika postanovki diagnoza (na primere razlicheniya dvukh nevrologicheskikh zabolevaniy).** [An assessment of the procedures undertaken to produce a diagnosis, taking into account the information and cost accruing (using discrimination between two neurological diseases by way of example).] *Kibernetika i Diagnostika*, 1969(Nov), No. 3, 171-185.—Proposes several algorithms for setting up procedures to produce a diagnosis, taking into account the information and cost-incurring characteristics of the

symptoms. Informational procedures are represented by 2 algorithms. "Situational entropy" is taken as the basis of the 1st algorithm; the minimum of the number of outcome vectors, as the basis of procedures the 2nd. Cost procedures consist of an examination of all possible variants of the diagnostic process and in the choice of the symptom which provides the least magnitude of mathematical expectation of subsequent losses going into determination of the diagnosis. The proposed procedures reduce to the choice of a symptom for which minimal loss accompanies isolated diminution of the set of outcomes.—*I. D. London*.

7971. Borisov, A. N. & Osis, Ya. Ya. (Riga Polytechnical Inst., USSR) **Polisk naibol'shei razdelnosti razmytykh mnozhestv.** [Search for the greatest divisibility of fuzzy sets.] *Kibernetika i Diagnostika*, 1969(Nov), No. 3, 79-88.—Examines the problem of the quantitative assessment of the informational character of diagnostic parameters, utilizing L. A. Zadeh's theory of "fuzzy sets." The method leads to optimizing the recognition of classes of technical states for a complex object of diagnosis. Mathematical procedures are developed and applied.—*I. D. London*.

7972. Hammond, Kenneth R., Householder, James E., & Castellan, N. John. (U. Colorado) **Introduction to the statistical method: Foundations and use in the behavioral sciences.** (2nd ed.) New York, N.Y.: Alfred A. Knopf, 1970. xxi, 410 p.

7973. Kutsin, G. I. & Rastrigin, L. A. (Riga Polytechnical Inst., USSR) **Issledovanie funktsii nevyazki pri identifikatsii prostranstvennykh form metodom minimizatsii.** [Study of the incongruity function in identification of spatial forms by the method of minimization.] *Kibernetika i Diagnostika*, 1969(Nov), No. 3, 97-105.—Presents the results of an investigation of the incongruity function applied to 2 images, represented in the form of n pairs of coordinates of specific points by the means of which these images are compared. The incongruity function should be minimal in case of identity of the latter. Mathematical procedures are developed and applied.—*I. D. London*.

7974. Markovich, Z. P. (Riga Polytechnical Inst., USSR) **Predvaritel'noe opredelenie diagnosticheskikh parametrov.** [Preliminary determination of diagnostic parameters.] *Kibernetika i Diagnostika*, 1969(Nov), No. 3, 19-32.—Proposes an algorithm for determining a set of diagnostic parameters, taking into account their informational weight and accessibility. The complex object of a technical diagnosis is replaced by its mathematical description in the form of graphs. A number of conditions are set up for the selection of the diagnostic parameters. The algorithm is illustrated by examples with appropriate graphic and numerical materials. *I. D. London*.

7975. McNeill, Keith A. & Spaner, Steven D. (Southern Illinois U.) **Highly correlated predictor variables in multiple regression models.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 117-125.—The inclusion in a multiple regression model of a predictor variable which is highly correlated with other predictor variables is usually not recommended. The argument is that the new predictor variable is accounting for variance which has already been accounted for in the model. A defense for the procedure of including highly correlated predictor variables under certain circumstances is presented. 1st, highly correlated variables can be used when there is a requirement that the predictor variables account for a certain number of group membership vectors. A 2nd and

more important situation occurs when there is theoretical or empirical justification for the inclusion of such a variable. Discussion is limited to a very specific kind of highly correlated variable one that contains the squared elements of 1 of the original variables. *Journal abstract.*

1976. Vul'f, G. N. & Osis, Ya. Ya. (Riga Polytechnical Inst., USSR) *Metody i sredstva raspoznavaniya obrazov i ikh prigodnost' dlya diagnostiki slozhnykh ob'ektov.* [Methods and means for recognition of images and their suitability for diagnosis of complex objects.] *Kibernetika i Diagnostika*, 1969(Nov), No. 3, 119-128. The problem of image recognition is shown to be equivalent to a certain mathematical problem involving an n -dimensional vector in a space of indices. Solutions are proposed and further problems suggested for exploration. Various questions are discussed concerning (a) organization of devices for image recognition, (b) classification, and (c) some possibilities for the application of points a and b for diagnostic purposes. (30 ref.).—*J. D. London.*

Factor Analysis

1977. Boon van Oostade, A. H. (Roman Catholic U., Nijmegen, Netherlands) *Over type-onderzoek.* [Concerning type-investigation.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Feb), Vol. 26(2), 82-101.—Discusses the applicability of type and/or trait investigations. A type is defined as a construct identified by a characteristic or combination of similar characteristics. A trait is defined as a characteristic or combination of characteristics that constitute a type. Type investigation is best accomplished by Q-analysis and trait investigation by R-analysis. The improper usage of either of these analyses has resulted in inconclusive results. Q-analysis is used most effectively in social-psychological research where insight is needed into the behavior of categories of persons. R-analysis is more important in the analysis of individual differences. Q-analysis is more adequate than R-analysis in the study of heterogeneous materials, such as conative and cognitive data. The iterative cluster analysis, if applied as Q-analysis, seems to be an adequate technique in identifying reliable and valid types. The representativeness of the types probably depends more on the reliability of data than on the analysis technique. (English summary) (45 ref.).—*A. J. Ter Keurst.*

1978. Levine, Ralph L. & Hunter, John E. (Michigan State U.) *Statistical and psychometric inference in principal components analysis. Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 105-116.—Statistical inference applied to principal components analysis deals with estimating the parameters of the correlation matrix, R , found in the population, from the characteristics of the sample matrix, R^* . Conversely, psychometric inference refers to estimating the internal consistency of the components themselves, so that the decisions about retaining a component for further analysis can be based upon psychometric criteria. A slightly modified approach to statistical inference, which focuses on the variance of the components in the population, is suggested. This viewpoint can be extended to estimating the true score variance and the reliabilities of the components in the S population. Psychometric tests of significance can then be made statistical in nature. (20 ref.).—*Journal abstract.*

COMPUTERS & PROGRAMING

1979. ———. *Kiberneticheskie problemy bioniki: I. Analiz biologicheskikh prototipov.* [Cybernetic problems in bionics: I. The analysis of biological prototypes.] USSR: Mir, 1971. 1 R. 64 K.

1980. Bukharov, R. G. & Sherstnev, A. N. (Eds.) *Veroyatnostnye metody i kibernetika: IX.* [Probability methods and cybernetics: IX.] USSR: Kazan' U., 1971. 49 K.

1981. Emerson, Phillip L., Camus, Elizabeth, & Richards, Chris. (Cleveland State U.) *Two-voice music programming system: The PDP-9 as an automatic electronic organ.* *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 164-166.—Programmed a small computer to translate 2-part musical scores into tables of numbers which were then used in the execution of the music through an amplifier and loudspeaker. The objective was to create sets of tape recordings to be used in psychophysical testing of the discriminability and preferabilities of music played on different pitch scales. The close tolerances in the timing of events in such stimulus materials demand special programming techniques and hardware components. The working system is described, and recommendations are made concerning the main features of an improved system.—*Journal abstract.*

1982. Haber, Ralph N. (U. Rochester) *An alphanumeric display program for PDP-8.* *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 141-145. Aphanumeric and special characters composed of 5 × 7 dot matrices can be displayed on a CRT by use of a program written for the PDP-8 family of computers. The CRT surface is specified to contain up to 32 rows with up to 32 characters/row. The 35 dots defining each character require 1.5 msec. to generate. Every possible arrangement of spatial and temporal organization among and between strings of characters can be created by simple parameter specification before each trial. The program is designed to operate with a minimal 4k memory computer configuration, with no special hardware other than an oscilloscope display. The program also permits efficient on-line operation so that an entire experiment can be run quickly and efficiently without further programming. A large number of examples are detailed, and operating procedures are specified. *Journal abstract.*

1983. Kuntsevich, V. M. (Ed.) *Kibernetika i vychislitel'naya tekhnika: IX. Diskretnye sistemy upravleniya.* [Cybernetics and computational techniques IX. Discrete systems of administration.] USSR: Naukova Dumka, 1971. 1 R. 20 K.

1984. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) *Computer parasites and hosts: Practical advice on how to be a successful parasite at your host's computer installation.* *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 147-148.—Proposes a solution to the budgetary, computational, psychological, and sociological problems that are encountered by behavioral scientists who contemplate doing on-line computing.—*Journal abstract.*

1985. Treloar, James H. (U. Alabama) *A computer simulation of the effects of violations of the underlying assumptions of Cattell's coefficient of pattern similarity.* *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5217.

1986. Zhukov, N. I. *Informatsiya: Analiz*

tsentral'nogo ponyatiya kibernetiki. [Information: The analysis of the central concept of cybernetics.] USSR: Nauka i Tekhnika, 1971. 82 K.

TESTING

7987. Bock, R. Darrell & Wood, Robert. (U. Chicago) **Test theory.** *Annual Review of Psychology*, 1971, Vol. 22, 193-224.—Reviews the literature on test theory from 1966-1969. Discussion is limited to "test theory as it has developed around problems of measuring ability and attainment by means of objective tests." Areas include general and classical test theory; strong true score theory; latent trait theory; other related topics (i.e., reliability theory, item sampling and generalizability theory, decision-theoretic considerations, item construction theory, item scoring theory, and time-related models); and computer procedures. Speculation on the future of these methods in applied settings is made. (137 ref.)—P. Hertzberg.

7988. Buros, Oscar K. (Ed.) **The sixth mental measurements yearbook.** Highland Park, N.J.: Gryphon, 1965. xxxvi, 1714 p.

7989. Gunnings, Thomas S. (Michigan State U.) **Response to critics of Robert I. Williams.** *Counseling Psychologist*, 1971, Vol. 2(3), 73-77.—In response to the critics of R. I. Williams' (see PA, Vol. 45:4932) article, it is contended that owing to vested interests, the representatives of corporations involved in testing materials are protecting their investment, i.e., these men have employed the argumentum ad crumenam in defense of the validity of their tests. Questions containing racial bias on tests go undetected by examiners because they are not trained to recognize them. The representatives of corporations are entailed in paradox since they admit to differences and inadequacies respecting tests, but nevertheless feel that such testing should be continued.—W. S. Sahakian.

7990. Mellenbergh, G. J. (U. Amsterdam, Netherlands) **Een onderzoek naar het beoordelen van open vragen.** [An investigation about the judging of open questions.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Feb), Vol. 26(2), 102-120.—Studied the reliability of the grading of answers to open-ended questions. The answers of 26 undergraduates about 8 questions in physiology were resubmitted to 4 judges after a 1-yr interval. All means of identification of the Ss were removed. Each week the examiners received a series of answers to certain questions. Each examiner or judge examined all the answers of all the Ss. No contamination or sequence effects were noted. The r between the total judgments of all examiners over all questions with the same judgments in the replication experiment was .976. The high reliability of the examiners was largely due to the objectivity of the answers. Although the interexaminer and test reliabilities were high, there were great differences among the judges regarding "pass-fail" decisions. In only 58% of all cases was there a complete consensus among the judges about their decisions. (English summary)—A. J. Ter Keurst.

7991. Nishisato, Shizuhiko & Torii, Yukihiko. (Ontario Inst. for Studies in Education, Toronto, Canada) **Assessment of information loss in scoring monotone items.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 91-103.—For monotone, dichotomous items, 2 interpretations of the usual scoring procedure may be made: (a) that failure of the items to form a perfect Guttman scale leads to loss of discriminative infor-

mation when the usual procedure of scoring is applied; (b) that nonunidimensionality of the item set leads to information confusion under usual scoring procedures. Measures of information loss for each interpretation are developed and tested using Monte Carlo methods. It is concluded that Interpretation b is the most appropriate.—Journal abstract.

Construction & Validation

7992. Pandey, R. N. (Government Raza Post-Graduate Coll., Rampur, India) **Construct validity of a Social Class Evaluation Scale (SCES).** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 123-124.—Kuppuswamy's Socio-Economic Status Scale (Urban) and Pandey's Social Class Evaluation Scale were both administered to a random sample of 42 10th graders. The coefficient of correlation between the 2 scales was .50.—K. C. Panda.

7993. Singh, Awadhesh K. (U. Bihar, Muzaffarpur, India) **A cross-validation of Cooper's Parent Evaluation Scales on an Indian sample.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 118-122.—Reports on the adaptation of Cooper's Parent Evaluation Scales (in Hindi) for use among students in India. Based on the responses of 100 Ss, the item analysis showed that the 6 sex items in the scale are nondiscriminatory. The final adopted version of the scales consisting of 20 items (Mother scale) and 24 items (Father scale) were administered to a fresh sample of 100 17-21 yr. old Ss. Test-retest reliability after 1 mo. and split-half reliability of the scales ranged from .87 to .92.—K. C. Panda.

EXPERIMENTATION & OBSERVATION

7994. Alexander, C. Norman & Knight, Gordon W. (Stanford U.) **Situated identities and social psychological experimentation.** *Sociometry*, 1971(Mar), Vol. 34(1), 65-82.—Introduces a new approach to the conceptualization and measurement of experimental conditions and to the assessment of the meaning of dependent-variable responses in a given condition. Contradictory and inexplicable findings are accounted for by simulating the results of a series of "insufficient justification" experiments. The hypothesis that Ss attempt to create the most favorable situated identities in experimental encounters explains why Ss answer the dependent-variable questions as they do and as Os predict. Focusing on the salience of situated identity attributes enables this approach, unlike others, to specify the differences that distinguish 1 experimental condition from another. Recommendations for a new theoretical and methodological approach to experimentation in social psychology are presented. (27 ref.)—Journal abstract.

7995. Bloom, Robert & Tesser, Abraham. (U. Georgia) **On reducing experimenter bias: The effects of forewarning.** *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 198-208.—Tested the hypothesis, 1971(Apr), Vol. 3(2), 198-208.—Tested the hypothesis, with 67 male and 70 female undergraduates, that forewarning would reduce the effects of E bias. Es were given different expectations as to how Ss would perform on a person perception task. Each E then ran a number of Ss. 1/2 of each E's Ss were forewarned of the possibility of E bias and 1/2 were not forewarned. The hypothesis is supported among females ($p < .05$) but could not be tested among males as the effect of E expectancy did not

manifest itself. (French summary) (16 ref.) *Journal abstract*.

7996. Brandt, Lewis W. (U. Saskatchewan, Regina, Canada) **Science, fallacies and ethics.** *Canadian Psychologist*, 1971(Apr). Vol. 12(2), 231-242. —Discusses psychological experiments with human Ss which are frequently based on faulty assumptions which may lead to erroneous conclusions and warped ethics. Motivational studies often assume implicitly and without empirical evidence different motives in E and in S for participating in the experiment. The principle of parsimony requires a single explanation for E's and S's behavior when it is virtually identical. S. Milgram's experiments on "obedience" are used to illustrate the application of identical explanatory principles to E's and S's behavior and are shown to have tested the release of aggression in a situation which facilitated the use of rationalization and displacement. Experiments with human Ss are shown to be undemocratic and unnecessary in instances where the behavior of the Ss can be predicted from E's behavior. (French abstract) (28 ref.)—*Journal abstract*.

7997. Holmes, Douglas S. & Jorgensen, Bruce W. (Smith Richardson Foundation, Greensboro, N.C.) **Do personality and social psychologists study men more than women? Representative Research in Social Psychology**, 1971(Jan). Vol. 2(1), 71-76. —Examined issues of 3 relevant journals published in 1966, as well as all issues of a single journal in 1946 and 1956, for sex and source of Ss. Males appeared as Ss twice as often as females, a ratio even greater than that favoring college student Ss over noncollege student Ss. The bias in favor of studying males is as great or greater with noncollege student Ss as with college Ss. Implications of this bias are discussed.—*Journal abstract*.

7998. Keisner, Robert H. (C.W. Post Coll., Long Island U.) **Debriefing and responsiveness to overt experimenter expectancy cues.** *Journal of Social Psychology*, 1971(Jun). Vol. 84(1), 65-71. —Attempted to determine the relationship between prior debriefing experience and reactions to perceived E expectancies. It was hypothesized that debriefed Ss would be suspicious of perceived E expectancy cues and hence less likely to respond to such cues. Immediately prior to a word-association task, all Ss (N = 39 undergraduates) were informed by the E that he expected emotional words to produce longer response latencies than neutral words. Ss who had been debriefed in a prior experiment showed smaller RT difference scores in the (perceived) expected direction than nondebriefed Ss ($p < .05$). Explanations not involving suspicion were explored.—*Author abstract*.

7999. Noranchuk, T. A. (Harvard U.) **Pretesting effects: An inductive model.** *Sociometry*, 1970(Mar). Vol. 33(1), 12-19. —Reanalyzes the literature on the direct and interactive effects of pretesting with a view toward generating a simple additive model which would account for the various research findings. A model is proposed with 2 conceptual variables: (a) the effect of making a conscious decision, and (b) the effect of presentation of information in the pretest and subsequent experimental manipulation. 9 studies are examined in which the model accounts for both the orders and the approximate magnitudes of effects reasonably well.—*Journal abstract*.

APPARATUS

8000. Blau, Dan. (Hadassah U., Medical School, Jerusalem, Israel) **A simple device for moving an**

electrically driven micro-manipulator. *Electroencephalography and Clinical Neurophysiology*, 1971(May), Vol. 30(5), 465.

8001. Fitzhugh, Robert J. & Katsuki, David. (U. Pittsburgh, Learning Research & Development Center) **The touch-sensitive screen as a flexible response device in CAI and behavioral research.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 159-164. —Describes and evaluates 2 different touch-sensitive surface units from a technical and an applications standpoint, with particular emphasis on their use as response devices in computer-assisted instruction with young children. Several other interesting touch-sensitive surface concepts and laboratory applications are also described.—*Journal abstract*.

8002. Glasgow, Barry. (U. Minnesota) **Voltage sensing with a unijunction transistor.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 129-130. —Describes a voltage-sensing device with very little hysteresis and variable threshold voltage setting. Application of the device as a voltage-sensitive variable-duration monostable multivibrator in recording rabbit nictitating membrane conditioning is also discussed.—*Journal abstract*.

8003. Justesen, Don R., King, Nancy W., & Clarke, Rex L. (Veterans Administration Hosp., Kansas City Mo.) **Unavoidable gridshock without scrambling circuitry from a faradic source of low-radio-frequency current.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 131-135. —Describes a high-voltage radio frequency stimulator used as a source of motivational footshock in studies of conditional suppression. The circuit of the stimulator is presented schematically, then discussed in terms of affect induced by, gross behavioral response to, and electrical characteristics of, the stimulus. Near daily use of the stimulator across 6 mo. of formal assessment revealed that nonscrambled presentations of footshock via a grid of aluminum bars invariably resulted in stimulation of 3 adult male albino rats and generated highly efficient conditional suppression of operant responding. While the stimulator was primarily designed to permit unfounded presentation of gridshock in a 2,450-MHz microwave field, its simplicity and reliability suggest application in other situations requiring motivational shock.—*Journal abstract*.

8004. Kobrick, John L. & Sutton, William R. (U.S. Army Research Inst. of Environmental Medicine, Natick, Mass.) **Device for measuring voluntary response time to peripherally placed stimuli.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 255-258. —Presents a technical description and circuit schematic in sufficient detail for fabrication of a device for presenting visual stimuli at points throughout the visual field and measuring the associated response times. The device is relatively simple and inexpensive to construct, employs transistorized logic, and features completely silent operation to avoid extraneous stimulus cues to S.—*Journal abstract*.

8005. Mundl, William J. (McGill U., Allan Memorial Inst., Montreal, Quebec, Canada) **A small pulse generator for calibrating EEG recording systems.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 138-139. —Describes a battery-powered pulse generator of uncomplicated circuit arrangement which has the advantage of being easily constructed and can be positioned in a confined testing area to simulate the low-amplitude signals of an S. It

may be especially useful for EEG recording systems for small animals. In this way, the complete recording system, including connecting cables, can be calibrated, and its performance readily assessed with respect to frequency response and to susceptibility to noise pickup.—*Journal abstract.*

8006. Potts, W. Joseph & East, Peter F. (G. D. Searle & Co., Chicago, Ill.) **A simple epidural cannula for the rat.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 136-137.—Describes a simple epidural cannula for use with small animals. Bilateral implantation of cannulae in rats is discussed, and it is noted that during laboratory use these cannulae have not been damaged even when implanted in rats undergoing shuttle box testing. In contrast to some other methods of eliciting spreading cortical depression in rats, the cannula described here cannot easily cause a mechanical spreading depression since the rigid fixing practically eliminates any possibility of its movement.—*Journal abstract.*

8007. Rettig, Gayle M. (Baylor Coll. of Medicine, Houston, Tex.) **A head-holding device for repeated micro-electrode studies in monkeys during operant responding.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 462-464.—Describes a device for the rigid fixation of a fully conscious, freely responding monkey during microelectrode recordings from single cortical units. (French summary)—*Journal summary.*

8008. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) **Flicker in computer-generated visual displays: Selecting a CRO phosphor and other problems.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 151-153.—The visual system's response to flicker is approximated by 6-9 RC stages in series. The cathode ray oscilloscope (CRO) phosphor can be represented by 1 additional RC stage. Therefore, increasing the refresh rate by a factor of k can be k' to k^8 times more effective in reducing apparent flicker than increasing the phosphor time constant. "Slow" phosphors impair the display of rapid movement and cause undesirable persistence of old picture contents after they have been altered. Behavioral scientists usually should choose fast, efficient phosphors. Display programs should be written so that spatially adjacent points of a display are intensified as close together in time as possible.—*Journal abstract.*

8009. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) **Stereoscopic visual displays: Principles, viewing devices, alignment procedures.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 154-158.—The principle of binocular (stereoscopic) depth perception is that the visual system interprets the slight differences between the views seen by the 2 eyes as depth cues. In computer-generated displays, 2 slightly different images are produced on the left and right halves of the display surface and viewed by a prism, mirror, or binoculars system that delivers the appropriate image to each eye. The prism system is the simplest, the mirror system gives the best optical quality, and the binoculars system is useful for producing large apparent images from small display surfaces. All 3 systems can be adapted for group viewing and all require careful alignment (null adjustment of accommodative distance and vergence distance). Objective and subjective methods of alignment are described.—*Journal abstract.*

8010. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) **The description and luminous calibration**

of cathode ray oscilloscope visual displays. *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 148-151.—A description of a cathode ray oscilloscope (CRO) display should include descriptions of (a) typical display contents (e.g., a photograph); (b) CRO output parameters (e.g., refresh rate); and (c) luminous measurements. Luminous calibrations are unorthodox because CRO displays are discontinuous in space and time, and because they are sources, not reflectors, of light. The appropriate luminous quantities are luminous intensity and the integral of luminous intensity, luminous directional energy (LDE); the appropriate measurements are LDE/point and of LDE unit line length. A simple calibration procedure is described, and the formulas relating these quantities to luminances are given.—*Journal abstract.*

EXPERIMENTAL PSYCHOLOGY

8011. Buck, Lucien A. (Dowling Coll., Oakdale, N.Y.) **Varieties of consciousness: Comparison of some cognitive characteristics.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 183-186.—Describes and contrasts a variety of states of consciousness. Ss were 16 female and 33 male undergraduates who filled out a questionnaire which included 9 states of consciousness. Results indicate that dreams, hypnagogic and hypnopompic experiences, depersonalization, déjà vu, synesthesia, and daydreams can be differentiated by means of a series of descriptive characteristics. *Journal abstract.*

8012. Wright, Patricia. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Linguistic description of auditory signals.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 244-250.—Studied the extent of agreement between adult Ss' verbal descriptions of tones differing in pitch, intermittency, and modulation. In Exp I with 17 Ss, there was greater consistency across Ss when descriptions referred to the tone's physical characteristics than when onomatopoeic and illustrative terms (e.g., bleep, hooter) were used. Onomatopoeic labels appear to convey no more specific information than general terms (e.g., sound). However, even when labeling physical characteristics there was usually high agreement for only 1 feature of the stimulus, although the salient dimension varied with different signals. Exp II with 22 Ss used multiple-choice procedure. If Ss had to label each tone along 2 physical dimensions, the consistency between Ss increased in accordance with the predictions of a model which assumes that judgments are made along each dimension independently, then combined probabilistically. Exp III, with 8 groups of 13-17 Ss each, more closely examined the distribution of verbal labels along the pitch dimension. Data indicate 95% agreement between Ss for the description of isolated pure tones (heard only once and therefore without background or reference tones) if these were above 600 or below 200 Hz. *Journal abstract.*

PERCEPTION

8013. Baird, John C., Kreindler, Michael, & Jones, Kenneth. (Dartmouth Coll.) **Generation of multiple ratio scales with a fixed stimulus attribute.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 399-403. De-

scribes 2 opposing psychophysical theories which differ in the relative weight given to sensory and cognitive variables. An experiment was designed to vary a cognitive factor while maintaining a constant sensory factor. The method of magnitude estimation was used with the constant stimulus attribute of line length. The cognitive factor was varied by providing 80 male undergraduates with different feedback concerning the numerical values assigned to the largest and smallest lines in the series. This procedure led to multiple ratio scales for the same stimulus attribute. It is concluded that these results support a theory which stresses both cognitive and sensory variables in the explanation of psychophysical functions. *Journal abstract.*

8014. Curti, Jean & Zenhausen, Robert. (St. John's U., Jamaica, N.Y.) Perception of mechanical causality. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 63-70.

8015. Gibby, Robert G., Gibby, Robert G., & Townsend, John C. (Virginia Commonwealth U., Richmond) Short-term visual restriction in visual and auditory discrimination. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 15-21. Explored the effect of sensory restriction on perceptual thresholds. The experimental predictions were formulated from D. B. Lindsay's model of the reticular activating system (RAS). Changes in the visual CFF threshold, loudness discrimination, and pitch discrimination as related to 2 levels of visual restriction were noted. Ss were 60 adult male volunteers. Statistical analysis included analysis of covariance followed by a priori group comparisons. Statistical support ($p < .05$) was found for 3 of 4 general hypotheses. It is concluded that the RAS attempts to maintain cortical arousal at an optional level by regulating stimulus input. A reduction in this input apparently lowers perceptual thresholds in the sensory system restricted and other systems as well. (16 ref.) *Journal abstract.*

8016. John, I. D. (U. Adelaide, South Australia) Stimulus discriminability and anchor effects in judgments of lifted weights. *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 19-28. Describes an experiment in which 3 groups of 10 undergraduates made absolute (identity) judgments of lifted weights under no anchor (NA), heavy anchor (HA), and light anchor (LA) conditions. No contrast effect induced by LA could be demonstrated but HA induced a significant contrast effect. It is concluded after an examination of response uncertainty conditional upon the individual stimuli, response speed scores, and confidence scores that the primary effect of HA was to reduce the relative discriminability of series stimuli nearest HA and to increase the relative discriminability of those stimuli furthest from HA. *Journal abstract.*

8017. Kubovy, Michael; Rapoport, Amnon, & Tversky, Amos. (Hebrew U., Jerusalem, Israel) Deterministic vs. probabilistic strategies in detection. *Perception & Psychophysics*, 1971(May), Vol. 9(5), 427-429. Investigated the use of a binary detection task, free from sensory components. Results with 6 male and female undergraduates (a) confirm a deterministic model prescribing a fixed cutoff point; and (b) do not support a probabilistic model, which generalizes W. Lee's micro-matching model for externally distributed stimuli. *Journal abstract.*

8018. Perlmuter, Lawrence C., Karsh, Robert, & Imble, Gregory A. (Bowdoin Coll.) The effect of a

conditioning procedure upon the judgement of weights. (U.S. Army Human Engineering Laboratories Technical Memorandum, 1970(Jul), No. 17-70, 5 p.)

Reports 2 experiments in which a visual stimulus of 1 different hue was paired with 2 lighter weights and a stimulus of 2 different hue was paired with 2 heavier weights. Ss were 60 army enlisted men in Exp. I and 37 in Exp. II. The purpose was to determine whether these visual stimuli would be effective in distorting the judgments of the heaviness of 1 weight lying midway between the lighter and heavier weights. Results of Exp. I, using a between-Ss design, indicate that the judgment of the middle weight is significantly affected by the stimuli. A within-Ss design in Exp. II failed to reveal a reliable effect of the stimuli upon the rated heaviness of the test weight. *Journal abstract.*

8019. Pick, Herbert L., & Ryan, Sarah M. (U. Minnesota, Inst. of Child Development) Perception. *Annual Review of Psychology*, 1971, Vol. 22, 161-192. Reviews work on perception published between January 1968 and December 1969. Areas include (a) information integrated across time (perception of time, motion perception, perceptual aftereffects, and temporal limits of perceptual information); (b) multiple sources of sensory information (sensory interaction and intermodal relations); (c) multiple sources of information—sensory integration (simultaneous bilateral stimulation, integration of information in size perception, perception of distance or depth and context effects); (d) organization and coding of perceptual information; (e) selection of perceptual information (types of selectivity and changes in selectivity); and (f) motor components in perception (310 ref.). *P. Herzberg.*

8020. Rubinstein, Leo & Gruenberg, Ernest M. (Columbia U.) Intramodal and crossmodal sensory transfer of visual and auditory temporal patterns. *Perception & Psychophysics*, 1971(May), Vol. 9(5), 385-390. Measured temporal pattern perception for vision and audition using pair comparisons of precisely determined rhythms as test items in 2 experiments with a total of 13 male and 17 female staff members, student nurses, and graduate students. Visual rhythms were more difficult to match than comparable auditory ones. Cross-modal transfer equaled intramodal transfer in 1 experiment but was inferior in another. The differences between intra- and cross-modal transfer were related to the frequency of pattern elements, with cross-modal performance decreasing more when frequency rose. The 9 test items showed a consistency in relative difficulty across experimental conditions. Differences in item difficulty are related to the symmetry of the 1st pattern in the item. (17 ref.) *Journal abstract.*

8021. Stevens, Joseph C. & Marks, Lawrence E. (John B. Pierce Foundation Lab., New Haven, Conn.) Spatial summation and the dynamics of warmth sensation. *Perception & Psychophysics*, 1971(May), Vol. 9(5), 391-398. Thermally irradiated at various levels of intensity various areal extents of the forehead and back of 32 male Ss. Results indicate that for any areal extent, the degree of apparent warmth increased approximately as a power of apparent warmth level, the larger the area, the smaller the exponent of the power function. 2 families of psychophysical functions, 1 for the forehead and the other for the back are distinguished. It is suggested that (a) the power functions extrapolate to a point of convergence in the neighborhood of the threshold for

pain and tissue impairment. (b) the rules that govern summation of warmth are revealed in the 2 families, and (c) intensity and area trade one for the other to preserve the same level of warmth. It is concluded that at faint sensation levels, reciprocity is the rule of trading; but with increasing sensation level, area makes a weaker and weaker relative contribution to warmth, and, as a result, it takes a larger and larger percentage change in area to offset a given percentage change in intensity (32 ref.).—*Journal abstract.*

8022. Thompson, A. H., Dewar, R. E., & Franken, R. E. (U. Calgary, Alberta, Canada) A test of the set disruption interpretation of perceptual defense. *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 222-227.—Trained 16 male undergraduates to the affective signal value of 2 symbols. 1 symbol served as a signal for taboo words, and the other as a signal for neutral words. Results show that when words in the test phase were preceded by the taboo signal, a higher recognition threshold was obtained than when words were preceded by a neutral signal. This effect was found to be independent of the affect of the word that followed the signal. Results are interpreted as casting doubt on the possibility that data supporting perceptual defense can be interpreted on the basis of some form of set disruption. (French summary)—*Journal abstract.*

Illusion

8023. Levy, J., Singer, G., & Austin, Margaret. (Columbia U.) **Differences in the tilted room illusion resulting from learning.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 63-67. -Examined the findings that in the tilted room illusion (TRI) (a) Ss judging verticality use conflicting visual (V) and non-visual (NV) cues, (b) consistent individual differences occur, and (c) sex differences develop with age. The hypothesis that learning contributes to these differences was tested by attempting to find a training situation which altered the TRI. In Exp. 1, 5 groups of 14 undergraduates were trained in different judgments. 3 groups showed a reduction in the TRI compared to a group of 14 Ss who received no training. A preliminary experiment in which 4 Ss were intensively trained, each in a different task, indicated that the TRI was reduced only when the NV cues were positively reinforced in a V-NV cue conflict situation. Intensive training which reinforced either modality, in situations where there was no intermodal discordance, had no effect. -*Journal abstract.*

8024. **Richards, Whitman & Miller. J. F.** (Massachusetts Inst. of Technology) **The corridor illusion.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 421-423.—Reports a study, with 7 Ss. of the classical corridor illusion which indicates that, contrary to general belief, the illusion is not due solely to the perspective and contextual cues provided by the corridor. Additional factors that are equally important are the inherent spatial anisotropies of the visual system and fixation tendencies.—*Journal abstract.*

Time

8025. Burnside, William. (Indiana U.) Judgment of short time intervals while performing mathematical tasks. *Perception & Psychophysics*, 1971(May), Vol. 9(5),

404-406.—Tested the suggestion of R. Ornstein that the apparent duration of a time interval depends upon the memory storage size. Duration estimates made while performing different types of information processing were studied. 12 female and 8 male undergraduates served in each of the 30 conditions of the experiment. The 6 time intervals estimated by the method of reproduction were 10, 12, 14, 16, 18, and 20 sec., and the 5 intervening tasks were doing nothing, reading numbers, adding, multiplying, and adding and multiplying in a random order. Results show that (a) fewer items were output in the 3 arithmetic conditions, as compared with the reading conditions; and (b) the duration estimates were shorter for these 3 conditions. Estimates of duration are related to amount of output, and also appear to be related to the type of processing done to produce this output.—*Journal abstract.*

8026. **Shectman, Frederick A.** (Menninger Foundation, Topeka, Kan.) **Time estimation, sequence effects and filling activities.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 23-26.—60 male undergraduates were randomly and equally divided into 3 groups (2 experimental, 1 control) to investigate the effect of lack of feedback on sequential temporal estimates. The production method was employed, as was a "filling" task designed to be cognitively related to Ss' future expectations. As predicted, systematic changes occurred across trials for all groups, independent of differential expectations. Results were related to "judgment drift" and to the nature of the interpolated filling activity. —*Journal abstract.*

8027. Singh, Labh. (Government Raza Post-Graduate Coll., Rampur, India) **Motivation and progress effects on psychological time in Indian communities.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 100-103. 40 male college students from each of 4 major Indian communities (Hindu, Muslim, Sikh, and Christian) made a subjective comparison between the length of 2 6-min periods of time. The 1st period was spent in looking at a photographic magazine and the 2nd working on a letter cancellation sheet. For the 2nd period, Ss were assigned to 1 of 2 motivation conditions, high or low, and 1 of 2 progress conditions, fast or slow. The experiment was replicated for each of the 4 communities and each group's data were analyzed in a factorial design with motivation and progress rates as independent variables and time estimation as a dependent variable. At the end, Ss compared the 2 periods of time. For the Sikh and Christian Ss the time estimates were inversely related to progress under high motivation but unaffected under low motivation. No other effect was significant. *Journal summary.*

8028. Voronin, L. G. & Konovalov, V. F. (Moscow State U., USSR.) *Fiziologicheski analiz vzaimodel'stviya osoznannykh i neosoznannykh sledovykh protsessov pri otschëte vremeni.* [Physiological analysis of the interaction of conscious and unconscious trace processes in estimating time.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 899-907. 18 18 24 yr. old Ss participated in a study to determine (a) whether the assessment of time is a conscious or unconscious act, and (b) if the act is neither wholly conscious nor unconscious, what are the interrelationships between these 2 aspects in "accurate and adequate" estimates of time intervals. Recordings were made of the cortical EEG, GSR, and oculomotor reaction. Condi-

tioned trace reactions were formed to acoustic, tactile, and proprioceptive stimuli with photic reinforcement 6, 9, 15, and 30 sec. after cessation of the CS, whose duration varied from .5-8 to 3 sec. 2 attitudes were utilized: (a) "passive" (eyes were to be opened or closed when reinforcement was presented), and (b) "active" (opening or closing in anticipation of the time when it should be necessary to perform these acts). It was shown that a passive attitude during the experiment led to the formation of traces primarily at the level of the 1st signal system. Therefore, these trace processes were brought with difficulty to the level of awareness, tending strongly to remain below it. In the case of an active attitude, an interaction was observed between conscious and unconscious processes with the possibility of mutual transition. Basic to the reproduction of temporal trace processes was the "biological clock" mechanism which appeared to be capable of functioning at the level of both the 1st and 2nd signal systems. (English summary) (16 ref.) *J. D. London.*

VISION

8029. Bradshaw, John L. & Wallace, Graeme. (Monash U., Clayton, Victoria, Australia) **Models for the processing and identification of faces.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 443-448.—Constructed 240 representations of human faces from Identikit in a comparison of several possible models of information processing relating to facial recognition. Results with 10 female and 8 male undergraduates did not indicate (a) evidence that faces were treated as unitary Gestalten, or (b) that the component features were processed to any significant extent in parallel. The best theoretical model to fit the data involved serial self-terminating processing, without replacement. Task difficulty, determining both processing time and number of errors made, was a function of the number of critical features present and the orientation (upright or inverted). Photographic negatives were handled the same as positives. The more difficult the task, the stronger the evidence for a serial model and the greater the effects of practice. The latter suggests that, given time, Ss could handle inverted presentations as readily as upright ones, and that inversion may merely increase the difficulty in separating out the individual features for subsequent processing.—*Journal abstract.*

8030. Franks, Jeffery J. (U. Minnesota) **Visual pattern recognition: The acquisition and use of arbitrary relational systems.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5659.

8031. Krol', T. M. (Leningrad State U., USSR) **O forme zavisimosti absol'yutnogo svetovogo poroga ot gradienta stimula.** [On the form of the function relating absolute photic threshold to gradient of the stimulus.] *Nervnaya Sistema*, 1969(Dec), No. 10, 163-168.—26 normal dark-adapted Ss participated in a study to determine the functional relationship between exold) and rate of increase of the photic stimulus under the conditions obtaining in usual adaptometric techniques. The lowest and least fluctuating threshold for all Ss was found for instantaneously increasing stimuli lasting for a period of time not less than the "useful." Denoting the average value of this threshold by R_0 , it was found that stimuli, increasing at the rate of 4-12% R_0 /sec, entailed a

heightened excitability as compared to stimuli increasing at both a faster and slower rate. An empirically derived function is exhibited.—*J. D. London.*

8032. Jakner, Edward W. (U. Illinois) **Recognition of numerals imbedded in words, pronounceable non-words, and random sequences of letters.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5661.

8033. McKeever, Walter F. & Huling, Maurice D. (Ventura County Mental Health Dept., Calif.) **Lateral dominance in tachistoscopic word recognition performances obtained with simultaneous bilateral input.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 15-20. Presented 18 right-handed undergraduates with a monocular tachistoscopic word recognition task. The method employed was that of simultaneous presentation of 2 words at a time, 1 word to the left and 1 to the right of fixation. All Ss recognized more right than left field words. Right field superiority was significant across all Ss ($p < .001$) and for both right and left eye viewing groups (both $p < .005$). Results contradict the traditional belief in left field superiority with bilateral word presentation and support a theoretical model which attributes the observed effects to a longer neural pathway from right hemiretinae to left hemisphere language centers. Greater transmission fidelity and lesser transmission time of the shorter pathway are proposed as factors underlying right field superiority. (French & German summaries) (16 ref.)—*Journal abstract.*

8034. Shaitor, E. P. (Leningrad State U., USSR) **Rol' mikrointerval'nogo vzaimodeistviya nervnykh protsessov v akkomodatsii glaz.** [Role of micro-interval interaction of nervous processes in visual accommodation.] *Nervnaya Sistema*, 1969(Dec), No. 10, 169-171. Proposes a process of accommodation in which the visual system does not utilize information concerning the distance of objects. The scheme appears valid when the visual system can utilize, as signals for the determination and sign of accommodation, only the optic disturbances of the image caused by aberration and astigmatism. Observation of an object in this case is secured by the interaction of 3 processes: (a) pupillary contraction, increasing the depth of sharpness and approximating the hyperfocal point; (b) change in crystalline curvature; and (c) retrograde masking of sensation, elicited by the nonsharp image, under the action of sensation elicited by the image of the object focused on the retina.—*J. D. London.*

8035. Smeriglio, Vincent L. (U. Iowa) **Visual scanning of stimulus arrays: Effects of location of arrays in visual field and frequency of identifying item.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5679.

Perception

8036. Bishop, P. O. & Henry, G. H. (Australian National U., Canberra, Australia) **Spatial vision.** *Annual Review of Psychology*, 1971, Vol. 22, 119-160.—Discusses 2 aspects of spatial perception which are ordinarily not distinguished from each other: (a) spatial constancy of the visual environment, and (b) the spatial qualities or attributes of form or pattern perception. The former refers to the stability of objects in the face of the constant movement of the eyes, head, and body. The latter relates the spatial attributes of form perception to the spatial order of the contour features of individual objects, and the orientations and spatial relationships

between various objects in the field of view. Sensory and motor aspects of monocular spatial vision are reviewed, and stereopsis is shown to be distinct from the other 2 aspects of spatial perception. (201 ref.)—*P. Hertzberg.*

8037. Bjork, Elizabeth L. & Estes, William K. (Rockefeller U.) **Detection and placement of redundant signal elements in tachistoscopic displays of letters.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 439-442.—Conducted a forced-choice detection experiment with 3 female laboratory technicians and 1 female undergraduate. On each trial, S indicated which of 2 signal elements was represented and specified the cell of the 5×5 matrix display in which she detected the signal. RT on correct choice, correct placement trials, proved virtually invariant with respect to number of redundant signal elements present in the display. Data do not support a serial model for sensory processing, but could be accommodated by a parallel model for sensory processing together with a serial self-terminating model for processes involving comparison of elements of a display with items in memory. Further analyses of both frequency and RT data support the assumption that the distributions of observed detection response measures represent mixtures of true detections, guesses, and misperceptions.—*Journal abstract.*

8038. Delorme, André. (U. Montreal, Inst. of Psychology, Quebec, Canada) **La perception de la vitesse en éclairage intermittent.** [The perception of speed in intermittent light.] *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 213-221.—Investigated the effects of frequency (flickering light) on the perception of linear velocity. 10 undergraduates adjusted the speed of a continuously illuminated comparison target by reference to an identical target illuminated by flickering light. The experiment was conducted with 2 kinds of targets (vertical bars and textures of random points) and under 5 conditions of intermittency (3, 6, 9, 12, and 15 cps) plus a control condition (both targets continuously illuminated). Velocity was overestimated in all conditions of flickering light. This overestimation was found to vary as an inverted U shape function for both targets and was quantitatively higher for texture targets than for bars. Results are discussed with reference to Piaget's theory of the perception of velocity and to electrophysiological data on brightness enhancement.—*English summary.*

8039. Dodwell, P. C. (Queen's U., Kingston, Ontario, Canada) **On perceptual clarity.** *Psychological Review*, 1971(Jul), Vol. 78(4), 275-289.—Presents a model to account for perceptual clarity. Under the normal conditions of visual perception (slow receptor response, rapidly changing input), much interference might be expected between sequences of successive time samples of retinal input, perceptual clarity being attained under normal circumstances by a form of autocorrelation. The model serves to explain R. Haber's repetition-clarity effect, the fading and regeneration of stabilized images, visual acuity in the presence of eye movements, short-term storage, and other sequential processing effects. A plausible neurophysiological basis for the correlational operations is found in the mammalian visual contour coding system. (56 ref.)—*Journal abstract.*

8040. Elsner, William. (U. Florida, Coll. of Medicine) **Power laws for the perception of rotation and the oculogyral illusion.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 418-420.—Used magnitude estimation to measure subjective motion for 2 indicators of

vestibular function. 12 male 21-40 yr. old Os made estimates of 5-sec pulses of angular acceleration across the range of angular acceleration \times time (at) = 10-150 deg/sec. Results indicate that (a) the power law described subjective motion for all individual Os, (b) the power function exponent (1.41) for the perception of rotation was slightly greater than the exponent (1.25) for the oculogyral illusion, (c) a significant number of Os gave higher exponents for the perception of rotation, and (d) the magnitude estimates of the oculogyral illusion and perception of rotation were highly correlated within and across Os. (17 ref.)—*Journal abstract.*

8041. Hall, Robert J., Monty, Richard A., & Wilsoncroft, William E. **The effect of moving and static trans-scleral illumination of visual afterimages.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Jun), No. 14-70, 4 p.—Illuminated the inside of the eye by shining a small light through the upper eyelid and the sclera. After viewing a bright flash, Ss closed their eyes and reported the duration of the afterimage under the following conditions: (a) the light on and moving across the S's eyelid (moving transscleral illumination); (b) the light on but stationary (static transscleral illumination), and (c) 2 corresponding control conditions in which the light was turned off (darkness). Results indicate that when the transscleral light is moving, afterimages are seen clearly for periods of approximately the same duration as those seen in complete darkness. However, when the transscleral illumination is stationary, the duration of the afterimages is significantly reduced. These results are compatible with other afterimage data that suggest that changes within the field after initial stimulation are needed to prolong afterimages. *Journal abstract.*

8042. Hogben, John. (U. Western Australia, Nedlands) **Interaction of forward and backward visual masking.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 487-488.—Investigated the interaction of the forward and backward masking effects of unpatterned visual stimuli in 10 undergraduates. It was found that detection of a test spot was easier under conditions that should have provided both forward and backward masking than under either forward masking or backward masking alone. Implications for an integration theory of masking are discussed. Findings are contrasted with those on the interaction of forward and backward masking by dynamic visual noise. *Journal abstract.*

8043. Kimball, Kent A. (U. South Dakota) **Estimation of intersection of two converging targets as a function of speed and angle of target movement.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 307-310.—Examined the effects of target velocity and angle of approach on the accuracy of intersection estimation of 2 moving targets. An inferred movement display was utilized in which 2 rows of lights, flashing serially across the display, simulated 2 moving targets. 5 different target velocities and 2 angles of approach (30° and 90°) were used. The targets were displayed halfway to the actual intersection point. Ss' task was to observe the targets until they disappeared and then indicate when they intersected. Ss were 15 male college students. Each S was given 100 trials. Raw data in the form of the difference between estimated and actual intersection time were collected and converted to constant and absolute error scores for each trial. In 3-factor analysis of variance with repeated measures on 2 variables, target velocity and angle of approach were significant sources of variation.

2nd- and 3rd-order interactions between angle, speed, and Ss were also statistically significant. Time estimations were converted to velocity estimates, and standard deviations of estimates were plotted against mean velocity estimates. A linear function was obtained similar to that reported by R. H. Brown—*Journal abstract*.

8044. Leibowitz, Herschel W. & Saccia, Elizabeth J. (Pennsylvania State U.) Comparison of matching and drawing in the perception of shape at various intelligence levels. *Perception & Psychophysics*, 1971(May), Vol. 9(5), 407-409.—Investigated the tendency toward shape constancy, using both the traditional matching technique of R. H. Thouless and free-hand drawing of the stimulus object. Data were obtained for 36 undergraduates and 33 institutionalized feeble-minded Ss at 3 levels of intelligence. The previous observation that Ss of higher intelligence level produce a lower tendency toward shape constancy, as measured by the matching method, was confirmed. With the drawing method, the same trend was observed but differences among groups were exaggerated. The sensitivity of measures of perceived shape to experimental and nonexperimental variables is discussed. *Journal abstract*.

8045. Pollack, Irwin. (U. Michigan, Mental Health Research Inst.) Perception of two-dimensional Markov constraints within visual displays. *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 461-464.—Describes a method for constructing visual displays in which statistical constraints are encoded within 2 spatial dimensions without introducing 1-dimensional linear constraints. Within each local group of 4 elements, the state of 1 element is determined with a given probability by the previously generated states of the other 3. In 2 experiments with a total of 40 undergraduates, Ss rated such displays on a scale from "lumpy" (crude texture) to "lacy" (even texture). The consistency of classification obtained for displays with strong aggregated ("lumpy") properties was substantially higher than that obtained for displays with strong distributed ("lacy") properties. An incidental feature of Ss' behavior was their deliberate degrading of the visual quality of the displays. Comparison is made with 1-dimensional displays concatenated in 2 dimensions.—*Journal abstract*.

8046. Pollack, Irwin. (U. Michigan) Temporal anagrams: Word identification with successively presented letters in scrambled order. *Perception & Psychophysics*, 1971(May), Vol. 9(5), 430-434.—Displayed high-frequency 7-letter words, letter by letter in scrambled temporal orders, upon an oscilloscope to 24 undergraduates. After each incorrect identification, the sequence was repeated. Highest word-identification scores were obtained with initial and terminal starting positions, with shortest and longest spacing between successive letters, and at the slowest and fastest rates of letter presentation. The relative contribution of each variable was maintained in combination with other variables. The conditional probability of a correct word identification given that the word was not identified on a previous presentation, plunged sharply with successive presentations. This apparent nonindependence of performance over successive presentations is shown to be an artifact of pooling the results of heterogeneous experimental variables.—*Journal abstract*.

8047. Roland, Billy C. (East Texas State U.) Relationship between GSR, heart rate, and reversibility

of a Necker cube. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 36-38.—Cold-pressor stimulation significantly increased the reversal rate of the Necker cube for 84 undergraduates instructed to observe passively. A moderate negative relationship was found between GSR and the number of reversals ($r = -.35$) while a small positive relationship existed between heart rate and cube reversal ($r = .22$).—*Journal abstract*.

8048. Sekuler, Robert; Lehr, Donald; Stone, William, & Wolf, Mark. (Northwestern U.) Human visual motion sensitivity: Evidence against a ratio theory of sensory coding. *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 483-484.—Measured luminance thresholds in 2 Ss for downward moving contours under several conditions of adaptation. Included was 1 condition which desensitized visual mechanisms responsive to downward motion. Another condition exerted equal effects on both up- and down-sensitive mechanisms. Thresholds for moving contours were unaffected by exposure to contours which moved in the opposite direction. Results indicate that the perception of motion does not depend upon the relative activity in oppositely tuned, directionally selective visual mechanisms.—*Journal abstract*.

8049. Singh, Balbir. (U. Southern California) Recognition of alpha-numeric characters in the presence of visual noise. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5879-5880.

8050. Strickland, F. R. & Day, R. H. (Monash U., Clayton, Victoria, Australia) Aftereffect of visual movement: Storage in the absence of a patterned surround. *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 485-486.—Reports results of an experiment with 12 paid volunteer Ss on the aftereffect of visual movements. Storage of the aftereffect was shown to occur if, after movement, the stationary target remained clearly visible in a surround that was dark and featureless. This finding is considered in terms of the earlier observation that the movement aftereffect is reduced or eliminated when the target surround is featureless. It is noted that current hypotheses in terms of direction-specific units cannot easily explain the storage of the movement aftereffect.—*Journal abstract*.

8051. Townsend, J. T. (Purdue U.) Alphabetic confusion: A test of models for individuals. *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 449-454.—Examined the ability of recognition and scaling models to explain data at the individual level. The confusion characteristics of the English uppercase alphabet were compared between 2 female undergraduates and between the individual Ss and group-averaged data from a previous study. The choice and overlap models were superior to the all-or-none model in predicting the empirical confusion matrices and tended to explain the data structure in a similar manner. Multidimensional scaling analysis supports a Euclidean metric and suggests 4 or 5 underlying stimulus dimensions. Compared to the group study, the choice and overlap model appeared to fit as well or better at the individual level than at the group level and the all-or-none model to fit worse. In the present study, probability correct was fit even better by the all-or-none model. Individuals and the group were consistent in their sensory confusions as represented by similarity parameters but differed in their response biases. A simple measure of physical similarity explained 50% of the variance of the similarity structure in the confusion data.—*Journal abstract*.

8052. Williams, Mary J. & Collins, William E. (FAA,

Civil Aeromedical Inst., Psychology Lab., Oklahoma City, Okla.) **Some influences of visual angle and retinal speed on measures of the spiral aftereffect.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 215-227.—Judged the duration and intensity of the spiral aftereffect (SAE) under 5 conditions: (a) angle constant—retinal speed and visual angle were held constant across several spiral-size, viewing-distance combinations; (b) size-constant—a single spiral size was used at several distances, with retinal speed either varied (S_1) or held constant (S_2); and (c) distance constant—several spiral sizes were used at a constant distance with retinal speed either varied (D_1) or held constant (D_2). Ss were 10 20-29 yr. old male paid volunteers who met certain visual requirements. Duration and intensity measures were affected similarly, with perceptual rather than physical variables seeming to account for the results. Assuming that perfect size constancy occurred during the experiment, SAE durations were longer, in general, for larger values of perceived size/unit of retinal size. Retinal speed variation had no apparent influence, except possibly at low values. (18 ref.)—*Journal abstract.*

Size & Distance & Depth Perception

8053. Kuroda, T. (Kagoshima U., Japan) **Distance constancy: Functional relationships between apparent distance and physical distance.** *Psychologische Forschung*, 1971, Vol. 34(3), 199-219.—Distance constancy was clearly defined with Thouless and Brunswik indexes by examining its previous definitions. The typical functions expressing the relationships between apparent distance and physical distance were derived from: (a) much available data obtained by many researchers, (b) Thouless and Brunswik indexes (formulas), and (c) Luneburg's theory. These derived functions were classified into Type I, II, and III according to their psychological significance. The validity of the classification was verified by experiments showing that the functions of Type III were available in poorly articulated spaces with a long viewing distance, i.e., on a housetop and a road, with the method of equal-appearing intervals. Moreover, the relationships between distance constancy and personal constants in Luneburg's theory were clarified.—*R. Gunter.*

8054. Maclean, Iain E. & Stacey, Barrie G. (U. Strathclyde, Glasgow, Scotland) **Judgment of angle size: An experimental appraisal.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 499-504.—Reports that previous work on the estimation of angle size suggests that 3 factors play a significant part in the forming of an accurate estimation: the size of the angle, its orientation, and the mode in which the response is made. The judgments by 60 adult Ss of 12 angles under varied conditions of orientation, response mode, and cue were examined. Results confirm the importance of size and orientation. Despite an overall significant difference in estimation between response modes, there was no indication of a consistent effect across angles for the different modes. Predictions on the influence of orientation made by G. Fisher (see PA, Vol. 44:4401) and K. Beery (see PA, Vol. 42:9782) were tested. While the former investigator was adequately supported, the latter was held to have reported results on a limited sample of angles which do not generalize to a wider range of angles.—*Journal abstract.*

8055. Winters, John J. & Spitz, Herman H. (E. R.

Johnstone Training & Research Center, Bordentown, N.J.) **The effects of visual acuity and instructions on two-dimensional size constancy.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 195-196.—Tested the 2-dimensional size constancy of 24 aged Ss (median age, 71 yr.) under conditions of corrected and uncorrected vision and with either apparent- or objective-size instructions. Size constancy was significantly above chance when vision was corrected but not when vision was uncorrected. There was no effect of instructions. Acuity was positively correlated with size constancy under both corrected and uncorrected conditions.—*Journal abstract.*

Color Vision

Form & Pattern Discrimination

8056. Craig, Eugene A. (Massachusetts Coll. of Optometry) **Exposure time and the perception of complex forms.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Nov), Vol. 47(11), 887-891.—Exposed pseudorandom forms, differing in number of sides from 6-24, for time durations from .01-15 sec. Span of apprehension remained constant over the range from .04-1 sec. Ss were 63 undergraduates tested in 4 groups. Results indicate that number of sides reported was consistent with the hypothesis that apparent complexity increases as exposure time increases up to the limit set by the stimulus situation. Percentage discrepancy between number of sides presented and number of sides reported increased: (a) as number of sides presented increased, and (b) as exposure time decreased.—*P. McMillan.*

8057. Long, Nigel R. (U. Queensland, Brisbane, Australia) **The effect of visual masking on the critical duration of form.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 193-194.—8 Ss were briefly shown pairs of letters under various conditions of simultaneous masking. For the simultaneous masking conditions, a single homogeneous flash of light (MS), 1 msec. in duration, followed the onset of the letters (TS) at varying onset asynchronies. The recognition of the TS letters was found to be an increasing function of the MS onset delay. Current theories of form perception and visual masking are examined in the light of this finding.—*Journal abstract.*

8058. Merikle, Philip M., Coltheart, Max, & Lowe, Douglas G. (U. Waterloo, Ontario, Canada) **On the selective effects of a patterned masking stimulus.** *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 264-279.—Investigated previous findings which suggest that a patterned masking stimulus, presented immediately following tachistoscopic presentation of letter rows, produces large decrements in the recall of letters from the central positions in the rows but has little effect on recall from either end of the displays. 4 experiments with 92 undergraduate Ss confirm the existence of a selective masking effect. The effect was obtained following exposure durations which varied from 30-200 msec. and with both full- and partial-report techniques. Also the selective masking effect was limited to multi-letter displays in that it was shown that single letters were masked equally well across the positions used for an entire row. Results suggest that both ends of multi-letter displays are processed and identified before the center positions of the displays are processed. (French summary) (15 ref.)—*Journal abstract.*

8059 Scott, David A. (Iowa State U.) **Computer simulation of pattern recognition using statistical decision functions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5678.

8060. Shepard, Roger N. & Metzler, Jacqueline. (Stanford U.) **Mental rotation of three-dimensional objects.** *Science*, 1971(Feb), Vol. 171(3972), 701-703. — In an experiment with 8 adult Ss, it was found that the time required to recognize that 2 perspective drawings portray objects of the same 3-dimensional shape is (a) a linearly increasing function of the angular difference in the portrayed orientations of the 2 objects, and (b) no shorter for differences corresponding simply to a rigid rotation of 1 of the 2-dimensional drawings in its own picture plane than for differences corresponding to a rotation of the 3-dimensional object in depth. *Journal abstract.*

8061 Stockwell, C. W. & Guedry, F. E. (U S Naval Aerospace Medical Inst., Pensacola Fla.) **The effect of semicircular canal stimulation during tilting on the subsequent perception of the visual vertical.** *Acta Oto-Laryngologica*, 1970(Sep), Vol. 70(3), 170-175. When a man is accelerated on a centrifuge, the direction of gravito-inertial vertical changes relative to his body. However, a lag occurs in his perception of this change. The hypothesis has been advanced that the perceptual lag in this situation is partly the result of a conflict between signals arising from the semicircular canals and from the otolith organs. To test this hypothesis, 18 young male Ss were tilted in such a way that they received consistent semicircular canal and otolith signals. This was accomplished simply by tilting them 30° from upright in their frontal plane. Immediately after being tilted, Ss made estimates of the vertical which were approximately accurate, and continued to make accurate estimates throughout a 140-sec judgment period. The absence of a perceptual lag under these circumstances supports the hypothesis. (German summary) *Journal abstract.*

8062. Uttal, William R. (U Michigan) **The effect of interval and number on masking with dot bursts.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 469-473. — Reports that bursts of dotted visual noise can interfere with the recognition of dotted alphabetic characters during the period following the presentation of the character. The magnitude of this interference is considered to be a function of both the number of dots and the interval between the character and the visual noise burst. This interaction was explored in 2 experiments with 2 Ss. On the basis of results obtained, an attempt is made to clarify current notions of the period of interaction surrounding real time visual events. (24 ref.) *Journal abstract.*

8063. White, Murray J. (Victoria U., Wellington, New Zealand) **Brain function and the enumeration of visual stimuli.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 73-76. — Exposed arrangements of English and Greek letters and geometrical forms, varying in number from 4-8 elements, for 100 msec separately in the left and right visual hemifields. 7 undergraduates estimated the number of stimulus elements shown on each trial. Arrangements of English letters were better enumerated when shown in the right than in the left hemifield while arrangements of Greek letters and forms were enumerated equally well in both hemifields. *Journal abstract.*

8064. White, Murray J. (Victoria U., Wellington, New

Zealand) **Visual hemifield differences in the perception of letters and contour orientation.** *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 207-212. — In Exp. I, 10 students were required to recognize capital English letters presented 3° to the left or to the right of a fixation point. In Exp. II, 8 Ss were required to discriminate the orientation of a line presented in either the left or the right visual hemifield. In both experiments Ss displayed a significant right visual hemifield superiority and a marked positive correlation was observed in the hemifield differences between the 2 recognition tasks. Results suggest that for certain classes of stimuli visual laterality differences may be subserved by a selective contour coding mechanism. (French summary) (15 ref.) *Journal abstract.*

Eye Movement

8065 Smith, Karl U., Schmidt, Jack, & Putz, Vernon. (U Wisconsin) **Binocular coordination: Feedback of synchronization of eye movements for space perception.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Sep), Vol. 47(9), 679-689. — Measured time differences between the 2 eyes in paired pursuit and saccadic movements in 6 Ss by laboratory computer methods under variable conditions of visual perception. In keeping with assumptions of a neuronic feedback view, significant time differences were found between both paired binocular pursuit (35-50 msec) and paired binocular saccadic movements (1-5 msec). The direction of these time lags varied with conditions and direction of vision, although the magnitudes of the time differences were not increased. Results indicate that the eyes are not exactly conjugate in binocular space perception, as claimed in Helmholtz's classical theory, but depend on variable feedback timing and synchronization for their control. The real-time computer methods devised create many possible new lines of studying synchronism and coordination of both ocular and other types of body movements and physiological functions on a systems basis. *Journal abstract.*

8066 Smith, Karl U., Schremser, Robert, & Putz, Vernon. (U Wisconsin, Behavioral Cybernetics Lab.) **Binocular coordination in reading.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 251-258. — Measured the differences in time between the 2 eyes, using laboratory real-time computer methods to detect and measure the time between velocity peaks of binocular saccadic movements in reading. The hypothesis was that instead of being completely conjugate as indicated by prior methods of ocular measurement, the eyes must be coordinated in directional motion by small time differences that govern their feedback guidance and relative velocity. Results with 3 Ss indicate that the time differences between the eyes clustered around 3 values: (a) near synchrony, including no difference and left eye leading by 1 msec; (b) left eye leading by 7-9 msec; and (c) left eye leading by 14 msec. These time differences were not related to the difficulty of the reading material, but were changed significantly by 15° horizontal rotation of the reading display. Results change the established views that the eyes are perfectly conjugate in saccadic motion and provide initial suggestive data toward a dynamic feedback doctrine of coordinate eye motion and functional disabilities in visual perception. *Journal abstract.*

Brightness & Contrast Discrimination

8067. Lie, Ivar. (U. Oslo, Inst. of Psychology, Norway) **Psychophysical invariants of achromatic colour vision: V. Brightness as a function of inducing field luminance.** *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 61-64.—Investigated the brightness (the dim-bright dimension) of achromatic color as a function of surrounding field luminance. Results with 4 Ss indicate that brightness of a test area was relatively independent of luminance level of the surrounding area until the luminance of the latter had passed well beyond that of the test area. With further increase of surrounding luminance, the brightness of the test area increased rapidly.—*Journal abstract.*

8068. McCann, John J., Land, Edwin H., & Tatnall, Samuel M. (Polaroid Corp., Cambridge, Mass.) **A technique for comparing human visual responses with a mathematical model for lightness.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Nov), Vol. 47(11), 845-855.—Determined human visual responses by having 10 Os compare the lightnesses in a test display with those in a standard display. The mathematical model's predictions were made by processing numbers that were identical to the luminances in the test display. These predictions were then scaled relative to the same standard lightness display used by the human Os. Methods of analyzing the results are discussed, as well as a variety of situations that can be used to establish whether a particular model can be considered a general model for lightness.—*Journal abstract.*

AUDITION

8069. Auerbach, Carl. (Yeshiva U.) **Improvement of frequency discrimination with practice: An attentional model.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 316-335.—Postulates that discrimination improves because Ss learn to actively attend to the pitch dimension, and consequently experience potentially experienceable small pitch differences, which were not experienced at the start of training. Ss given feedback learn to attend to the pitch dimension because it provides information correlated with the E's feedback. Ss not given feedback learn to attend to the pitch dimension because it provides its own "intrinsic" feedback. The model is consistent with the major facts concerning improvement of discrimination with practice, and makes quantitative predictions which are roughly correct.—*Journal abstract.*

8070. Doehring, Donald G. (McGill U., Montreal, Quebec, Canada) **Discrimination of simultaneous and successive pure tones by musical and nonmusical subjects.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 209-210.—Pairs of sounds, whose components were 2 pure tones presented simultaneously or successively, were discriminated by 8 music and 8 nonmusic students under same-different, matching-to-sample, and ABX modes of judgment. In contrast to the results of a previous study involving complex piano notes as components, there was no significant difference in the accuracy of discriminating simultaneous-simultaneous and successive-successive pairs or in the discrimination of simultaneous-successive and successive-simultaneous pairs.—*Journal abstract.*

8071. Schulman, Arthur I. (U. Virginia) **Detectability of the deletion of a tone from a tone-plus-noise background.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 496-498.—Reports that the deletion of a 1,000-Hz tone from a tone-plus-noise background is much harder for humans to detect than the insertion of the same tone into a background of noise. A mathematically ideal O, oblivious to the context in which an observation interval occurs, performs equally well under conditions of insertion and deletion. 52 undergraduates, not oblivious to context, produced the function $d' = .036 E/N_s$ under deletion; the slope of this linear function is no more than $1/2$ that of the typical slope of the comparable insertion function. The underlying reasons for the superiority of detection of insertion to that of deletion remain unclear.—*Journal abstract.*

8072. Viemeister, Neal F. (Indiana U.) **Auditory discrimination of intensity, internal noise, and temporal processing.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5682.

Perception

8073. Harris, J. Donald & Sergeant, Russell L. **Sensory behavior of naval personnel: Monaural/binaural minimum audible angle of auditory response.** *U.S. Naval Submarine Medical Center Report*, 1970(Jan), No. 607, 1-17.—Considers what 1 ear contributes to man's perception of his auditory world and evaluates the monaural/binaural role in spatial orientation. Minimum audible angles were determined for monaural listening to moving sounds, and results were compared to similarly obtained binaural data. Ss were 3 experienced male adults with normal hearing. Much usable directionality existed for the monaural mode even at poor azimuths, and for both modes of listening the accuracy of response depended upon type of acoustical signal used. Findings are related to a review of facts and theories of sound localization by man. (41 ref.)—*Journal abstract.*

8074. Pearsons, Karl S. & Bennett, Ricarda L. (Bolt Beranek & Newman Inc., Canoga Park, Calif.) **Effects of temporal and spectral combinations on the judged noisiness of aircraft sounds.** *Journal of the Acoustical Society of America*, 1971(Apr), Vol. 49(4, Pt. 1), 1076-1082.—Determined the effects on perceived noisiness of spectral and temporal combinations of stimuli at varying durations in an anechoic chamber. Ss were 20 undergraduates. Several recordings of turbo-prop, turbofan, turbojet, and helicopter flyovers were also included in the list of stimuli. Results indicate that the most accurate predictor of the judged noisiness was perceived noise level with tone and duration corrections as outlined by the 1968 Federal Aviation Administration (FAA) aircraft certification procedure. To illustrate the responsiveness of effective perceived noise level (EPNL) over perceived noise level (PNL) in predicting the noisiness of stimuli, the results of the duration test reveal that, at judged equal noisiness, 75% of the data were within 4 db. of the standard signal for EPNL with the FAA and integrated duration measure as compared to 11 db. for PNL.—*Journal abstract.*

Speech Discrimination

Audiometry

8075. Penner, Merrilyn J. (U. California, San Diego) **Detection of sinusoids of uncertain frequency.**

Dissertation Abstracts International, 1971(Mar), Vol. 31(9-B), 5671-5672.

CHEMICAL SENSES

8076. Arabic, Phipps & Moskowitz, Howard R. (Stanford U.). **The effects of viscosity upon perceived sweetness.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 410-412.—Presented 6 concentrations of sucrose and 6 concentrations of sodium saccharin as stimuli to 30 undergraduate and graduate students. The concentrations were equally spaced logarithmically, covering a 32:1 range for each solute. The 12 aqueous solutions were presented at 4 levels of viscosity, ranging approximately from 1-10,000 centipoises, with sodium carboxymethylcellulose (cellulose gum) as the thickening agent. Magnitude estimates indicate that perceived sweetness decreases with viscosity. In log-log coordinates the viscosity-sweetness relation is roughly linear with a negative slope, suggesting that sweetness of both sodium saccharin and sucrose varies as a power function of viscosity, with an exponent between -20 and -25 (15 ref.).—*Journal abstract*.

8077. Berglund, B., Berglund, U., Engen, T., & Lindvall, T. (U. Stockholm, Sweden). **The effect of adaptation on odor detection.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 435-438.—Studied the sensitivity of 2 20-yr-old female undergraduates to a weak odor (hydrogen sulphide), following prior exposure to it varying in duration and concentration, with a yes-no detection method and a specially designed olfactometer. The effect of adaptation was demonstrated: the proportion of hits was lower the higher the concentration of the adaptation stimulus, when the response criterion, as measured by the proportion of false alarms, was fairly constant. The proportion of hits was apparently independent of the duration of the exposure to the adaptation concentration. This finding suggests that the sense of smell is more stable than is usually believed. The importance of considering adaptation in contemporary detection theory is discussed.—*Journal abstract*.

8078. Cain, William S. (John B. Pierce Foundation Lab., New Haven, Conn.). **Physicochemical characteristics and supraliminal odor intensity: Reply to Mitchell.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 478-479.—Comments on M. Mitchell's (see PA, Vol. 46:Issue 5) criticisms of previous work by W. Cain. The rate of growth (exponent) of the psychophysical function for odor intensity is considered to depend upon the physicochemical properties of odorous substances. Although no single property is able to predict rate of growth, a model developed by J. Dravnieks and P. Laffort that combines 3 basic properties has been quite successful. The results of intra-O comparisons of the relative exponents for various odorants have withstood the test of replication, i.e., variation among Os has usually not been a serious problem. It is concluded that in the future, comparisons of the exponents obtained from 1 laboratory to another would be aided considerably by inclusion of a standard odorant in all scaling studies. (19 ref.)—*Journal abstract*.

8079. Henion, Karl E. (U. Texas). **Olfactory intensity of diluted n-aliphatic alcohols.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 213-214. Constructed psychophysical scales from magnitude estimates of 90 undergraduate Os who judged the olfactory intensity of

stimulus concentrations of a typical geometric dilution series prepared for each of 9 alcohols in the homologous series C₁-C₁₀. The scales, which resembled power functions with exponents from .027-.359, had slopes that varied inversely with carbon chain length throughout the series except for pentanol, which was out of its ordinal place in the series by 1 step. Results confirm the widely held assumption of an inverse relationship.—*Journal abstract*.

8080. Mitchell, M. J. (U. Canterbury, Christchurch, New Zealand). **Olfactory power law exponents and water solubility of odorants: A comment on Cain's (1969) study.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 477.—Reports on studies which do not support the findings of W. Cain (see PA, Vol. 44:4433) on the increase in olfactory power law exponents with water solubility. It is concluded that Cain's findings are the coincidental product of attempts to generalize from a small number of odorants.—S. Knapp.

SOMESTHESIA

8081. Gescheider, George A., Wright, John H., & Polak, John W. (Hamilton Coll.). **Detection of vibrotactile signals differing in probability of occurrence.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 253-260.—2 male undergraduates were required to report the presence or absence of brief 60-Hz vibrotactile signals applied to the index fingertip. The probability of signal occurrence was .74 in every session, but the relative frequency of occurrence of weak and strong signals was different in different sessions. When weak signals were presented more frequently than strong signals the proportion of signal-present decisions was higher than when strong signals were presented more frequently than weak signals. Analysis of the false-alarm and hit rates indicated that the effects of this variable on detection performance were attributable to a shift in the location of S's judgment criterion rather than to changes in signal detectability.—*Journal summary*.

8082. Guedry, Fred E., Stockwell, Charles W., & Gilson, Richard D. **A comparison of subjective responses to semicircular canal stimulation produced by rotation about two axes.** *USN AMI Army-Navy Joint Report*, 1970(May), No. 1106, 13 p.—Describes a practical procedure for obtaining reliable measures of sensation associated with semicircular canal stimulation. Theoretically these measures can be used along with measures of nystagmus to estimate several vestibular response system parameters relevant in the clinical assessment of pilot vertigo. Responses produced by stimulation of the horizontal semicircular canals are compared with those produced by stimulation of the vertical canals. Group mean estimates of subjective angular displacement obtained from 40 naval flight students were approximately accurate for stimulation of both horizontal and vertical canals. Significant individual differences were found. From the responses obtained, mean estimates of vestibular system parameters were calculated. The theoretical basis of the method is discussed (19 ref.)—*Journal abstract*.

8083. Hazlewood, Valerie. (Macquarie U., North Ryde, New South Wales, Australia). **A note on failure to find a tactile motion aftereffect.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 59-62.—Considered earlier and disagreeing reports on the occurrence of a

tactile movement aftereffect following protracted stimulation of the skin by a moving object. A series of preliminary experiments with 50 Ss and 2 main experiments with 80 Ss failed to confirm the occurrence of an aftereffect. In the main experiments only 1 S reported an aftereffect after cessation of real movement and it was in the unexpected direction.—*Journal abstract.*

8084. Murray, John B. (St. John's U., Jamaica, N.Y.) **Psychology of the pain experience.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 193-206.—Research on the "placebo effect" has underscored the cognitive and affective aspects of pain; the meaning attributed to the pain experience, age, and ethnic background of Ss as well as suggestion, hypnosis, and audioanalgesia were some of the factors found to be relevant to the interpretation of the pain experience. (52 ref.)—*Author abstract.*

8085. Nikoloski, Tome. **Umor i osetljivost za dodir.** [Effect of fatigue on touch sensitivity.] *Psihologija*, 1969-1970(Oct), Vol. 3(1), 123-126.—Examined the effect of fatigue on touch sensitivity. Different levels of fatigue were used; touch sensitivity was expressed by the 2-point threshold. The F obtained was statistically significant at the .05 level. The hypothesis according to which fatigue reduces touch sensitivity was confirmed. As fatigue grows, touch sensitivity diminishes. When fatigue reaches a certain level, the reduction of touch spots themselves and of their density is further discussed. A very high level of fatigue is necessary in order to effect a further reduction of touch sensitivity. (Russian summary)—*English summary.*

8086. Nyborg, Helmut. (U. Aarhus, Inst. of Psychology, Denmark) **Tactile stimulation and perception of the vertical: I. Effects of diffuse vs. specific tactile stimulation.** *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 1-13.—Studied the responses of 24 female and 24 male mental hospital nurses on the Rod and Frame Test while supported in a tilting apparatus. Ss were assigned to 6 groups which were exposed to specific body, rod, and frame tilts. $\frac{1}{2}$ the groups were tested under diffuse body reference (DBR) conditions, and $\frac{1}{2}$ under specific body reference (SBR) conditions. Results indicate that tactile stimulation influenced the perception of verticality. Ss in the SBR condition scored closer to the physical vertical than Ss in the DBR condition. The tilting apparatus is described in detail. Individual differences on the test are noted. (19 ref.)—*S. Knapp.*

8087. Verrillo, Ronald T. & Chamberlain, Steven C. (U. Oxford, England) **Direct scaling of vibrotacton: An individual replication.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 225-226.—Retested a single S after an intervening period of 3 yr. using the method of numerical magnitude balance. The stimulus parameters were nearly identical in both experiments with a total of 15 Ss. The slope of the subjective magnitude function was the same at higher intensities. Near threshold, the curve was steeper, corresponding to results seen in the data of the 2 groups in which the individual served as an S.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

8088. Congreve, G. R. (Addiction Research Foundation, Toronto, Ontario, Canada) **Dimensions of subjective response to short-term sensory deprivation.** *Psychonomic Science*, 1971(Feb), Vol. 22(4),

220-221.—Applied a semantic differential type of rating procedure to sensory deprivation by 26 male undergraduates who underwent 6 hr. of sensory restriction. Results of cluster analysis on a matrix of correlations between the 29 scales show that judgments of the unpleasantness of deprivation were quite highly related to judgments of its boringness, but that both these clusters were only slightly related to 2 clusters interpreted as measuring stress. Possible consequences of these data for the theoretical analysis of sensory deprivation are discussed.—*Journal abstract.*

SLEEP & FATIGUE & DREAMS

8089. Kramer, Milton; Whitman, Roy M., Baldrige, Bill J., & Ornstein, Paul H. (U. Cincinnati, Medical School) **Dream psychology and the new biology of dreaming.** Springfield, Ill.: Charles C Thomas, 1969. xxvi, 459 p. \$17.—Reports on a conference which focused both on the classical views of the dream and on the current attempts at exploring the content of dreams. Includes papers by several authors on theory and technique in dream psychology.

8090. Salzarulo, Piero. (U. Bologna, Inst. of Psychology, Italy) **Etude électroencéphalographique et polygraphique du sommeil d'après-midi chez le sujet normal.** [Electroencephalographic and polygraphic study of afternoon sleep in the normal subject.] *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 399-407.—Studied the spontaneous afternoon sleep of 12 normal Ss. On 2 consecutive afternoons, 6 EEG and 6 polygraphic derivations were made: 2 for eye movements, 1 for tone, 1 for respiration, 1 for EKG, and 1 for electrodermogram. It was found that: (a) $\frac{1}{2}$ the afternoons showed at least 1 phase of fast sleep; (b) afternoons with fast sleep showed a longer total sleep than those without it; (c) the presence of fast sleep was linked with a certain minimal length of slow sleep and was always preceded by deep slow sleep; (d) the average relationship between the duration of phasic periods and of total fast sleep was practically identical with that encountered during night sleep; (e) going to sleep was faster in the afternoon than at night and the periods with slow eye movements were more numerous; (f) there were variations in the respiratory rhythm during slow sleep and atonic periods, particularly during deep slow sleep; and (g) the recall of dream activities was possible even after sleep without REMs. (French summary) (17 ref.)—*English summary.*

HYPNOSIS & SUGGESTIBILITY

8091. Ruch, John C. & Morgan, Arlene H. (Stanford U.) **Subject posture and hypnotic susceptibility: A comparison of standing, sitting, and lying-down subjects.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Apr), Vol. 19(2), 100-108.—Inferred that in comparison to the customary sitting posture, a lying-down posture would facilitate hypnosis and a standing posture inhibit it. A preliminary experiment with 83 undergraduates, using a slightly modified, tape-recorded Stanford Hypnotic Susceptibility Scale, Form C, failed to support either hypothesis. A subsequent experiment under improved conditions with 20 undergraduates in each group (standing, sitting, and lying down) also showed no significant difference of

mean hypnotic susceptibility scores between any 2 of the conditions. Although Ss expressed dislike for the standing posture, the only objective disadvantage seemed to be some dizziness or nausea generated for some Ss (5 out of 39 tested in the standing condition). No clear evidence exists that this effect is to be attributed to hypnosis rather than to standing with eyes closed for an appreciable time. Results show that hypnotic behavior may be little affected by the concomitant requirements of maintaining a standing or sitting posture, even with the use of an induction which emphasizes relaxation. (Spanish & German summaries)—*Journal abstract*

8092 Sheehan, Peter W. (U. New England, Armidale, New South Wales, Australia) **A methodological analysis of the simulating technique.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Apr), Vol. 19(2), 83-99.—2 features characterize the simulating technique: simulators are both deeply involved in the problem task of simulation and immune to the experiential effects of hypnotic treatment. The technique leads to unambiguous inferences when hypnotic and simulating Ss perform in a similar fashion in the hypnotic setting. However, the treatment aspects of faking instruction limit the interpretation of behavioral differences between the 2 groups. Such effects can be demonstrated and are most likely to arise when the expected response is difficult for S to define. Personality differences between hypnotic and simulating Ss appear to be relatively unimportant. On some variables, at least, faking performance is not influenced as much by personality factors as by the treatment effects of simulation instruction. (Spanish & German summaries) (21 ref.)—*Journal abstract*.

8093 Spanos, Nicholas P. (Boston U.) **Goal-directed fantasy and the performance of hypnotic test suggestions.** *Psychiatry, Washington, D.C.*, 1971(Feb), Vol. 34(1), 86-96. Hypothesizes that hypnotic test suggestions lead Ss to certain goal-directed fantasies. Ss were 24 female student nurses who had taken the Harvard Group Scale of Hypnotic Susceptibility. They performed suggested tasks while under hypnosis and then described their thoughts while performing the task. Ss who successfully performed the tasks were found to be using "goal-directed fantasy," i.e., they constructed imaginary situations in which the task became reasonable. Findings are tentative and further tests are suggested. E. M. Uphrard.

MOTIVATION & EMOTION

8094. Berlyne, D. E. & Boudewijns, W. J. (U. Toronto, Ontario, Canada) **Hedonic effects of uniformity in variety.** *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 195-206.—Describes 2 experiments with a total of 148 undergraduates, using visual patterns consisting of 2 elements that differed in 0-4 properties but were otherwise alike. Different Ss rated the patterns for pleasingness, interestingness, liking, and complexity. With successive, but not with simultaneous, presentation of elements, pleasingness and liking reached maxima when there were both differences and similarities. Interestingness increased with the number of differences in both modes of presentation. Judged complexity increased with the number of differences but was significantly higher when elements appeared simultaneously. It is suggested that when hedonic ratings are plotted against judged complexity, results can be related

to findings of previous experiments on hedonic effects of complexity. (French summary) (20 ref.)—*Journal abstract*

8095 Bowers, Kenneth S. (U. Waterloo, Ontario, Canada) **Heart rate and GSR concomitants of vigilance and arousal.** *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 175-184. In an experiment with 16 male undergraduates, Ss receiving high shock were considerably more autonomically aroused than low shock Ss, as indicated both by an index of GSR, and by heart rate uncorrected for base level. When corrected, heart rate did not differentiate between Ss receiving high and low level shock. In a within Ss comparison, however, UCS temporal uncertainty generated lower corrected heart rate than UCS-certainty, and did so independently of shock level. It is unlikely that UCS-uncertainty was less anxiety arousing than UCS-certainty; indeed, GSR data suggest the contrary. The decrease in heart rate during UCS uncertainty trials is presumed to be a function of Ss' increased vigilance for uncertainty removing cues. The cognitive orientation toward environmental intake which such vigilance implies should, according to J. I. Lacey, be accompanied by cardiac deceleration. It is argued that such cognitive aspects of cardiac functioning are superimposed over gross cardiac responsiveness to autonomic arousal. (French summary)—*Journal abstract*.

8096 Boyle, D. G., Giles, Howard, & Oxford, Geoffrey S. (U. Aberdeen, Scotland) **Comments on the theory of laughter by Giles and Oxford: Laughter: A reply.** *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 317-320. The author enumerates 11 points of disagreement between his theory of laughter and that of H. Giles and G. S. Oxford (see PA, Vol. 44:18600). The 11 points are responded to in the reply by Giles and Oxford that follows.—J. S. Sexton.

8097 Carli, Renzo & Ancona, Teresa. **La dinamica dell'aggressività dopo stimolo filmico.** [The dynamics of aggressiveness stimulated by films.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 726-737.

8098 Ellner, Melvyn R. **The effects of experimentally induced frustration upon depressed and non-depressed college students.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5619.

8099. Furedy, John J. & Chan, Randolph M. (U. Toronto, Ontario, Canada) **Failures of information to reduce rated aversiveness of unmodifiable shock.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 85-94.—Conducted 2 experiments with male and female undergraduates in which information about shock onset was varied between groups. In Exp. I, with 3 groups of 30 Ss, shocks were (a) predictable by temporal signaling (Condition 1: constant 20-sec intershock interval); (b) unpredictable (Condition 2: intershock intervals varied from 10-30 sec); and (c) predictable by conventional signaling (Condition 3: tone or light preceding each irregularly presented shock by 5 sec.). A form of probe-stimulus (PS) technique was used to obtain independent measures of fear. Rated aversiveness of shocks did not vary as a function of information. There was, however, reliable evidence for the presence of conventionally-signaled conditional fear under Condition 3. In Exp. II, to avoid a possible source of confounding, the PS technique was not used. Conditions 1 and 2 were readministered to 2 30-S groups. Information again failed to reduce the rated aversiveness of temporally signaled shocks. The 2 concomitant, shock-elicited, autonomic measures, GSR and digital volume

pulse change, failed to show a differential rate of decline as a function of information (Condition 1 vs. 2), although both measures declined reliably over trials.—*Journal abstract.*

8100. Higgins, Norman C. (Syracuse U.) **Selected modes of pictorial rendition and associated response tendencies.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5846.

8101. Karsh, Robert; Monty, Richard A., & Taub, Harvey A. **Effects of knowledge of results and method of payoff on keeping-track performance.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Jun), No. 15-70, 9 p.—Utilized knowledge of results and financial incentives having "motivational" as opposed to "directive" properties to further examine the "spatial window" model of keeping-track performance. It was found that when Ss are required to keep track of 4 categories of information at once they will normally optimize performance with 2 of these categories. If incentives are provided which call for optimal performance with all 4 categories, overall performance deteriorates. Implications for the spatial window model are discussed.—*Journal abstract.*

8102. Suedfeld, Peter; Landon, P. Bruce; Epstein, Yakov M., & Pargament, Richard. (Rutgers State U.) **The role of experimenter and subject expectations in sensory deprivation.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 21-27.—Each of 5 graduate student Es ran 18 undergraduate Ss (chosen on the basis of a battery of personality tests) through 30 min. of sensory deprivation. Ss were then given the Subjective Stress Scale and the Symptom Checklist developed by P. Suedfeld. For 6 Ss, E expected the procedure to have adverse effects; for 6 others, positive effects; and for the others, no expectation was induced. Ss also had aversive, positive, or no set. S expectation affected subjective stress ratings after release, but not cognitive efficiency; neither E expectation nor the interaction had significant effects. It appears that sensory deprivation is a situation in which E effects are unimportant compared to S factors. (16 ref.)—*Journal abstract.*

8103. Thackray, Richard I. & Touchstone, R. Mark. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Recovery of motor performance following startle.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 279-292.—Studied the extent to which startle disrupts motor performance, rate of recovery, and characteristics of Ss who differ in susceptibility to startle. 30 paid male college students were trained on both RT and tracking tasks. Continuous recordings were taken of heart rate and skin conductance. During a subsequent period of continuous tracking, "startle" stimuli (115-db random noise) were unexpectedly presented. Results show the recovery of tracking performance following startle to be quite rapid; performance returned to prestimulus levels within 15 sec. following stimulation. Contrary to several previous studies, RTs to the startle stimuli decreased relative to nonstartle RTs. Ss with the greatest increase in tracking error following startle were least proficient prior to startle. There was also an indication that these Ss reacted more strongly to startle, in terms of both their subjective response and heart-rate acceleration, than those Ss whose tracking was least impaired by startle. An apparent covariation between recovery curves for heart rate and tracking error was found following startle. (21 ref.)—*Journal abstract.*

8104. Voicu, C. (Academy of Social & Political Sciences, Bucharest, Romania) **Influence of the level of bioelectrical arousal on the mnemonic efficiency of verbal and non-verbal stimuli.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(2), 151-162.—To test whether short-term memory is better for material learned under arousal conditions, series of words, images, and words and images combined were presented for 2 sec. at 30-sec intervals, 1/2 being accompanied by a continuous 500-Hz sound. EEG levels and free recall of stimuli were recorded for 21 male, young adult Ss. Arousal was found to impair short-term memory, an effect most marked for the recall of images. Facilitating effects of arousal were found only with Ss of low EEG reactivity levels. (28 ref.)—*C. Mayo.*

ATTENTION & EXPECTANCY & SET

8105. Alden, David G., Wedell, Jacelyn R., & Kanarick, Arnold F. (Honeywell, Inc., Systems & Research Center, Minneapolis, Minn.) **Redundant stimulus coding and keeping-track performance.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 201-202. Investigated the effect of redundant color coding on keeping-track performance, using symbols as the primary cue. 32 undergraduates were assigned to 1 of 4 coding conditions: symbol color, color symbol, symbol only, or color only. Performance was measured on a task requiring S to monitor 8 information channels, which were being updated randomly. Results indicate that the addition of a redundant color code did not yield a significant improvement in performance, as compared to performance on the component codes (i.e., the symbol only and color only groups). *Journal abstract.*

8106. Alexander, C. Norman; Zucker, Lynne G., & Brody, Charles L. (Stanford U.) **Experimental expectations and autokinetic experiences: Consistency theories and judgmental convergence.** *Sociometry*, 1970(Mar), Vol. 33(1), 108-122. Describes 2 experiments with 40 female undergraduates that attempted preexposure disabusal of Ss' implicit expectations of systematic and regular light movements. In Exp. I, 20 Ss were informed about the autokinetic "illusion," the movements were dissociated from the E's control, and erratic perceptions were legitimated. No convergence was found over 60 trials either with Ss responding alone or with 2 Ss simultaneously reporting their judgments. Pairs in the together condition showed no trend toward consensual perception of movement. Results are contrary to M. Sherif's original result and its many replications. In Exp. II, 20 Ss "overheard" a stooge responding to a stimulus light they could not see, thus providing them with an expectation about the nature of the light movements they subsequently judged. Ss overhearing a convergent stooge rapidly converged, while Ss overhearing divergent stooges did not. Ss in the divergent condition were more positive about the experimental situation than convergent Ss. Implications for consistency theories are discussed. (21 ref.) *Journal abstract.*

8107. Cavanagh, J. Patrick & Chase, William G. (Carnegie-Mellon U.) **The equivalence of target and nontarget processing in visual search.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 493-495.—Compared the performances of a total of 32 Ss on a forced-choice visual search task and an item recognition task. Results do not support U. Neisser's hypothesis of a

preattentive stage that processes targets and nontargets differentially. In the forced-choice condition Ss indicated which of 2 items in a visual display was a target. In item recognition, Ss determined whether or not the single item in the visual display was a target. The size of the memorized set of possible targets was varied from 1-6 items for both tasks. Latencies increased linearly with memory set size in both conditions, the slopes for forced choice and item recognition were 418 and 270 msec/item, respectively. The ratio of 1.38 between the 2 slopes was well fit by S. Sternberg's item recognition model, which predicts a ratio of 1.50. Results support the hypothesis that the identification or "standing out" of targets, as compared to "blurred" nontargets, in visual search occurs after both the encoding and memory search processes have terminated. *Journal abstract.*

8108 Grasha, Anthony F. **Detection theory and memory processes: Are they compatible?** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 123-135. Recent retention research has applied the concepts of the Tanner and Swets signal detection model to recognition and recall measures. While the literature is not extensive, the evidence tentatively suggests that d' and criterion changes are potentially useful descriptive constructs. Several methodological problems were noted in the literature reviewed. Specifically, comparative analyses of the data are difficult since different detection procedures were employed to estimate d' and criterion changes as a function of the same retention variables. In addition, an empirical relationship needs to be established between memory system output, e.g., response strength, familiarity, etc., and the rating scale values which are fundamental to a retention detection analysis. Finally, a clear framework is needed for d' and criterion changes in memory. (31 ref.) *Journal abstract.*

8109 Hiles, D. R., Bulger, P. M., & Lowe, G. (U. Hull, England) **Effect of short presentation times on intuitive estimation of means.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 136. Extends the range of presentation time to include .2, .5, 1, 2, 4, and 6 sec., using arrays of 20 2-digit numbers randomly arranged in a 5×4 matrix. Ss were 17 undergraduates whose responses were categorized as accurate, overestimates, or underestimates. It was found that the variability of Ss' estimates was reduced as presentation time increased, suggesting that with shorter presentation times Ss were only able to perceive (and/or process) relatively smaller and less representative samples from the full array. —P. Hertzberg

8110 Ilgen, Daniel R. (U. Illinois) **Satisfaction with performance as a function of the initial level of expected performance and the deviation from expectations.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 345-361. Established 3 levels of expected performance by reporting performance independent of actual performance. Ss were 225 male undergraduates. When performance expectations had been established, performance feedback was varied from the expected levels. These variations in percentiles were: -20, -10, 0, +10, and +20. Satisfaction with performance was a monotonic function of the algebraic difference between expected performance and reported performance at all 3 performance levels. However, satisfaction was also a function of the level of performance as well as the interaction between level of performance and deviations from expected performance. It is concluded that measures of both the amount of a

particular stimulus object and the degree to which this amount differs from what is expected should be used to predict satisfaction. (27 ref.) *Journal abstract.*

8111 McFarland, Barry P. & Halcomb, Charles G. (Texas Technological Coll.) **Expectancy and stimulus generalization in vigilance.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 147-151. Examined the influence of signal probability during an auditory pretest on performance on a visual monitoring task in a split-plot factorial analysis of variance. 52 male undergraduates were given an auditory pretest in which white noise was intermittently terminated at either a high ($p = .18$) or low ($p = .02$) probability during any 2-sec interval; then a visual monitoring task was performed in which the signal probability was either high ($p = .18$) or low ($p = .02$). Ss who received the high auditory pretest performed reliably better than the low group ($p < .01$). The within-session decrement varied as a function of the different pretest and task signal probabilities. Results support the expectancy theory of vigilance and suggest the importance of the role of pretask adaptation in the vigilance paradigm. *Journal abstract.*

8112 Olshavsky, Richard W. (Georgia Inst. of Technology) **Search limits as a function of tree size and storage requirements.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 336-344. Estimated the practical limits of accurate search of complex tree structures, under conditions permitting no external memory aids. 25 undergraduates attempted exhaustive search of 19 problems whose underlying tree structures increased systematically with respect to breadth and depth. An additional group of 25 Ss solved the same problems under conditions of increased storage requirements. A very limited (2-3 chunks) fallible memory was implicated as a possible determiner of the direction and extent of the search process. —*Journal abstract.*

8113 Reitz, Willard E. (U. Western Ontario, London, Canada) **Personal reinforcement and awareness.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 243-245. —50 student nurses were administered a visual discrimination task for which reinforcements were statements from the Allport-Vernon-Lindzey Study of Values. Positive and negative reinforcers were chosen to be high in valency (± 2 standard deviations; SDs) or low (± 1 SD). Awareness of reinforcement contingency was greater ($p < .001$) under high-valency conditions than under low. The high-valency condition also resulted in higher performance and gains over trials. Results are interpreted as favoring a personal motive interpretation. —*Journal abstract.*

8114 Teal, Janice R. (U. Georgia) **The effects of instructions and irrelevant information on a search task.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5680.

MOTOR PERFORMANCE

8115 Carlson, B. Robert. (U. Kansas) **Isotonic strength and relative isotonic endurance.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 247-252. —No relationship was found between isotonic strength and relative isotonic endurance. Additional support was provided by the insignificant results in the analysis of endurance performance of 3 groups of 12 male undergraduates each based on strength level. Implications for the use of relative isotonic endurance tests in future

study of perseverance are discussed. (18 ref.)—*Journal abstract.*

8116. Jordan, Stephen. (U.S. Naval Training Device Center, Orlando, Fla.) **Rhythm in motor performance.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 122. —Reports 3 tasks in a study of rhythm in motor skill in which (a) 4 Ss demonstrated a fairly high degree of temporal regularity in drawing an equilateral triangle; (b) Ss tended to demonstrate the existence of an imposed rhythm which was nearly independent of the task structure when an isosceles triangular pattern was used; and (c) Ss were tested for the contribution of full awareness to the imposition of a rhythmical pattern on this type of tracking task. Although too few Ss were used for generalizations, it is concluded that the nature of rhythmical response in a simple motor task appears to be dependent on an S's set as well as task structure.—P. Hertzberg.

8117. May, Robert J. & Black, Roger W. (U. South Carolina) **Persistence of responding on a perceptual-motor task following shifts in informative feedback.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 233-234. —Trained 60 undergraduates in 4 groups on a pursuit-rotor task which they continued until they became bored or tired. After each trial 1 group was informed that their performance was good and a 2nd that theirs was poor. A 3rd group was initially rated good and then shifted to poor, while the 4th group was shifted from poor to good. Persistence in responding suggests a negative contrast effect following the shift from good to poor, but no corresponding positive contrast effect occurred. No effect on accuracy of performance was obtained. Results are analogous to those obtained in conditioning studies.—*Journal abstract.*

8118. Michel, F. (National Center for Scientific Research, Lab. of Psychophysiology, Lyon, France) **Etude expérimentale de la vitesse du geste graphique.** [Experimental study of handwriting speed.] *Neuropsychologia*, 1971(Mar), Vol. 9(1), 1-13. —Describes a new technique which allows the recording of the speed of a pen-tip in X and Y during normal handwriting. The basic mechanics of the movements involved in cursive script, particularly the relationship between graphic amplitude and speed (instantaneous and averaged), are elaborated. By integrating velocities, displacements in X and Y may be obtained, stored on magnetic tape, played back on a cathode ray oscilloscope or XY recorder, and fed to a computer. It is concluded that this technique (a) permits the quantitative analysis of handwriting as a function of time, (b) is a potential tool for the study of sensorimotor coordination in graphic movements, (c) will permit handwriting at a distance and after a time-delay, and (d) may serve to facilitate further advance in the synthesis of handwriting. (German summary) (20 ref.)—*English summary.*

REACTION TIME

8119. Brebner, J. (U. Adelaide, South Australia) **The refractoriness of regular responses.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 3-7. —Studied the "psychological refractory period" in the RT experiment with 17 17-40 yr. old males using 2 visual stimuli. Stimulus 1 was presented at the rate of 30/min followed by Stimulus 2 (S2) at intersignal intervals (ISIs) of 50-300 msec. Delays in responding to S2 were less than predicted on an expectancy model or from the

single-channel hypothesis when $ISI < RT_1$. A tentative explanation of the data is offered which does not conflict with the single-channel hypothesis.—*Journal abstract.*

8120. Green, David M. (U. California, San Diego) **Fourier analysis of reaction time data.** *Behavior Research Methods & Instrumentation*, 1971(May), Vol. 3(3), 121-125. —The popularity of the assumption of stages in models of the RT process and the availability of fast and efficient means of computing approximations to the Fourier transform makes the Fourier analysis of RT data attractive. Some problems associated with such analyses and convenient ways to overcome some of the difficulties are discussed.—*Journal abstract.*

8121. Hannes, Martin. (Herbert H. Lehman Coll., City U. New York) **The effect of right and wrong guesses on two-choice reaction time.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 241-252. —10 undergraduates were randomly assigned to each of 4 conditions: 20, 40, 60, and 80% repetitions. In all conditions RT associated with right guesses was faster. For repetition events, RT across conditions varied inversely with the objective probability of repetition occurrence (for right and wrong guesses, respectively); in contrast, RT was independent of condition for alternation events. A model to explain this latter finding is examined. It is proposed that RT under the conditions investigated reflects the additive effects of 2 independent preparatory mechanisms, 1 dependent on subjective probability, and the other on objective probability.—*Author abstract.*

8122. Jones, Thomas N. & Kirk, Roger E. **Monitoring performance on visual and auditory displays.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 235-238. —Compared the monitoring performance of Ss using a visual display with the performance of Ss using an auditory display. 24 male undergraduates were randomly assigned to monitor either the visual or the auditory display for a 3-hr period. 2 measures of performance, RT and probability of responding, were obtained during the monitoring session. Analysis of the results indicates that Ss who monitored the auditory display had shorter RTs, higher probability of responding, and less variability than Ss who monitored the visual display.—*Journal abstract.*

8123. Makarov, P. O. (Leningrad U., USSR) **Vremya reaktsii cheloveka na nachalo i konetz kratkogo zvuka razlichnoi sily, dlitel'nosti i pri dopolnitel'nom elektrokozhnom razdrazhenii.** [The reaction time to the beginning and cessation of a short sound of different strength, duration and during additional electrical skin stimulation in man.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1714-1720. —Investigated the functional relationship between human RT and an acoustical stimulation. Employing sound generators, Ss had to press a button to stop the stimulus as soon as he heard the sound, and the corresponding RT was measured on a special device. The variables were: (a) intensity (70-90 db.) above the threshold value, and (b) duration (2-100 msec.). Of the threshold values the RT was found to be 400-500 msec. With increase in intensity above the threshold the RT went down to 200 msec. After reaching a certain limiting value the RT started increasing again. A simultaneous electrocutaneous stimulation caused an increase in RT. The RT for the beginning of a stimulus was shorter than the latency period for the end of the same signal. Increase of the latency period with the addition of the simultaneous electrocutaneous stimulation is caused by the resulting

higher threshold value. It is suggested that the latency period is shorter at the beginning than at the end of the same acoustical signal as a result of the neurodynamic characteristics of S's functional state and the role played by the CNS mechanism.—*J. Halev.*

8124. **McKeever, Walter F., Huling, Maurice D., & Gazzaniga, Michael S.** (Ventura County Mental Health Dept., Calif.) **A note on Filbey and Gazzaniga's "Splitting the brain with reaction time."** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 222-223. Comments on the implication by R. A. Filbey and M. S. Gazzaniga (see PA, Vol. 44:6000) that their studies of transcallosal transmission time represents a new strategy conceivable only on the groundwork provided by the split-brain studies of Gazzaniga and Sperry. References are cited which suggest earlier studies of the same phenomenon. The criticism of McKeever and Huling is answered in a note by Gazzaniga. —*P. McMillan*

8125. **Salthouse, Timothy.** (U. Michigan, Human Performance Center) **Human performance as a function of future demands.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 327-336. Investigated the influence of increasing the requirements of a later RT task upon the performance of an earlier RT task in 2 experiments with 8 right-handed 18-22 yr old males and 4 right-handed 19-22 yr old males, respectively. Exp. I controlled the probability of the occurrence of the 2nd reaction signal and Exp. II manipulated the complexity of the 2nd task by introducing alternative distractor events to the reaction signal. Results of both experiments are interpreted as supporting a shared processing capacity theory of human performance in which the allocation of "preparation" or "concentration" is distributed in accordance with the demands of the component tasks. —*Journal abstract*

8126. **Schueneman, Arthur L., King, Hollis; Sandman, Curt A., & Deabler, Herdis L.** (Veterans Administration Hosp., New Orleans, La.) **Reaction time and temperament type.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 162. Examined the relation of a purely psychomotor task to the repression-sensitization (R-S) personality dimension described by D. Byrne. 106 randomly selected male patients were administered the embedded form of the R-S scale from the MMPI and a psychomotor task. Data indicate that psychomotor RT appears independent of the R-S personality dimension. —*P. Hertzberg*

8127. **Simon, J. Richard & Craft, John L.** (U. Iowa) **Communicating directional information with an auditory display.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 241-243. Examined whether right or left commands could be communicated more effectively using symbolic, directional, or combined directional and symbolic cues. In a choice RT task, 36 male and 36 female undergraduates pressed a right- or left-hand key in response to (a) 1,000 or 4,000 Hz. binaural tonal commands (symbolic cue), (b) a single pure monaural tone (directional cue), and (c) 1,000 or 4,000 Hz. monaural tonal commands in the ear corresponding to the symbolic content of the command (combined directional and symbolic cues). The combined (redundant) cue condition produced the fastest RT, while RT to the directional cue alone was faster than to the symbolic cue alone. —*Journal abstract.*

LEARNING

8128. **Fitzgerald, Donald & Hong, Huengim O.** (U. Alberta, Edmonton, Canada) **Leveling-sharpening and**

representational learning. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 211-214. Related performance of 96 female undergraduates on the Squares Test to immediate and delayed recognition of unfamiliar concept names in a representational learning task. Although previous research has not substantiated predictions from the assimilation model when the task involved associative learning, these results clearly indicate ($p < .01$) the superiority of "sharpeners" to "levelers" in representational learning with the stimulus phrases embedded in prose material and low-meaning response terms. —*Journal abstract.*

8129. **Gerst, Marvin S.** (U. California, Medical School, San Diego) **Symbolic coding processes in observational learning.** *Journal of Personality & Social Psychology*, 1971(Jun), Vol. 19(1), 7-17. Tested the hypothesis that (a) symbolic coding of modeling stimuli enhances observational learning, and (b) different types of codes are differentially effective over time and with modeled responses varying in verbalizability. 72 male and female undergraduates observed a filmed model perform complex motor responses, each of which was described in concrete terms, reactivated imaginatively, or coded in the form of summary labels which encompassed essential elements. Imaginal and summary label code groups achieved higher matching scores than the concrete verbal description group which exceeded the control group. The form of memory code did not interact with verbalizability, but summary labeling was superior for retention. In the delayed test of behavioral reproduction, the labeling group was able to perform more modeled behavior than the other treatment groups, which did not differ from each other. The influence of symbolic representation on modeling was further revealed by evidence of a significant relationship between retention of summary codes and delayed reproduction of modeled responses. (20 ref.) —*Journal abstract.*

8130. **Houston, B. Kent.** (U. Kansas) **Noise, negative transfer, and meaningfulness.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 255-256. Conducted 2 studies with 32 and 48 Ss respectively, to test the hypothesis that the presence of noise, which Ss were instructed to ignore, would facilitate performance on a negative-transfer learning paradigm but not performance on a control learning paradigm. The effect of noise on 2 levels of item meaningfulness for each paradigm was also studied. In both experiments, negative transfer was successfully generated for low-meaningful items and the predicted interaction between learning paradigms and treatments was obtained. In neither experiment was significant negative transfer generated for high-meaningful items, and the predicted interaction between paradigms and treatments was not obtained. —*Journal abstract.*

8131. **MacRae, K. D. & Reid, J. B.** (Queen's U., Belfast, Ireland) **Asymmetric stimulus intensity in probability learning.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 228. Studied the prediction of whether 1 or both of 2 lights would occur over a series of 1,000 trials. 4 groups of 6 Ss each were run, in which 1 light illuminated on 20, 40, 60, or 80%, respectively, of the 1st 500 trials. In all groups, 1 light illuminated on 50% of the 2nd 500 trials. Results indicate a need for further studies of the levels of stimulus intensity at which changes in stimulus intensity are related, positively and negatively, to response preferences. No significant differences between the groups were found. —*P. Hertzberg.*

8132. **Stael von Holstein, Carl A.** (U. Stockholm,

Sweden) **The effect of learning on the assessment of subjective probability distributions.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 304-315.—14 Ss (students of business administration, emphasizing quantitative methods) assessed subjective probability distributions for unknown parameters of a Bernoulli process. The process was generated by random devices, e.g., oddly shaped dice. 1 group of Ss received feedback between sessions in the form of the true values of the parameters. These Ss improved their performance more than the 2nd group, and acquired more confidence in their assessments.—*Journal abstract.*

8133. Theios, John; Brelsford, John W., & Ryan, Phyllis. (U. Wisconsin) **Detection of change in non-stationary binary sequences.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 489-492.—Investigated the ability of 4 undergraduates to detect changes in the underlying probability structure of binary sequences of events. Ss were presented with sequences of 30 events (0s and 1s) which had been generated by 2 underlying probability values. P_1 was the probability of a 1 in the 1st integer (i) events, P_2 was the probability of a 1 in the last 30-i events, and the distribution of i was uniform from 1-29. Ss indicated, without feedback, where the transition point from P_1 to P_2 took place for 4 sets of problems in which P_1 and P_2 took on the following pairs of values: (.40, .60), (.20, .80), (.05, .60), and (.50, 1). Estimates by Ss were compared with true transition points, i, and with maximum likelihood estimates of 1. The difference between P_1 and P_2 and the closeness of at least 1 P value to the boundaries, either 0 or unity, interacted in determining the difficulty of the problem for Ss.—*Journal abstract.*

8134. Yelen, Donald R. (Washburn U.) **The effects of percent of association on discrimination shifts.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 253-254.—Investigated the effects of changes in the percent of association between stimuli and responses on intra- and extradimensional shift problems. Ss were 80 undergraduates. Results indicate that the percent of association differentially affected the frequency of responses and that the weighted frequencies of the responses were related to the choices made with stimulus compounds that stimulate intra- and extradimensional shift problems.—*Journal abstract.*

Conditioning

8135. Allen, Charles K. & Branum, Allen R. (U. Montana) **Differential eyelid conditioning as a function of the probability of reinforcement of the conditioned stimuli.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 251-252.—Investigated differential eyelid conditioning with different schedules of reinforcement of CS1 and CS2. The reinforcement schedules employed were 100-0%, 80-0%, 100-20%, and 80-20%. Significant differentiation occurred in all groups. With the reinforcement schedule to CS1 constant at 100%, increasing the reinforcement schedule from 0-20% resulted in a decrease in responding to CS1. With reinforcement schedule of CS2 constant at 0%, decreasing the reinforcement schedule of CS1 from 100-80% resulted in increased responding to CS2. A stimulus generalization interpretation is offered.—*Journal abstract.*

8136. Brooks, William H. (Oklahoma State U.) **The role of cognitive variables in an extinction situation.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5192.

8137. Hayashi, Takashi. **An experimental study of the second-signaling systems of man through the printed language.** *Conditional Reflex*, 1971(Jan), Vol. 6(1), 11-21.—Earlier findings indicated that not only the sight of a "pickled plum" increased the resting saliva of Japanese adults, but the spoken words "pickled plum" also increased the amount of saliva as a natural conditional reflex. It was also found that the reflex was stronger when an oral interpretation of the words "pickled plum" was added to their mere phonation. It was deduced that language is a conditional stimulus, the concept of which is released by unconditional stimulation. In this paper it is experimentally shown that reading printed language as well as writing it has the same effect in the human.—*Journal summary.*

8138. Weiss, Robert F., Buchanan, William; Altstatt, Lynne, & Lombardo, John P. (U. Oklahoma) **Altruism is rewarding.** *Science*, 1971(Mar), Vol. 171(3977), 1262-1263.—Reports 2 studies with 144 undergraduates designed to show that people will learn an instrumental conditioned response for which the sole reward is removing another person from suffering. Exp. I investigated whether altruistic reward has the same characteristics as conventional rewards of escape conditioning. Exp. II investigated whether cessation of another person's suffering exhibits the property of rewards based on their timing. Results indicate that instrumental behavior can be learned and maintained solely through the rewarding function of altruism. Results further indicate "a profound similarity between the action of altruistic and conventional, nonaltruistic rewards: not only can learning be based on altruistic reward, but 2 standard parameters of reward, delay of reward and partial reward, show the same effects with both." P. McMillan.

Verbal Learning

8139. Boyd, William M. (U. Massachusetts) **Combining identical sets of pre- and postquestions in prose learning.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5653-5654.

8140. Martin, Edwin. (U. Michigan) **Verbal learning theory and independent retrieval phenomena.** *Psychological Review*, 1971(Jul), Vol. 78(4), 314-332. Reports that the chief concerns of verbal learning theory are how people learn a new behavior (C) in a situation (A) for which there already exists a learned behavior (B) and how these competitive behaviors are remembered. Various theories entail postulated dependencies among A, B, and C: (a) associative interference theory has focused on A-B, A-C associative interdependence; (b) list differentiation theory, on B, C availability interdependence; and (c) stimulus encoding theory, on stimulus identification interdependencies. The importance of isolating these postulated dependencies and of finding or failing to find the requisite dependencies in memory tasks where A, B, and C are to be retrieved in some form is discussed. (2 p. ref.)—*Journal abstract.*

Verbal Paired Associate Learning

8141. Postman, Leo. (U. California, Inst. of Human Learning, Berkeley) **Organization and interference.** *Psychological Review*, 1971(Jul), Vol. 78(4), 290-302.—Presents evidence for the functional continuity of the

products of subjective organization and of associative learning. 3 experiments with a total of 384 undergraduates were conducted in which the transfer effects of free recall on paired-associate learning were investigated. Words in the successive lists remained the same for the experimental groups and were unrelated for the control groups. Results show negative transfer in the acquisition of the paired-associate list and long-term proactive inhibition in the recall of the transfer task. The higher order units developed in the free recall phase were an effective source of interference when the transfer task required the establishment of new relations among the component items. The interitem dependencies established in free recall and in associative learning are viewed as commensurable phenomena that are likely to be governed by common principles. Implications for the analysis of extraxperimental sources of interference are discussed. (26 ref.) *Journal abstract.*

8142. Richards, William S. (Arizona State U.) **The effect of variations in patterning or lead-back and type of pre-test trial exposures on response repetition following verbal outcomes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5611.

8143. Sampson, J. F. (Center for Research in Learning & Instruction, Sydney, New South Wales, Australia) **Delay of reinforcement in human verbal learning.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 35-45. Required 84 male and 84 female undergraduates to learn 5 simple paired associates. With speed of response as a measure and the presentation of the correct response item as reinforcement, both delay of reinforcement and activity during delay impaired training performance. Interference was no greater for activity composed of common associations with the stimulus than for unrelated material. Statistical treatment of the parameters of fitted hyperbolic curves reveal that both delay and activity significantly reduced performance asymptote. The curve parameters also show that activity was a significant determinant of growth rate although delay interval produced no significant growth effect. Lengthening the delay interval late in training lowered the performance of both active and inactive Ss; shortening the delay resulted in faster responding by only the active Ss.—*Journal abstract.*

8144. Wolford, George. (Dartmouth Coll.) **Function of distinct associations for paired-associate performance.** *Psychological Review*, 1971(Jul), Vol. 78(4), 303-313.—Developed and tested a model for predicting performance on a variety of paired-associate test types. The primary feature of the model is the assumption that Ss form distinct forward and backward associations within a single paired-associate item. Different test types have different numbers of associations available for mediating performance. 2 experiments were run with 50 adult Ss each using recall, recognition, and a variety of forced-choice test types. Results support the model. (35 ref.)—*Journal abstract.*

Reinforcement

MEMORY

8145. Carroll, Douglas & Horne, Peter V. (Australian National U., Canberra, Australian Capital Territory) **Semantic and acoustic labeling.** *Psychonomic Science*,

1971(Feb), Vol. 22(4), 241-242.—Compared the effects of semantic and acoustic labels, when both are equally available in 2 experiments with 80 undergraduates. Results demonstrate that both semantic and acoustic labels enhance memory. Such data is in discord with theories that attempt to dichotomize memory in terms of differential semantic and acoustic encoding.—*Journal abstract.*

8146. Daves, Walter F. & Rinn, Roger C. (Georgia State U.) **Free recall of object categories as a function of number of presentations of varied or repeated specimens.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 203-205.—Presented photographic slides of 18 categories of common objects to 24 male and 24 female undergraduates divided into 4 groups receiving 1, 2, 3, or 4 separate presentations of each category. For $\frac{1}{2}$ of the categories (V categories) up to 4 different specimens represented the category; for the other $\frac{1}{2}$ (R categories) the same specimen was repeated up to 4 times. Recall was tested both immediately and after an approximate 2-wk delay. For immediate recall the V categories were recalled best, and recall was a positive function of number of presentations. The R categories were recalled less after 2 and 3 presentations than after 1, but recall increased with the 4th presentation. Similar findings were obtained in 2-wk recall, although there was no overall effect of variety, and interpretation of the findings was complicated by significant 2-way interactions between sex and variety and sex and repetitions, as well as a significant main effect of sex.—*Journal abstract.*

8147. Daves, Walter F. & Rinn, Roger C. (Georgia State U.) **The variety effect in free recall as a function of prerecall activity.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 226-227.—Studied the enhancement of free recall of object categories represented by varied, as opposed to repeated, specimens, when 24 undergraduates recalled immediately after presentation of the stimuli vs. 24 Ss who worked arithmetic problems for 1 min. before recalling. All Ss recalled 3 times, the 2nd and 3rd recalls in all cases being preceded by 1 min. of arithmetic. Results indicate no change in recall over the 3 trials. However, the varied categories were recalled better than the repeated categories, and the difference was reduced when interpolated activity was required. The interpolated activity was more effective for the female Ss and appeared to depend upon the particular categories that were varied or repeated. Findings are interpreted as indicating the contribution of retrieval processes to the variety effect.—*Journal abstract.*

8148. Erdelyi, Matthew. (Lehman Coll., City U. New York) **Recovery of unavailable perceptual input.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 99-113.—Reports 2 experiments on the "recovery effect." In Exp. 1, with 36 undergraduates, Ss' recall of a briefly flashed stimulus was tested before and after fantasy generation. Postfantasy recall was greater than prefantasy recall to an extent that significantly exceeded corresponding increases in recall obtained by control Ss. 1 group of control Ss did not generate fantasy, while the other produced fantasy but copied an experimental S's 1st recall attempt instead of seeing the stimulus. When the number of responses emitted in postfantasy recall was equalized for all groups, however, the difference in recall increments disappeared between the fantasy and nonfantasy group, suggesting that fantasy augments response rates rather than sensitivity to the stimulus.

trace. Exp. II with 32 Ss confirmed this inference. A recognition indicator with confidence ratings was employed, from which receiver-operating characteristic functions were extracted, allowing direct measures of pre- and postfantasy sensitivity. No sensitivity increments were found in either the fantasy or the nonfantasy group, though fantasy affected confidence ratings and, therefore, hit and false alarm rates.—*Journal abstract.*

8149. Foss, Donald J. & Dowell, Ben E. (U. Texas) **High-speed memory retrieval with auditorily presented stimuli.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 465-468.—Presented 3 lists of 1, 2, and 4 consonantal phonemes to 2 groups of 8 undergraduates for memorization. Tests words were presented, and RT for S to say whether or not the word started with a member of the memorized list was measured. RT increased with list length (LL). In 1 group, the phonemes comprising the memorized sets were dissimilar, and RT increased linearly with LL. In the other group, the phonemes comprising the sets were similar, and the function relating RT to LL appeared to deviate from linearity. Even after extended practice, all the evidence was consistent with a somewhat modified serial model of memory retrieval.—*Journal abstract.*

8150. Gadway, Charles J. (U. Oregon) **Serial position and growth curves in demand concept recall.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 139-142.—Since the serial-position effect has been demonstrated to diminish as learning progresses, it was hypothesized that only a weak recency serial-position effect would result from demand recall of concepts in a complex problem-solving situation. 6 groups of 14 randomly drawn undergraduates solved 15 problems, 5 soluble by each of 3 concepts (rules), recalled from prior instruction. Each group received a different permutation of the 3 concepts. The serial-position effect appeared to be minimal for demand recall of concepts with the predicted weak recency effect ($.01 < p < .05$) but no primacy effect.—*Journal abstract.*

8151. Glucksberg, Sam & Cowen, George N. (Princeton U.) **Memory for nonattended auditory material.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 149-156.—18 male undergraduates performed a dichotic listening task. Ss shadowed (repeated orally) a prose passage heard in 1 ear, and attempted, after delays ranging from .3-20.3 sec. to recall single digits that had been embedded in prose presented to the nonattended ear. Recall performance decreased from 0-5 sec. in a typical negatively accelerated fashion. No memory for the nonattended material was apparent between 5 and 20.3 sec. Data indicate that verbal material presented auditorily to a nonattended channel persists briefly, but is not transferred into a long-term store. (17 ref.)—*Journal abstract.*

8152. Haber, Ralph N. (U. Rochester) **How we remember what we see.** *Scientific American*, 1970(May), Vol. 222(5), 104-112.—Reports several studies dealing with memory. Studies of visual memory capacity indicate that recognition of large numbers of pictures is essentially perfect and that such recognition is based on representation in memory that is maintained without labels, names, or rehearsal. Additional research indicates that iconic images persist in memory for approximately 250 msec. A general model describing the process of extraction and storage of linguistic material from its representational form is described. Evidence that the iconic image aids in reading is discussed. It is

concluded that the adequate minimal processing time for encoding linguistic material into memory is about 250 msec.—P. Tolin.

8153. Hines, David & Satz, Paul. (Hershey Medical School, Pa.) **Superiority of right visual half-fields in right-handers for recall of digits presented at varying rates.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 21-25.—Hypothesized that the consistent superiority exhibited by right-handers for right visual half-field recall of digits may reflect the more direct connections between the right visual half-field and the speech areas of the left hemisphere. 66 right-handed undergraduates with no family history of sinistrality and 18 right-handed undergraduates with a family history of sinistrality served as Ss. 7 digits were presented in each trial, with 4 digits at the point of fixation and 3 in either the left or right visual half-field. The 1st 6 digits were presented in pairs, with 1 digit at fixation and 1 in the half-field, followed by 1 additional digit at fixation. The greatest asymmetry occurred at the faster presentation rates and for right-handers without family history of sinistrality. Results support the hypothesis and suggest that cerebral dominance is related to family history. (French & German summaries)—*Journal abstract.*

8154. Hochhaus, Larry. (Iowa State U.) **Editing processes in memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5663-5664.

8155. Lander, H. J. (Humboldt U., Psychology Section, Berlin, E. Germany) **Beiträge zur Psychologie des Gedächtnisses: VI. Über Strukturbildungsprozesse beim menschlichen Gedächtnis.** [Contribution to the psychology of memory: VI. Structure formation processes of human memory.] *Zeitschrift für Psychologie*, 1970, Vol. 178(1-2), 89-96.—Investigated the assumption made by the RA hypothesis of J. A. McGeech that a differential increase or decrease occurs in all intraserial associations in a serial-learning or forgetting process, respectively, provided that the conditioned relative reaction frequencies are taken as a measure of the association forces. The association method in conjunction with an interpolated test series was used. A stochastic operation model has been developed to permit a satisfactory prediction of the changes in the conditioned relative reaction frequencies in a serial-learning process. It is shown with the aid of a scale-theoretical assumption, that the RA hypothesis is applicable in the serial-learning processes only if the intraserial associations are regarded as an internal variable. The conditioned relative reaction probabilities can then be represented as an interference effect of the intraserial associations. (Russian summary)—*English summary.*

8156. Lindauer, Martin S. (State University Coll. New York, Brockport) **Unambiguity of forms and inequality of labels in studies of effect of language on memory for form.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 175-181.—Investigated the nature of the forms and labels used in the L. Carmichael, H. P. Hogan, and A. A. Walter study of the effect of language on the memory for form, a basis for subsequent studies and theory, because of some doubts about their methodological status. Matching and identification techniques were used in a perception task, followed by a recall measure, as a means of examining the appearance of the forms, and the retention of the labels. Ss were 2 groups of 99 and 58 undergraduates, respectively. The forms were not found to be equally assignable to their sets of labels, and to a lesser degree, the pairs of labels were unequally

recalled. This absence of control over the materials, while noted as an aspect of the data in previous research, has apparently been overlooked in interpreting earlier findings. Hence, it remains doubtful whether modifications in the memory for form are the result of verbal suggestions. *Journal abstract*

8157. Palmer, Michael B. (Arizona State U.) **The effects of categorization, degree of bilingualism, and language upon the recall of select monolinguals and bilinguals.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5857.

8158. Preilowski, Bruno F. (Iulane U.) **Retention of the position of a single joint as the unit of analysis of motor memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5672.

8159. Schulz, Lynn S. (U. Virginia) **High-priority events in recall and recognition.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5673-5677.

8160. Shapiro, S. I. & Bell, Jerold A. (U. Hawaii) **The formation of organizational units in free recall learning.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 217-218. —Studied free recall and subjective organizational performance as a function of various orders of presentation in an experiment with 240 undergraduates. Performance was enhanced by the consistent simultaneous or sequential presentation of the members of preestablished high organizational units and by consistent simultaneous presentation of arbitrarily selected low organizational units. Simultaneous but inconsistent presentation of low organizational units impoverished performance. *Journal abstract*

8161. Slak, Stefan. (U. Toledo) **Rated association values of numbers and response availability.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 246. —Studied the possibility that association values of numbers are S's estimates of response availability and, indirectly of item difficulty. 48 undergraduates were tested for response frequency of numbers from 1-100. In free recall, 5 high-association numbers were easier to recall than 5 low-association numbers. Additional analysis using response availability data made it possible to interpret S. Slak's findings in terms of association value or in terms of response availability. —P. Hertzberg.

8162. Southall, Stephen D. & Blick, Kenneth A. (U. Virginia) **The role of interference and trace decay in the retention of a simple psychomotor task.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 223-224. —Attempted to show whether interference theory and/or trace decay theory account for the forgetting found in motor short-term memory. Ss were 105 undergraduates, 1 variable was the number of prior responses (0-6) which the S experienced on a linear slide apparatus; another variable was the length of the retention interval (5, 40, and 75 sec.). There were no significant effects due to retention interval, number of prior responses, or the interaction between retention interval and prior responses. *Journal abstract*.

8163. Stelmach, George E. & Barber, Julie L. (U. California, Santa Barbara) **Interpolated activity in short-term motor memory.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 231-234. —Examined retention of kinesthetic information from blind positioning responses for 56 Ss. During a 30-sec retention interval, 1/2 of the Ss sat quietly with their hands on the lever; the other 1/2 learned an interpolated target which required an antagonistic response. Both conditions showed significant

amounts of forgetting. The mean differences between conditions as well as the differences between correlation coefficients across retention intervals were not significant. Results were consistent with memory-trace decay predictions. *Journal abstract*.

8164. Todd, William B. & Kessler, Clemm C. (Specia. Education District, Lake County, Ill.) **Influence of response mode, sex, reading ability, and level of difficulty on four measures of recall of meaningful written material.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 229-234. —Attempted to clarify some of the contradictory findings of research on the effects of overt vs. covert responding in a learning situation. 150 undergraduates were assigned to 36 groups varying sex, reading ability, response mode, and level of difficulty. Reading ability was determined by using total scores on the Ohio State University Psychological Test. Comparisons were made on 4 dependent measures of recall. Results demonstrate that (a) reading ability must be controlled in studies of learning involving meaningful verbal material; (b) an unknown sex factor influences learning or recall of meaningful material; (c) the recall of ideas from meaningful material is influenced by the amount of material; and (d) the facilitating influence of overt responding is limited by the independent and dependent variables involved in the learning or performance situation. (22 ref.)—*Journal abstract*

8165. Weiss, Stephan D. (U. Massachusetts) **Field articulation and memory for neutral and potentially conflictual words.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5647.

8166. Wood, Larry E. (U. Iowa) **An objective test of goodness of fit of the continuous strength model in STM.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 424-426. —Evaluated the continuous strength model of recognition memory in a task where 22 undergraduates were tested for recognition of 10-number lists using a rating procedure. Maximum likelihood estimates of the parameters of the model were obtained by an iterative method on a high-speed computer, and a chi-square goodness-of-fit test was performed for individual Ss. For 15 Ss, the chi-square values were nonsignificant, $p > .05$, indicating that the model provided a good fit to the data. Although the model gave a good fit to the data, the Δm measure of sensitivity was highly correlated with a true recognition score computed by subtracting false alarms from correct recognitions.—*Journal abstract*.

Short Term & Immediate Memory

8167. Anders, Terry R. & Lillyquist, Timothy D. (Harvard Medical School, Boston, Mass.) **Retrieval time in forward and backward recall.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 205-206. —Compared the rates of forward and backward digit recall in an experiment with 10 female nursing students. Results show that recall was faster in forward than in backward order. This finding is consistent with the hypothesis that information can be retrieved from short-term memory only in the same order in which it is stored. *Journal abstract*.

8168. Bernbach, Harley A. (Cornell U.) **Strength theory and confidence ratings in recall.** *Psychological Review*, 1971(Jul), Vol. 78(4), 338-340. —Reports that the reasoning of a previous study by H. A. Bernbach (see

PA, Vol. 42:1776), which found that strength theory cannot account for the observed invariance of Type 2 receiver operating characteristic curves with respect to the probability of a correct response, was incorrect. A Monte Carlo simulation of strength theory and confidence ratings was run. Results indicate, as before, that strength theories relating confidence to strength cannot predict this invariance.—*Journal abstract.*

8169. Crowder, Robert G. (Yale U.) **The role of one's own voice in immediate memory.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 157-178.—Describes 2 experiments with 72 undergraduates comparing active and passive vocalization of visually presented digit series; in active vocalization S pronounced the elements as he saw them and in passive vocalization he heard E pronouncing them as he saw them. The effects of a redundant prefix were examined under the 2 vocalization conditions. Findings were (a) either vocalization condition was superior to silent visual presentation only for the last few serial positions, (b) active vocalization was worse than passive vocalization only for the 1st few serial positions, and (c) the prefix requirement reduced recency only following active vocalization, as predicted. Results are discussed against a pluralistic model of coding and storage. (33 ref.)—*Journal abstract.*

8170. Detterman, Douglas K. & Ellis, Norman R. (U. Dayton) **Distinctiveness in short-term memory.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 239-241.—Compared results from 6 experiments yielding serial position data using a positional probe task to predictions made on the basis of distinctiveness. The concept of distinctiveness is derived from psychophysical theory and indicates the degree to which a particular stimulus in a group "stands out" from the other stimuli in that group. It was found that results agreed closely with those predicted. The results are suggested as a possible explanation for the bowed serial position effect in short-term memory.—*Journal abstract.*

8171. Dick, A. O. (U. Rochester) **On the problem of selection in short-term visual (iconic) memory.** *Canadian Journal of Psychology*, 1971(Jun), Vol. 25(3), 250-263.—Discusses methodological and theoretical questions concerning the problem of selection in visual short-term memory. Data from 2 previously published experiments were reanalyzed and an additional experiment with 36 undergraduates was performed. There is no evidence in any of these experiments to support the idea that partial report is more accurate than whole report or that selection occurs in visual memory. (French summary) (16 ref.)—*Journal abstract.*

8172. Geyer, Lewis H. (State U. New York, Buffalo) **A two channel theory of short term visual storage.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5660.

8173. Gordon, Ian E. & Fenouillet, Paul. (U. Exeter, England) **Repeated vs. varied distractors in immediate memory.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 474-476.—Presented groups of 8 spoken digits for immediate recall to 47 college of education students. Irrelevant distractor letters were interpolated between digits, using either the same letter interpolated 8 times or 8 different letters. The latter condition produced significantly more errors in recall. Error scores were also affected by rate of presentation of items and by whether letter-digit sequences started with a letter or a digit. It is suggested that selective immediate

recall may bear some resemblance to aspects of visual search.—*Journal abstract.*

8174. Harris, Gilbert J. (State U. New York, Buffalo) **Inter-task explorations with a computer simulation model of short-term memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5662-5663.

8175. McNicol, D. (U. Adelaide, South Australia) **The confusion of order in short-term memory.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 77-84.—Utilized J. Brown's (see PA, Vol. 39:13811) measure to determine the information preserved in types of errors committed in a short-term memory task by 12 undergraduates. The distributions of different errors over serial positions in the messages were observed. It was found that errors concerned with the ordering of items in a message preserved more information about the original stimulus than errors concerned with the selection of the items themselves. Although the serial position curve for all errors combined was bow-shaped and negatively skewed, as has been most commonly reported in the literature, curves for different types of errors differed markedly in their shapes. Results are not easily explained by a theory which attributes the serial position effect solely to the effects of recency and rehearsal, but are compatible with the view that some serial positions are more discriminable than others.—*Journal abstract.*

8176. McNicol, D. (U. Adelaide, South Australia) **The origins of transpositions in short-term memory.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 9-17.—Tested the fixed address model for short-term memory proposed by R. Conrad (see PA, Vol. 39:13962) which suggests that order errors in recall arise from fortuitous selection of intrusions from an unordered response availability store. 10 research students and undergraduates recalled consonant trigrams of high acoustic confusability, each trigram being followed by an interpolated task of acoustically similar or dissimilar letters. Contrary to the model's predictions (a) order errors occurred more often in recall, and (b) there was no significant tendency for order errors to decrease when the interpolated task was similar to the message to be recalled. It is concluded that the traditional distinction between intrusion and order errors is valid, and that messages for short-term memory are coded along at least 2 dimensions, 1 designating item content, and the other, the order of items.—*Journal abstract.*

8177. Pinkus, Allen L. (State U. New York, Buffalo) **Short term memory: Computer simulation of recoding and chunking processes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5672.

8178. Rodier, Patricia M. (U. Virginia) **The effects of cueing in short-term memory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5673-5674.

THINKING

8179. Danks, Joseph H. (Kent State U.) **Encoding of novel figures for communication and memory.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 179-191.—Descriptive names (encodings) were given to novel, graphic figures by 120 undergraduates under 1 of 3 instructions: social-communicative, self-memorial, or associative. 2 wk. later these same Ss plus a group of naive Ss attempted to match their own encodings and those of another S from each of the groups with the correct figure. The memorial and social Ss performed better on their own encodings than the associative Ss,

and there was some indication that the memorial Ss also performed better than the social Ss. The social and memorial encodings were better communicators to others than the associative ones, but there was no difference between social and memorial encodings. Results are interpreted in terms of a communication model involving the criteria used for editing encodings and the availability of conventional labels for the stimuli. *Journal abstract*

8180 Haynes, Jack R. (North Texas State U.) **Hierarchical analysis of factors of cognition.** *American Educational Research Journal*, 1970(Jan), Vol. 7(1), 55-68. 34 tests for Guilford's model of cognition were administered to 200 undergraduate males. It was postulated that a hierarchical arrangement of cognitive factors could be demonstrated. The battery of tests was analyzed by a Wherry hierarchical factor solution. The analysis revealed 15 1st-order orthogonal factors at 3 levels. The highest level was a general factor composed of many functions related to the awareness and understanding of symbolic and figural information. The 2nd level of the hierarchy consisted of 2 subgeneral factors measuring different aspects of higher level cognitive functioning. At the 3rd level were 11 specific group factors which were very similar to the factors in Guilford's model. The concept of cognitive abilities being related in a hierarchical fashion was supported by the results. *Journal abstract*

8181 King, Sandra J. (Oklahoma State U.) **Metered memory search with concurrent shadowing for letter properties or names.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5202

8182. Slama-Cazacu, Tatiana & Dabija, Anca. (U. Bucharest, Inst. for Foreign Languages & Literatures, Romania) **Perception time and motor reaction time for verbal stimuli of different lengths (words and "abbreviations").** *Revue Roumaine des Sciences Sociales-Serie de Psychologie*, 1970, Vol. 14(2), 119-137. Attempted to demonstrate that RT variations depend on verbal meaning as well as stimulus length and are in part a function of experimental method. 12 critical stimuli consisting of 3 whole words and their 2-4 letter and single letter abbreviations were embedded among 45 neutral stimuli and presented tachistoscopically to native Romanian speakers of college age. Ss responded verbally (tachistoscopic exposure time) and by button pressing (motor RT). Data for 19 Ss indicated that whereas exposure time varied directly with stimulus length, motor RT varied inversely with length. The latter measure was postulated to require verbal mediation such that whole words which correspond directly with lexical information storage patterns were responded to more quickly than their abbreviations which require mediation through the parent word for decoding. (34 ref.) C. Mayo.

8183. Thompson, Charles P. (Kansas State U.) **Note on word frequency as a factor in perception of category size.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 301-302. -Found ratings of category size to be affected by the normative frequency of the words representing the category with low-frequency exemplars decreasing perceived category size. Ss were 76 college students. Results also suggest that Ss generate more category associates for high- than low-frequency words. *—Journal abstract.*

Problem Solving

8184. Johnson-Laird, P. N. & Wason, P. C. (Univer-

sity Coll. London, England) **A theoretical analysis of insight into a reasoning task.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 134-148. Presents an information-processing analysis of insight into a singularly deceptive and difficult deductive problem. 2 models are described. The 1st represents an economical explanation of the Ss' initial responses but is difficult to reconcile with their subsequent responses induced by certain remedial procedures. The 2nd model does take account of such responses and shows how insight into the correct solution is correlated with the awareness that tests for falsification are more appropriate than tests for verification. The relevance of the results and the explanatory model are discussed in relation to wider issues. (17 ref.) *Journal abstract*

8185. Shapiro, Diana. (University Coll., London, England) **"Representativeness," structure and content in a reasoning problem.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 43-44. -Analyzes the criticism lodged by N. E. Wetherick (see PA, Vol. 45:342) concerning some experiments on reasoning conducted by P. C. Wason (see PA, Vol. 44:4854). Essentially Wetherick has charged that Wason's experiments were "not representative of everyday reasoning." Upon analysis, it is concluded that the difficulty of Wason's task "does not seem to be solely due to the fact that the problem presents a structure which is uncommon in everyday life. Rather the evidence suggests the existence of an interaction between structure and content in a reasoning problem. The concept of 'representativeness' is too imprecise to explain the Ss' behaviour." F. S. Sexton.

8186. Sydow, H. (Humboldt U., Berlin, E. Germany) **Zur metrischen Erfassung von subjektiven Problemzuständen und zu deren Veränderung im Denkprozess: II. [Metric comprehension of subjective problem conditions and their changes in the thinking process. II.]** *Zeitschrift für Psychologie*, 1970, Vol. 178(1/2), 1-50. States essential elements of the problem-solving process, and discusses the part they play in Duncker's work and in present simulation programs, all in connection with methodological considerations on the analysis of thought processes. It is noted that with the method of passive individual tests—in opposition to active tests—problem-solving processes are released which include the same essential components as gathered from active individual tests. The hypotheses which can be deduced from the model set out for the processing of information for the problem-solving process are examined by using theories of decision and scaling. The simulation of stationary phases of the solution process for the examination of the effect of memory variables is described. (Russian summary) (3 p. ref.)—*English summary.*

Concepts

8187. Towler, John O. & Wheatley, Grayson. (Purdue U.) **Conservation concepts in college students: A replication and critique.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 265-270. -D. Elkind's (see PA, Vol. 37:5648) study of college students' concepts of the conservation of mass, weight, and volume was replicated with a sample of 71 female college students. Results indicate that the students could conserve mass and weight but only 61% had adequately formed concepts of

the conservation of volume. Numerous examples of illogical thinking were identified and 1 of Elkind's methodological procedures is criticized. Poorly formed concepts of atomism is hypothesized to be the reason for the failure of the Ss to score highly in tests of volume conservation.—*Author abstract.*

8188. Trinder, John A. (U. Cincinnati) **The contribution of four attribute characteristics to stimulus saliency.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5681-5682.

8189. Wolfgang, Aaron. (Ontario Inst. for Studies in Education, Toronto, Canada) **Errors and latency of response as a function of order of presentation of tactile-visual stimuli in concept identification.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 237-238.—Designed a task using plastic geometric objects to study concept identification through the tactile sense in an experiment with 22 19-33 yr. old military duty personnel. Overall results show that errors and time to solution were similar in classifying visual and tactile information, but response latency was significantly longer in tactile than in visual concept identification. Also, there is some suggestive evidence that visual concept identification was facilitated with practice on a tactual task, whereas tactual concept identification was not facilitated by practice on a visual task.—*Journal abstract.*

8190. Chaikin, Alan L. (U. North Carolina, Chapel Hill) **The effects of four outcome schedules on persistence, liking for the task, and attributions of locus of causality.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6156.

DECISION & CHOICE BEHAVIOR

8191. Alker, Henry A. & Hermann, Margaret G. (Cornell U.) **Are Bayesian decisions artificially intelligent? The effect of task and personality on conservatism in processing information.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 31-41.—Used a 2×3 design to explore the effects of complexity and importance of decision on conservatism in processing information. 120 undergraduate males in processing information. 120 undergraduate males considered 2 or 3 alternative explanation for 1 of 3 problems differing in perceived importance, and indicated which explanations was more or most probable. These probability statements were compared with "optimal" probabilities, arrived at by using Bayes's theorem. The more important and complex the decisions were perceived to be, the more conservative the Ss were when compared to optimal Bayesian values. The differences were more pronounced as the number of alternatives increased. 7 individual difference variables measuring adequacy in processing information were unrelated to conservatism. A process analysis suggests that strongly held initial opinions can limit the judged relevance of subsequent information and, in turn, affect the optimal Bayesian decision. (20 ref.)—*Journal abstract.*

8192. Cooper, Joanne M. (U. California, Berkeley) **Information usage and responses to failure in a decision task.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5194.

8193. Hanson, Bruce L. & Schipper, Lowell M. (Pennsylvania State U.) **Numerosity in probability learning and decision making with multiple equivalent predictors.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 199-201.—In an experiment with 66 male and 56

female undergraduates, multiple probability learning with 4 predictors and a single event to be predicted used 5 treatments with $\pi_s = .10, .30, .50, .70$, or $.90$ for each of the 4 predictors, respectively. Subsequent decision making consisted of predictions without feedback given each of the 15 combinations of the 4 predictors within each treatment. In decision making, significantly more predictions of the event were made to the foursome than to combinations of less than 4. Additionally, triples resulted in reliably more predictions than doubles. The end effect of the foursome is reminiscent of that found by others. Additionally, reliable sex differences were found in probability learning for the $.10$ and $.30$ treatments.—*Journal abstract.*

8194. King, John H. (U. Wisconsin) **Model of an aspect of an individual's behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5080.

8195. MacRae, Kenneth D. (Queen's U., Belfast, Ireland) **Some remarks on Edwards' probability-preference experiments.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 300.—Review 3 sets of bets established by W. Edwards: (a) same positive expected value (PEV), (b) zero expected value (ZEV), and (c) same negative expected value (NEV). It is argued that the ZEV bets are the type usually found in gambling situations, and that the PEV and NEV bet probability-preferences cannot be generalized to the more usual "win or lose" type of bet found in gambling. Edwards' interpretation of preferences among his bets as being "probability-preferences" is questioned. His studies are considered inadequate due to the nature of the bets and the interpretation of results.—*P. Hertzberg.*

8196. Murray, Frank S. (Randolph-Macon Woman's Coll.) **Multiple probable situation: A study of a five one-armed bandit problem.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 247-249. Studied the decision making of 14 undergraduates in a multiple-probable situation analogous to a gambling situation. On each of 250 trials, S selected 1 of 5 probable alternatives. Occurrences of each alternative, I_1 , were: $.00, .125, .25, .25$, and $.50$. Results indicate that (a) slight overshooting to the most probable alternative, and under-occurred to the less probable alternatives, (b) learning to select the most probable alternative resulted from Ss' experiences in the situation, (c) significant effects of different sizes of trial sequences were noted, and (d) significant relationships between repetition of responses on Trial $n + 1$, if I_1 occurred on Trial n , with total number of probable alternatives selected and total number of reinforcements significant.—*Journal abstract.*

8197. Pike, A. R. (U. Queensland, Brisbane, Australia) **The latencies of correct and incorrect responses in discrimination and detection tasks: Their interpretation in terms of a model based on simple counting.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 455-460.—Describes a model for 2-choice discrimination based on a process of simple counting. 2 experiments with a total of 40 Ss were performed to test the predictions of the model concerning the graph of latency as a function of response proportion. 2 main forms of this graph were identified and predicted to arise in different circumstances. Results support the model. The possible extension to other psychophysical situations, especially signal detection, is discussed. The model is compared with one derived directly from the detection situation, and the usefulness of testing these models is indicated. (35 ref.)—*Journal abstract.*

8198. Quadrio, Assunto. (Catholic U. of the Sacred Heart, Milan, Italy) **L'influenza della consapevolezza di rischio sulla previsione.** [Influence of awareness in risk guessing. Note to preceding paper.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 184-189. As a note to another study (see A. Quadrio, G. Peri, & A. Branca, PA, Vol. 46, Issue 4), guessing strategies follow probabilistic rules and depend on the degree of subjective certainty of success probability.—L. L'Abate.

8199. Quadrio, Assunto; Peri, Giovanni, & Branca, Antonia. (Catholic U. of the Sacred Heart, Milan, Italy) **Causa e caso nella probabilità soggettiva in un esperimento di previsione.** [Cause and chance in subjective probability in a guessing experiment.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 159-183. Guessing games using objective results indicate that logical concepts and mathematical probabilities are followed. When the regularity of such results is frustrated, unrealistic and magical mechanisms are followed. (26 ref.)—L. L'Abate.

8200. Rule, Brendan G. & Evans, James F. (U. Alberta, Edmonton, Canada) **Familiarization, the presence of others and group discussion effects on risk taking.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 28-32. Examined the effects of familiarization on risk taking and explored the possibility that emotional arousal is implicated in risk-taking increase. 6 male Ss responded to 6 items of the Wallach and Kogan Choice Dilemma Task questionnaire. These Ss subsequently responded to the same 6 items under 1 of 3 conditions: alone, in the presence of others, or in group discussion. The 1st 2 conditions required Ss to familiarize themselves for 5 min with each issue by considering and recording the pros and cons associated with each decision, whereas the 3rd condition required that Ss discuss each issue for 5 min. Data consisted of risk increase scores and heart rate change. Results indicate that risk increased only in the group discussion condition. These data, and those from other experiments, suggest that the familiarization effect is tenuous. Heart rate was not differentially affected by the experimental conditions, and provided no support for the notion that arousal is a component of risk taking. (22 ref.)—*Journal abstract*.

8201. Waldron, James S. (Syracuse U.) **An investigation into the relationships among conceptual level, time delay of information feedback, and performance in the Delphi process.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5862-5863.

PHYSIOLOGICAL PSYCHOLOGY

8202. Finger, Frank W. & Mook, Douglas G. (U. Virginia) **Basic drives.** *Annual Review of Psychology*, 1971, Vol. 22, 1-38.—Reviews physiological literature in the areas of sexual behavior, control of ingestion, general activity, and the problem of localization. The 1st category includes a description of sexual behavior, neurophysiological correlates, individual and age differences, experience, critical sense modalities, variety, extraneous stimulation, patterning of copulatory sessions, characteristics of the partner, and activation and reinforcement of other behavior. The 2nd category includes control of water intake, glucostatic control of feeding, regulation of meals, regulation of body weight,

and preferences and aversions. The 3rd category includes neural mechanism and food deprivation. (220 ref.)—*Herrnberg*.

8203. Hughes, B. O. & Wood-Gush, D. G. (Agricultural Research Council, Poultry Research Centre, Edinburgh, Scotland) **Investigations into specific appetites for sodium and thiamine in domestic fowls.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 331-339. Conducted 2 experiments with 28 and 30 male and female domestic chickens. A specific appetite for NaCl in sodium-deprived Ss was not demonstrated regardless of whether the deprivation was induced by feeding a deficient diet or by producing a functional deficiency by the subcutaneous injection of formalin. Ss exhibited a preference neither for NaCl-supplemented diets nor for .7% saline when tested in 2-choice situations. Normal Ss were indifferent to .7% saline when tested by the method of single stimuli, but under simultaneous choice conditions showed a strong aversion to it, which intensified with time. This was explained in terms of aversive feedback. Thiamine deficiency was induced in Ss by feeding a metabolic antagonist. A well-marked specific appetite for this vitamin could be demonstrated in these deficient Ss. (27 ref.)—*Journal abstract*.

8204. Kholodov, Yu. A. **Magnetizm v biologii.** [Magnetism in biology.] Moscow, USSR: Nauka, 1970. 100 p.—I. D. London.

8205. King, Nancy W., Justesen, Don R., & Clarke, Rex L. (Veterans Administration Hosp., Neuropsychology Lab., Kansas City, Mo.) **Behavioral sensitivity to microwave irradiation.** *Science*, 1971(Apr), Vol. 172(3981), 398-401. In an experiment with 6 male albino rats (3 controls and 3 for irradiation) it was found that Ss assayed by the technique of conditional suppression were able to detect the presence of 12.25-cm microwaves at doses of power approximating .5-6.4 mw/gm. The assay, which controlled for sensitization, for pseudo and temporal conditioning, and for several possible sources of artifactual cueing, reveals that irradiation by microwaves, although lacking the salience of an auditory stimulus, can function as a highly reliable cue. Efficiency of detection was strongly and positively related to the amount of microwave energy to which the Ss were exposed. (31 ref.)—*Journal abstract*.

8206. Luk'yanov, A. N. & Frolov, M. V. **Ispol'zovanie fiziologicheskikh signalov dlya otsenki vnimaniya operatora.** [The use of physiological signals for assessing the attention of the operator.] In A. N. Luk'yanov & M. V. Frolov, "Signaly sostoyaniya cheloveka-operatora." (See PA, Vol. 44:11853) 35-97.—Presents technical and analyses of the "signals of state of attention," and the mathematical techniques for treating the data thereof. Among the latter are: (a) correlated properties of sequential readings of the α -rhythm integrator, (b) evaluation of the unidimensional distribution law for values of random sequential readings of the α -rhythm integrator, (c) attention and the dispersion of random sequential readings of the α -rhythm integrator, (d) correlated properties of sequential intervals in the respiratory cycle, (e) distribution law of random sequential intervals of the respiratory cycle, (f) duration of the respiratory cycle and efficiency, (g) the transitory process reflected in the sequential intervals of a change in functional states, (h) correlated properties of the sequential intervals in the inspiratory phase, (i) evalu-

ation of the unidimensional distribution law of intervals for the inspiratory phase, and (j) change in maximal absolute deviation of the distribution law from the normal as a function of size of sample.—*I. D. London.*

8207. Noel, Patricia S. & Carlson, Eric T. (Cornell U., Medical School, New York, N.Y.) **Origins of the word "phrenology."** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 694-697.—Phrenology is defined as the study of the conformation of the skull as indicative of mental faculties and character. The development of this definition is traced from Benjamin Rush, who meant phrenology to describe faculty psychology, through Franz Joseph Gall, who linked faculty psychology and craniology, to Thomas Forster and Johann Spurzheim, who gave the word its present meaning. (17 ref.)—*Journal abstract.*

8208. Revusky, S. H., Smith, M. H., & Chalmers, D. V. (Northern Illinois U.) **Flavor preference: Effects of ingestion-contingent intravenous saline or glucose.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 341-343.—Fed 24 food-deprived male Sprague-Dawley rats with iv cannulae, a nonnutritive sweetened coffee solution on 5 occasions. Shortly after each such drinking period, 13 Ss were infused with (a) 5-10 ml of 10% glucose solution, or (b) .9% saline solution. A 3rd group was not infused at all. In a subsequent preference test between sweetened coffee and saccharin solution, the saline group had a reduced preference for coffee relative to the other 2 groups, which did not differ significantly between themselves. A replication with 31 Ss changed a number of procedural details. Results of the 2 experiments were similar.—*Journal abstract.*

8209. Stricker, Edward M. (U. Pittsburgh) **Effects of hypovolemia and/or caval ligation on water and NaCl solution drinking by rats.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 299-305.—Investigated the role of the renin-angiotensin system in sodium appetite using 96 male Sprague-Dawley albino rats. Subcutaneous injection of hyperoncotic polyethylene glycol (PG) solution was used to produce hypovolemia, while total infrahepatic ligation of the inferior vena cava (IVC) was used to increase renin secretion and circulating levels of angiotensin. Most Ss initially preferred water and drank little saline when both fluids were available. PG-treated Ss later developed a sodium appetite and, by consuming increased amounts of saline, always repaired their plasma deficits. In contrast, IVC ligated Ss did not evidence sodium appetite during the 24-hr test period, even following PG injection treatments. Results suggest that the renin-angiotensin system may not have an important role in stimulating sodium appetite in rats, and that some aspect of the combined IVC ligation and PG injection treatment may inhibit this drive. (42 ref.)—*Journal abstract.*

8210. Stricker, Edward M. (U. Pittsburgh) **Inhibition of thirst in rats following hypovolemia and/or caval ligation.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 293-298.—Elicited thirst in 148 adult male Sprague-Dawley albino rats by subcutaneous injections of a hyperoncotic polyethylene glycol (PG) solution or by infrahepatic ligation of the inferior vena cava (IVC). Ss given either treatment drank throughout the 24-hr test period when only saline was available but decreased drinking significantly within 6-8 hr. when given only water. It is suggested that the inhibitory mechanism may involve reduction of the effective osmotic pressure of body fluids and cellular overhydration. Ss drinking water

following combined IVC ligation and PG injection treatments required a greater degree of cellular overhydration to inhibit drinking than Ss given either treatment alone. When saline was presented instead of water, the complex stimulus for thirst elicited more drinking with fluid retention than any other experimental procedure known. The extreme potency of this preparation reflects the comparable strength of the inhibitory mechanisms associated with cellular overhydration.—*Journal abstract.*

NEUROLOGY

8211. Anteladze, B. F. (Ed.) **Sovremennye problemy deyatel'nosti i stroeniya tsentral'noi nervnoi sistemy: II (XV).** [Contemporary problems of the activity and structure of the central nervous system: II (XV).] Tbilisi, USSR: Metsniereba, 1968. 354 p. 2 R. 44 K.

8212. Ball, G. J., Saunders, M. G., & Schnabl, J. (U. Manitoba, Winnipeg, Canada) **Determination of peripheral sensory nerve conduction velocities in man from stimulus response delays of the cortical evoked potentials.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 409-414.—Describes techniques for using the somatosensory responses of the brain as indicators of sensory nerve stimulation. The measurement of peripheral sensory nerve conduction velocities in 40 normal 18-25 yr. olds is presented. It appears that use of both the computer averaged evoked response and the smoothed 1st derivative of this permit estimates of the conduction velocity to be made. Sources of error in estimations are discussed. Values of sensory conduction velocities in the Ss are given for the left and right median, ulnar, anterior tibial, and peroneal nerves. (French summary) (15 ref.)—*Journal summary.*

8213. Bogdanov, R. S. (Pavlov Inst. of Physiology, Leningrad, USSR) **Ustroistvo dlya registratsii izmenyayushchikhsya skorosti vrashcheniya pri issledovanii vestibulyarnogo apparata.** [Device for recording changing rotational velocities in examining the vestibular apparatus.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1500-1502. Details the construction of a device which makes possible determination of the exact characteristics of the instantaneous values of the stimulus actually acting on the experimental S on the rotating stand.—*I. D. London.*

8214. Brunia, C. H. (Hans Berger Clinic, Breda, Netherlands) **The influence of a task on the Achilles tendon and Hoffmann reflex.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 367-373. Conducted 4 experiments with 22 human 20-30 yr. old Ss. If Achilles tendon (T) and Hoffmann (H) reflexes were simultaneously evoked at rest and during the performance of a task, an increase of the amplitude of the T reflexes was seen during the task, without a significant influence on the H reflex amplitudes. This is interpreted as a facilitatory influence on the fusimotor system, probably originating from the reticular formation of the brainstem. The relation of this finding to other experiments, in which similar parameters have been used, is discussed. (28 ref.)—*Journal abstract.*

8215. Chi, Carl C. & Flynn, John P. (Yale U., Medical School) **Neural pathways associated with hypothalamically elicited attack behavior in cats.** *Science*, 1971(Feb), Vol. 171(3972), 703-706.—Made small electrolytic lesions in 7 cats through electrodes, which, when

stimulated, elicited either quiet biting attack or affective paw strike attack upon rats. The Nauta method for impregnating degenerating axoplasm was used and revealed that degeneration resulting from lesions at quiet attack sites followed largely along the course of the medial forebrain bundle, while the degeneration after lesions of affective attack sites was concentrated more heavily in the periventricular system (17 ref.) *Journal abstract*.

8216. Dubromyslova, O. P. & Aver'yanova, I. A. (Leningrad Medical Inst. of Sanitation & Hygiene, USSR) **Ob afferentatsii myshtsy pri ee utomlenii.** [On afferentation of the muscle when it is fatigued.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1411-1417. Studied spontaneous and evoked afferent impulses in the peripheral end of the sciatic nerve when frog gastrocnemius muscle was fatigued in situ. It was established that (a) weakening of muscle activity was accompanied by a decrease in the flow of spontaneous afferent impulses, and (b) in the fatigued muscle the functional state of the receptors was changed with resultant diminution of evoked impulses. In the latter case the functional state was heightened in the initial stage of fatigue and lowered in the period marked by a clear-cut diminution of muscular efficiency. (English summary) (16 ref.)—*I. D. London*

8217. Elias, Merrill F. (Duke U., Center for the Study of Aging & Human Development) **Spatial discrimination reversal learning for mice genetically selected for differing brain size: A supplementary report.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(D), 239-245. Explored spatial discrimination reversal learning for 17 mice genetically selected for high brain weight and 17 unselected controls with lower brain weights. Control-line Ss escaped from a water maze more rapidly, but high-line Ss made fewer errors and took less trials to reach criterion on the 1st reversal. Control-line Ss were unable to complete more than 1 reversal, while high-line Ss all completed at least 7 reversals. This positive relation between reversal learning and brain size is consistent with comparisons among species and experiments manipulating brain size by means of drugs or surgery. (16 ref.) *Journal abstract*.

8218. Fork, Richard L. (Bell Lab., Holmdel, N.J.) **Laser stimulation of nerve cells in aplysia.** *Science*, 1971(Mar), Vol. 171(3974), 907-908. Reports that laser radiation at 488 nm. selectively stimulated neurons in the abdominal ganglion of the marine mollusk (*Aplysia californica*). The laser radiation can be scanned over the surface of the ganglion and effectively utilized in mapping cellular interconnections. The laser appears to cause these changes through some mechanism other than damage.—*Journal abstract*.

8219. Geinismann, Yu. Ya., Larina, V. N., & Mats, V. N. (USSR Academy of Sciences, Inst. of Higher Nervous Activity & Neurophysiology, Moscow) **Changes of neurones dimensions as a possible morphological correlate of their increased functional activity.** *Brain Research*, 1971, Vol. 26(2), 247-257. Studied the effects of increased functional activity of spinal motoneurons morphologically on male albino rats in experiments with swimming under different loads and with orthodromic electrical stimulation of 5-40 min. duration. The volume of lumbar motoneurons was calculated from major and outlines on cells' negative projections. Formulas for volume calculations were derived from an optical

reconstruction. Both mild and intensive natural motor activity as well as orthodromic stimulation, resulted in a decrease of the motoneuronal cytoplasmic volume in the longest duration (40 min.) of the experiments. The changes of cytoplasmic dimensions were accompanied by a decrease of the nuclear volume after 40 min. intensive swimming and orthodromic stimulation. The increase of motoneuronal size was registered only in earlier periods of activation, 5 min. after the beginning of mild swimming for the nucleus, and 10 min. after the beginning of orthodromic stimulation for motoneuronal cytoplasm. Thus the motoneuronal size changes depended on the duration, intensity, and character of the stimulation. Results make it seem that the decrease of the spinal motoneuronal nuclear and cytoplasmic volume might be considered a morphological correlate of their increased functional activity. (42 ref.)—*Journal summary*

8220. Getsef, Kh. A. & Alekseev, S. V. (Leningrad Inst. of Sanitation & Hygiene, Central Scientific-Research Lab., USSR) **Pronitsaemost' gemalno-tsifalicheskogo bar'era dlya radioaktivnogo fosfora i fosforom obmene v golovnom mozgu krysy pri deistvii shuma.** [The permeability of blood-brain barrier to radioactive phosphorous and the phosphoric metabolism in cerebral structures of Wistar rats under the influence of noise.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1758-1766.

Employing the quantitative autoradiographic method disturbances in the blood-brain barrier permeability were shown to disappear 24 hr. after a single application of noise. Lasting disturbances in the blood-brain permeability and metabolism of the macromolecular phosphoric compounds due to the multiple effect of noise in S were also shown. (26 ref.)—*Journal summary*

8221. Il'chenko, I. D., Makovskii, V. S., & Polishchuk, V. V. (Leningrad State U., USSR) **Transformatsiya spaikovoi aktivnosti retseptorov rastyazheniya abdominal'nykh segmentov raka pod deistviem nikelya.** [Transformation of spike activity of the stretch receptors in the abdominal segments of the crayfish under the action of nickel.] *Nervnaya Sistema*, 1969(Dec), No. 10, 187-191. Presents the results of a study on the action of Ni-ions on the stretch receptors of the crayfish (a species of *Astacus*) in which an increase in frequency of impulsion was disclosed along with the subsequent formation of a group of impulses.—*I. D. London*

8222. Il'ina, A. I. (USSR Academy of Sciences, Pavlov Inst. of Physiology, Leningrad) **Uchastie i sheinogo otdela simpaticheskoi nervnoi sistemy i karotidnykh klubochkov v sekretsi katekholaminov pri razdrashenii bluzhdayushchego nerva.** [On participation of the cervical portion of the sympathetic nervous system and the carotid tubers in catecholamine secretion during stimulation of the n. vagus.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1703-1713. Traced catecholamines in blood of the carotid artery and v. jugulars after stimulation of the n. vagus beneath the g. nodosum. 36 cats served as Ss in 5 experiments. With the aid of pharmacological and surgical suppression of different links of the nervous projection, the increasing catecholamine content in the blood was shown to accompany stimulation of pre-ganglionic sympathetic fibres of the n. vagus which have synaptic relations with the neurons of the g. nodosum and the upper cervical sympathetic ganglion. It is concluded that the postganglionic fibers pass to the carotid tuber. Then the nervous projection controlling

the increasing of the catecholamine content in the blood, passes further to the CNS via the sinus and cervical sympathetic nerves. (23 ref.)—*Journal summary.*

8223. Kholodov, Yu. A. **Kak orientiruyutsya ptitsy?** [How do birds orient themselves?] In Yu. A. Kholodov, "Magnetizm v biologii." (See PA, Vol. 46:Issue 4) 25-32.—Surveys the data on the orienting effects of magnetism on birds and other organisms.—*I. D. London.*

8224. Kholodov, Yu. A. **Magnitnoe pole kak razdrahitel'.** [The magnetic field as stimulus.] In Yu. A. Kholodov, "Magnetizm v biologii." (See PA, Vol. 46:Issue 4) 45-58.—Surveys the data on the effects of the magnetic field on the sensitivity of sense organs, on the CNS and the neuroglia, on CR and other behavior.—*I. D. London.*

8225. Kholodov, Yu. A. **"Shokovye" organy.** [Organs "under assault."] In Yu. A. Kholodov, "Magnetizm v biologii." (See PA, Vol. 46:Issue 4) 37-41.—Reviews the data supporting the view that the magnetic field, as would any other unfavorable factor, produces a non-specific defensive reaction in the organism—a reaction starting with the nervous system as the most sensitive to environmental changes.—*I. D. London.*

8226. Kislyakov, V. A., Levashov, M. M., Orlov, I. V., & Semenov, L. A. (USSR Academy of Sciences, Pavlov Inst. of Physiology, Leningrad) **O vzaimodelstvi polukruzhnykh kanalov i otolitov.** [On the interaction of the semicircular canals and the otoliths.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1731-1744.—Studied the effect of centrifugal force (CFF) on the pigeon head nystagmus. The CFF seems to act on the semicircular canals either via the system otoliths—nervous centers, or via direct effect on the cupula mechanics. Either of the 2 possibilities is realized according to the value of the CFF, its changes with time and its direction along the longitudinal body axis, and according to the nystagmus-provoking stimulation. Changes of the rotatory and galvanic nystagmus thresholds result from indirect CFF effect (via otoliths and centers) on the inhibitory. During the caloric test, the direct CFF effect on the endolymphatic flows prevails. Such effect is able either to weaken or to intensify the endolymph displacement and even to reverse their direction (according to direction of the CFF). In this case, the central effect of the CFF is masked by the stronger "peripheral" one, which results from peculiarities of the canal hydrodynamics in the CFF field. (27 ref.)—*Journal summary.*

8227. Lonskii, A. V. & Kalashnikov, I. M. (Leningrad State U., USSR) **Vliyaniye ul'trazvuka na protsess vozbuzhdeniya nerva.** [Influence of ultrasound on the process of nerve excitation.] *Nervnaya Sistema*, 1969(Dec), No. 10, 157-162.—Isolated frog sciatic nerve was irradiated in an ultrasonic bath filled with Ringer's solution, under conditions excluding noticeable warming, in a study to determine the influence of the specific factor of ultrasound on the electrophysiological characteristics of the nerve. Decrease was noticed in amplitude of action, threshold of electrical stimulation, and speed of excitatory conduction. In degassed Ringer's solution, ultrasonic irradiation also decreased the amplitude of action and speed of conduction; however, electrical threshold remained unchanged, while electrical conductivity of the nerve increased with excitation. It is suggested that ultrasonic irradiation in the usual Ringer's solution leads to an increase in the resistance of the membrane of Ranvier's node in the quiet state, whereas

ultrasonic irradiation in degassed Ringer's solution leads to an increase in the excited state.—*I. D. London.*

8228. Makarov, P. O. (Leningrad State U.) **Problema pamyati pri sverkhsl'nykh razdrazheniyakh i nastroechnykh refleksakh "nado."** [The problem of memory in extra-strong stimulation and the adjusting reflex "it's necessary."] *Nervnaya Sistema*, 1969(Dec), No. 10, 144-149.—A discussion, based on the author's past research, on the problem of memory, which in its biophysical aspect is seen as reducible to a consideration of the physicochemical and functional aspects of its nervous substrate. Viewing an adjusting reflex as one which appears when there is a change (readjustment) in the functional state of the biosystem involved, the readjustment of the functional state of neurohumoral systems in the guise of adjusting CRs and UCRs, as in thirst, may be linked with the long-lived traces characteristic of memory. A short (.9 msec.) extra-strong stimulation of the visual analyzer, for example, produces a long-lived wavelike trace in the form of changes in excitability lasting tens of minutes.—*I. D. London.*

8229. Makarov, P. O. & Safronova, L. G. (Leningrad State U., USSR) **K izucheniyu vozbudimosti kozhnogo analizatora cheloveka.** [On the excitability of the human cutaneous analyzer.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1498-1499.—Develops a statistical method for assessing cutaneous excitability with results that agree well with experimental data. The method makes a more exact determination of "useful time" possible.—*I. D. London.*

8230. McAdam, Dale W. & Whitaker, Harry A. (U. Rochester) **Language production: Electroencephalographic localization in the normal human brain.** *Science*, 1971(Apr), Vol. 172(3982), 499-502. Recorded slow negative potentials, which are at a maximum over Broca's area in the left hemisphere, when 8 right-handed women with normal speech spontaneously produced polysyllabic words. Bilaterally symmetrical potentials were seen with analogous, nonspeech control gestures. These potentials began up to 1 sec. before word or gesture articulation. Results are the 1st demonstration of localization of language production in normal human brain.—*Journal abstract.*

8231. Murav'eva, N. P. & Kalyagin, V. A. (Inst. of Experimental Medicine, Leningrad, USSR) **O mezhsentral'nykh otnosheniyakh pri uprochnenno slozhnom ritmicheskom stereotipe refleksov.** [On intercentral relationships in the stabilized complex rhythmic stereotype of reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 908-916.—6 dogs were Ss in a study to determine the functional state of nonparticipatory nerve elements of the auditory and visual analyzers after a stabilized rhythmic stereotype of 4 positive and 4 inhibitory salivary CRs to different frequencies of a metronome (60 300/min) had been developed. Analogous stereotypes to pure tones (500-2500 cps) and to flashing light (60 300/min) were then formed and alternated with the stabilized stereotype. Elaboration of a stereotype to new acoustic stimuli can be accompanied by a complete reproduction of all the features of the already formed activity system. In the development of a photic stereotype, an almost complete absence of secretory CRs and a decrease in the mutual phase of unconditioned salivation were observed. The stabilized stereotype of nervous processes in 1 analyzer exerted an inhibitory influence on negative induction in another analyzer. Depending on the degree of concen-

tration of the nervous processes in the stabilized stereotype, induced inhibition was also manifested in the originally nonparticipatory nerve elements of the same analyzer. In the nonparticipatory nerve elements a rhythmic shift of excitability was reproduced in "counterphase" with the stabilized systemic nervous process and at a low level. Readjustment of stereotypically conditioned intercentral relationships, reinforced by the experimental setting and responding to it, took place at different rates during the elaboration of a new stereotype, depending on type of nervous system and its functional state (English summary)—*I. D. London.*

8232. Oldfield, R. C. (Edinburgh U., Medical Research Council Speech & Communication Unit, Scotland) **The assessment and analysis of handedness: The Edinburgh inventory.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 97-113.—Discusses the need for a simply applied quantitative assessment of handedness and reviews some previous forms. An inventory of 20 items with a set of instructions and response- and computational-conventions is proposed. Results obtained from 1,128 male and female undergraduates are reported. The separate items were examined from the point of view of sex, cultural and socioeconomic factors which might appertain to them and also of their interrelationship to each other and to the measure computed from them all. Criteria derived from these considerations were then applied to eliminate 10 of the original 20 items and results recomputed to provide frequency-distribution and cumulative frequency functions and a revised item-analysis. The difference of incidence of handedness between the sexes is discussed (French & German summaries) *Journal abstract*

8233. Troshikhin, V. A., Kozlov, L. N., Krachenko, Zh. A., & Sirotskii, V. V. **Formirovanie i razvitiye osnovnykh svoistv tipa vysshei nervnoi deyatel'nosti v ontogeneze.** [Formation and development of basic types of higher nervous activity in ontogenesis.] *USSR Naukova Dumka*, 1971, 1 R., 70 K.

8234. Tuckov, B. S. & Borisova, N. L. (Leningrad State U., USSR) **Opyt ispol'zovaniya predmetnykh diafragm (blend) pri elektronnomikroskopicheskom issledovanii osobykh uchastkov nervnykh struktur.** [Experience with using object diaphragms in electron microscopic studies of special parts of nervous structures.] *Nervnaya Sistema*, 1969(Dec), No. 10, 172-176.—Proposes a procedure which introduces considerable economy of time and effort in locating the parts of nervous tissue to be investigated. 2 examples are considered: (a) locating the giant nerve cells in the ganglion of the leech, and (b) locating Ranvier's node. —*I. D. London.*

8235. Vetyukov, I. A. (Leningrad State U., USSR) **Vliyaniye prodolzhitel'nogo razdrazheniya chuvstvitel'nykh nerva porogovoy sily i nekotorykh faktorov na skorost' razvitiya dominantly i isteriozisa.** [Influence of prolonged threshold stimulation of the sensitive nerve and of some factors upon the rate of development of the dominant and hysteresis.] *Nervnaya Sistema*, 1969(Dec), No. 10, 16-19. Prepared frogs were *Ss* in a study to explain the significance of prolonged threshold stimulation of the sciatic nerve, heightened temperature, and other factors on the rate of development of (Ukhtomski's) dominant and on general convulsive movements of the type associated with strychnine poisoning (hysteresis). A decrease in the

functional activity of the CNS was shown to result from prolonged residence (18 days) in a common tank with external temperatures in the range of 19-23° C. In the beginning a decrease in the functional activity of the CNS was observed in response to weak reiterated 3-min stimulations of the sciatic nerve plexus. After 40-45 min., against a background of continuous stimulation of the sinistral sciatic nerve, a sharp enhancement of excitability took place in response to 3-min stimulation of the sciatic nerve plexus; hysteresis occurred at 20-min intervals. After 1½ hr., in response to the same stimuli enhanced excitability of the CNS was replaced by processes of inhibition.—*I. D. London.*

Neuroanatomy

8236. Pandya, Deepak N. & Vignolo, Luigi A. (Boston City Hosp. Harvard Neurological Unit, Mass.) **Intra- and interhemispheric projections of the precentral, premotor and arcuate areas in the rhesus monkey.** *Brain Research*, 1971 Vol. 26(2), 217-233.—Studied the intra- and interhemispheric connections of various parts of the precentral gyrus and rostrally adjacent frontal areas with silver impregnation techniques in 12 rhesus monkeys. The subdivisions of the precentral motor area (MI) were found to be connected ipsilaterally in a topographic manner with the premotor area (MII), primary somatosensory area (SI), and the 2nd sensory area (SII). The areas in MI representing the hand and foot do not project to the opposite hemisphere whereas face, trunk, and limb-girdle areas do so, and their projections are directed to both homotopical and nonhomotopical areas, including topographic projections to MII. These nonhomotopical projections form an arch anterior to the projection-free hand and foot areas representing the dorsal aspect of the body from face to occiput and from thoracolumbar to sacral segment of the trunk. The premotor and arcuate regions can be differentiated on the basis of their intrahemispheric connectivity. Likewise, the interhemispheric connections of the premotor areas and the arcuate areas are mainly found in the homotopic regions except for a small area above the caudal tip of the principal sulcus. The nonhomotopic projection of the premotor areas are directed MII, MIII, and prefrontal cortex, whereas those from the arcuate areas are observed in the prefrontal cortex only. The possible significance of these projections is discussed (29 ref.) *Journal summary.*

8237. Welker, Carol. (Central Wisconsin Colony & Training School, Madison) **Microelectrode delineation of fine grain somatotopic organization of SI cerebral neocortex in albino rat.** *Brain Research*, 1971, Vol. 26(2), 259-275. Microelectrode recording, systematic mapping, and cytoarchitectural techniques were combined to determine fine details in the patterns of somatic sensory projections from mystacial vibrissae, and other body regions, to SMI of the rat. Single unit and unit-cluster responses to delicate mechanical stimuli were recorded in as many as 27 penetrations/sq. mm in *Ss* anesthetized with pentobarbital sodium. Somatic sensory afferents from 1/4 of the body were found to project contralaterally to a 45 sq. mm cortical area. About 2/3 of this area received projections from very small receptive fields on the head which usually consisted of either single large vibrissae on the lateral face or smaller sinus hairs on the rostral face. The relative spatial relationships of the cortical projections

from all the vibrissae were identical to their spatial relationships on the body surface. There was no overlap between projections from any vibrissae. The physiological boundaries of Sml coincided with a cytoarchitectural area which exhibited a prominent granular IVth layer. Distinct multicellular aggregates were found within Layer IV of the facial sinus hair area. The location of these aggregates, their number (which was similar to the number of facial sinus hairs), and their somatotopic arrangement suggested the hypothesis that each aggregate is a functional unit which receives somatic sensory information from a single, specific sinus hair. (22 ref.)—*Journal summary*.

8238. Wimer, Cynthia C., Wimer, Richard E., & Roderick, Thomas H. (City of Hope National Medical Center, Duarte, Calif.) **Some behavioral differences associated with relative size of hippocampus in the mouse.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 57-65.—Tested 54 male and female randomly bred mice with naturally varying hippocampal size for (a) open-field activity, (b) active shock-escape and passive shock-avoidance conditioning, and (c) stimulus- and response-discrimination learning and reversal. The ratio of hippocampal volume to total forebrain volume was negatively related to open-field activity and positively related to passive-avoidance conditioning performance. Other neuroanatomical measures were examined, and a significant positive relation, independent of the negative correlation with hippocampus, was found between open-field activity and relative volume of neocortex. Results are compared with those from studies evaluating behavioral effects of hippocampal lesions.—*Journal abstract*.

LESIONS

8239. Larsson, Knut & Sedin, Göran. (U. Göteborg, Sweden) **The sexual behavior of male rats after bilateral section of the hypogastric nerve and removal of the accessory genital glands.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 251-253.—Studied the sexual behavior of 19 male Wistar rats after bilateral section of the hypogastric nerve alone or in combination with removal of the seminal vesicles, the coagulating glands, and the ventral lobes of the prostate. With exception of a slight increase in number of mounts no changes in the mating pattern were observed following either operation. It is concluded that neither sympathetic smooth muscle innervation of the accessory genital organs, nor afferent influences from the seminal vesicles and the ventral lobes of the prostate are necessary for normal mating behavior of the male rat. (18 ref.)—*Journal abstract*.

8240. Lund, R. D. & Lund, J. S. (U. Washington, Medical School) **Synaptic adjustment after deafferentation of the superior colliculus of the rat.** *Science*, 1971(Feb), Vol. 171(3973), 804-807.—Removed eyes from rats shortly after birth, when there are few formed synapses in the colliculus. It was found that synaptogenesis continued to give a near-normal ratio of terminals containing either spheroidal or flattened vesicles. After eye removal in adult Ss, however, reinvasion of synaptic sites vacated by degenerate optic terminals occurred, with an incomplete return toward a normal proportion of synaptic types.—*Journal abstract*.

8241. Snider, Nancy; Marquis, Hugh A., Black, Manual, & Suboski, Milton D. (Queen's U., Kingston,

Ontario, Canada) **Adrenal corticosteroids and the Kamin effect.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 309-310.—Adrenalectomy and dexamethasone blocking of ACTH release in 42 male albino adrenalectomized and 42 sham-operated rats did not affect time-dependent changes in performance following discriminated avoidance conditioning. Adrenalectomized Ss also yielded the U shaped intersession interval function characteristic of the Kamin effect in shuttlebox conditioning. The use of Sprague-Dawley rats precluded the possibility that time-dependent performance changes following aversive conditioning in adrenalectomized Ss was the product of postoperatively developed accessory adrenal tissue. The Kamin effect occurs independently of pituitary-adrenal function.—*Journal abstract*.

Brain Lesions

8242. Alexinsky, T., Delacour, J., & Libouban, S. (National Center of Scientific Research, Paris, France) **Thalamus et conditionnement défensif: Importance relative de trois structures médianes.** [Thalamus and defensive conditioning: Relative importance of the three medial structures.] *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 439-446.—Studied the role played by the nucleus dorsalis medialis (DM), centrum medianum (CM), and pretectalis (Pt) upon the defensive active conditioning in 200 Wistar albino rats. The level of avoidance responses reacquisition was compared after electrolytic lesions of the different structures. A 2-way shuttle box test was used with a light or tone as CS. The most important impairment was due to CM lesions without any specific relation to CS. Deficits obtained after Pt lesions were less severe though more noticeable with light. Even extensive DM lesions did not produce any effect on this test. (French summary) (36 ref.)—*English abstract*.

8243. Anderson, Kenneth V. & Mahan, Parker E. (Emory U.) **Increased pain thresholds following combined lesions of thalamic nuclei centrum medianum and centralis lateralis.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 113-114. Trained 8 adult cats to escape from footshock in a shuttlebox. Current applied to the feet was varied in ascending and descending sequences for each S according to the psychophysical method of limits, and each S was trained until stable thresholds for escape responding were achieved. Ss then had bilateral lesions made in thalamic nuclei centrum medianum and centralis lateralis, were given 8 days to recuperate, and were retrained to a stable level of escape responding. Results show that aversive thresholds were significantly elevated for all Ss for up to 90 days following thalamic lesions, indicating that the midline thalamus plays a role in the perception of pain derived from footshock.—*Journal abstract*.

8244. Butters, Nelson; Pandya, Deepak; Sanders, Karen, & Dye, Patricia. (Veterans Administration Hosp., Boston, Mass.) **Behavioral deficits in monkeys after selective lesions within the middle third of sulcus principalis.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 8-14. Tested 14 rhesus monkeys with lesions limited to the superior and/or inferior banks of the middle 3rd of sulcus principalis on retention of 5-sec spatial delayed alternation and place reversal. Ablations of the superior or inferior banks had no consistent behavioral effects, while lesions which involved both banks, either in the depths

or superficial regions of the sulcus, resulted in deficits on both spatial tasks. Ss that failed to relearn delayed alternation also evidenced deficits on place reversal. Findings suggest that both tasks involved a common factor mediated by cortex within the middle 3rd of the sulcus. *Journal abstract.*

8245. Craddock, Samuel N. & Thompson, Robert. (Louisiana State U.) A discrete interpedunculo-central tegmental region critical for retention of visual discrimination habits in the white rat. *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 39-50. In Exp. 1 22 male albino Wistar rats were assigned to a normal control or 1 of 4 experimental groups sustaining electrolytic lesions at different levels of the midline tegmentum following learning of a brightness and pattern discrimination problem. The group with lesions destroying the caudal part of the interpeduncular nucleus and/or the overlying decussations of the brachium conjunctivum showed losses in retention, while the remaining groups having lesions anterior or posterior to these structures exhibited excellent retention. Exp. II with 15 Ss showed that severance of the decussating fibers of the brachium conjunctivum by means of an ophthalmic knife also led to retention deficits. Results indicate that dysfunction of the red nuclei may underlie visual discrimination losses following midline tegmental damage. (21 ref.) *Journal abstract.*

8246. Cranford, J., Ravizza, R., Diamond, I. T., & Whitfield, I. C. (Duke U.) Unilateral ablation of the auditory cortex in the cat impairs complex sound localization. *Science*, 1971(Apr), Vol. 172(3980), 286-288. In an experiment with 8 cats it was found that unilateral ablation of the auditory cortex resulted in a profound deficit in attending to stimuli on the side contralateral to the lesion. The deficit was also manifested in an abnormal perception of left-right pulse pairs when the pulse which led by a few msec was contralateral to the damaged hemisphere. *Journal abstract.*

8247. Dąbrowska, Jadwiga. (Nencki Inst. of Experimental Biology, Warsaw, Poland) Dissociation of impairment after lateral and medial prefrontal lesions in dogs. *Science*, 1971(Mar), Vol. 171(3925), 1037-1038. Trained 16 naive mongrel dogs before operation on a go, no-go test with symmetrical reinforcement. Lesions situated on the medial surface of the prefrontal cortex caused slight or no impairment in retention, whereas removal of the lateral prefrontal cortex induced severe and long-lasting impairment. The lateral prefrontal cortex is probably related to selection of the proper instrumental responses to corresponding stimuli. *Journal abstract.*

8248. Denisova, A. S. (Pavlov Inst. of Physiology, Leningrad, USSR) O roli golovki khvostatykh yader v uslovno-reflektornoi deyatelnosti sobak. [On the role of the head of the caudate nuclei in conditioned reflex activity in dogs.] *Zhurnal Vyssheĭ Nervnoi Deyatelnosti*, 1970(Sep), Vol. 20(5), 947-954. 4 Ss were used in a study to elucidate the mechanisms involved in CR activity after electrocoagulation of the head of the caudate nuclei, utilizing previously elaborated motor-alimentary CRs to acoustic and photic stimuli. Lesion of the head of the caudate nuclei produced: (a) disturbance of "active choice" in seeking the proper direction for alimentary reinforcement, (b) decrease in the magnitude of the salivary CRs, (c) disinhibition of the secretory and motor components of the alimentary reaction to the differential stimulus, and (d) increase in the UCRs and

salivation in the intervals between stimuli. It is suggested that the head of the caudate nuclei, thanks to the CR and UCR character of the inhibitory influences, participates in the stabilization of CR signals and also promotes the stabilization of conditioned reactions. (English summary) (24 ref.) *Journal abstract.*

8249. Eddy, D. R., Bremner, F. J., & Thomas, A. A. (Trinity U.) Identification of the precursors of hippocampal theta rhythm: A replication and extension. *Neurobiology*, 1971(Mar), Vol. 9(1), 43-50. Utilized a microprobe to modify the functioning of the septal nucleus of 5 cats. A change in reticular formation induced hippocampal theta rhythm resulted 5 cats. Ss sustaining electrolytic lesions in the septum showed a similar effect. Changes in hippocampal EEG patterns, resulting from electrical stimulation of the reticular formation combined with cryogenic cooling of the septum suggest that the reticular formation may be mainly responsible for the 4-5 Hz. frequencies in the hippocampal theta. (French & German summaries) (21 ref.) *Journal abstract.*

8250. Ellen, Paul & Kelnhofer, Maria. (Georgia State U.) Discrimination of response feedback following septal lesions. *Psychonomic Science*, 1971(Apr), Vol. 23(1B), 94-96. Required 10 experimentally naive male Long Evans hooded rats in a 2-bar operant task to make 5 consecutive responses on 1 bar (count bar) and then press the food bar once for reinforcement. Shifts to the food bar before the required count had been completed on the count bar did not lead to reinforcement but reset the counter such that the required sequence had to be started again. 5 septally lesioned Ss were deficient in learning when to shift to the food bar. Results are interpreted in terms of a deficiency in the discrimination of response-produced feedback. *Journal abstract.*

8251. Fibiger, Hans C. & Campbell, Byron A. (Princeton U.) Effect of adrenal demedullation on starvation-induced behavioral arousal. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 403-405. Tested the hypothesis that starvation-induced behavioral arousal results from the release of catecholamines from the adrenal medulla and their subsequent action on the reticular activating system. 44 normal and adrenal-demedullated male Sprague-Dawley rats were adapted to stabilimeter and running wheel activity cages and then terminally deprived of food. Both normal and demedullated Ss became hyperactive during starvation. In the running wheels however the hyperactive response to food deprivation was significantly attenuated. Results indicate that hunger-induced arousal is at best only partially mediated by the excitatory action of adrenal-released catecholamines on the CNS. (21 ref.) *Journal abstract.*

8252. Flaherty, Charles F. & Hamilton, Leonard W. (Rutgers State U.) Responsivity to decreasing sucrose concentrations following septal lesions in the rat. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 431-437. Examined the effect of septal lesions in 24 male Holtzman albino rats on consummatory responding for sucrose in 2 experiments. It was found that the lesion did not prevent the occurrence of an abrupt decrement in consummatory responding subsequent to decrease in sucrose concentration. Results indicate that the opportunity for comparison among different concentrations may be an important factor in determining whether a septal rat licks more or less than a control for a given concentration of sucrose, and that septal rats are less

sensitive than controls to the postingestive consequences of sucrose intake. An incentive model of septal effects is discussed. (22 ref.)—*Journal abstract.*

8253. Gray, Jeffrey A. (Dept. of Experimental Psychology, Oxford, England) **Medial septal lesions, hippocampal theta rhythm and the control of vibrissal movement in the freely moving rat.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 189-197.—Recorded the electrical activity from the dorsomedial hippocampus in 20 freely moving male Sprague-Dawley rats via chronically implanted bipolar electrodes. Observations are reported on the occurrence of hippocampal theta rhythm, and changes in its frequency, amplitude, and regularity, during exploratory behavior, vibrissal movement, drinking, grooming, and fearful crouching. Lesions were produced in the medial septal area electrolytically via a 2nd chronically implanted electrode while S was freely moving. Data are reported on the resulting disruption of hippocampal theta rhythm for up to 7 wk. after the lesion. In some cases disruption of normal bilaterally synchronous and temporally regular vibrissal movement also resulted from the lesion, but this effect and the disturbance in theta rhythm were dissociable. (French summary) (20 ref.)—*Journal summary.*

8254. Gross, Charles G., Cowey, Alan, & Manning, Frederick J. (Princeton U.) **Further analysis of visual discrimination deficits following foveal prestriate and inferotemporal lesions in rhesus monkeys.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 1-7.—Compared the visual discrimination performance of 5 normal Ss, 5 Ss with inferotemporal lesions, and 4 Ss with foveal prestriate lesions. In Exp. I the inferotemporal group was impaired in learning object and color discriminations but the foveal prestriate group showed a deficit only on the object problems. The inferotemporal group showed impaired retention of color discrimination after interpolation of an object discrimination and impaired retention of object discrimination after interpolation of a color discrimination, but normal retention when the original and interpolated problems were both either object or color discriminations. Retention by the other groups was not affected by the type of interpolated material. In Exp. II only the foveal prestriate group was impaired on pattern discrimination when irrelevant stimuli were added. Results are discussed in terms of perceptual and associative learning disorders.—*Journal abstract.*

8255. Hamilton, Leonard W. & Flaherty, Charles F. (Rutgers State U.) **Behavioral patterns associated with water intake in normal and septal rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 165-174.—Observed 14 male Holtzman rats during a 1-hr period of access to water and food following 23 or 47 hr. of water deprivation. Sustained drinking lasted less than 6 min. followed by grooming. Within 10 min. following exposure to the water and after consuming approximately 3 ml/100 gm of body weight (about 60% of their total 1-hr intake), Ss began to eat. Data suggest that the inhibition of food intake (resulting from the need to defend the body water balance) was released very quickly following access to water. Septal lesions did not influence this form of inhibition, but produced more rapid adaptation to novel drinking situations as well as the usual enhancement of avoidance responding.—*Journal abstract.*

8256. Johnson, David A. (Ohio State U.) **Developmental aspects of recovery of function following infant septal lesions in the rat.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5665.

8257. Killackey, H. & Diamond, I. T. (Duke U.) **Visual attention in the tree shrew: An ablation study of the striate and extrastriate visual cortex.** *Science*, 1971(Feb), Vol. 171(3972), 696-699.—Describes an experiment with tree shrews (3 normal, 3 with removal of the striate cortex, and 3 with large lesions of the temporal area). Results indicate that removal of the striate area results in increased distractibility, which prevents the Ss from learning to discriminate form when hue is an irrelevant and distracting cue. Removal of the extrastriate visual cortex results in the reciprocal deficit: an increase in perseveration manifested by an inability to shift attention when irrelevant dimensions are made relevant.—*Journal abstract.*

8258. Lubar, Joel F. & Middaugh, Lawrence D. (U. Tennessee) **Avoidance conditioning in cats with striate and auditory cortex lesions and contrasting effects of peripheral blindness.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 26-30.—Compared 17 adult cats with lesions in the auditory and visual cortex with 7 normal controls in acquisition and relearning of a shuttle-avoidance task. The CS was a buzzer. It was found that Ss with lesions in the striate cortex were deficient in both the acquisition and the relearning tasks whereas Ss with auditory damage were not. The relearning task was tested under conditions where all Ss wore opaque contact occluders to produce peripheral blindness. Results (a) indicate that the avoidance deficit is specific to lesions of the visual cortex and persisted under conditions of peripheral blindness, and (b) imply that there is a complex dysfunction beyond that attributable to visual factors alone following striate ablation.—*Journal abstract.*

8259. Mabry, Paul D. (U. Mississippi) **Effect of septal lesions on response to frustrative nonreward.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5669.

8260. Meier, R. (U. Zurich, Inst. für Hirnforschung, Switzerland) **Interhemispheric transfer of two-choice discrimination in commissurotomy pigeons.** *Psychologische Forschung*, 1971, Vol. 34(3), 220-245.—The role of avian commissural systems in interhemispheric transfer of monocularly learned visual discriminations was investigated in an instrumental conditioning situation (Skinner). Color and pattern (up-down and left-right mirror-images) were used as (supraoptic) stimuli. Stereotaxic lesions were placed in the supraoptic decussation of 21 pigeons, in the tectal and posterior commissures of 20 pigeons. In 11 animals all 3 connections were interrupted. All lesions were histologically verified. After section of the supraoptic decussation interhemispheric transfer was severely impaired for 1 color and 2 up-down mirror-image discriminations. No significant impairment in transfer for color, up-down and left-right mirror-image discriminations followed section of the tectal and posterior commissures. These data demonstrate that at least part of the supraoptic decussation is involved in interhemispheric transfer of visual information." R. Gunter.

8261. Middaugh, Lawrence D. (U. Tennessee) **Performance of septal damage and normal rats on two avoidance tasks.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5670.

8262. Mize, R. Ranney; Wetzel, Allan B., & Thompson, Venan E. (Northwestern U., Medical School) **Contour discrimination in the rat following removal of posterior neocortex.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 241-246.—Trained male Long-Evans hooded rats on 1 of 3 2-choice visual discrimination problems. The stimuli were equated for total luminous flux and black-white area, but differed in amount of contour, defined as total amount of black-white edge. The ratios of contour were 3:1, 4:1, or 5:1. Following acquisition of the problems, posterior neocortical ablations were sustained by at least 30 Ss in each group, the remainder serving as normal controls. When retested, controls retained the problem, while operated Ss were unable to relearn the 3:1 or 4:1 ratio problems. Operated Ss did relearn the 5:1 ratio contour problem although they required more than twice as many trials than during original learning. Results suggest that rats deprived of visual cortex can make visual discriminations based upon differences other than total luminous flux. Density distributions of light or stimulus differences in amounts of dark-light boundaries appear to be the likely parameters which, when large enough, permit discrimination of such problems. (27 ref.)—*Journal abstract*
8263. Murphree, Oddist D., Morgan, Paul N., & Jarman, Ruth V. (Veterans Administration Hosp., Little Rock, Ark.) **Learning deficits and activity changes: A partial laboratory model in postencephalitic rats for studies of brain damage.** *Conditional Reflex*, 1971(Jan), Vol. 6(1), 30-35.—8-21 day old rats were inoculated in the right cerebral hemisphere with St. Louis encephalitis virus, Japanese B encephalitis virus, and Murray Valley encephalitis virus. Mumps virus however, was injected at 1 day of age. Fatal encephalitis usually resulted in very young Ss. Ss injected at ages of more than 2 wk. showed little or no clinical signs of infection. When inoculated at ages between these extremes, clinical disease developed in most Ss but many survived. Physically most of these surviving Ss appeared to be normal, but when tested at maturity in a rather complex maze, they showed a marked reduction in learning ability. Tilting-cage-type activity measurements taken overnight with the Murray Valley encephalitis group also indicated that most of the postinfectious Ss were hyperactive. Implications for minimally brain-damaged children are discussed. *Journal summary*
8264. Nathan, Marc A. & Smith, O. A. (School of Aerospace Medicine, Brooks Air Force Base, San Antonio, Tex.) **Conditional cardiac and suppression responses after lesions in the dorsomedial thalamus of monkeys.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 66-73.—Compared 5 adult squirrel monkeys with bilateral damage of varying extent to the dorsomedial thalamus with 4 control monkeys with lesions in other neural areas. Ss showed postoperative (a) deficits in conditioned suppression but not conditional cardiac responses, and (b) decreases in intertrial lever-pressing rates. It is concluded that the postoperative decrease in conditioned suppression resulted from damage of a response system that normally produces conditioned suppression by interfering with lever pressing. The effect was not ascribed to a decrease in acquired fear because the conditional cardiac response remained unchanged. (19 ref.)—*Journal abstract*
8265. Paré, William P. (Veterans Administration Hosp., Perry Point, Md.) **Avoidance behavior in the rat following insular cortical lesions.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 21-23.—Trained 26 male Long-Evans rats with insular neocortical lesions, 2 sham-operated controls, and 11 normal controls on passive-avoidance problems. 2 problems included a food incentive, while the 3rd was devoid of any food incentive. Lesioned Ss showed a deficit in acquiring the passive-avoidance response on the food-related problems, but quickly adopted the avoidance response on the problem without the food incentive. Results are interpreted in terms of consummatory response inhibition.—*Journal abstract*
8266. Rose, James D., & Frommer, Gabriel P. (Emory U.) **Changes in trigeminal nucleus evoked potentials and behavioral responses elicited by trigeminal stimulation following septal lesions.** *Brain Research*, 1971, Vol. 26(1), 405-418.—Examined electrophysiological excitability changes in sensory pathways resulting from septal damage and compared them with changes in behavioral responsiveness to the same stimuli, using 11 rats with implanted electrodes. The predominant effect of septal lesions on the tract wave of the trigeminal nucleus evoked potential (TNEP) was an increased amplitude. Of the various changes noted in TNEPs following septal lesions, "amplitude alterations of the nucleus caudalis nuclear wave showed the closest temporal correspondence with behavioral changes." (16 ref.)—*P. Hershberg*
8267. Slotnick, Burton M. (National Inst. of Health, Bethesda, Md.) **Visual discrimination and avoidance behavior in rats with cingulate cortical lesions.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 61-66.—Assigned 42 adult experimentally naive hooded rats to 1 of 3 groups: (a) midline cingulate cortex destruction, (b) neocortical lesions, and (c) operated control. Ss with lesions of the cingulate cortex showed no deficits in the postoperative retention or subsequent reversal of a visual discrimination task when either water or shock was used to reinforce behavior. Experimental Ss did significantly poorer avoidance performance under shock reinforcement than controls. Results implicate the cingulate cortical system in the mediation of behavior motivated by pain and fear arousing stimuli. (French & German summaries) (15 ref.)—*Journal abstract*
8268. Snyder, Daniel R. (U. Michigan) **Social and emotional behavior in monkeys following orbital frontal ablations.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5679-5680.
8269. Takahashi, T. (Ningata U., Medical School, Japan) **On the changes of nystagmus caused by ultrasound-produced focal lesions in the MLF of the rabbit.** *Acta Oto-Laryngologica*, 1969(Dec), Vol. 68(6), 489-500.—Studied the changes of nystagmus caused by ultrasound-produced focal lesion in the median longitudinal fasciculus (MLF) of 25 rabbits. Results are summarized as follows: (a) a diminution of adducting movements on optokinetic and vestibular nystagmus was observed by destroying the MLF at the level of the rostral portion of IV ventricle, while a diminution of the abducting movements on vestibular nystagmus, on the contrary, was observed by destroying the MLF below the level of the trochlear nuclei; and (b) in 1 S, in which MLF was transected just below the level of the trochlear nuclei, the so-called convergence nystagmus was transiently observed. The difference between the present results and those of M. B. Bender and E. A. Weinstein seems to be due to the difference in species of the animals used. (German summary) (20 ref.)—*Journal abstract*
8270. Teitelbaum, Herman. (U. Maryland)

Lateralization of olfactory memory in the split-brain rat. *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 51-56.—Assigned 6 male Sprague-Dawley albino and 16 Long-Evans hooded rats to 1 of 3 groups—sham operated control, operated control, and operated experimental. It was found that interhemispheric transfer of olfactory discriminations was blocked by midline incisions damaging the corpus callosum, hippocampal commissure, and anterior commissure. Shallow incisions involving the corpus callosum and hippocampal commissure did not affect transfer. —*Journal abstract.*

8271. Thorne, B. Michael & Thompson, Robert. (Mississippi State U.) **The red nucleus and visual performance in the white rat: A methodological artifact?** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 86-87.—Trained 13 adult male Wistar albino rats in a Thompson-Bryant apparatus without a choice chamber. 8 Ss were then subjected to bilateral ventral midbrain lesions aimed at the red nucleus. Lesioned Ss were found to be deficient in visual discrimination performance. Results support previous work with rats and raise the possibility of a species difference in functional significance of the red nucleus between white rats and rhesus monkeys. —*Journal abstract.*

8272. Webster, William G. (Pennsylvania State U.) **Functional asymmetry between the cerebral hemispheres of the cat.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5684.

8273. Wurgel, Bruce K. & Oscar-Berman, Marlene. (Veterans Administration Hosp., Boston, Mass.) **Incubation of a passive avoidance response after frontal lesions in the rat.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 289-290.—Compared 18 Long-Evans hooded rats with lesions of prefrontal cortex with 18 sham operated and 18 cortical controls on a 1-trial stepdown passive-avoidance task. At training-test intervals of 5 sec., 10 sec., or 24 hr., 1-trial learning effects were observed. All groups showed an incubation effect, i.e., stepdown latencies increased after longer retest intervals. There were no differences between Ss with prefrontal lesions and sham controls, suggesting that frontals have normal short-term timing behavior. —*Journal abstract.*

Brain Hypothalamic & Hippocampal Lesions

8274. Kent, Michael A. (Iowa State U.) **Effects of ventromedial hypothalamic lesions on hunger motivated behavior in rats.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5665-5666.

8275. Marks, H. E. & Brown, Gary E. (U. Georgia) **The effects of VMH lesions in Charles River rats.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 117-119.—Examined questions which have arisen concerning the suitability of the Charles River rat in investigating motivation and its physiological correlates. 9 male albino Charles River CD rats, approximately 185-190 days of age, were given ventromedial hypothalamic lesions and tested on a number of tasks. In all cases, data from Ss were comparable to data from other strains of rats. (17 ref.) —*Journal abstract.*

8276. Miller, C. R., Elkins, R. L., & Peacock, L. J. (U. Georgia) **Disruption of a radiation-induced preference shift by hippocampal lesions.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 283-285.—Compared saccharin preferences of 10 male Sprague-Dawley rats with extensive hippocampal lesions and 10 control Ss (5 normal and 5 in which the cerebral cortex overlying the

hippocampus had been removed). In contrast to controls, Ss continued to exhibit a strong preference for a saccharin solution after saccharin ingestion was paired with exposure to low level X-irradiation. Results suggest that the hippocampus partially mediates the motivational consequences of exposure to X-radiation. —*Journal abstract.*

8277. Panksepp, Jaak. (U. Sussex, Lab. of Experimental Psychology, England) **Effects of hypothalamic lesions on mouse-killing and shock-induced fighting in rats.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 311-316.—Studied home-cage mouse-killing and reflexive-fighting in 24 male albino rats before and after medial and lateral hypothalamic lesions. Both forms of aggression were intensified by medial damage and attenuated by lateral hypothalamic lesions. The failure to find differential lesion effects on the different modes of aggression is taken as evidence that (a) relatively nonspecific facilitatory (or motor) influences from the lateral hypothalamus, and (b) inhibitory influences from the medial hypothalamus modulate both predatory aggression and reflexive-fighting. (17 ref.) —*Journal abstract.*

8278. Pigareva, M. L. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Oblegchenie uslovnoreflektornogo pereklyucheniya raznorodnykh uslovykh relleksov u krya posle povrezhdeniya gippokampa.** [Facilitation of conditioned reflex switchover of dissimilar conditioned reflexes in rats after hippocampal lesion.] *Zhurnal Vysshe Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 932-940.—Ss were 7 intact and 8 prepared rats (hippocampal electrocoagulation). In the morning (8 AM to 12 PM) an alimentary-motor CR to light was formed and stabilized in 3 intact and 4 prepared Ss, followed by the formation of a motor electrodefensive CR to sound; in the remaining Ss the CRs were formed in reverse order. After 15-25 experimental days, the stimuli were given other signal significance in the night (8-11 PM)—sound became an alimentary signal, light a defensive signal. Hippocampal lesion produced a significant increase in the number of intersignal reactions and spontaneous jumping from 1/2 of the experimental chamber to the other. In prepared Ss the rate of elaborating an alimentary CR was the same as in intact Ss, but the rate for the defensive CR exceeded that in the latter. In contrast to the situation with intact Ss, formation of the 2nd CR connection in prepared Ss was accompanied very little by antagonistic relationships between alimentary and defensive activity. In prepared Ss a stable double switchover was elaborated in 3-6 experimental sessions, whereas in intact Ss such switchover failed in the course of 30 or more sessions. After hippocampal lesion it became possible for 5 of the intact Ss. Prior to the operation, these Ss displayed a generalized defensive reaction or severe neurotic disturbances. (English summary) (26 ref.) —*J. D. London.*

8279. Smith, Donald F., Balagura, Saul, & Lubran, Myer. (U. Chicago) **Antidotal thirst and lithium excretion in rats with hypothalamic lesions.** *Psychology & Behavior*, 1971(Mar), Vol. 6(3), 209-213.—Assigned 21 male albino Sprague-Dawley rats to receive (a) lateral hypothalamic (LH) lesions, (b) ventromedial hypothalamic (VMH) lesions, or (c) sham operations (SO). SO and VMH Ss increased their water intake in response to a dilute lithium chloride stomach load. LH Ss failed to drink, suggesting that the lateral hypothalamus is essential for the occurrence of antidotal

thirst. The renal elimination of a dilute saline stomach load by LH Ss was similar to that of SO Ss, but VMH Ss excreted more of a less concentrated urine. The renal elimination of lithium was also altered in VMH Ss. The possible influence of adrenocortical function on the elimination of salt loads by rats with hypothalamic lesions is discussed. (27 ref.) *Journal abstract.*

8280. Wolf, George. (Mt. Sinai School of Medicine, New York, N.Y.) **Neural mechanisms for sodium appetite: Hypothalamus positive-hypothalamofugal pathways negative.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 381-389.—Reports on previous studies which have shown that lesions of the lateral or ventromedial hypothalamus impair sodium appetite while lesions of the anterior or posterior medial forebrain bundle or periventricular system which carry hypothalamofugal fibers have no observable effect. In the present study with 39 male Sprague-Dawley rats, other known or potential hypothalamofugal pathways were disjointed with no observable effect upon sodium appetite. Lateral hypothalamic lesions completely abolished sodium appetite under the same experimental conditions. It is concluded that no single neural pathway is necessary for transmission of hypothalamic natriorectic functions. Observations on disturbances of feeding behavior following certain subthalamic lesions are described. Motor and motivational functions of the subthalamus and hypothalamus are discussed. (48 ref.) *Journal abstract.*

BRAIN STIMULATION

8281. Gorgiladze, G. I. & Kazanskaya, G. S. **Dinamika nistagmennoi reaktsii glaz, EEG i nekotorykh drugikh pokazatelei pri povtornom kratkovremennom kaloricheskom razdrazhenii labirintov u krolikov.** [Study of changes in the nystagmus, electroencephalograph and autonomic symptoms during repeated short caloric stimulation of the rabbit labyrinths.] *Fiziologicheskii Zhurnal SSSR*, 1971(Jan), Vol. 57(1), 45-51.—Studied the habituation process of rabbits to short monaural caloric stimulation of the labyrinth. Ss were divided into 2 groups: the 1st requiring 14-20 irrigations to develop habituation; the 2nd group showing habituation after 70-90 irrigations. Bipolar electrodes were attached to the cranium to measure the evoked potentials. Irrigation water was of 20° C, 5 ml/2 sec. The values measured were: nystagmic eye reaction, EEG, general arterial pressure, frequency of breathing, and pulse. Parameters pertaining to nystagmic reaction were: latent period, duration of reaction, total number of nystagmic strokes, duration and speed of the slow phase habituation. The possibility of transferring habituation to the contralateral labyrinth and preserving the old one was demonstrated. Arterial pressure decreased after the 1st few irrigations and afterwards was gradually restored to the original value. It is suggested that the reticular formation of the CNS plays a primary role in the development of habituation. —I. Halev.

8282. Lipton, James M. (U. Texas, Medical School, Dallas) **Thermal stimulation of the medulla alters behavioral temperature regulation.** *Brain Research*, 1971, Vol. 26(2), 439-442.—Trained 6 rats with stereotactically implanted thermodes in the medullar caudal pons (MP) region to perform a thermal regulation task involving heat escape and heat reinforcement series.

It is shown that the urge to vary the uptake of heat from the environment was altered when the temperature in the rostral MP region was varied. It appears that the medullar region was sensitive to heat and cold and that this sensitivity contributed to thermoregulatory motivation. (20 ref.) *P. Hertzberg.*

8283. Plotkin, H. C. & Russell, I. Steele. (University Coll., Medical Research Council Unit on Neural Mechanisms of Behaviour, London, England) **Unilateral cortical spreading depression and escape learning.** *Physiologia Bohemoslovaca*, 1969, Vol. 18(5-6), 393-399.—Computed the learning of an escape response by 20 male hooded rats with unilateral cortical spreading depression and 20 controls. A significant hemidecorticate learning deficit was found, though no differences in savings over days could be found. The nature of the impairment appeared to derive from both a deficiency in information pick-up, and a loss of behavioral stability. The hemidecorticate deficit on escape learning appeared similar to that previously analyzed for avoidance learning. It is concluded that the impairment is a function of learning paradigm and that the effects of task difficulty require further study. No evidence was found to indicate a dominant hemisphere for learning in the rat. *Journal summary.*

Chemical Stimulation

8284. Burešová, Olga & Bureš, J. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **The effect of prolonged cortical spreading depression on consolidation of visual engrams in rats.** *Psychopharmacologia*, 1971, Vol. 20(1), 57-65.—Examined the effect of prolonged cortical spreading depression (PCSD) on the retention of a visual discrimination in 213 hooded rats. PCSD was maintained for 5 hr. by repeated application of 25% KCl onto the exposed cortical surface. Behavioral tests were performed 24 or more hr before and/or after the treatment. A single application of 25% KCl did not affect subsequent acquisition of a horizontal-vertical discrimination, the learning of which took 140 and 125% to-criterion trials 1 and 3 days after PCSD. Whereas a single application of 25% KCl did not impair retention of the pattern discrimination learned in a single session 24 hr. earlier, PCSD caused severe amnesia under the above conditions and partial amnesia even for pattern discriminations overlearned in 3 sessions. The amnesic effect nearly disappeared, however, when the habit was overlearned for 14 days, or when the engram established in a single session was allowed to consolidate for 2 wk. When PCSD was applied 24 hr. after a single learning session amnesia was more marked on the 3rd day after treatment, and retrieval hardly improved over 2 wk. In an experiment in which 14 sessions of black-white discrimination training were followed by a single session of horizontal-vertical training, PCSD evoked 24 hr. after acquisition of the pattern discrimination caused complete amnesia for the latter habit without affecting retrieval of the former one. The relevance of these findings to the consolidation hypothesis is discussed. (17 ref.)—*Journal abstract.*

8285. Daniels, D. (U. Exeter, Washington Singer Lab., Devon, England) **Acquisition, storage, and recall of memory for brightness discrimination by rats following intracerebral infusion of acetoxycycloheximide.** *Journal of Comparative & Physiological*

Psychology, 1971(Jun), Vol. 76(1), 110-118.—Injected acetylcycloheximide (ACXH), a protein synthesis inhibitor, and/or physiological saline, into the hippocampi of 96 unrestrained male hooded Wistar rats through 2 cannulas. Injections were made 5 hr. before introduction to a Y maze (shock motivated, brightness discrimination). Memory was severely impaired at 6 hr., 24 hr., and 7 days, but not at 3 hr. after acquisition. The ACXH had no "state-dependent" effect. When injections were given 5 hr. before the recall tests or immediately after acquisition, memory was unimpaired. Results from 4 experiments indicate that (a) there are 2 memory systems, (b) brain protein synthesis is necessary for establishment but not for the recall of long-term memory, and (c) activity in both short- and long-term systems is initiated during acquisition. The 2 memory systems appear to run in parallel rather than in series. (18 ref.)—*Journal abstracts*.

8286. Ferguson, John H. & Jasper, Herbert H. (Case Western Reserve U., University Hosp., Div. of Neurology) **Laminar DC studies of acetylcholine-activated epileptiform discharge in cerebral cortex.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 377-390.—Studied epileptiform paroxysms induced by local application of neostigmine and acetylcholine (ACh) to intact and undercut cerebral cortex in 39 adult cats. DC recording of electrical activity from the cortical surface together with a penetrating microelectrode were used to plot the field potentials in depth and to obtain extracellular records of associated unit discharge. Each spontaneous paroxysm was initiated by a sudden surface negative DC shift upon which was superimposed regular rhythmic oscillating waves. The surface negative DC field potential did not show a phase reversal except deep in the Vth layer and increased in negativity with a maximum in the vicinity of large pyramidal cells. The rhythmic oscillating waves only showed a phase reversal in the most superficial cortical layers. Rapid unit discharge of deep pyramidal cells accompanied the negative DC shift in intact cortex and was interrupted by gating or inhibitory action of rhythmic waves. ACh paroxysms induced in acutely undercut cortex were not accompanied by detectable unit discharge. It is suggested that neuronal depolarization and possibly glial cells may play a role in the generation of the DC shifts of the ACh paroxysm. (French summary) (29 ref.)—*Journal summary*.

8287. Gutman, Yehuda; Chaimovitz, Moshe; Bergmann, Felix, & Zerachia, Avi. (Hebrew U., Hadassah Medical School, Jerusalem, Israel) **Hypothalamic implantation of ouabain and electrolyte excretion: Evidence for central effect on sodium balance.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 399-401.—Conducted a series of experiments with a total of 116 male Hebrew University rats. It was found that (a) sodium excretion was markedly increased following implantation of ouabain in the lateral hypothalamus; (b) a small but significant increase in sodium excretion was produced by implantation in the medial hypothalamus; and (c) potassium excretion urine was not significantly affected by implantation. Following bilateral adrenalectomy, implantation did not affect sodium excretion or the ratio potassium/sodium. The possibility of suppression of mineralocorticoid secretion by ouabain implantation in the hypothalamus is discussed.—*Journal abstracts*.

8288. Krip, Gordon & Vazquez, Alfredo J. (U. Manitoba, Faculty of Medicine, Winnipeg, Canada) **Effects of diphenylhydantoin and cholinergic agents on the neuronally isolated cerebral cortex.** *Electroencephalography and Clinical Neurophysiology*, 1971(May), Vol. 30(5), 391-398.—Studied the interactions between antiepileptic agents (diphenylhydantoin, trimethadione, and ethosuximide), scopolamine, and pilocarpine. The ability of antiepileptic agents alone and in combination with cholinergic drugs to suppress prolonged epileptiform after-discharges was evaluated in chronically neuronally isolated slabs of cerebral cortex in the suprasylvian gyrus of unanesthetized, unrestrained cats. Diphenylhydantoin (DPH) decreased duration of after-discharges; trimethadione and ethosuximide did not. This effect was evident within 15 min after injection and was proportional to the dose. There was a mutual antagonism between DPH and scopolamine. No interactions were observed between cholinergic drugs and anti-petit mal agents. Results suggest that (a) the chronically isolated cortical slab may be a model for grand mal epilepsy, and (b) the anticonvulsant action of DPH may be exerted through cholinergic muscarinic inhibitory sites. (French summary) (35 ref.)—*Journal summary*.

8289. Milner, Joel S., Nance, Dwight M., & Sheer, Daniel E. (Lafayette Clinic, Detroit, Mich.) **Effects of hypothalamic and amygdaloid chemical stimulation on appetitive behavior in the cat.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 25-26.—Chronically implanted 16 adult cats unilaterally with cannulae in the preoptic and anterior hypothalamus and basolateral amygdala. Adrenergic and cholinergic drug stimulation with norepinephrine and carbachol, respectively, produced significant dose-dependent blockage of both food and water intakes. Results are contrasted with other studies which report that the cat does not show changes in patterns of feeding and drinking following hypothalamic and limbic chemical stimulation. (19 ref.)—*Journal abstracts*.

8290. Nance, Dwight M., Milner, Joel S., & Sheer, Daniel E. (Worcester Foundation for Experimental Biology, Shrewsbury, Mass.) **Hypothalamic anticholinergic inhibition of eating and drinking in the cat.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 26-28.—Unilaterally implanted 6 adult mongrel cats with cannulae in laterally implanted 6 adult mongrel cats with cannulae in the anterior and preoptic hypothalamus. Injections of 3 the anterior and preoptic hypothalamus. Injections of 3 concentrations of atropine sulfate resulted in a dose-related decrease in food and water intake. Water intake was more effectively inhibited by atropine than was food intake, which was suppressed only at the highest concentration employed. Results are interpreted as consistent with behavioral effects of hypothalamic lesions and somewhat less related to "chemically coded" behaviors in the cat. (15 ref.)—*Journal abstracts*.

8291. Spehlmann, Rainer. (Veterans Administration Research Hosp., Chicago, Ill.) **Acetylcholine and the synaptic transmission of non-specific impulses to the visual cortex.** *Braun*, 1971, Vol. 94(1), 139-150.—In *encéphale isolé* cats acetylcholine (ACh) and atropine were applied via multibarrel electrodes to single visual cortex cells being driven by stimulation of the reticular formation or other areas. ACh facilitated the response to reticular stimulation in 30% of the cells giving such a response. Atropine blocked the effect of reticular stimuli in most of these cells and blocked the reticular

facilitation of other input on some neurons suggesting that intrinsic ACh may function as the synaptic transmitter for reticular input to visual cortex cells. —W. A. Wilson.

8292. Spehlmann, Rainer; Daniels, James C., & Smathers, Clifford C. (Veterans Administration Research Hosp., Chicago, Ill.) **Acetylcholine and the synaptic transmission of specific impulses to the visual cortex.** *Brain*, 1971, Vol. 94(1), 125-138. —In encephale isole cats acetylcholine (ACh) and atropine were applied via multibarrelled microelectrodes to single visual cortex cells being driven by optic radiation shocks or retinal illumination. ACh increased spontaneous firing of about 20% of the neurons and facilitated responses to stimulation for some neurons; atropine antagonized the 1st effect but did not block responses to synaptic stimulation. "These results do not support the hypothesis of a cholinergic link in the transmission of specific impulses to neurons in the primary visual cortex of the cat." —W. A. Wilson.

Electrical Stimulation

8293. Asdourian, David & Preston, Robert J. (Wayne State U.) **Cerebellar stimulation as a CS.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 235-239. —Utilized electrical stimulation of the cerebellum of 61 Holtzman male albino rats as the CS in a 2-way avoidance task. The current level was at 10 μ A below the threshold for forced movement with the maximum level arbitrarily set at 400 μ A. Results indicate that stimulation of any area in the cerebellum can serve as an effective CS. —*Journal abstract*

8294. Bandler, Richard & Flynn, John P. (Yale U., Medical School) **Visual patterned reflex present during hypothalamically elicited attack.** *Science*, 1971(Feb), Vol. 171(3973), 817-818. —In an experiment with 5 cats, it was found that an S from which attack was elicited by electrical stimulation of the hypothalamus lunged more frequently toward a mouse presented to the eye contralateral to the stimulated site than it did to a mouse presented to the ipsilateral eye. This differential effect did not appear to be attributable to a temporary or permanent defect in the ipsilateral eye. —*Journal abstract*

8295. Darbellay, Donna W. & Winocur, Gordon. (Hope-Waddell Training Inst., Calbar, Nigeria) **Electroconvulsive shock, stress, and avoidance conditioning.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 46-47. —Assigned 63 naive male Wistar rats to 1 of 3 treatments: (a) 10 ECS treatments paired with a light CS, (b) 10 unpaired ECS treatments, and (c) no ECS. 7 Ss in each group were then assigned to light, tone, or no CS conditions for purposes of avoidance conditioning. Results show that ECS groups failed to show normal weight gain, while exhibiting greater amounts of urination and defecation during treatment. ECS-treated Ss also required a greater number of trials to reach criterion on the avoidance problem, an effect which was not related to specific CS pairing. It is concluded that the stressful effects of ECS were persistent and disruptive enough to restrict new learning in an aversive situation. —*Journal abstract*

8296. Fanardzhyan, V. V. & Papoyan, E. V. (Orbeli Inst. of Physiology, Erevan, USSR) **Elektrofiziologicheski analiz pishchedobivatel'nykh uslovykh reflektsov, obrazovannykh na razdrzhenie yader mozghechka**

u koshek. [Electrophysiological analysis of food-procuring conditioned reflexes, formed in response to stimulation of the cerebellar nuclei in cats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 982-991. —11 Ss were used to study food-procuring CRs formed in response to electrostimulation (6-8 and 300 impulses/sec) of the central cerebellar nuclei as CS. After elaboration of a well-stabilized positive CR, the recruitment potentials recorded in the cerebral cortex in response to low-frequency stimulation of the dentate or intermediate cerebellar nuclei, was rendered more complex by the addition of new components. When low-frequency stimulation of the same nuclei was utilized as a differential stimulus, the recruitment potentials recorded in the elaborated differentiation stage exhibited their initial form. The formation of positive and differential CRs to stimulation of the fastigial dentate and intermediate cerebellar nuclei along with subsequent double alteration of the signal significance of the CSs, is evidence for (a) the primary inhibitory influence of the cerebellum on the cerebral cortex through the nonspecific thalamic nuclei, and (b) its activating action on the cortex through the brainstem reticular formation. (English summary) (23 ref.) —J. D. London.

8297. Fishbein, William; McCaugh, James L., & Swarz, Jeffrey R. (City Coll., City U., New York) **Retrograde amnesia: Electroconvulsive shock effects after termination of rapid eye movement sleep deprivation.** *Science*, 1971(Apr), Vol. 172(3978), 80-82. —Results of an experiment with 226 naive Swiss Webster mice indicate that Ss that were deprived of REM sleep for 2 days immediately after 1-trial training in an inhibitory avoidance task, and given ECS after deprivation, displayed retrograde amnesia on a retention test given 24 hr later. ECS produced no amnesia in comparable groups of Ss that were not deprived of REM sleep. —*Journal abstract*

8298. Koffler, Sandra P. (Yeshiva U.) **The diencephalon of the amphibian brain: A neurobehavioral study.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5667.

8299. Kozlovskaya, M. M. & Val'dman, A. V. (1st Medical Inst., Leningrad, USSR) **Povedencheskie i elektroentsefalograficheskie reaktsii, vyzvannye stimulyatsiei medial'noi i lateral'noi septal'nykh zon krolika.** [Behavioral and electroencephalographic reactions, evoked by stimulation of the medial and lateral septal zones in the rabbit.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1022-1030. —32 Ss with chronically implanted electrodes were used to study the functional role of different parts of the septum by local electrostimulation of single nuclear structures and recordings of the behavioral and bioelectrical reactions arising with the gradual increase of stimulation. 2 radically different types of behavioral changes emerged: 3-min stimulation of the medial septal nuclei was accompanied by a "depression," characterized by a decrease in emotional reactivity, a decline of muscular tonus, and a reduced respiratory rate. Stimulation of the lateral septal nuclei caused "tension," manifested in an increase in muscular tonus and quickened respiration without depression of emotional behavior. During the development of "depression," both in the surface and deep structures of the brain, slow rhythmic high-voltage waves predominated. These waves were retained for several min. after stimulation was terminated. "Tension"

conditioning the rabbit nictitating membrane response. Results with 60 albino rabbits indicate that a 3 ma. ICCS could serve as a CS but elicited more nonassociative responding than an externally presented CS. Intensities of the ICCS as low as 17 ma. were found to be functionally little different from the 3 ma. ICCS while a .037 ma. CS produced significant levels of conditioned responding with few nonassociative responses. A .005 ma. CS appeared to be at or slightly below behavioral threshold. The adaptation level theory of CS intensity effects is partially supported by comparisons of within- and between-S effects. *Journal abstract*

8306. Putkonen, Pekka I. & Putkonen, Anna R. (U. Helsinki, Inst. of Physiology, Finland) **Suppression of paradoxical sleep (PS) following hypothalamic defence reactions in cats during normal conditions and recovery from PS deprivation.** *Brain Research*, 1971(Vol. 26(2)), 333-347.—Applied intermittent electrical stimulation of a lateral hypothalamic defense area in 7 chronically implanted cats for 5 hr in 10 experiments in normal laboratory conditions and in 7 experiments following a 3-day paradoxical sleep (PS) deprivation. After the defense sequence the states of vigilance were quantitatively recorded for 15-24 hr and compared with previously obtained controls from the same Ss. A significant reduction of PS was obtained in normal conditions (37% below 15-hr controls) and after PS deprivation (33% below 24-hr controls). The changes in wakefulness or slow-wave sleep were short lasting or insignificant. A well-established consequence of the type of stimulation used is a considerable drop in brain norepinephrine (NE) with little other effect on cerebral metabolites so far studied. Results are discussed in connection with the norepinephrine hypothesis of the control of emotional state and PS. The interpretation of the results favors the notion that NE is involved in the tonic phenomena of PS. (42 ref.) *Journal summary*

8307. Rossi, Ronald R., Brunner, Robert L., & Stutz, Robert M. (U. Cincinnati) **FS-ESB interaction rejected: A reply to Schwartzbaum and Gustafson.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 16.—Presents a reply to the criticism offered by J. Schwartzbaum and J. Gustafson (see PA, Vol. 44 20205) on a study by R. Brunner, R. Rossi, R. Stutz, and T. Roth (see PA, Vol. 44-9810). Schwartzbaum and Gustafson maintained that cross-talk between foot shock and electrical stimulation of the brain may have constituted an electrical artifact and could have accounted for the finding of retrograde amnesia. Procedures taken to prevent this artifact are reported. S. Knapp

8308. Sheard, Michael H. & Zolovick, Andrew J. (Yale U., Medical School) **Serotonin: Release in cat brain and cerebrospinal fluid on stimulation of midbrain raphe.** *Brain Research*, 1971(Vol. 26(2)), 455-458.—The effects of stimulation of the midbrain raphe in 12 male and 18 female cats, show that an increase of 5-hydroxyindoleacetic acid (5-HIAA) found in the brain and cerebrospinal fluid (CSF) correlates with specific electrode placements in the midbrain raphe region. This finding is considered to be further evidence that serotonin may "be released from specific nerve endings then broken down to 5-HIAA which subsequently diffuses into the CSF." (19 ref.)—P. Hertzberg

8309. Teyler, T. J., Roemer, R. A., & Thompson, R. F. (U. California, Irvine) **Relations between gross and unit evoked activity in pericruciate cortex of cat.**

Physiology & Behavior, 1971(Apr), Vol. 6(4), 329.—Studied simple and multiple units, both cell origin of pericruciate tract (PT), and unidentified units, relation to the evoked gross evoked potential to pericruciate stimulation in pericruciate association cortex of polymodal cats. Both PT and non-PT cells were duration on PT cells generate a near mirror image of initial component of the evoked association potential. Spike height analysis on multiple unit data show small and large units had the highest probability of firing on the maximum negative slope and maximum negativity, respectively, of the evoked potential. (2 ref.) *Journal abstract*

8310. Woodworth, Carol H. (U. Minnesota) **Attack elicited in rats by electrical stimulation of the lateral hypothalamus.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 345-351.—Elicited attack in 97 normally non-aggressive male Long-Evans rats by electrical stimulation of 53 points in the ventrolateral hypothalamus. Attack specifically tests disclosed (a) that live mice, dead mice, and juvenile rat pups were attacked with significantly greater frequency, shorter latency, and longer duration than adult rats of either sex or guinea pigs; (b) that attacks on live mice were more persistent than on dead mice. There was no evidence for olfactory inhibition of attack on rat pups. 10 out of 12 attack electrodes supported self-stimulation. Attack, alarm and an oral response group were elicited from anatomically differentiated areas. Results support the hypothesis that hypothalamic motivational responses are produced by multiple overlapping substrates, and not by a single undifferentiated substrate. (41 ref.) *Journal abstract*

ELECTRICAL ACTIVITY

8311. Adey, W. Ross. (U. California, Los Angeles) **Slow electrical phenomena in the central nervous system.** *Neurosciences Research Program Bulletin*, 1969(May), Vol. 7(2), 75-180.—Includes 15 short reports of a work session on slow electrical phenomena, which are defined to include perturbations in neuronal and neuroglia membrane potentials, and gradients that can be measured across domains of cerebral tissue. Reports are grouped under 4 headings: (a) correlates of cortical steady potentials, (b) substrates of electrical activity, (c) dendritic and other regional neuronal potentials, and (d) neural correlates of EEG wave activity. (18 p. ref.)—B. Preilowski

8312. Bloom, Floyd E., Iversen, Leslie L., & Schmitt, Francis O. (National Inst. of Mental Health, Lab. of Neuropharmacology, Washington, D.C.) **Macromolecules in synaptic function: A report based on an NRP work session.** *Neurosciences Research Program Bulletin*, 1970(Sep), Vol. 8(4), 325-455.—The work session was organized to discover whether there is hard evidence supporting the view that synaptic transmission involves not only small-molecule transmitters but also modulation or control of neuronal activity through release of macromolecules, or possibly through interaction of released material with macromolecules fixed in the synaptic structure. During the session the current directions of research on synaptic functions were examined by studying the various roles in which macromolecules might participate. The 4 main topics considered were: (a) ultrastructure, (b) storage and release mechanisms, (c) postsynaptic macromolecules.

and (d) transmitter regulation of postsynaptic metabolism. (26 p. ref.)—*U. Preilowski.*

8313. Boggan, William O., Freedman, Daniel X., Lovell, Richard A., & Schlesinger, Kurt. (U. Chicago) **Studies in audiogenic seizure susceptibility.** *Psychopharmacologia*, 1971, Vol. 20(1), 48-56.—Describes 2 experiments in which a genetically heterogeneous (HS) group of mice and a highly inbred strain of mice (C57BL/6) became highly susceptible to audiogenic seizures after exposure to acoustic stimulation (priming). In heterogeneous Ss the optimal age for priming was 18 days with a test-retest interval of 48 hr. The optimal test-retest interval in C57BL/6 Ss, primed at 20 days of age, was 8 days. 1 sec. of priming was found effective in enhancing seizure susceptibility. Drugs known to alter steady state levels of biogenic amines and to change responses of mice genetically predisposed to audiogenic seizures were found to be effective in altering seizure susceptibility from priming, but not effective in altering the priming itself.—*Journal abstract.*

8314. Carmeliet, J., Debecker, J., & Desmedt, John E. (U. Brussels, Brain Research Unit, Belgium) **A random interval generator using beta ray emission.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 354-356.—Describes a solid state generator of random intervals, based on a beta ray emitter. The instrument provides for independent control of the minimal interval between successive output pulses and of the dispersion of the random intervals. Uses of the generator for delivering sensory stimuli at random intervals or in random sequences are described. (French summary)—*Journal summary.*

8315. Glebova, N. F. & Danilova, L. I. (Petrozavodsk State U., USSR) **Vliyaniye perifericheskoi termoretseptsil na elektricheskuyu aktivnost' perednego gipotalamusa.** [Influence of peripheral thermoreception on electrical activity of the anterior hypothalamus.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1433-1437.—Urethanized rabbits were used to study the steady polarized potentials and summated electrical activity of the medial preoptic area of the anterior hypothalamus when the thermoreceptors of the skin and subcutaneous vessels were stimulated and the temperature of the brain remained unchanged. It was established that perfusion of the humorally isolated subcutaneous thoracic vein with the warm Ringer-Locke solution produced an increase in the electropositive character of the steady polarized potentials and synchronization of the electrohypothalamogram of the anterior hypothalamus. Perfusion of the vein with a cool solution produced a decrease in the positive value of the potential and desynchronization in the electrohypothalamogram. Placement of hot water bottle on the back induced a growth of electropositeness in the medial preoptic steady polarized potentials. (English summary) (17 ref.)—*I. D. London.*

8316. Goodman, David A. (U. California, Irvine) **Some brain reflexes of Necturus maculosus, the mud puppy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5712.

8317. Hollis, John H. (U. Kansas, Parsons Research Center) **Effects of stimulus frequency on habituation: Patellar reflex.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 467-468.—Studied habituation and recovery of the patellar reflex in a 41-yr-old male human as a function of stimulus frequency, ranging from 10-60/min. Habituation occurred more rapidly and response decrement was greatest for higher frequencies with decline in amplitude

linear over much of its course. The decline in response amplitude was more pronounced for measures of force than for EMG.—*Journal abstract.*

8318. Lieblisch, Israel. (Hebrew U., Jerusalem, Israel) **Note on Thysell's "Reaction time of single motor units."** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 152.—Suggests that the lower mode reported in a study by R. V. Thysell (see PA, Vol. 44:3235) may represent the orienting response manifested by the single motor units to the onset of the reaction light. Internal data analysis is suggested to clarify whether the lower mode of the RT distributions was generated by responses, some of which have the character of the orienting response.—*P. Hertzberg.*

8319. Liesiene, V. (Kaunas Medical Inst., USSR) **Razlichie vysokochastotnoi chastli EKOg vo vremya fiziologicheskogo sna i bodrstvovaniya.** [Different high-frequency parts of the ECoG during physiological sleep and when awake.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1093-1095. 12 unrestrained cats were Ss in a study of: (a) average frequency of extrema in the electrocorticogram during rapid sleep, slow sleep, and when awake; and (b) the changes in average amplitude for the whole electrocorticogram spectrum. The results showed that differences in physiological states, as revealed in the average frequency of extrema, were related to changes in the activity of cortical neurons. This finding was confirmed by the direct data on neuronal activity in rapid and slow sleep, and the awake state in the visual and temporal cortex as well as in the lateral geniculate body and reticular formation. In the latter cases the average frequency of neuronal discharges changed parallel with the changes in the average frequency of extrema. *I. D. London.*

8320. Marczynski, T. J., Hackett, J. T., Sherry, C. J., & Allen, Sharon L. (U. Illinois, Medical Center, Chicago) **Diffuse light input and quality of reward determine the occurrence of "reward contingent positive variation" (RCPV) in cat.** *Brain Research*, 1971, Vol. 28(1), 57-70.—Investigated the effect of unpatterned light input on electrocorticogram patterns and epicortical light input on electrocorticogram patterns and epicortical steady potentials in cats trained to press a lever for milk reward. High voltage (120-200 μ V) bursts of postreinforcement synchronization with an average frequency of 7.8 cps were associated with epicortical positive steady potential shift, termed "reward contingent positive variation" (RCPV) and appeared over the striate, parastriate, and association cortex only in the presence of light in the test chamber, even though the Ss were trained without light. Visual perception of reward was not necessary for the occurrence of the postreinforcement synchronization, RCPV phenomena. It is postulated that diffuse light input supplies the "electromotive energy" for inhibitory mechanisms in cortical regions involved in processing of both visual and nonvisual input. (38 ref.) *Journal summary.*

8321. Mass, A. M. & Smirnov, G. D. (USSR Academy of Science, Inst. of Evolutionary Morphology & Ecology of Animals, Moscow) **Uchastie nespetlicheskoi sistemy stvola mozga i talamusa v kortikotalamicheskih vliyaniyakh.** [On the participation of talamic system of the brain stem and thalamus in the unspecific system of the brain stem and thalamus in the cortico-thalamic influences.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1673-1681. Recorded the slow negative wave in the lateral geniculate body and optic tract after stimulation of all dorsal cortical areas

just as after stimulation of the brainstem reticular formation and unspecific thalamic nuclei 1 rabbit anesthetized rabbits served as Ss. The investigation into the ways for initiation of this phenomenon suggest that the unspecific thalamic nuclei acted as a relay point for influences on the lateral geniculate body from the cortex and the brainstem reticular formation. (40 ref.)—*Journal summary*.

8322. Mayor, Huntington & Shiozawa, Ryochi. (Medical Center Hosp., DeGoesbrand Unit, Barrington, Vt.) **Antidromic digital and palmar nerve action potentials.** *Electroencephalography & Clinical Neurophysiology* 1971(Mar), Vol. 30(3), 210-221.—Measured the conduction velocities of antidromically propagated digital nerve action potentials along 2 segments of the arm for the median nerve in 21 normal Ss and for the ulnar nerve in 13 of these Ss. A proximal-distal gradient in conduction velocity with higher values for the more proximal nerve segment was observed. There was a significant decrease in the amplitude of the potential with increasing age. On stimulation of the ulnar or median nerve in the arm and recording with high gain, short latency preceded concomitantly recorded muscle action potentials in normal Ss and in 2 patients with selective slowing of conduction in motor nerves. Evidence is presented that these potentials are neural in origin and that as recorded from surface electrodes, they are antidromically conducted afferent nerve action potentials. Their usefulness in the measurement of afferent fiber conduction in certain patients is emphasized. (French summary)—*Journal summary*.

8323. Mayers, Kathleen S., Robertson, Richard I., Rubel, Edwin W., & Thompson, Richard F. (U. California, Irvine) **Development of polysensory responses in association cortex of kitten.** *Science* 1971(Mar), Vol. 171(3975), 1038-1040.—Investigated sensory responsiveness of single neurons in posterior association cortex of 34 7-50 day old kittens. The percentage of trimodal cells (i.e., cells that respond to visual, auditory, and somesthetic stimulation) increased gradually until Day 50, when percentages of trimodally responsive cells approached the adult level. In the youngest Ss, cells were predominantly responsive to only visual stimulation. With maturation, responsiveness to auditory and then to somesthetic stimulation was observed in increasing percentages of cells. (23 ref.)—*Journal abstract*.

8324. Metz, A. M. (Humboldt U., Inst. for Psychophysiology, Berlin, E. Germany) **Änderungen der myoelektrischen Aktivität während eines sensorimotorischen Lernprozesses.** [Changes of the process.] *Zeitschrift für Psychologie*, 1970, Vol. 178(1-2), 51-88.—Presents an experimental analysis for determining the progression of a sensorimotor learning process. The importance of this subject results from practical problems of industrial and sports psychology, especially in the framework of problems concerning aptitude diagnostics. EMG is regarded as the appropriate method for recording motor efference. Changes in muscular activity dependent on training can be expected. The performance patterns in a sensorimotor learning process is related, as an external criterion, to the synchronously deviated bipolar EMG of the muscular groups sharing in the motion are analyzed. The corre-

lation between performance efficiency in the external criterion and the degree of distinction of the parameters of muscular activity is statistically significant. The changes of muscular activity conditioned by training are independent of the rate of motion and of the passive external force motion has to overcome. The decrease in the level of myoelectric activity is explained by a reduction of synergistic activity. The possibility of developing a method of aptitude diagnostics from the EMG analysis is suggested. (Russian summary) & (40 ref.)—*Journal summary*.

8325. Nicoll, R. A. (St. Elizabeths Hosp., Washington, D.C.) **Recurrent excitation of secondary olfactory neurons. A possible mechanism for signal amplification.** *Science* 1971(Feb), Vol. 171(3973), 824-826.—Results of experiments with rabbits indicate that secondary neurons of the olfactory bulb can be excited milliseconds after activation of neighboring secondary neurons by antidromic and orthodromic volleys. Recurrent excitation of secondary neurons are proposed to synapse with other secondary neurons, thus forming a direct recurrent excitatory pathway. Such a positive feedback system could strengthen the original input signal. (18 ref.)—*Journal abstract*.

8326. Satoh, Fuyohiko. (Aichi-Gakuin U., Nagoya, Japan) **Facilitation of the direct cortical response of the visual cortex in association with rapid eye movement during paradoxical sleep in the cat.** *Brain Research* 1971, Vol. 26(2), 415-419.—Tested the hypothesis that there might be changes in the positive (P) and negative (N) deflections of the direct cortical response (DCR) in the visual cortex during bursts of REM in paradoxical sleep. DCRs were recorded throughout the sleep-wakefulness cycle from the posterior lateral and posterior sigmoid gyri of 11 cats with chronically implanted electrodes. Results show a greater facilitation of N waves than of P-waves in the posterior lateral gyrus suggesting that more apical dendrites were facilitated than were neurons of deeper layers. (21 ref.)—*P. Hertzberg*.

8327. Schapiro, Shawn & Salas, Manuel. **Effects of age, light and sympathetic innervation on electrical activity on the rat pineal gland.** *Brain Research*, 1971, Vol. 28(1), 47-55.—The pineal gland of the adult rat exhibits low amplitude, high frequency spontaneous activity at about 13-22 cps with periodic bursts of 1-3 sec duration at 6-12 cps. A following response is seen after photic stimulation with white light at 2.5, 5, or 10 flashes/sec. Yellow, blue, and green light elicited essentially the same responses as white light, but the response to red light was much smaller. Superior cervical ganglionectomy did not abolish the following response but eye enucleation did. Spontaneous activity of the pineal gland could be seen in 13-day-old rats but the following response was not present until about Day 18. (23 ref.)—*Journal summary*.

8328. Shahani, Bhagwan. (Churchill Hosp., Oxford, England) **Flexor reflex afferent nerve fibres in man.** *Journal of Neurology, Neurosurgery & Psychiatry* 1970(Dec), Vol. 33(6), 786-791.—Identified flexor reflex afferent nerve fibers in the mixed peripheral nerve and afferent nerve fibers in the mixed peripheral nerve and measured their conduction velocity. 5 female and 2 male 14-49 yr old normal Ss were used. It was demonstrated that the flexor reflex afferent fibers have a higher threshold of stimulation than the motor fibers supplying the foot muscles. The effect of conditioning volleys in the flexor reflex afferent fibers on the H reflex has been

determined and reciprocal inhibition of extensor motoneurons has been found to be related to the 2nd component of the flexor reflex. (23 ref.)—*Journal abstract.*

8329. Shimoji, K., Higashi, H., & Kano, T. (Kumamoto U., Medical School, Japan) **Epidural recording of spinal electrogram in man.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 236-239.—Describes a safe, simple method of recording human spinal electrogram. The method is based on established techniques for administering epidural anesthesia. Application of the technique to the diagnosis of human spinal diseases and to physiological and pharmacological studies of the human nervous system are discussed. (French summary)—*Journal summary.*

8330. Shlayfer, T. P. & Yakovleva, M. I. (USSR Academy of Medical Sciences, Inst. of Experimental Medicine, Leningrad) **Neironnaya aktivnost' somatosensornoi oblasti kory golovno mozga krysa, podvergnutykh vozdeistviyu staticheskikh elektricheskikh polei.** [Single unit activity in the somatosensory cortex of rats under influence of static electric fields.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1689-1693.—Exposed a control and an experimental group of albino rats to repeated action of static electric fields (5-6 hr. daily during 5-6 days, of the 400 V/cm). The background firing rate of the somatosensory neurons in the Ss (5 ± 0.09 cps as compared with 15 ± 2 cps initially) decreased. The neuron responses to sound and tactile stimuli decreased, however, the number of responding neurons increased. The afterdischarge frequency recovered more slowly.—*Journal summary.*

8331. Steriade, M., Apostol, V., & Oakson, G. (U. Laval, Medical School, Montreal, Quebec, Canada) **Clustered firing in the cerebello-thalamic pathway during synchronized sleep.** *Brain Research*, 1971, Vol. 26(2), 425-432. Reports a series of experiments "on changes in spontaneous and evoked unit activity in the thalamic motor relay (ventrolateral-VL-nucleus) at different levels of vigilance," using adult cats as Ss. To find out whether (a) "clustered firing may occur during sleep also in the cerebellar output, supplying the main group of afferences to the VL nucleus," and (b) "whether cerebellar spike bursting could be responsible for the VL clustered firing seen during synchronized sleep," single units in deep cerebellar nuclei were recorded to study their alterations during slow sleep and waking. The VL patterns of discharge following interruption of cerebello-thalamic projections were also recorded. "High-frequency spikes and superimposition of the burst on a depolarizing wave subsequent to slow positive shifts suggest that VL clusters follow long-lasting inhibitory periods." Conversely, "firing patterns of neurons in deep cerebellar nuclei do not seem to represent an effect of inhibitory cortico-nuclear projections." (18 ref.)—P. Herzberg.

8332. Stevens, S. S. (Harvard U.) **Neural events and the psychophysical law.** *Science*, 1970(Dec), Vol. 170(3962), 1043-1050. Reviews studies that examine factors that mediate sensory intensity. The question is examined as to the extent to which measured quantities of neural activity manifest an invariance similar to that in psychophysics, which states that equal stimulus ratios produce equal sensation ratios. Studies from vision, audition, cortical potentials, and the taste nerve are

reviewed. It is felt that power functions like those that govern subjective magnitude may show themselves in neuroelectric effects. It is concluded that neuroelectric power functions demonstrate a capability, i.e., that sensory systems are capable of power-function transformations, although the precise role of the transformations remains to be determined. (33 ref.)—P. McMillan.

8333. Thysell, Richard V. (U. Waterloo, Ontario, Canada) **Reply to Lieblisch's note.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 153-154.—R. V. Thysell (see PA, Vol. 44:3235) reported bimodal simple RT distributions of single motor units to light I. Lieblisch's (see PA, Vol. 46:Issue 5) suggestion that the lower mode of the distributions (at the interval 150-174 msec.) reflects the orienting response of the units was not supported by analysis. However, the hypothesis was not completely discredited, for the orienting response may occur as a function of the sequential relationships between ITIs.—*Journal abstract.*

8334. Walter, Donald O. (U. California, Brain Research Inst., Los Angeles) **Two approximations to the median evoked response.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 246-247.—Suggests and illustrates a method of approximating median evoked responses, which does not require large storage or computation facilities. (French summary)—*Journal summary.*

8335. Zenkin, G. M. & Pigarev, I. N. (USSR Academy of Sciences, Inst. of Information-Transmission Problems, Moscow) **Metodika issledovaniya ganglioznykh kletok setchatki i neironov mozga u ryb v usloviyakh svobodnogo plavaniya.** [A method for studying the retina ganglionar cells and the brain neurons in the fish during free swimming.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1859-1861. Employed a method which involved a manipulator device equipped with microelectrodes which were operationally introduced into the cranium of a pike kept in a fixed position. The microelectrodes were adjusted to a position of just touching the visual tract. Under conditions of free swimming it was possible to observe the reactions of elements being recorded to immovable stimuli put in their field of vision. The variables were (a) sizes of the receptive field, (b) preferential stimuli for any particular elements, and (c) type of response to various stimuli. Results reveal that the type of response for the state of immunity is the same as when the S is allowed free swimming.—I. Halev.

Electroencephalography & Evoked Potentials

8336. Airapet'yants, E. Sh. & Vasil'ev, A. G. (Leningrad U., Chair of Higher Nervous Activity, USSR) **Kharakteristika vyzvannykh potentsialov slukhovogo analizatora letuchikh myshel na stimuly s raznoi chastotoi zapoineniya.** [The characteristics of the evoked responses in the auditory system of bats to the evoked responses in the auditory system of bats to the ultrasonic stimuli of different fill frequency.] *Fiziologicheskii Zhurnal USSR*, 1970(Dec), Vol. 56(12), 1721-1730.—Investigated electrical activity and single unit activity of the cochlear nucleus, inferior colliculus, medial geniculate body, and auditory cortex. The maximum sensitivity to ultrasonic stimuli in *Myotis* *otis* (Vespertilionidae bat with frequency modulation-echolocation sounds) was discovered at frequencies which are contained in the echolocation cry. The

thresholds in *Rhinolophus ferrum equinum* (*Rhinolophidae* bats) in 80 kcps frequency band. Being the echolocation frequency—were 15–30 db more than those in adjacent frequencies. The response areas of single neurons in both species were similar to those observed in mammals at corresponding levels. However, results reveal some peculiarities in single unit activity in *Rhinolophidae* connected with the character of echolocation sounds. In particular, the most narrow response areas are discovered within 80–90 kcps frequency band and the number of these neurons increases up to the auditory cortex (18 ref.)—*Journal summary*.

8337 Andreeva, V. N., Baltay, A., & Kratin, Yu. G. (Pavlov Inst. of Physiology, Leningrad, USSR). *Osobennosti elektricheskikh reaktsii mozga i povedeniya koshki pri posledovatel'nom tormozhenii posle tonkikh differentsirovok*. [Features of the cerebral electrical reactions and cat behavior resulting from successive inhibition after fine differentiations.] *Zhurnal Vysshego Nervnogo Deystviya* 1970(Sep) Vol. 20(1), 1079-1082.—4 cats with chronically implanted electrodes were used to study (a) the characteristics of the EEG for successive inhibition resulting from fine differentiation, and (b) the mechanism for the emergence of this form of inhibition. Positive and inhibitory motor-alimentary CRs were elaborated to tones of various frequencies. The afteraction following upon the processes of fine differentiation, was shown to be very dynamic, with the relationship between the excitatory and inhibitory processes constantly developing and continuously changing as differentiations stabilized. The data demonstrated the coexistence in the same reflex arc of the excitatory and inhibitory processes, operative in various parts thereof. The observed development of deeper successive inhibition is held to be probably due not only to the inertness of the inhibitory process, but also to the mechanism of negative generalization. 1 D. London.

8338 Barnett, T. P., et al. (Westinghouse Electric Corp., Annapolis, Md.) *Bispectrum analysis of electroencephalogram signals during waking and sleeping*. *Science*, 1971(Apr), Vol. 172(3981), 401-402.—In an experiment with 8 male 17–20 yr old Ss the degree of interaction of component waves making up a single EEG trace was strongly correlated with alpha activity, lead placement, and state of consciousness. Significant quadratic coupling of the waves was found only for awake Ss with high alpha activity. For these Ss about 50% of beta activity can be attributed to harmonic coupling with the alpha peak. During sleep, the degree of interaction was of borderline significance and did not follow a consistent pattern with respect to S, frequency, state, or lead.—*Journal abstract*.

8339 Boddy, John. (U. Manchester, England) *The relationship of reaction time to brain wave period: A re-evaluation*. *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 229-235.—Attempted to reproduce the correlations found by W. Surwillo (see PA, Vol. 37-7664) between RT and EEG wave modalities, and period analysis paradigms. In Exp. 1, a representative mean alpha period (from temporal and occipital derivations) was obtained for each of 12 female Ss. Interindividual correlations between each of 12 female period and visual RT were not significant when recorded under conditions of high incentive. Even lower correlations were obtained in another group of 15 male and 5

female Ss. In Exp. II, mean values of the EEG period were determined for 15 male and 5 female Ss immediately preceding each RT stimulus. The inter- and intraindividual correlations between EEG period and RT were not significant for auditory and visual RTs in both experiments. Surwillo's findings were not reproduced. Possibly sources for the discrepancies are discussed. (1 summary) (27 ref.)—*Journal summary*.

8340 Bourne, J. R., Childers, D. G., & Perry, N. J. (Vanderbilt U.) *Topological characteristics of the visual evoked response in man*. *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(4), 423-436.—Studied the characteristics of the visually evoked responses (VERs) recorded from multiple electrode arrays at the occipital scalp of 5 normal Ss by means of a spatial-temporal mapping technique. Waveforms obtained from different spatial recording locations displayed different characteristics. These characteristics were analyzed simultaneously by construction of a spatiotemporal map which allowed simplified temporal observation of the evoked set of wave forms. The temporal variation of the spatial potential gradient defined by the summated VER appeared to have a rotational tendency. Groups of potentials appeared over large areas of the occipital scalp and rotated after presentation of a light stimulus, suggesting that underlying neuronal populations may have been firing asynchronously. 2 major sources are postulated that account for the prominent features of the spatially recorded VER. (French summary) (46 ref.)—*Journal summary*.

8341 Campeau, E., et al. (U. California Brain Research Inst., Los Angeles) *EEG discriminators of delayed matching to sample performance in Macaca nemestrina*. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 413-418.—Tested 8 Macaca nemestrina monkeys chronically implanted with cortical limbic, and diencephalic EEG electrodes on a delayed matching-to-sample task. EEGs recorded during task periods were analyzed for coherence values as consistent concomitants of performance. The coherence values associated with correct responses were generally higher than those for incorrect responses in the frequency bands 1–3, 3–4, 5–7 and 8–13 Hz. It is suggested that higher coherences occur throughout critical trial epochs associated with successful or rewarded behavioral responding and that the occurrence of these elevated coherences may be necessary for optimal or rewarded performance. (25 ref.)—*Journal abstract*.

8342 Cohn, Robert. (5530 Wisconsin Ave., Chevy Chase, Md.) *Differential cerebral processing of noise and verbal stimuli*. *Science*, 1971(May), Vol. 172(3938), 599-601.—Psychophysiological measurements have indicated that the right cerebral hemisphere processes noises and other nonverbal data and that the left processes verbal material. Results of a study with 37 Ss with clinically normal auditory acuity, indicate that direct physiological measurements, as expressed in summated auditory evoked cortical responses, demonstrate that click noises show a greater amplitude of initial output over the right brain, and that verbal stimuli produce either equal or higher amplitudes of output over the left cerebral hemisphere.—*Journal abstract*.

8343 Doroshenko, V. A. (Leningrad State U., USSR) *Primeneniye analogovykh vychislitel'nykh mashin dlya analiza elektroentsefalogrammy*. [The use of analog computers for electroencephalographic analysis.] *Nervnaya Sistema*, 1969(Dec), No. 10, 192-196.—Presents

a technical discussion of the advantages of using the analogue computer in the analytic treatment of the EEG.—I. D. London.

8344. **Dumenko, V. N.** (Bogomolets Inst. of Physiology, Kiev, USSR) **Otrazhenie v EEG sobak razlichnogo funktsional'nogo sostoyaniya kory golovnogo mozga.** [Reflection of different functional states of the cerebral cortex in the EEG of dogs.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 992-999.—3 Ss were used to study EEG changes with different functional states of the cerebral cortex: the arousal reaction and the orienting reaction during the elaboration of CRs (1 S, motor-defensive CR; 2 Ss, food-procuring CR). Different degrees of activation characterized the electrographic features of the arousal and orienting reactions, emphasizing the dissimilarity of the functional states of the cerebral cortex. The generalized character of activation during the 2 reactions embraced synchronization of potential oscillations covering all parts of the cortex. Therefore, in any electrographic evaluation of different functional states of the cortex, it is held necessary to consider not only changes in amplitude and frequency of electrical activity, but also the character of the interrelationships between the different cortical regions. It is necessary to distinguish this generalized short-term synchronization from the long-sustained selective synchronization observed in the formation of a dynamic stereotype. (English summary) (25 ref.)—I. D. London.

8345. **Fanardzhyan, V. V. & Kazaryan, L. L.** (Orbeli Inst. of Physiology, Erevan, USSR) **Vyzvannye potentsialy kory mozzhechka koshki v khronicheskom éksperimente.** [Evoked potentials in the cat cerebellar cortex in chronic experiment.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1360-1368.—18 unrestrained cats, each with 14 epidurally implanted electrodes in the cerebellar cortex, were used to study cerebellar cortex evoked potentials in response to light flashes, clicks, and electrodermal stimulation of the limbs under the conditions of chronic experiment. It was shown that cerebellar cortex evoked potentials in response to peripheral stimulation were basically different in form and topography of distribution from those recorded in the acute experiment. They consisted of a wave, whose main part was formed by an initial large negative wave, a subsequent positive one of lesser amplitude and longer duration, and a weakly expressed 2nd negative deviation. Analysis of the component-composition of the evoked potentials showed that the initial negative wave was due to cerebellar cortex neuronal activation by the mossy fibers, while the positive wave with the succeeding negative deviation resulted from the influence of impulsion from the climbing fibers on the cerebellar cortex neuronal elements. In normal Ss the afferent systems enjoy wide representation, embracing all the cerebellar cortex areas without limitation in zones determined under the conditions of acute experiment. (English summary) (30 ref.)—I. D. London.

8346. **Frid, G. M.** (Inst. of Child & Adolescent Physiology, Moscow, USSR) **Vliyaniye orientirovochnoi reaktsii na zritel'nye vyzvannye potentsialy v EEG detei shkol'nogo vozrasta.** [Influence of the orienting reaction on visual evoked potentials in the EEG of schoolchildren.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1016-1021.—70 7-15 yr. old Ss participated in a study of the role of the orienting

reaction to sound in the perception of sensory information, utilizing evoked potentials to a light flash in the occipital, parietal, central, and frontal areas of the cerebral cortex. Recordings were made of the EEG and autonomic components of the orienting reaction. Against a background of quiet wakefulness the effect of the reaction was shown to consist in facilitating evoked potentials by increasing the amplitude and shortening the peak latency of their initial components. Stable responses with short latency appeared beyond the borders of the projection zone along with intensification of secondary oscillations, expressed with especial distinctness in the frontal area. Superimposing a "foreign stimulus" on the working state of the higher nervous centers produced a generalized suppression of evoked potentials in all recordings along with the retention of early components in the visual area. It is concluded that the influence of the orienting reaction on visual evoked potentials is not uniform and is determined to a considerable extent by the initial functional state of the cortical apparatus. (English summary) (16 ref.) I. D. London.

8347. **Fruhstorfer, H.** (U. Marburg, Inst. of Physiology, W. Germany) **Habituation and dishabituation of the human vertex response.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 306-312.—Studied habituation and dishabituation of the vertex response in 5 human Ss who received short trains of auditory (C) or somatosensory (S) stimuli. Both C and S stimulation resulted in rapid habituation of the vertex response. Simultaneously, stimulus generalization developed across these 2 modalities as the heteromodal stimulus in a train evoked a response whose latencies and amplitudes had values lying between those observed in the habituated and the nonhabituated responses to the same stimulus. From neither modality could dishabituation be elicited in the other. Findings are explained by the assumption that auditory and somatosensory information converge in a subcortical center and ascend in a common corticopetal pathway. Results support the hypothesis that the vertex response is mediated by an extralemniscal system. (German summary) (22 ref.)—Journal summary.

8348. **Funakoshi, M. & Kawamura, Y.** (Osaka U., Dental School, Japan) **Summated cerebral evoked responses to taste stimuli in man.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 205-209.—Recorded the evoked cortical responses to taste solutions applied to the tongue surface of 5 waking adults. Responses were characterized by 2 positive waves with onset latencies of approximately 150 msec. and 500-1500 msec. The early wave was due to mechanical stimulation resulting from pouring the solution on the tongue surface, while the late wave was the gustatory response. Significant gustatory responses were found for acid and salt solutions, but not for sucrose or quinine hydrochloride. Results are discussed in terms of localized taste receptors. (French summary)—Journal summary.

8349. **Fuster, Joaquin M. & Uyeda, Arthur A.** (U. California, Brain Research Inst., Los Angeles) **Reactivity of limbic neurons of the monkey to appetitive and aversive signals.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 281-293.—Trained 6 male monkeys to press separate levers in response to visual stimuli for food or shock. 1 other S was untrained, and 1 trained S was subjected to extinction after a

number of recordings. After training limbic unit discharge and EEGs from limbic structures were recorded during performance. It was found that (a) spontaneous activity of limbic units was higher in the trained Ss, (b) over all units sampled from the amygdala, hippocampus, and parafornix cortex of trained Ss responded with changes of firing frequency to stimulus presentation with excitatory responses being more common than inhibitory responses, (c) reactivity of limbic units in magnitude and number of responses was higher in performing Ss, (d) more units responding differentially to the stimuli were found in the amygdala, and (e) limbic structure EEGs showed nonspecific reactions to the stimuli characterized by transition to frequencies higher than those in resting EEGs. Results suggest that integrative processing of significant sensory information takes place in successive stages proceeding from sensory systems through the inferior and mesial temporal cortex toward the hippocampus and the amygdala. (French summary) (35 ref.)—*Journal summary*

8350. Gale, Anthony; Coley, Michael, & Boyd, Elizabeth. (U. Exeter, England) Variation in visual input and the occipital EEG: II. *Psychonomic Science* 1971(Apr), Vol. 23(1B), 99-100. Replicated and extended the number of viewing conditions of a previous study by A. Gale & N. Dunkin and M. Coley (see PA Vol. 43 [10891]) which found that resting EEG varied with eyes closed, eyes open with matt black display, and patterned stimulation. The resting EEGs of 29 undergraduates were examined during exposure to 5 different conditions of visual stimulation: (a) eyes shut, (b) eyes open in the dark, (c) viewing a blank screen, (d) viewing a simple pattern, and (e) viewing a more complex pattern. Each condition was presented twice according to a random schedule (2 min trial). For alpha and beta frequencies, EEG amplitude varied inversely with ascending visual complexity. For theta frequencies, this relation held except for a reversal for Conditions d and e.—*Journal abstract*

8351. Genkin, A. A., Mordukhovich, E. F., & Bodrov, V. A. Srednii period spontannoi EEG kak kharakteristika nekotorykh svoistv vysshei nervnoi deyatel'nosti cheloveka. [Average period of spontaneous EEG as a characteristic of some properties of human higher nervous activity.] *Zhurnal Psich. i Nervn. Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1089-1092.—18-21 yr. old males were used to study the connection between (a) average period and average level of asymmetry of phase durations of spontaneous EEG oscillations, and (b) several psychophysiological characteristics (evaluated 6 mo prior to recording of the EEG). A correlational matrix was computed for 27 psychophysiological and 2 EEG indices. Various indices of human efficiency were affected differently by noise. Speed of informational analysis against a background of auditory noise was enhanced for most of the Ss, but in 2 it was diminished. The average period of spontaneous EEG was shown to be (a) an indicator of relatively stable properties of higher nervous activity, and (b) an important differential index of individual differences. Other findings are presented.—I. D. London.

8352. Golovchinskii, V. B., & Toman, P. S. Dinamika vyzvannykh potentsialov v somatosenzornoi sisteme. [On the dynamics of evoked potentials in the somatosensory system.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1337-1343.—Awake adult

cats in chronic and acute experiments (spontaneous and evoked potentials, respectively) were used to study the influence of (a) ether inhalation on (a) the threshold for the emergence of evoked potential, and (b) the restoration of evoked potential in the somatosensory cortex after deafferentation of the lateral nucleus of the thalamus when the paw was cut and electrically stimulated. It was discussed that the threshold for the emergence of evoked potential in the somatosensory cortical zone increased sharply from the very beginning of ether inhalation. In Stage I of general anesthesia the evoked potential was blocked completely. The curve of the restoratory cycle moved sharply downward and to the right; in Stage III a period of facilitation disappeared with a 100-msec interval. The threshold for the emergence of evoked potential in the thalamic relay nucleus changed comparatively little and the curve of the restoratory cycle moved somewhat downward. It is suggested that electroanesthetic effects from the inhibition of higher cortical functions connected with the analysis of sensory information. (English summary) (32 ref.)—*I. D. London*

8353. Hermann, Howard T. (Harvard Medical School, Boston, Mass.) Saccade correlated potentials in optic tectum and cerebellum of *Carassius auratus*. *Brain Research*, 1971, Vol. 26(2), 293-304.—In the encephalic zone goldfish (*Carassius auratus*), when recording in the dark-adapted state 50-200 msec. after the onset of a conjugate eye saccade, a predominately negative potential 150-200 msec. in duration, with peak amplitude ranging from 200-500 μ V, appears over the lateral surface of the optic tectum. Recording at successive depths, the negative wave decreases in amplitude, disappearing at a depth of \sim 500-750 μ m. A positive going potential emerges at depths of 1000-1250 μ m., whose peak corresponds in time to the superficial negative wave. The negative wave in the valvula. Potentials in the optic tectum evoked by saccadic eye movement in the light show shorter latency, more uniform, multiphasic waveform, and absence of detectable potentials in the surface to \sim 300 μ m. levels of the tectal layers. Stretch of the abducens eye muscle can produce a 5-10 msec. latency negative going wave in the contralateral tectum. Transection of all eye muscles of the globe reduces the amplitude of tectal saccadic evoked potential largely in the ipsilateral tectum, without change in waveform or timing. Also, saccadic movements of the opposite eye increase in amplitude. The midline valvula of the cerebellum exhibits a presaccadic, positive going 200-600 μ V slow wave. High amplitude slow potentials, starting before the saccade, occur 1200 μ m. beneath the valvula surface. Mechanical distortion of the globe failed to produce any of these phenomena. (21 ref.)—*Journal summary*

8354. Hillyard, Steven A., Squires, Kenneth C., Bauer, Jay W., & Lindsay, Peter H. (U. California, San Diego) Evoked potential correlates of auditory signal detection. *Science*, 1971(Jun), Vol. 172(3990), 1357-1360.—A long-latency component of the averaged evoked potential recorded from the human scalp varied in close relationship with 3 Ss' perceptual reports in an auditory signal detection task. Detected signals evoked potentials several times larger than did undetected signals, falsely reported signals, or correctly reported nonsignals. The threshold signal intensity at which detection performance exceeded chance levels was identical with concurrently obtained electrophysiological measures of threshold. (30 ref.)—*Journal abstract*

8355. Kondrat'eva, I. N., Korol'kova, T. A., Shul'gina,

G. I., & El'kina, G. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Izmeneniya impul'snykh reaktsii neuronov i vyzvannykh otvetov zritel'noi kory krolika pri vyrobke uslovnogo refleksa.** [Changes in impulse reactions of neurons and evoked responses in the visual cortex of the rabbit in elaboration of a conditioned reflex.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1000-1009.—Defensive CRs were elaborated in 10 Ss (CS was 6 flashes of light at the rate of 1/sec; UCS was 4 electroshocks to the paw). During the 1st combinations of the CS (5th and 6th flashes) with electroshock, a decrease occurred in the slow negative wave and subsequent components of the secondary response. After a number of combinations, the same weakening of the slow negative wave was observed at the 1st and 4th flashes of the CS (the last before reinforcement). After 50-90 combinations the impulse reactions of neurons were investigated. In $\frac{1}{2}$ the recorded cells different impulse reactions to the single flashes of the series were detected. Impulse reactions to the 1st and 4th flashes were similar to those observed in response to flashes applied simultaneously with electroshock—a sharp shortening of the inhibitory pause, often accompanied by a new burst of activity; for the 2nd and 3rd flashes the inhibitory pause was longer. In the remaining neurons electroshock did not change the response to the light flash, and the impulse reactions to all 6 flashes of the series were the same. Upon removal of reinforcement for the 1st, 4th, and the 2 last flashes, the inhibitory pause and the new burst of activity were retained over the next 5-10 applications of stimuli. Then gradual restoration of the inhibitory pause and the slow negative wave occurred together with the disappearance of the new burst of activity. The role of the midbrain reticular formation in the weakening of cortical inhibition and CR closure is discussed. (English summary) (17 ref.)—*I. D. London*.

8356. Maeda, M., Shimazu, H., & Shinoda, Y. (U. Tokyo, Medical School, Japan) **Inhibitory postsynaptic potentials in the abducens motoneurons associated with the quick relaxation phase of vestibular nystagmus.** *Brain Research*, 1971, Vol. 26(2), 420-424.—Reports a study with 38 cats in which intracellular recording was performed from abducens motoneurons during the generation of vestibular nystagmus. It is concluded that "the quick cessation of motor nerve discharges is attributable, not only to a reduction of the excitatory postsynaptic potential... but also to the production of the inhibitory postsynaptic potential... in the motoneuron." (17 ref.)—*P. Hertzberg*.

8357. Marczyński, T. J., et al. (U. Illinois, Medical Center, Chicago) **Steady potential correlates of positive reinforcement and sleep onset in the cat: "Reward contingent positive variation" (RCPV).** *Brain Research*, 1971, Vol. 26(2), 305-332.—Studied steady potential (SP) to elucidate electrocorticogram (ECOG) phenomena associated with positive reinforcement by investigating the time course and possible relationship between postreinforcement synchronization (PRS) phenomena and SP shifts. Using 9 adult cats with chronically implanted electrodes, kept on a 23-hr food and water deprivation schedule, the SP correlates of PRS were compared to those occurring during (a) non-rewarded lever press performance, and (b) sleep onset in rewarded lever press performance. The effects of changes in intensity of ambient light and in quality of food reward were also tested. PRS, as well as reward contingent positive variation and sleep onset positive variation phenomena were observed and

interpreted as processes subserving internal inhibition. (70 ref.)—*P. Hertzberg*.

8358. May, James G., Forbes, William B., & Piantanida, Thomas P. (Louisiana State U., New Orleans) **The visual evoked response obtained with an alternating barred pattern: Rate, spatial frequency and wave length.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 222-228.—Studied the averaged visual evoked responses (VERs) recorded from the occiput in 4 adult male experienced Ss. It was found that the amplitude and latency of the averaged VER was related to the rate of alternation and the spatial frequency of the alternating barred pattern used to elicit the responses. Amplitude was determined largely by the background illumination, while latency was unaffected. Changes in the area of the pattern resulted in amplitude decrements and latency increments, especially between 5 and 2° of visual angle subtended. Differences in the wave length of patterns photometrically equated for brightness did not result in significant differences in amplitude and latency. Results are related to the findings of previous studies using patterned stimulation. (French summary)—*Journal summary*.

8359. Mnukhina, R. S. & Polyakova, T. V. (Leningrad State U., USSR) **K voprosu o korrelyatsii mezhdu EEG i impul'snoi aktivnost'yu odinonnykh neuronov kory pri vyrobke uslovnnykh refleksov.** [On the correlation between the EEG and the impulse activity of single cortical neurons in the elaboration of conditioned reflexes.] *Nervnaya Sistema*, 1969(Dec), No. 10, 29-36.—Presents some results of research on the closure of conditioned connections at the neuronal level in chronic experiments with unanesthetized and nonimmobilized rabbits in order to gain further information as to whether a correlation exists between the EEG and the impulse activity of single neurons. A cardiac CR to 500- and 1000-cps tones was formed with inhalation of ammonia vapor as UCS. The impulse activity of single neurons in the auditory cortex at a depth of 900-1800 μ was recorded extracellularly. Stable spontaneous impulse activity was expressed in the form of monophasic negative or biphasic positive-negative potentials and reacted to an indifferent acoustic stimulus with either a quickening or slowing of impulsion. The data indicated that the lack of correlation, noted by so many researchers, between the summated EEG and the impulse discharges of neurons is only apparent, since it is difficult to record the potentials of just that neuron corresponding exactly to the part of the cortex from which the summated EEG is recorded. As a result of investigating both summated and single cellular activity of the cortex in the process of elaborating CRs, it is concluded that their characteristics coincide "a correlation not in a literal sense, but a correlation in essence in the broad sense of this word."—*I. D. London*.

8360. Nebylitsyn, V. D. & Bazylevich, T. F. (USSR Academy of Pedagogical Sciences, Inst. of General & Pedagogical Psychology, Moscow) **Vyzvannyye potentsial dvigatel'noi zony kory u cheloveka.** [Motivated potential in man.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1682-1688.—Electronic computer averaging technique made possible the extraction of motor evoked potential (MEP) of 12 adult males from their EEGs which is a characteristic sequence of negative and positive bioelectrical oscillations accompanying passive movements of muscular groups. Results reveal the main MEP negative component is

formed by the interaction of specific (proprioceptive) and unspecific (reticular) impulsations. The latter arrives to the cortex with some individually varying delay which underlies the "doubling" phenomenon of the main MEP negative component. Individual differences are also evident in the dynamics of the MEP components when the amplitude of muscular contraction increases.—*Journal summary.*

8361. Picton, T. W., Goodman, W. S., & Bryce, D. P. (U. Toronto, Ontario, Canada) **Amplitude of evoked responses to tones of high intensity.** *Acta Otolaryngologica*, 1970(Aug), Vol. 70(2), 77-82.—The amplitude of the human cortical evoked response increases in amplitude with increasing intensity of auditory stimulation. At intensities above 70 db. ISO, however, there is a decline in this relationship. This effect was examined in conjunction with stapedius reflexes and other factors in an attempt to determine its cause. The most probable explanation seems to involve the central descending auditory system. (German summary) (32 ref.)—*Journal abstract.*

8362. Saunders, James C. (Monash U., Clayton, Victoria, Australia) **Selective facilitation and inhibition of auditory and visual evoked responses during avoidance conditioning in cats.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 15-25.—Used escape procedures to shape a tilt-cage response that minimized motor activity in cats. Avoidance of shock was subsequently made contingent on a tilt response made in the presence of a visual or acoustic CS. The amplitude of sensory evoked responses was measured in 7 adult cats during acquisition of the avoidance behavior at peripheral (cochlear nucleus and optic chiasma) and central (auditory and visual cortex) regions of the primary auditory and visual pathway. Results indicate systematic changes in cortical evoked activity that were related to both the rate of avoidance acquisition and the behavioral significance of the stimulus. Similar changes were not observed at the peripheral sites. (23 ref.)—*Journal abstract.*

8363. Simernitskaya, E. G. **Izuchenie regulyatsii aktivnosti metodom vyzvannykh potentsialov.** [Study of the regulation of activity by the method of evoked potentials.] Moscow, USSR: Moscow U., 1970. 72 p.—Presents the results of research on activation, utilizing evoked potentials. It was established that states of activation are accompanied by an increase in the working level of the cerebral cortex, 1 of whose manifestations is desynchronization of cortical rhythm. It was shown that different forms of activity affect differently the character of cortical bioelectrical activity, so that the character of the spatial distribution of evoked-potential changes in the performance of different forms of activity is different. Data were procured on the prior recruitment of the occipito-parietal regions of the right hemisphere into the process of visual analysis. In the simplest forms of activity, involving the visual analyzer but not associated with any complex treatment of information, evoked-potential changes, coinciding in time with the perception of photic stimuli, were disclosed only in the right visual cortex. However, when appropriate verbal instructions were first given, evoked-potential changes were recorded also in the left cortex. A decrease was also noted in the latent periods of the secondary evoked-potential components in the right cortex (occipito-parietal and centro-frontal areas). Data

were also procured on the role of the frontal lobes in regulating the processes of activation and in supporting the selectivity of intended behavior. The relationships between evoked-potential parameters and pathological states in the cerebral tissues were explored and much of interest determined. (5 p. ref.)—*J. D. London.*

8364. Smith, D. B., Allison, T., Goff, W. R., & Principato, J. J. (U. Vermont, Medical School) **Human odorant evoked responses: Effects of trigeminal or olfactory deficit.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 313-317.—Investigated whether the odorant evoked response (OER) is due to stimulation of olfactory receptors, or of nasal trigeminal afferents in the nose. OER recording was carried out in 2 Ss with total facial hemianesthesia, in 1 S with unilateral loss of olfaction, and in 3 normal Ss following cocaine block of the olfactory area or block of all nasal mucosa excluding the olfactory area. Stimulation was unilateral. In all Ss normal OERs were recorded to stimulation of the normal nostril. Lack of trigeminal innervation resulted in abolition of the OER, whereas loss of olfactory function usually produced no OER change. The OER as recorded under these experimental conditions appeared to be evoked solely by stimulation of nasal trigeminal afferents. The problems involved in recording a human OER are discussed. (French summary)—*Journal summary.*

8365. Sudakow, Konstantin; MacLean, Paul D., Reeves, Alexander, & Marino, Raul. (National Inst. of Mental Health, Bethesda, Md.) **Unit study of exteroceptive inputs to claustrorortex in awake, sitting, squirrel monkey.** *Brain Research*, 1971, Vol. 28(1), 19-34. Responses to gustatory, somatic, auditory, and photic stimulation of more than 1,800 units located in the claustrorortex, the frontal and temporal opercula, the claustrum and elsewhere were observed. In the claustrorortex approximately 1/4 of 500 units responded to some form of sensory stimulation. Differences in the location of units responding, respectively, to somatic, auditory, and gustatory stimulation were statistically significant. Only 2 units of the claustrorortex responded to photic stimulation. A new type of unit was encountered in the claustrorortex and frontal operculum which was activated by approaching objects. Results are discussed in the light of existing knowledge about the insula. (39 ref.)—*Journal summary.*

8366. Tomsic, Richard T. (Florida State U.) **The effects of the duration and the number of transients in a signal on the recovery function of the V potential.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5680-5681.

8367. Vasil'ev, A. G. (Leningrad State U., USSR) **Kharakteristika vyzvannykh potentsialov i reaktsii otel'nykh neuronov zadnego dvukholmiya letuchikh myshei pri razdrazhenii parnyimi ul'trazvukovymi stimulami.** [Characteristics of the evoked potentials and reactions of single neurons of the posterior colliculi in bats on stimulation with paired ultrasonic stimuli.] *Nervnaya Sistema*, 1969(Dec), No. 10, 124-132.—Ss were narcotized bats from 2 families—Vespertilionidae and Rhinolophidae. The amplitude of posterior collicular evoked potentials to the 2nd stimulus of a presented pair equaled the response to the 1st stimulus in 3-20 msec. sometimes exceeding it. The number of spikes in the response of single neurons was equal for each of the pairs of stimuli, given a 10-20 msec. interval between them.

The amplitude of evoked potential and the number of spikes of single neurons in response to the 2nd stimulus decreased with decrease in the rest period between stimuli. Restoration of the amplitude of response to the 2nd stimulus was optimal with stimuli of low and moderate strength, securing 2 types of reactions for single neurons: (a) optimal reaction to the 2nd stimulus when its strength was low, and (b) optimal when high. (20 ref.)—*J. D. London.*

8368. Vreeland, R. W., Yeager, C. L., & Henderson, J. (U. California, Medical Center, San Francisco) **A compact six-channel integrated circuit EEG telemeter.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 240-245.—Describes a lightweight head-mounted telemeter which permits artifact-free EEG recording during laughter. Integrated circuits without excessive battery drain were produced by using pulse position modulation and reduced battery voltages. Some advantageous features of the device are outlined: (a) clip-on rechargeable battery packs facilitate recording for fairly long periods, (b) the use of low noise preamplifiers with micropak transistors makes it practical to telemeter small amplitude EEGs from normal Ss, (c) needle or disc electrodes may be used, (d) depth electrodes can be used with external attenuators, and (e) the crystal controlled transmitter produces virtually no frequency drift. It is concluded that with the addition of external networks, the telemeter can be used for respiration, EKG, and GSR response recording. (French summary)—*Journal summary.*

8369. Webb, W. B. & Friedmann, J. K. (U. Florida, Coll. of Arts & Sciences) **Some temporal characteristics of paradoxical (LVF) sleep occurrence in the rat.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 453-456.—Studied the 24-hr EEG recordings of 2 groups of 4 male Long-Evans rats. It was found that (a) paradoxical sleep, low voltage fast EEG waves (LVF), increased in probability of initial occurrence with increased length of slow wave sleep; (b) the mean length of time of and between successive LVF episodes did not differ; and (c) there was a higher proportion of LVF sleep during the dark period of the circadian cycle even when length of sleep was held constant. (French summary)—*Journal summary.*

8370. Webster, W. R. (Monash U., Neuropsychology Lab., Clayton, Victoria, Australia) **The effects of repetitive stimulation on auditory evoked potentials.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 318-330. Recorded evoked potentials in the cochlear nucleus, inferior colliculus, and medial geniculate body of 17 unanesthetized cats in response to repetitive auditory stimuli. The effects of stimulus intensity and rate of stimulation were studied. Changes typical of a habituation process did not occur. (a) weaker stimuli did not produce larger evoked potential decrements than stronger stimuli, (b) dishabituation did not occur with changes in rate of stimulation or pairing of auditory stimuli with electric shocks, and (c) no decrements were observed at stimulus rates of $\frac{1}{20}$ sec. Although amplitude decrements occurred in which the magnitude of the decrement was a function of the rate of stimulation, these decrements were considered simple rate effects. In the inferior colliculus, the effects of rate of stimulation depended on the area of the nucleus from which recordings were taken. (French summary) (22 ref.)—*Journal summary.*

8371. Webster, W. R. & Bock, G. R. (Monash U., Neuropsychology Lab., Clayton, Victoria, Australia) **The effects of repetitive stimulation on the rat inferior colliculus.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 331-336. Studied amplitude decrements of click-evoked potentials in the inferior colliculi of 5 restrained hooded rats. Repetitive stimulation was administered to each S at 100 and 70 db. peak equivalent SPL, with control stimuli being given before and after the repetitive stimulation. Significant decrements were observed in both the early and late components of the evoked potential. Both components recovered rapidly after cessation of repetitive stimulation, and the pattern of decrements did not differ over the 2 intensities. It is concluded that the decrements were not true habituation decrements. It is suggested that the mechanism responsible for the decrements might be recurrent postsynaptic inhibition. (French summary) (16 ref.)—*Journal abstract.*

8372. Whishaw, I. Q. & Vanderwolf, C. H. (U. Lethbridge, Alberta, Canada) **Hippocampal EEG and behavior: Effects of variation in body temperature and relation of EEG to vibrissae movement, swimming and shivering.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 391-397. Examined hippocampal and neocortical EEG activity in 28 freely moving male hooded rats at normal rectal temperature and during artificial hypo- and hyperthermia. Hippocampal rhythmic slow activity (RSA) and neocortical low voltage fast activity occurred during walking, jumping, and swimming, but irregular hippocampal activity and cortical spindling occurred during immobility and shivering (when it occurred in the absence of other movement). Movements of the vibrissae were not directly correlated with RSA. During voluntary movement, RSA frequency varied from 2-12 Hz. over a temperature range of 23-42°C. RSA fell in amplitude only below about 26°C and disappeared entirely below 23°C. Simultaneously, voluntary movements also disappeared but shivering persisted below 20°C. Neocortical spindle activity was not observed below about 30°C. (23 ref.)—*Journal abstract.*

8373. Yanvarova, I. N., Kuz'mina, T. R., & Tuan, Yen. (Leningrad State U., USSR) **Elektricheskiye aktivnost' otdel'nykh sloev kory bol'shikh polusharij pri umiranii i reanimatsii zhivotnogo.** [Electrical activity of different layers of the cerebral cortex in the process of the animal's dying and revival.] *Neirofiziologiya*, 1969(Dec), No. 10, 20-28. Nembutalized cats were used to study the developing changes in evoked potentials at various cortical levels accompanying the evolution of grave hypoxia as a consequence of acute loss of blood (resulting clinical death defined as covering loss of blood (resulting clinical death defined as covering 5 min) and after the restoration of circulation and breathing. Evoked potentials were also recorded from the lateral geniculate body. Spontaneous electrical activity disappeared before the evoked potentials in the different cortical layers. Extinction and restoration of the cortical evoked potentials took place simultaneously at all levels of the cortex. Following clinical death and slow restoration of functions, positive evoked potentials with a short latent period appeared in the visual cortical layers. The data showed that the resistance of synaptic endings to hypoxia was not of 1 kind. (39 ref.)—*J. D. London.*

8374. Yoshie, N. & Okudaira, T. (Shinshu U., Faculty

of Medicine, Matsumoto, Japan) **Myogenic evoked potential responses to clicks in man.** *Acta Otolaryngologica*, 1969, Suppl. 252, 89-103. Recorded human myogenic potentials evoked by clicks from the external acoustic meatus and the postauricular region, by means of an average response computer. The configuration of the response was triphasic: a negative-positive-negative wave with extremely short latency of the peaks (about 10-25 msec). The focus of the response seemed to be localized in a restricted area of the postauricular region. It was a relatively consistent and low-threshold response. The magnitude of the response was amplified to a great extent by the forward flexion of the neck. The postauricular response was interpreted to be cochleo-myogenic in origin. It is concluded that the postauricular response can be used as an indicator of objective audiometry. There is a possibility that the response could be applied in an electrophysiological method of differentiating various otoneurogenic disorders associated with lesions in the brainstem. (German summary) (21 ref.) *Journal abstract*

8375 Zhirmunskaya, E. A. & Makarova, G. V. (Inst of Neurology, Moscow, USSR) **Raspreделение srednego urovnya asimmetrii dilitel'nostei faz voln EEG po poverkhnosti mozga cheloveka.** [Distribution of average level of asymmetry of EEG-wave phase durations over the surface of the human brain.] *Fiziologicheskii Zhurnal SSSR*, 1970(Oct), Vol. 56(10), 1321-1328. 22 healthy Ss participated in a study of the distribution of the average level of asymmetry of the durations of EEG-wave fronts (ascending and descending) for the main areas of the convex cortex of the hemispheres when the Ss were in a state of physiological quiet (while awake) and under the influence of rhythmic photic stimulation or when exposed to several other functional tests. The average level of asymmetry was found to be distributed along the cortical surface with longitudinal and latitudinal gradients. In the state of physiological quiet a decrease in the absolute magnitudes of this parameter occurred from occiput to forehead and from left temple to right. Simultaneously a shift in sign of asymmetry from negative to positive also took place. The average level of asymmetry increased in the presence of reactive changes in EEG structure. At the same time desynchronization of EEG rhythms was connected with a predominance of positive signs of asymmetric level, while hypersynchronization of biopotential waves was connected with a predominance of negative signs thereof. (English summary) (25 ref.)—*J. D. London*.

SENSORY PHYSIOLOGY

8376. Beidler, Lloyd M. & Reichardt, Werner E. (Florida State U.) **Sensory transduction: A report based on a NRP work session.** *Neurosciences Research Program Bulletin*, 1970(Dec), Vol. 8(5), 459-560. Attempted "to integrate the contributions and interactions of the participants in discussing the central concepts and data on sensory transduction." The following aspects of sensory modalities are included: "(a) the ultrastructural features and chemical and electrophysiological properties of visual receptors and transduction, (b) the site of transduction in mechanoreceptors, (c) the mechanosensitivity of motile cilia, (d) the complexities of the electrical receptor mechanisms, [and] (e) chemoreceptors, both gustatory and olfactory, of insects and animals."—*B. Preilowski*.

8377 Bito, Laszlo Z., Dawson, M. Joan, & Petrinovic, Ijerka. (Cornell U., Medical School) **Cholinergic sensitivity: Normal variability as a function of stimulus background.** *Science*, 1971(May), Vol. 172(3983), 583-585. Findings from an experiment with 4 cats indicate that the sensitivity of the normally innervated iris sphincter to its neurotransmitter, acetylcholine, and to related agents varies inversely with the preexisting physiological stimulus background, i.e., the environmental light intensity. This normal variability suggests the existence of a negative feedback mechanism whereby sensitivity of the effector cell is modulated by a product of neuronal activity. *Journal abstract*.

8378 De Valois, Russell L. & Pease, Paul L. (California Primate Vision Lab., Berkeley) **Contours and contrast: Responses of monkey lateral geniculate nucleus cells to luminance and color figures.** *Science*, 1971(Feb), Vol. 171(3972), 684-686. Examined the responses of single units in the monkey lateral geniculate nucleus to different portions of figures which differed from their backgrounds in color and brightness. Border enhancement was found in the response to luminance figures but not in the response to color figures. Cells showed border enhancement only in the case of a figure which produced an increment (as opposed to a decrement) in their firing rates. In situations in which very striking brightness contrast is seen perceptually, the cells do not show the corresponding changes in firing rate across the whole pattern. The lateral inhibitory mechanisms found in the retina and geniculate can thus account for luminance border enhancement, but not entirely for simultaneous brightness or color contrast, for which other cortical processes of some sort must be responsible. *Journal abstract*.

8379 Hulpert, Bruce P. & Tapper, Daniel N. (Cornell U., Section of Neurobiology & Behavior) **Taste stimuli: Quality coding time.** *Science*, 1971(Mar), Vol. 171(3977), 1256-1258. 8 rats, conditioned to avoid drinking 300 millimolar (mM) NaCl, recognized and rejected this solution within 250-600 msec. of onset of stimulus, a period containing the phasic portion of the peripheral neural response. They generalized to 500 mM NaCl but not to 500 mM sucrose. Rejection was based on quality identification neurally encoded within this brief period. *Journal abstract*.

8380 Higgins, J. David, Tursky, Bernard, & Schwartz, Gary E. (Harvard Medical School, Boston, Mass.) **Shock-elicited pain and its reduction by concurrent tactile stimulation.** *Science*, 1971(May), Vol. 172(3895), 866-867. Attenuated human affective reactions to noxious electrical stimulation by application of a tactile stimulus to the shocked site. Ss were 12 healthy 21-30 yr. old males. No alteration was perceived when the same tactile stimulus was applied to a similar contralateral site. These results and a lack of alteration at sensation threshold demonstrate the effect to be more than simple masking and support the Melzack-Wall theory. (18 ref.) *Journal abstract*.

8381 Lane, Ronald H., Allman, John M., & Kaas, Jon H. (U. Wisconsin, Lab. of Neurophysiology) **Representation of the visual field in the superior colliculus of the grey squirrel (*Sciurus carolinensis*) and the tree shrew (*Tupaia glis*).** *Brain Research*, 1971, Vol. 26(2), 277-292. Used microelectrodes to map the representation of the visual field in the superior colliculus (SC) in 2 arboreal diurnal mammals, the grey squirrel and the tree shrew, in which the SC is extremely

well developed. Ss were 12 squirrels and 4 shrews. For comparison, portions of lateral striate cortex of both hemispheres were mapped in the same Ss. Results suggest that the projection of the visual field to the SC both in tree shrew and squirrel differs from that to striate cortex in 2 ways: (a) the complete visual field of each eye appears to be represented in the contralateral SC, while the most nasal 30° of the visual field of each eye is represented in ipsilateral striate cortex; and (b) neurons in the SC are activated only by stimuli to the contralateral eye, while the lateral striate cortex receives input from both the ipsilateral and contralateral eye. The projection to the SC in tree shrew and squirrel resembles that to striate cortex in that the region of the visual field corresponding to the intersection of the line of decussation and the horizontal meridian of the retina is represented in a larger area of the SC than other portions of the visual field. (43 ref.)—*Journal summary.*

8382. Makarov, P. O. & Tiknevichus, K. (Leningrad State U., USSR) *Metodika issledovaniya kriticheskogo intervala diskretnosti obonyatel'nogo analizatora cheloveka.* [Methods for studying the critical interval of discreteness for the human olfactory analyzer.] *Nervnaya Sistema*, 1969(Dec), No. 10, 154-156.—Describes an apparatus which facilitates research on the critical interval of discreteness in olfaction.—*I. D. London.*

8383. Meliia, A. S. (Georgian Academy of Sciences, Inst. of Physiology, Tbilisi, USSR) *Vliyaniye sinusoidal'noi vibratsii raznoi chastoty i amplitudy na retseptory kozhi.* [The influence of sinusoidal vibration of different frequency and amplitude on the skin receptors.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1750-1757.—Studied the discharges of afferent fibers during vibration in a slice of skin cut out of the frog back. At the low frequency vibration (4-6 cps) trains of discharges appeared during the augmentation and attenuation of the sinusoidal waves. At higher frequencies (10-14 cps) the discharges only appeared during the augmentation of the vibration waves. At the frequencies higher than 10-14 cps, the discharges of high amplitude (350-400 microV) became irregular. Discharges with amplitude of 150-200 microV ceased to follow each cycle of vibration at the frequency of 30-40 cps. At still higher frequencies, discharges of low amplitude (less than 100 microV) were recorded. At the above frequencies of vibration, some irregular discharges with the amplitude of 250-300 microV were also recorded. During the low amplitude vibration, preferentially irregular discharges of 150-200 microV were observed. At higher amplitude of the vibration, each cycle was succeeded by trains of discharges of different amplitude. It is concluded that augmentation of the amplitude of vibration results in the increase in the number and frequency of discharges in the train.—*Journal summary.*

8384. Mote, Michael I. & Goldsmith, Timothy H. (Yale U.) *Compound eyes: Localization of two color receptors in the same ommatidium.* *Science*, 1971(Mar), Vol. 171(3977), 1254-1255.—The compound eye of the cockroach *Periplaneta americana* has receptors for ultraviolet light (maximum sensitivity at 365 nm.) and green light (maximum sensitivity at 510 nm.). Single photoreceptor cells in the compound eye were impaled, identified by spectral response, and marked with dye-filled microelectrodes. Using 2 different dyes, both types of receptors were found in the same ommatidium.—*Journal abstract.*

8385. Naka, Ken-ichi. (California Inst. of Technology, Div. of Applied Science & Biology) *Receptive field mechanism in the vertebrate retina.* *Science*, 1971(Feb), Vol. 171(3972), 691-693.—In the catfish retina there are 2 types of ganglion cells: (a) in 1 type, a spot of light at the center of its receptive field causes a sustained discharge whereas an annulus causes a transient response; and (b) in the other type, the response pattern is reversed for a spot and an annulus. A study is described in which current injected into the horizontal cell induced spike discharges of the ganglion cell very similar to that elicited by a spot of light or by an annulus. In both types of receptive fields, depolarization of the horizontal cell caused a response of the ganglion cell similar to that elicited by a spot of light, whereas hyperpolarization of the cell caused a response of the ganglion cell similar to that elicited by an annulus. Current through a single injecting electrode could drive 2 types of cells simultaneously. Interaction between a spot of light and an annulus can also be simulated by replacing 1 light stimulus by current of the proper polarization injected into the horizontal cells. Results suggest that interactions among 3 neuronal structures, the receptor, the horizontal cell, and the bipolar cell, produce the basic receptive field organization in the channel catfish.—*Journal abstract.*

8386. Obukhova, E. A. & Shostak, V. I. (Kirov Military-Medical Academy, Leningrad, USSR) *Fotokhimicheskie i bioelektricheskie protsessy v setchatke posle intensivnoi impul'snoi fotostimulyatsii.* [The peculiarities of photochemical processes in the retina after intensive photostimulation.] *Fiziologicheskii Zhurnal SSSR*, 1970(Dec), Vol. 56(12), 1745-1749.—Studied in 3 experiments the processes of rhodopsin dissociation in vitro and its regeneration in vivo as well as bioelectrical activity of the rabbit retina during light influence (80 microsec., 250-2440 candle-sec.) Only 50% influence of rhodopsin was found to dissociate under the influence of such flashes. The initial delay of rhodopsin resynthesis occurs during 1st 5 min. of dark adaptation, after which there appears an intimate correlation between the photochemical process and bioelectrical activity of the eye retina restitution.—*Journal summary.*

8387. Raab, David H. (Brooklyn Coll., City U. New York) *Audition.* *Annual Review of Psychology*, 1971, Vol. 22, 95-118. Presents highlights of research in auditory electrophysiology conducted from 1966-1969. Reports include work on the (a) auditory nerve, (b) cochlear nucleus, (c) superior olivary complex, (d) inferior colliculus, (e) medial geniculate body, (f) auditory cortex, and (g) other centers (i.e., nonauditory cortex and subcortical structures) Reports on theoretical papers involving (a) statistical formulations which attempt to model for discharges of 1st-order auditory neurons, and (b) the relation of firing patterns to certain psychophysical phenomena are included. (139 ref.)—*P. Hartberg.*

8388. Schafer, Kenneth L. (Florida State U.) *Visual effects of ionizing radiation in the noctuid moth, Heliothis zea.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5675.

8389. Syataya, L. P. (Leningrad State U., USSR) *Ob ol'faktivnoi adekvatometrii.* [On olfactory adequatometry.] *Nervnaya Sistema*, 1969(Dec), No. 10, 150-153.—The disagreements in findings on olfactory thresholds are attributed to incomplete control of all parameters of the stimulus which have been shown to

affect the magnitude of threshold concentration. Formulae are added for use with a new piece of apparatus which makes possible the graded measurement of (a) threshold concentration of odorous substances, and (b) their dependence on the basic stimulus-parameters: concentration, volumetric flow, and time-interval of stimulation.—*I. D. London.*

BIOCHEMISTRY

8390. Alivisatos, Spyridon G., et al. (Chicago Medical School, Ill.) **Receptors: Localization and specificity of binding of serotonin in the central nervous system.** *Science*, 1971(Feb), Vol. 171(3973), 809-812. In experiments with young adult New Zealand white rabbits and male Swiss mice, it was found that formation of a Schiff base between the ethylanine residue of serotonin and an appropriate carbonyl residue at the receptor site may be among the forces holding serotonin onto the receptor. Reduction of this imine may provide a means of permanently labeling receptors as a preliminary to their isolation. (29 ref.) *Journal abstract*

8391. Jasper, Herbert H. & Tessier, Jacques. (U. Montreal, Quebec, Canada) **Acetylcholine liberation from cerebral cortex during paradoxical (REM) sleep.** *Science*, 1971(May), Vol. 172(3983), 601-602. —The rate of liberation of free acetylcholine from the surface of prostigmin-treated cerebral cortex in the freely moving cat has been determined in states of slow wave sleep, paradoxical or activated sleep, and waking. Results of 9 experiments with 7 cats indicate that the average rate during slow wave sleep (1.2 ng/min square cm of cortical surface) increased during paradoxical sleep (2.2 ng/min) and during waking (2.1 ng/min). The rate of acetylcholine release was related to the EEG pattern of desynchronized activation of the cortex rather than to the behavioral responsiveness of the Ss. *Journal abstract.*

8392. Sherman, Arnold D. (8301 Ridge Blvd., Brooklyn, N.Y.) **Tricarboxylic acid cycle levels following avoidance acquisition by rats.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 301-302. To gain further information on the relationship between intermediary metabolism and acquisition, 15 male Sprague-Dawley rats were trained in a 2-trial avoidance task and sacrificed for chemical analysis. Rough quantitative measures of 5 acids of the tricarboxylic acid cycle were obtained. After the 2nd trial, Ss were assigned to groups by their behavior: passive avoidance, approach, or active avoidance. Kruskal-Wallis analyses of variance indicate that differences in citrate and succinate levels were reliable. It cannot be concluded that results were associated with learning.—*Journal abstract.*

Hormones

8393. Antonov, V. V. (USSR Academy of Medical Sciences, Inst. for Experimental Medicine, Leningrad) **Vozdeistvie estrogenov i androgenov na polovuyu sistemu i polovoe povedenie samok sobak.** [The effect of estrogens and androgens on the gonadal system and sexual behavior in female dogs.] *Fiziologicheskii Zhurnal SSSR*, 1971(Jan), Vol. 57(1), 124-125. —Injected 5 dogs with estrogen and 3 dogs with androgen. Specially active and experienced male Ss were used for testing the sexual desire of females. The factors observed were: the change of the sexual behavior, and change of sexual

organs of the female. It was found that estrogen produced "heat" effect identical to the natural one. Androgen produced similar effects except some secretions present in the natural state were absent, and "male" behavior in the female S was noticeable.—*Halley*

8394. Coleman, Mary S., Pfingst, Bryan; Wilson, John E., & Glassman, Edward. (U. Texas) **Brain function and macromolecules: VIII. Uridine incorporation into brain polysomes of hypophysectomized rats and ovariectomized mice during avoidance conditioning.** *Brain Research*, 1971, Vol. 26(2), 349-360. —Since stimulation of RNA synthesis in animals usually involves a hormonal intermediate, it was felt that hormones might be involved in the observed increases in incorporation of uridine into polysomes and RNA of brain during avoidance training previously reported. Both hypophysectomized male Wistar rats and ovariectomized C57BL/6J mice learned the avoidance response normally and exhibited increases in incorporation of radioactive precursors into brain polysomes when compared with yoked or quiet Ss. Intact female mice did not perform as well as ovariectomized mice and showed random variations in phosphate incorporation into brain polysomes. It is concluded that the adrenal, the pituitary, the testis, and the ovary are not necessary for avoidance conditioning or for the increased incorporation of radioactive precursors into RNA that accompanies it. *Journal summary*

8395. Coover, Gary D., Goldman, Larry, & Levine, Seymour. (Stanford U., Medical School) **Plasma corticosterone increases produced by extinction of operant behavior in rats.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 261-263. Conditioned 31 male Long-Evans rats to lever press for water on a continuous reinforcement schedule. Plasma corticosterone concentrations were determined following reinforced and extinction sessions. All Ss were sampled under both conditions, using a balanced repeated measures design. In addition, the pre-session or basal concentration of plasma corticosterone was measured by 1 subgroup. Plasma corticosterone levels were significantly elevated as a function of extinction, while reinforced responding produced no change compared to the basal level. Results show a major physiological change occurring as a consequence of extinction of an appetitive task. Findings suggest that the pituitary-adrenal hormone system plays a role in extinction of appetitive behavior.—*Journal abstract*

8396. Edwards, David A. (Emory U.) **Neonatal administration of androstenedione, testosterone or testosterone propionate: Effects on ovulation, sexual receptivity and aggressive behavior in female mice.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 223-228. —Exogenously administered androstenedione (AD), testosterone (T), or testosterone propionate (TP) on Days 1, 2, and 3 after birth to 70 neonatal Swiss-Webster mice. 10 control Ss were given oil neonatally. As adults, all Ss were (a) ovariectomized and scored for the presence or absence of ovulation, (b) given estrogen and progesterone and tested for sexual receptivity, and (c) administered TP and tested for aggressive behavior. Ss given TP, T, or AD neonatally were for the most part anovulatory, and, following administration of estrogen and progesterone in adulthood, showed little or no sexual activity. Following androgen stimulation in adulthood, Ss given either TP or

Neonatally showed significantly more aggression than controls. Results support the hypothesis that testosterone, or 1 of its metabolites, is the defeminizing agent in the neonatal male mouse. Analyses of quantitative and qualitative differences in the defeminizing effectiveness of the different steroids are discussed. (15 ref.)—*Journal abstract.*

ref.)—*Journal abstract.*
8397. Gray, J. A., Mayes, A. R., & Wilson, M. (Inst. of Experimental Psychology, Oxford, England) **A barbiturate-like effect of adrenocorticotrophic hormone on the partial reinforcement acquisition and extinction effects.** *Neuropharmacology*, 1971(Mar), Vol. 10(2), 223-230. —Rats were trained to run in a straight alley for a food reward, either with reward on every trial (CRF) or with reward on a random 50% of trials (partial reinforcement, PR), and then extinguished. Ss in 2 experiments were 32 and 30 naive male Wistar rats, respectively. Controls, injected with gel, showed the usual acquisition PRE (increased running speed in PR relative to CRF Ss at the end of training) and extinction PR (increased resistance to extinction in PR Ss), but both these effects were absent in Ss injected daily during acquisition with 8 international unit (IU) ACTH; the drugged PR Ss and the drugged CRF Ss behaving like undrugged CRF controls. Neither 2 nor 4 IU ACTH daily during acquisition had these effects, though both doses increased acquisition running speed. Results obtained with 8 IU ACTH closely resembled those previously obtained with amylobarbitone. (17 ref.) —*Journal abstract.*

8398. Kenney, Ann M. (Tulane U.) The effects of neonatal androgen and duration of ovarian tenancy on reproductive behavior and physiology of the adult female rat. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5665.

8399. Michael, Richard P., Keverne, E. B., & Bonsall, R. W. (Bethlem Royal Hosp., Inst of Psychiatry, Beckenham, England) **Pheromones: Isolation of male sex attractants from a female primate.** *Science*, 1971(May), Vol. 172(3986), 964-966.—Fractionation of vaginal secretions from rhesus monkeys by partitioning and chromatographic procedures, combined with behavioral studies, demonstrated that short-chain aliphatic acids were responsible for stimulating the sexual behavior of males. 5 pairs of Ss were used (1 male and 1 female). Injection of estradiol into ovariectomized females increased the concentration of volatile acids in secretions which then sexually stimulated male primates.—*Journal abstract.*

8400. Mugford, Roger A. & Nowell, Norman W. (U. Hull, England) **The preputial glands as a source of aggression-promoting odors in mice.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 247-249. —Conducted 2 experiments to study the previous findings that injection of testosterone propionate (TP) into female mice increases aggressive attacks from males, and the size of their preputial glands. 32 albino spayed female mice injected with TP increased the aggressiveness of previously mated, isolated males. This aggressiveness was reduced by preputialectomy of such females, though not to the level of that elicited by 16 placebo-injected controls. The urine of 24 spayed, TP-injected females was shown to contain an aggression-eliciting pheromone, which induced 33 male fighter mice to increase their aggressiveness towards castrate male opponents. The effectiveness of this pheromone was not reduced by preputialectomy. It is concluded that androgens can

stimulate the release of aggression-eliciting pheromone from 2 sources in the female: (a) from the preputial glands, which may act as a social signaling device during agonistic encounters; and (b) in the urine, which may control wider aspects of behavior in mouse populations. —*Journal abstract.*

8401. Payne, A. P. & Swanson, Heidi H. (U. Birmingham, England) **Hormonal control of aggressive dominance in the female hamster.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 355-357.—The intact sexually unreceptive female hamster is aggressively dominant over the male. The dominance patterns of 18 spayed female golden hamsters and their response to various hormones were studied. Ss were sequentially given no treatment, 4 graduated doses of progesterone, testosterone (TP), and estradiol benzoate. Untreated and TP treated Ss were beaten in aggressive encounters with intact males. When given progesterone, Ss became dominant over males. Estradiol benzoate produced a lordotic response, which provoked mounting by males and a lowering in the frequency of agonistic behavior by both animals. It is suggested that the dominance observed in progesterone-treated Ss may be the result of (a) the effect of the hormone on the female's behavior, or (b) the effect on male behavior of changes in olfactory cues. (16 ref.)—*Journal abstracts*.

8402. Sandman, Curt A., et al. **Electroencephalographic measures of melanocyte-stimulating hormone activity.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 103-109. Studied EEG changes in 28 male albino rats after injections of melanocyte-stimulating hormone (MSH). Following chronic electrode placement, a base-line and sham-injected EEG pattern was obtained. 8 Ss then received MSH and 2 Ss received a vasopressin control solution. Results indicate that MSH produced an increase in 4-9 Hz. high-voltage activity which had specific temporal parameters. The pattern of the EEG following MSH injection was similar to limbic system electrical activity. (30 ref.)—*Journal abstract.* *Index Medicus*, 1971, 75(10), 103-109. *Author*, Thomas, & Walker.

8403. Wilson, Wayne; Peters, Thomas, & Walker, Dwight. (Stephen F. Austin State U.) Social dominance of castrate rats under testosterone cyponate. *Psychonomic Science*, 1971(Apr). Vol. 23(1B), 121-123. — Saturated 20 pairs of Sprague Dawley castrate and castrate-sham rats. Ss then received 8 contests in the dominance tube and 1 encounter in the home cage of the castrate. After injections of testosterone cyponate to castrates and placebo treatment of shams, high-dosage castrates displayed more effective dominance activity than did low-dosage castrates in the 2nd home-cage test. Data pertaining to posthormone tube contests and to uniform dominance outcomes across both tasks were inconclusive. *Journal abstract.*

8404. Zumpe, D. & Michael, Richard P. (Bethlem Royal Hosp., Inst of Psychiatry, Kent, England). Ovarian hormones and female sexual invitations in captive rhesus monkeys (*Macaca mulatta*). *Animal Behaviour*, 1970(May), Vol 18(2), 293-301. Ovariectomized females were observed in 588 60-min tests of sexual invitation. Presentations, hand reaches, and head-ducks increased after estradiol treatment and decreased after addition of progesterone. Sometimes progesterone was stimulating at lower doses changing to suppression as doses were increased. Progesterone alone abolished hand reaches, head-ducks, and head bobs. These 3 invitations were positively correlated with each

other but not with presentation. It is suggested that these 3 gestures are ritualized components of threat behavior serving exclusively a sexual initiative function, and the total invitations are a more useful index of female receptivity than presentations alone (16 ref.)—*M. Strobil.*

Drug Effects—Human

8405 Ehrenstein, W., Müller-Limmroth, W., & Schaffler, K. (Technical Coll. Inst. of Labor Physiology, Munich, W. Germany) **Ein elektrophysiologischer Beitrag über die Wirkung von 7-Chlor-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-on auf den Tagsschlaf nach einer Nachtschicht.** [An electrophysiological contribution to investigation on the effect of 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one on the sleep during daytime following a night shift.] *Arzneimittel Forschung*, 1969(Oct), Vol. 19(10), 1656-1659. By means of 3 representative examples obtained from 1 S, the influence of 10-mg 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one (adumbran) on day sleep was demonstrated in some night nurses of a surgical hospital. The experiments are part of a study comprising a total of 80 sleep registrations obtained from 8 Ss. Under laboratory conditions, day sleep without pharmacological support was, in most cases, only slightly shortened compared to night sleep; paradox sleep and deep sleep, however, were remarkably shorter. In contrast to night sleep, day sleep was interrupted by frequent waking periods, showed 5 sleep cycles of 100-min duration on the average vs. 3 cycles of 139 min on the average in the night and, above all, lacked deep sleep in the 2nd of sleep almost entirely. Motor activity during the day was reduced by approximately 30% compared to night sleep. Adumbran administered 1 hr before day sleep normalized the duration of paradox sleep, lengthened the deep sleep in the 2nd of sleep, though not to the full duration observed in night sleep, and decreased number and duration of waking phases. It did not shorten the periods compared with those of night sleep. It increased heart and respiration rate without influencing the heart beat respiration ratio, and slightly increased the motor activity during sleep, which, nevertheless, remained far below that seen in night sleep. Results show that adumbran markedly improved the badly disturbed day sleep of the night worker but could not accomplish a complete normalization adequate to night sleep.—*English summary.*

8406. Hollister, Leo E. (Veterans Administration Hosp., Palo Alto, Calif.) **Marihuana in man: Three years later.** *Science*, 1971(Apr), Vol. 172(3978), 21-29. Discusses the past 3 yr. of research on the effects of marihuana in man. Major advances have been (a) a quantification of dose in relation to clinical phenomena, and (b) a beginning of an understanding of the drug's metabolism. Crucial clinical experiments in regard to social questions about marihuana, e.g., the possible deleterious effects from chronic use, cannot be answered by laboratory experiments, but must be settled by observation of those who experiment on themselves. The possibility of determining whether marihuana has any medical utility is discussed. Mechanisms by which marihuana alters mental functions are not likely to be answered in man, nor even answered soon by animal studies. Marihuana is unique among drugs in that more experimentation has been accomplished in man than in

animals. It may be necessary, however, to use additional animal studies to provide leads for pertinent human studies in man. (46 ref.)—*Journal summary.*

8407. Kamm, G. & Keim, R. (U. Marburg Inst. of Forensic Medicine, W. Germany) **Quantitativer Nachweis von 7-Chlor-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-on im Plasma bei einmaliger und längerer Verabreichung.** [Quantitative analysis of 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one in plasma after a single dose and continued application of the drug.] *Arzneimittel Forschung*, 1969(Oct), Vol. 19(10), 1659-1662.—Report on the quantitative estimation of 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one (adumbran) in blood plasma after acid hydrolysis, thin-layer chromatography, and transformation into an azo dye by reaction of the bluish purple spots and subsequent spectrophotometry of the colored solutions. With this technique, adumbran levels in blood were determined in 2 different groups of 5 persons each after oral and rectal application of the drug. Under continuous application of small doses of adumbran no accumulative effect was observed.—*English summary.*

8408. Levi, Lennart. (Karolinska Inst., Stockholm, Sweden) **Emotional stress and biochemical reactions as modified by psychotropic drugs with particular reference to cardiovascular pathology.** *Excerpta Medica International Congress Series*, 1968, No. 182, 206-220.—Reviews a series of experiments which attempted "to determine whether biochemical and physiological reactions supposedly participating in the pathogenesis of such internal medical disorders may, indeed, be provoked by psychological stimuli, and secondly, whether these reactions can be therapeutically modified by psychotropic and vegetotropic drugs. Stimuli included: (a) simulated industrial and office work; (b) actual working situations in various occupations; (c) public appearance; (d) film programs inducing anxiety, aggressiveness, amusement, or erotic emotions; (e) simulated flight with simultaneous control of an aircraft and a guided missile; (f) prolonged function under simulated ground combat conditions; and (g) control conditions of relaxation and rest. The psychological and biochemical reactions induced were studied when modified by: (a) tranquilizers (diazepam, oxazepam, opipramol, hydroxyzine, and fluphenazine); (b) sympathomimetics (caffeine, phenmetrazine, methylphenidate, N-ethylnormetaoxedrine, yohimbine, and LSD); (c) adrenergic blocking drugs (propranolol) and (d) antipolytic drugs (nicotinic and clofibrinic acid). (20 ref.)—*S. Knapp.*

8409. Murphy, E. H. & Venables, P. H. (Stanford U. Medical Center) **The effects of caffeine citrate and white noise on ear asymmetry in the detection of two clicks.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 27-32.—Found in previous studies that when 1 or 2 clicks are presented monaurally with white noise in the contralateral ear, there is considerable decrement in the change in detection for the left ear in comparison to the performance without contralateral noise. 36 right-handed male and female undergraduates performed a signal detection task. An inverted U function was obtained when performance was tested with placebo, 375 or 500 mg. of caffeine citrate, for right and left ear, with and without white noise. The relative superiority of the right ear performance without caffeine citrate or white

noise was significantly correlated with right ear decrement with caffeine citrate or white noise. Results are discussed with reference to strength of the nervous system, arousal and differentiation of function of the right and left cerebral hemispheres. (French & German summaries)—*Journal abstract*.

8410. Trentini, Giancarlo; Carli, Renzo, & Padovani, Franco. **Contributo sperimentale alla ricerca degli effetti dell'alcool nelle strutture relazionali dell'ego con la realtà sociale e con il principio d'autorità.** [Experimental contribution to research on the effects of alcohol on the relational structures of the ego with social reality and with the authority principle.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 513-547.—McClelland's test of imagination and a modification of Rosenzweig's Picture Frustration Study were administered to 120 male college students divided into experimental and control groups. The former drank alcohol and consequently expressed a lowered need for power and need for achievement with an increment in affiliative-dependent motivations. The power of authority figures was also decreased as a result of the increased ego strength due to alcohol. (44 ref.)—L. L'Abate.

8411. Trentini, Giancarlo & Vegetti Finzi, Silvia. **Contributo sperimentale allo studio degli effetti dell'alcool sulla psicodinamica dell'individuo normale.** [Experimental contribution to the study of the effects of alcohol on the psychodynamics of the normal individual.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 548-597.—In normal individuals, alcohol intake noticeably increased the strength of the individual in front of authoritarian figures, rendering him more tolerant, harmonious, and productive. Authority figures seemed to be perceived as weaker, more vulnerable, less rigid, less productive, and less controlled. (40 ref.)—L. L'Abate.

8412. Woody, George E. (Southwest Counseling Center, Philadelphia, Pa.) **Visual disturbances experienced by hallucinogenic drug abusers while driving.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 683-686. Presents 3 case reports of young men with histories of hallucinogen usage who experienced visual disturbances while driving. None was "high" at the time of the experience. It is likely that the disturbances were due to recurrences of the acute effects of 1 or more hallucinogens. It is believed that use of these drugs may be introducing a new driving hazard. (17 ref.)—*Journal abstract*.

Drug Effects—Animal

8413. Adams, P. M. & Crawford, F. T. (U. Texas, Medical Branch, Galveston) **Spontaneous activity and water intake in the rat under the effects of scopolamine HBr and magnesium pemoline.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 111-112.—Conducted 2 experiments with a total of 12 male albino rats to analyze the effects of scopolamine HBr and magnesium pemoline on spontaneous activity and water intake. Both drugs were found to increase the level of intake. Both drugs were found to increase the level of wheel running but with different temporal parameters. Water intake was increased by magnesium pemoline, whereas scopolamine decreased the amount of water consumed during the activity increase. The interpretation of drug effects on performance in appetitive and nonappetitive reward situations is discussed.—*Journal abstract*.

8414. Aeppli, Lislott. (J. R. Geigy, Scientific Lab., Basel, Switzerland) **Teratologische Studien mit Imipramin an Ratte und Kaninchen: Ein Beitrag zur Planung und Interpretation teratologischer Untersuchungen unter Berücksichtigung von Biochemie und Toxikologie der Prüfsubstanz.** [Teratologic studies on imipramine in rats and rabbits: A contribution to layout and interpretation of teratologic studies with special consideration of biochemistry and toxicology of the test substance.] *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1617-1640.—Following introductory notes on metabolism, toxicology, and reproduction toxicology of 5-(3-dimethylaminopropyl)-10,11-dihydro-5H-dibenz[b,f]azepine by hydrochloride (imipramine), studies on this substance and its 2 chief metabolites, desmethyl-imipramine (DMI) and 2-hydroxyimipramine (2-OH-IP), performed on pregnant rats and rabbits are reported. Under the test conditions, neither imipramine nor DMI nor 2-OH-IP administered orally or subcutaneously (sc) showed direct embryotoxic effects in the rat. The increase of the resorption rate and number of fetuses with abnormalities (mainly signs of immaturity of the skeleton) occurred only at doses that were toxic for the mother S. It is shown that very probably the resorptions were effected by a direct, toxic activity of imipramine on the embryo before malformations could develop. Under similar test conditions in the rabbit with sc injection of imipramine, DMI, and 2-OH-IP, it can be assumed that increased resorption and malformations rate were of secondary toxic nature, i.e., they were the consequences of toxic impairment of the mother Ss probably induced by the metabolite 2-OH-IP. This substance is the main metabolite of imipramine and shows a stronger secondary teratogenic potency than the mother substance. It is emphasized that for an extrapolation from teratologic animal tests to conditions in man, only those experiments whose layout takes into consideration pharmacodynamics, toxicology, and metabolism of the test substance possess optimal value. (88 ref.) *English summary*.

8415. Barnes, C. D. & Moolenaar, Gwen M. (Indiana U.) **Effects of diazepam and picrotoxin on the visual system.** *Neuropharmacology*, 1971(Mar), Vol. 10(2), 193-201. Investigated the effects of diazepam (1 mg/kg iv) followed by picrotoxin (1 mg/kg iv) on the temporal alterations of shock-evoked cortical potentials after a flash of light in 18 pretrigeminal cats. In the dark-adapted state, a light flash produced a facilitation of more than 1500 sec., followed by a slight depression of the evoked cortical potential obtained by optic tract stimulation. The administration of diazepam resulted in a marked facilitation of the optic-tract-evoked cortical potential after light stimulation. In the light-adapted state, a light flash produced a large facilitation followed by a depression of the evoked cortical potential obtained by retinal stimulation. Diazepam administration greatly depressed the early postflash facilitation, but had little effect on the late depression. The administration of picrotoxin after diazepam tended to reverse the effects of diazepam. Results appear to support the hypothesis that diazepam results presynaptically inhibit inhibitory optic tract fibers in the lateral geniculate nucleus. A 2nd site interneurons in the lateral geniculate nucleus. The effect of the diazepam and picrotoxin effect is the retina, possibly at axo-axonic synapses between amacrine cells and bipolar cells. (32 ref.) *Journal abstract*.

8416. Bauer, Ellen R. & Reynolds, E. Vicar. (Coll of William & Mary) **D-amphetamine and palatability of**

saccharin solution. *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 3-4.—Randomly assigned 24 female albino rats to receive a 7-day series of 3 mg/kg injections of either d-amphetamine sulfate in isotonic saline or saline ip. of each group drank 1% sodium saccharin solution, the others water. Food intakes were analyzed as intake unit/body weight. No differences were found among groups prior to drug administration. The prediction that d-amphetamine would produce a taste-conscious animal was not substantiated. D-amphetamine produced a decrease in saccharin intake and an increase in water intake relative to saline controls. *Journal abstract*

8417 **Baum, Morris.** (Bishop's U., Lennoxville, Quebec, Canada) **Effect of alcohol on the resistance-to-extinction of an avoidance response: Replication in mice.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 307-309.—Gave 45 AKR and 45 A/JAX female mice 1 of 3 doses of alcohol following the acquisition of a simple avoidance response in an automated apparatus. The appropriate dose of alcohol increased the persistence of the avoidance response in extinction, replicating in mice what had previously been found with rats. Results question the view that alcohol acts to decrease fear in rodents. *Journal abstract*

8418 **Bliss, David A., Sledjeski, Michael, & Lerman, Arnold L.** (State U., New York, Binghamton) **State-dependent choice behavior in the rhesus monkey.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 51-59.—Gave 4 rhesus monkeys a series of successive brightness reversals after ip injections of pentobarbital or saline on alternate reversals. Ss showed no evidence of interference from 1 reversal to the next. It is suggested that a change of drug state permits independent (dissociated) learning to occur in each state. Retention of an appropriate cue within a state was remarkably good even when an S's immediately preceding experience was training to another cue while in the alternate state. Retention appears to be state-dependent. (French & German summaries) (16 ref.) *Journal abstract*

8419 **Boggan, William O. & Seiden, Lewis S.** (U. Chicago) **Dopa reversal of reserpine enhancement of audiogenic seizure susceptibility in mice.** *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 215-217.—Evaluated the role of L-dopa and dopamine (DA) in the audiogenic seizure susceptibility of 249 DBA/2 and 121 DBA/1 mice. Increased sensitivity to audiogenic seizures induced by reserpine was antagonized by L-dopa. The antagonism was dependent upon the conversion of L-dopa to DA in brain since blockade of both cerebral and extracerebral decarboxylase prevented the L-dopa effect, whereas blockade of extracerebral decarboxylase only did not affect the L-dopa antagonism. Increased seizure susceptibility occurred when brain levels of norepinephrine and DA were significantly lowered, while decreased susceptibility was found when brain levels of DA were significantly elevated. Results indicate that DA plays a role in protection against audiogenic seizures in mice. (17 ref.) *Journal abstract*

8420 **Brown, Kenneth & Warburton, David M.** (Queen's U., Belfast, Ireland) **Attenuation of stimulus sensitivity by scopolamine.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 297-298.—Trained 5 adult male Wistar albino rats on a DRI, 15-sec schedule of reinforcement. Ss were then injected with 6 doses of scopolamine hydrobromide. Analysis of results by means

of signal-detection theory indicate that the effects are due to attenuations of stimulus sensitivity rather than changes in response bias. This is interpreted as evidence against a response-inhibition hypothesis and suggests that there were changes in the stimulus input.—*Journal abstract*

8421 **Carroll, Bernard J. & Sharp, Peter T. U.** (Melbourne, Royal Melbourne Hosp., Victoria, Australia) **Rubidium and lithium: Opposite effects on amine-mediated excitement.** *Science*, 1971(Jun), Vol. 172(3940), 1355-1357.—In an experiment with naive male albino Swiss mice, the activation caused by morphine was antagonized by previous treatment with lithium ($N = 6$) and potentiated by previous treatment with rubidium ($N = 6$). Other antimanic drugs also antagonized the morphine activation. The effect of rubidium was similar to that of the antidepressant drugs imipramine and pargyline. It is concluded that rubidium may merit clinical evaluation as an antidepressant agent in man. (22 ref.)—*Journal abstract*

8422 **Clark, George; Koester, Anna G., & Pearson, David W.** (Medical Coll. of South Carolina, Charleston) **Exploratory behavior in chronic disulfoton poisoning in mice.** *Psychopharmacologia*, 1971, Vol. 20(2), 164-171.—Compared the behavior of 4 male and 4 female groups (10-12 Ss each) of naive Charles River white mice, using the "hole-board" test. 1 male and 1 female group were chronically poisoned with disulfoton while similar untreated male and female groups served as controls. The scores of the poisoned Ss were significantly higher than those of the controls, indicating that the poisoned Ss exhibited increased exploratory behavior. There were no sex differences. *Journal abstract*

8423 **Cooper, Barrett R., Black, William C., & Paulino, Ronald M.** (Purdue U.) **Decreased septal-forebrain and lateral hypothalamic reward after alpha methyl-p-tyrosine.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 425-429.—Trained 12 male Long-Evans rats to respond for rewarding electrical brain stimulation to either the lateral hypothalamus (LH) or septal-forebrain (SF) using a rate-free measure. Administration of DL-alpha methyl-p-tyrosine produced a dose-dependent decrease in responding for stimulation at both sites. The magnitude of this decrease was found to be dependent upon both electrode placement and the current intensity of stimulation. DL-p-chlorophenylalanine did not produce any significant changes in performance. Results are consistent with a hypothesis of noradrenergic basis of reward despite the reported behavioral and other differences accompanying self-stimulation of LH and SF in bar-pressing situations. (19 ref.)—*Journal abstract*

8424 **Csaba, B., Tóth, S., & Molnár, G.** (University Medical School, Inst. of Pathophysiology, Debrecen, Hungary) **Benzocyclan, a new anti-serotonin drug: A pharmacological study on the effect of benzocyclan in relationship to its anti-serotonin properties.** *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1726-1728.—Studied the antiserotonin effect of 1-benzyl-1-(3'-dimethyl-aminopropoxy)-cycloheptane fumarate (benzocyclan, B). In 200-300 fold dosage B reversibly inhibited contraction of rat fundus ventriculi strips induced by serotonin. Inhibition was of a competitive nature, because the protective effect of B could be overcome by massive doses of serotonin. Anaphylactoid reaction to dextran was completely inhibited in rats by 4

mg/kg B. Since serotonin is the chief mediator in provoking inflammatory edema, B is also capable of antagonizing the effect of serotonin released in vivo. Increase of capillary permeability due to serotonin was significantly inhibited by B which, however, failed to influence the similar activity of histamine. Results having been compared to the effects of methysergide, a specific antiserotonin agent, B was found to exert a pronounced antiserotonin effect similar to that produced by equal doses of methysergide. Premedication with B protected guinea pigs from the dyspnea-eliciting effect of serotonin aerosol. B was observed to exert in vivo a mild sedative action after the use of doses which produced a marked antiserotonin effect. Motility was reduced and the Ss reacted only to intensive pain stimuli. No other side effect was discovered at autopsy.—*English summary.*

8425. Dallemagne, Ghislaine. (U. Liège, Inst. of Experimental Therapeutics & Lab. of Experimental Psychology, Belgium) *Traitement prolongé à la morphine chez le rat: Interaction drogue/comportement dans des conditionnements sous contrôle aversif.* [Prolonged treatment with morphine in rats: Drug/behavior interaction under aversive control.] *Psychopharmacologia*, 1971, Vol. 20(1), 77-84.—Conditioned 4 female albino Wistar rats alternately on a titration schedule and on a Sidman avoidance schedule, without warning stimulus, in a circular box. Morphine (15 mg/kg daily) was administered for 30 consecutive days, and again for 4 days after 22 sessions of conditioning without drugs. In a circular box, the excitation induced by morphine showed a slow daily decrease suggesting development of tolerance. In the titration schedule, responding was depressed by the drug. After a few days, the rate of responding increased and the depression was reversed to excitation. When the drug was withdrawn, Ss showed a pattern of behavior close to the normal base line. The same effects appeared when morphine was injected after 6 wk. interruption of treatment.—*English abstract.*

8426. Davis, John W., Thomas, Roger K., & Adams, H. E. (U. Georgia) *Interactions of scopolamine and physostigmine with ECS and one trial learning.* *Physiology & Behavior*, 1971(Mar), Vol. 6(3), 219-222.—Trained 12 groups of 10 male Sprague-Dawley rats on a 1-trial, passive avoidance task and tested for retention 4 hr. later. 6 groups received ECS immediately following the learning trial, and the remaining 6 groups were in a non-ECS condition. Both the ECS and non-ECS groups were divided into 3 groups which received saline, scopolamine, or physostigmine injections before the learning trial and 3 groups which received the injections before the retention trial. Results suggest that injections before the retention trial of scopolamine or physostigmine prior to the learning trial protected memory from the prior to the retention trial protected memory from the normally disruptive effects of ECS. Scopolamine alone before the learning trial or physostigmine alone before the retention trial had a disruptive effect on retention. Results are discussed in terms of influences of the drugs and/or ECS on acetylcholine activity.—*Journal abstract.*

8427. Delini-Stula, A. (Ciba-Geigy Ltd., Pharmaceutical Div., Basel, Switzerland) *Drug-induced suppression of conditioned hyperthermic and conditioned avoidance behavior response in rats.* *Psychopharmacologia*, 1971, Vol. 20(2), 153-159.—Investigated the influence of different drugs on conditioned avoidance behavior and hyperthermia in male albino Wistar rats. A

specific blocking of conditioned avoidance responses was observed with neuroleptic drugs, but, except for chlorpromazine and thioridazine, they did not affect the conditioned temperature rise. Benzodiazepine derivatives and meprobamate consistently suppressed the hyperthermia at doses which did not impair conditioned avoidance behavior. Among other psychoactive drugs only imipramine (10 mg/kg ip) and desipramine (5 mg/kg ip) have shown an inhibitory effect on hyperthermia. The conditioned behavioral response was not influenced. Phentolamine at higher doses slightly suppressed the temperature rise. Morphine and aspirin were inactive regarding both parameters tested. (18 ref.)—*Journal abstract.*

8428. Elias, Merrill F. & Simmerman, Scott J. (Duke U., Medical Center) *Proactive and retroactive effects of diethyl ether on spatial discrimination learning in inbred mouse strains DBA/2J and C57BL/6J.* *Psychonomic Science*, 1971(Mar), Vol. 22(5), 299-301.—Describes 2 experiments with a total of 96 male DBA/2J and C57BL/6J mice. Diethyl ether was given before or after a single daily spatial discrimination trial in a water maze. Both C57BL/6J and DBA/2J Ss made more errors than controls when they were etherized after a trial, although the decremental effect on performance was more notable in the former strain. Pretrial etherization had no effect on errors, but Ss etherized prior to each trial showed faster swimming times than controls. Data are discussed in terms of strain differences in ether-stimulated arousal or activity level. (16 ref.)—*Journal abstract.*

8429. Etcevenon, P. & Boissier, J. R. (Neuro-Psychopharmacology Research Unit, Paris, France) *Statistical amplitude analysis of the integrated electrocorticogram of unrestrained rats before and after prochlorperazine.* *Neuropharmacology*, 1971(Mar), Vol. 10(2), 161-173. The method of statistical amplitude analysis is developed and applied to the study of vigilance fluctuations in the normal rat. These are then compared with the cataleptic state produced by prochlorperazine. Ss were 12 male Wistar albino rats. With unrestrained Ss, the comparison between the time courses of the integrated electrocorticogram (ECOG) and neck muscles EMG, provided precise and objective data for the measurement of vigilance phases (arousal, sedation, slow and paradoxical sleep) as well as drug effects. After prochlorperazine administration a characteristic steady state of the ECOG and EMG appeared. Compared with the normal S, the integrated ECOG and EMG was much less variable and this effect persisted together with the cataleptic state, which is recognized by the crossing of homolateral legs. The statistical amplitude analysis was based on comparative histograms and repartition functions (cumulative frequency curves) plotted on probability paper. The mean (voltage) integrated amplitude values were the quantified ECOG and EMG, integrated each 20-sec period. Graphic comparison was completed by numerical statistical analysis of data (Student's t-test, Snedecor's F test, and chi-square goodness of fit). This method allows discrimination between drug effects and normal vigilance fluctuations. When catalepsy decreased, normal cortical and EMG variability resumed. (29 ref.) *Journal abstract.*

8430. Evangelista, A. M. & Izquierdo, I. (National U., Inst. of Chemical Sciences, Córdoba, Argentina) *The*

effect of pre- and post-trial amphetamine injections on avoidance responses of rats. *Psychopharmacology*, 1971, Vol. 20(1), 42-47.—Describes an experiment with

223 adult albino rats in which Ss were trained in a shuttle-box to avoid shocks and then retested 3 days later for retention. A pretrial injection of 2 mg/kg amphetamine increased the performance of CRs on the 1st day but did not improve retention beyond control levels. A similar posttrial injection, however, caused a marked enhancement of retention, even in Ss which had received a pretrial amphetamine treatment. Atropine potentiated the effect of pretrial amphetamine on performance during the 1st-day session, but partly antagonized that of posttrial amphetamine on retention. The effects of pretrial amphetamine and its interaction with atropine were similar to previously reported observations on pseudocconditioning. Amphetamine was considered to have a dual effect on behavior: (a) an enhancing effect on pseudocconditioning which could be potentiated by atropine, and (b) another stimulant action on memory consolidation which was counteracted by atropine. Under the conditions of the present experiment it was to be expected that the effect of pretrial amphetamine on the performance of avoidance responses on the 1st day would be due to an increase of pseudocconditioned responses and therefore would not improve retention of CRs over control levels. A higher dose (5 mg/kg) of amphetamine lacked all facilitatory action on learning. The effects of atropine by itself were dose-dependent on pretrial injection to low dose depressions), a higher dose enhanced performance on both sessions), and was stimulant upon retention upon posttrial treatment. *Journal abstract*

8431 Florio, V. & Longo, V. G. (Istituto Superiore di Sanità Lab. di Chimica Terapeutica, Rome, Italy) Effects of amantadine and of some synthetic antiparkinsonian drugs on the behavioral response to L-dopa in mice. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 465-466.—Assigned 184 male white mice to groups receiving various doses of amantadine and synthetic antiparkinsonian drugs (e.g. imipramine, atropine, and amitriptyline). Ss then received ip injections of L-dopa and their behaviors were observed. It was found that amantadine, as well as other antiparkinsonian drugs, potentiate the effects of L-dopa in mice. Possible mechanisms of action are discussed. *Journal abstract*

8432 Gallup, Gordon G., Nash, Richard F., & Brown, Charles W. (Tulane U.) The effects of a tranquilizer on the immobility reaction in chickens: Additional support for the fear hypothesis. *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 127-128.—Examined the duration of the immobility reaction following manual restraint in 41 Production Red chicks. Ss were assigned to 1 of 4 groups receiving 0, 1, 2, or 4 mg/kg of metoserpate HCl (pacitran). In terms of number of inductions needed to elicit the immobility response, Ss given Pacitran were found to be significantly less susceptible to immobility than controls. The duration of reactions was inversely related to drug dosage levels, with controls remaining immobile over 3 times longer than Ss receiving an optimal dosage. Results are interpreted as supporting the notion that fear underlies tonic immobility reactions in young chicks. *Journal abstract*

8433 Giurgea, C., Lefevre, D., Lescrenier, C., & David-Remacle, M. (Louvain, Belgium) Pharmacological protection against hypoxia induced amnesia

in rats. *Psychopharmacology*, 1971, Vol. 20(2), 9-16.—Used a 1-min stimulus, presented about 30 times trial in a constant conditioning situation, to test 8 male Wistar rats to avoid an electric shock. In a 2nd group of 8 Ss, hypoxia was used daily at the end of each trial (immediate hypoxia) as an amnesic agent. In a 3rd group of 8 Ss, a similar daily hypoxic treatment was used but delayed 6 hr after the trial (delayed hypoxia). In immediate hypoxic conditions, 3 groups of 24 rats were treated with piracetam (U CB 6215) at respectively 100, 300, and 500 mg/kg given orally, daily, 30 min before each trial. Results indicate that (a) immediate hypoxia strongly impaired learning in untreated Ss, (b) delayed hypoxia did not interfere with learning, thus supporting the interpretation of the effect of immediate hypoxia as being as an amnesic one; and (c) Ss completely protected against immediate hypoxia, as judged by their learning performance. The protective memory-consolidation effect of piracetam is discussed based on the pharmacology of this new compound. *Journal abstract*

8434 Goldstein, Avram & Judson, Barbara A. (Stanford U.) Alcohol dependence and opiate dependence: Lack of relationship in mice. *Science*, 1971(Apr), Vol. 172(3980), 290-292.—According to a recently proposed hypothesis physical dependence upon alcohol is due to the formation of an endogenous opiate. 40 male Swiss Webster mice served as Ss in 2 experiments. This hypothesis was tested by determining whether or not ethanol-dependent Ss would show typical opiate-dependent behavior (withdrawal jumping syndrome) when challenged with the opiate antagonist naloxone. Results do not support the hypothesis. *Journal abstract*

8435 Goldstein, Dora B. & Pal, Nandita. (Stanford U. Medical School) Alcohol dependence produced in mice by inhalation of ethanol: Grading the withdrawal reaction. *Science*, 1971(Apr), Vol. 172(3980), 288-290.—Results of an experiment with 20 mice indicate that intoxicating blood levels of ethanol were maintained for several days in Ss housed in an atmosphere of ethanol vapor. On removal from the alcohol, all Ss developed withdrawal signs. The signs were graded to indicate the time course and intensity of the withdrawal reaction. *Journal abstract*

8436 Gray, J. A. & Dudderidge, Hilary. (Inst. of Experimental Psychology, Oxford, England) Sodium amylobarbitone, the partial reinforcement extinction effect, and the frustration effect in the double runway. *Neuropharmacology*, 1971(Mar), Vol. 10(2), 217-222.—32 male rats were trained to run in a double runway for food rewards, and the learned response was subsequently extinguished in the 1st runway only. During training, the Ss were given CRF in the 1st goalbox and were given random 50% partial reinforcement. Of each of these groups, 1/2 were injected with sodium amylobarbitone (15 mg/kg ip) daily during acquisition of the response and 1/2 were injected with saline. All Ss were continuously reinforced with saline during goalbox and all were injected with saline during extinction. During acquisition, the partially reinforced Ss displayed greater running speed in the 2nd runway after a nonreward than after reward in the 1st goalbox (a double-runway frustration effect); they also increased their resistance to extinction in the 1st runway. Amylobarbitone attenuated the increased resistance to

extinction due to PRE but did not affect the double-runway frustration effect. (22 ref.)—*Journal abstract.*

8437. Greef, K. & Wagner, J. (U. Düsseldorf, Inst. of Pharmacology, W. Germany) **Cardiodepressive und lokalanaesthetische Wirkungen der Thymoleptica: Vergleichende Untersuchungen mit Imipramin, Desipramin, Amitriptylin, Nortriptylin und Melitracen.** [Cardiodepressive and local-anesthetic effects of thymoleptic drugs: A comparative study with imipramine, desipramine, amitriptyline, nortriptyline and melitracene.] *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1662-1664.—At concentrations of 1, 3, or 10 µg/ml, respectively, the thymoleptic drugs, imipramine, desipramine, amitriptyline, nortriptyline, and melitracene caused a dose dependent reduction of contractility and beat rate in isolated, spontaneously beating atrium preparations of the guinea pig. At the same time, thymoleptic drugs enhanced the positively inotropic and chronotropic effects of noradrenaline, whereas, with the exception of melitracene, they reduced or even canceled those of tyramine. On the rabbit cornea all thymoleptic drugs show a cocaine-like, surface-anesthetic effect. (15 ref.)—*English summary.*

8438. Gusel', V. A. (Leningrad Pediatric Medical Inst., USSR) **Vliyaniye veshchestv, vzaimodeistviyushchikh s serotoninno-reaktivnymi sistemami, na èpileptiformnye razryady v gippokampe krolikov.** [Influence of substances, interacting with serotonin-reactive systems, on epileptiform discharges in the rabbit hippocampus.] *Farmakologiya i Toksikologiya*, 1971(Mar), Vol. 34(2), 135-139.—16 rabbits with a chronic epileptogenic focus in the hippocampus and 8 control rabbits were Ss in a study to determine whether (a) serotonin-reactive systems are involved not only in normal hippocampal functions, but also in the formation of pathological hypersynchronous activity therein, and (b) pharmacological agents, interacting with serotonin-reactive systems, exert an influence on epileptiform activity. 5-oxytryptophan (5-OTP, a serotonin precursor), 5-metoxitryptamine (mexamine; a serotoninmimetic), and 1-2 mg/kg reserpine iv inhibited the sporadic hippocampal epileptiform activity. However, repeated administration of .1 mg/kg reserpine sharply intensified the pathological activity. Iprazid, iv, increased hippocampal epileptiform activity. (English summary) (17 ref.)—*J. D. London.*

8439. Henriksson, Bengt G. & Järbe, Torbjörn. (U. Uppsala, Sweden) **Effects of diazepam on conditioned avoidance learning in rats and its transfer to normal state conditions.** *Psychopharmacologia*, 1971, Vol. 20(2), 186-190.—16 male Sprague-Dawley albino rats trained in conditioned avoidance responding (CAR) after injections of diazepam, 10 mg/kg, showed little or no transfer when tested in the nondrugged state. In this moderate dose diazepam did not significantly facilitate the acquisition of CAR nor did it decrease already established avoidance behavior.—*Journal abstract.*

8440. Hockman, Charles H., Perrin, Richard G., & Kalant, Harold. (U. Toronto, Brain Research Lab., Ontario, Canada) **Electroencephalographic and behavioral alterations produced by Δ^1 -tetrahydrocannabinol.** *Science*, 1971(May), Vol. 172(3986), 968-970.—Reports that the administration of small doses of Δ^1 -tetrahydrocannabinol to cats with indwelling electrodes produced a disruption of both the EEG and behavior. Some of these alterations, including the appearance of a high-voltage slow wave EEG in the awake and moving S, have been observed in cats that

had been administered other drugs known to cause hallucinogenic states in man.—*Journal abstract.*

8441. Irwin, Samuel; Kinohi, Roberta; Van Sloten, Margaret, & Workman, Mary P. (U. Oregon, Medical School, Portland) **Drug effects on distress-evoked behavior in mice: Methodology and drug class comparisons.** *Psychopharmacologia*, 1971, Vol. 20(2), 172-185.—Attempted to establish the optimal conditions of continuous foot shock stimulation (3 min. at .08 ma.) for investigating drug effects on distress-evoked behavior, e.g., vocalizing, leaping, running, fighting, and recovery latencies. Ss were 6-wk-old female Swiss Webster mice. The drugs subsequently studied under these conditions (imipramine, methamphetamine, methadone, perphenazine, pentobarbital, ethyl alcohol, and chlordiazepoxide) could be distinguished and classified from the profiles of action obtained. Greatest overall reduction of the distress-evoked behaviors in diminishing order were produced by perphenazine, methadone, ethyl alcohol, and chlordiazepoxide. Methadone most selectively reduced leaping responses; perphenazine most selectively prolonged recovery time latencies. None of the agents reduced fighting at doses that did not also modify the other modes of responding.—*Journal abstract.*

8442. Jaffe, Peter G. & Baum, Morrie. (McGill U., Montreal, Quebec, Canada) **Increased resistance-to-extinction of an avoidance response in rats following the administration of hashish resin.** *Psychopharmacologia*, 1971, Vol. 20(1), 97-102.—Trained 30 experimentally naive hooded rats to avoid shock in an automated apparatus. Ss were then given extinction trials with the shocker disconnected. Ss were divided into 3 groups prior to extinction and given an ip injection of either 1 of 2 doses of hashish resin or the vehicle used to dissolve it. Both doses of hashish resin were found to significantly increase the number of trials required to reach the extinction criterion as compared to the placebo group. The higher of the 2 doses also induced a significant increase in spontaneous recovery responding 1 day later. Results are compared to a similar finding obtained by M. Baum with alcohol. *Journal abstract.*

8443. Jancke, J. B., Jongkees, W., & Oosterveld, W. J. (U. Amsterdam, Netherlands) **Selective suppression of the fast phase of labyrinthine nystagmus by phentanyl (fentanyl).** *Acta Oto-Laryngologica*, 1969(Dec), Vol. 68(6), 468-473.—In an experiment with 20 normal rabbits, it was found that the effects of phentanyl on the otolithic- and cupulo-ocular reflex arch appeared similar, and selectively suppressed the quick phase of nystagmus in Ss. Although it suppressed the formation of nystagmus, the peripheral activity of the cupulae and otoliths remained intact. The action of the drug seems thus to suppress the quick phase centrally. This view demonstrates the necessity of a torsion-swing test also as a check on the caloric test. (German summary) (23 ref.)—*Journal abstract.*

8444. Johnson, David N., Funderburk, William H., & Ward, John W. (A. H. Robins Research Lab., Richmond, Va.) **Effects of fenfluramine on sleep-wakefulness in cats.** *Psychopharmacologia*, 1971, Vol. 20(1), 1-9. **Pre-** cats. *Psychopharmacologia*, 1971, Vol. 20(1), 1-9. Prepared 5 mongrel cats with chronically implanted electrodes for recording sleep-wakefulness patterns. 4 Ss received fenfluramine at each of 3 dose levels and data were recorded for the following 12 hr. Percent of time in paradoxical sleep was significantly reduced by 2.5 and 7.5 mg/kg, but not by .5 mg/kg, of fenfluramine. The

higher doses also increased slow-wave sleep and, at 1.5 mg/kg, an anorectic dose, total sleep time was significantly increased. Under similar conditions amphetamine at an anorectic dose of 1 mg/kg significantly suppressed both paradoxical sleep and slow-wave sleep in 3 Ss. Rebound of paradoxical sleep after suppression induced by 2.5 mg/kg of fenfluramine was not seen in either of 2 Ss studied when sleep patterns were recorded for 48 hr. After 7.5 mg/kg of the drug, however, rebound was seen on Days 1 and 4 after suppression of paradoxical sleep which lasted for over 26 hr. In 2 Ss, daily administration of 2.5 mg/kg of fenfluramine for 16 consecutive days, followed by saline administration for 3 days, indicated that tolerance was developing to the suppression of paradoxical sleep produced by the drug. (18 ref.)—*Journal abstract*

8448 Koffler, Kenneth & Condon, G. E. (Clarke Inst. of Psychiatry, Toronto, Ontario, Canada) Effects of chronic and acute morphine administration on one-way avoidance training. *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 47-48.—Administered ip injections of either 1 mg/kg of morphine sulfate or physiological saline to 42 chronically morphinized or non-morphinized male Wistar rats before training in a 1-way avoidance apparatus. During the acquisition stage the acute administration of morphine increased the number of shocks received by the nonmorphinized Ss but had no effect on the escape latencies of any of the groups. During the criterion run of 10 consecutive avoidances, chronic morphinization decreased avoidance latencies, while acute morphine administration had no effect.—*Journal abstract*

8446 Kvetnansky, Richard; Silberfeld, Sam; Wetse, Virginia K., & Kopin, Irwin J. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) Effects of restraint on rat adrenomedullary response to 2-deoxy-D-glucose. *Psychopharmacologia*, 1971, Vol. 20(1), 22-31.—Compared male Sprague-Dawley rats immobilized for 2 hr daily for 7 or 40 consecutive days to unrestrained controls. Urine samples were collected for 2 consecutive 24-hr intervals starting with the beginning of the last 2-hr restraint interval. 4 days after the last restraint interval, all Ss received a single injection of 2-deoxy-D-glucose (2DG) (500 mg/kg). Immediately afterwards, urine specimens were collected for another 24-hr period. The 24-hr urinary epinephrine (E) of the initial period was markedly increased after 7 and 40 immobilizations. The increase in E was significant during the 2nd day of collection after 7 but not after 40 immobilizations. The urinary E during the period after 2DG administration was increased for all immobilized Ss, the E levels after 40 immobilizations were greater than after 7. For evaluating adrenal changes, Ss were immobilized daily and given 2DG daily. 6 hr after 1 immobilization followed by 2DG there was a marked lowering of adrenal epinephrine and a small increase in adrenal tyrosine hydroxylase (TH) and phenylethanolamine-N-methyl transferase. Those Ss immobilized and treated with 2DG daily for 1 wk. showed marked lowering of adrenal E and an increase in adrenal TH and dopamine-B-hydroxylase.—*Journal abstract*

8447 Marczyński, T. J. (Illinois, Medical Center, Chicago) Cholinergic mechanisms determine the occurrence of reward contingent positive variation (RCPV) in cat. *Brain Research*, 1971, Vol. 28(1), 71-83.—Studied the effects of anticholinergic drugs

(atropine and scopolamine) and a cholinesterase inhibitor (physostigmine) with regard to their action on postreinforcement FFC synchronization and associated epicortical steady potential shift (reward contingent positive variation; RCPV) in cats trained to press a lever for milk reward. Results indicate that there are 2 functionally antagonistic cholinergic synaptic mechanisms in the visual cortex of the cat; 1 responsible for rhythmic phasing of neuronal activity at an average frequency of 7.8 cps during the postreinforcement synchronization, RCPV responses, presumably based on recurrent hyperpolarizing inhibition, and the other responsible for desynchronization of the electrocortogram activity through a blocking action on the synchronizing mechanism. (27 ref.)—*Journal summary*

8448 Mashkovskii, M. D. & Roshchina, L. F. (All-Union Research Chemico-Pharmaceutical Inst., Moscow, USSR) Vliyeniye azapena na bioelektricheskiy aktivnost golovnogo mozga. [Influence of azapen on cerebral bioelectrical activity.] *Farmakologiya i Toksikologiya*, 1971(Mar), Vol. 34(2), 144-148.—Unanesthetized immobilized cats and rabbits were used to study the influence on cerebral bioelectrical activity of azapen [2-(4-methyl-1-piperazinyl)-10-methyl-3,4-diazaphenoxazine dihydrochloride], possessing antidepressive activity and with respect to a number of pharmacological properties close to imipramine and other tricyclic antidepressants. 1-10 mg/kg azapen iv exerted a stimulating influence on the EEG of the cortex, hippocampus, and mesencephalic reticular formation. Azapen brought about (a) activation of the cortical EEG, (b) appearance of hippocampal θ activity, (c) decrease in the thresholds of activation on electrostimulation of the sciatic nerve and the mesencephalic reticular formation, (d) decrease in threshold of hippocampal convulsive activity, and (e) increase in duration of evoked afteraction discharges. Azapen potentiated the activating influence of phenamine (amphetamine) on the EEG, bringing about desynchronization of bioelectrical activity. (English summary) (20 ref.)—*J. D. London*

8449 Matthies, H., Fährke, Christa, & Lietz, W. (Medical Academy, Inst. of Pharmacology & Toxicology, Marburg, W. Germany) Die Wirkung von RNS-Präkursoren auf die Erhaltung des Langzeitgedächtnisses. [Effect of RNA-precursors on the maintenance of long-term memory.] *Psychopharmacologia*, 1971, Vol. 20(1), 10-15.—14 days before and 10 days during the training of optic discrimination, rats received 100 mg/kg orotic acid ip daily. Whereas in control Ss memory retention decreased in the 1st days after training no extinction was seen in the treated Ss over a 200 day period. After that, retention decreased at the same rate as in controls. It is concluded that 2 different stages of long-term memory can be distinguished: the preservation and true extinction. The true extinction seems to have a constant rate of decline. The theoretical interpretation and the importance of the individual slopes of the extinction curves are discussed.

—*English abstract*

8450 Mori, Kenjiro; Mitani, Hitoshi, & Fujita, Masao. (Tokyo Women's Medical School, Japan) Epileptogenic properties of diethyl ether on the cat central nervous system. *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 345-349.—Studied the reasons for the difference in the degree of neuronal depression in apparently equal depths of anesthesia. 15 experiments were performed with 10 adult cats during

deep anesthesia induced by diethyl ether. It was demonstrated that very deep stage ether induced electrographic seizure activity, which originated in the limbic system and propagated to the neocortex with minimal or no involvement of the midbrain reticular formation. The reticular multiple unit activity was markedly depressed at the preictal period and enhanced only slightly during the seizure, whereas the multiple unit activity at the limbic system and neocortex decreased gradually during the preictal period and increased abruptly and explosively when rhythmical seizure activity occurred in these brain areas. It is suggested that the seizure induced by ether might be due to a combination of excitation of limbic structures and depression of the brainstem controlling system. (French summary)—*Journal summary*.

8451. Novikova, G. V. & Komendantova, M. V. (Moscow Medical Stomatological Inst., USSR) **O deistvii gidroksizina i oksilidina na tsentral'nyu nervnyu sistemu.** [On the action of hydroxyzine and oxyline on the central nervous system.] *Farmakologiya i Toksikologiya*, 1971(Mar), Vol. 34(2), 131-135.—400 white rats and 12 rabbits were used to study the actions on the CNS of hydroxyzine and oxyline (tranquilizers devoid of anticorazol—antimetazol—effect). Elementary emotional behavior was investigated with implantation of electrodes in the lateral and ventromedial hypothalamic nuclei (for elicitation of the reactions of self-stimulation and avoidance, respectively). Defensive CRs were also employed. Bioelectrical recordings of various parts of the brain were made for rabbits. Pain sensitivity was determined by electrical stimulation of the tail for rats. The 2 drugs had effects that were mostly similar. However, in the case of hydroxyzine, self-stimulation was noticeably inhibited; whereas oxyline increased it somewhat. While the effects of the 2 drugs on cerebral bioelectrical activity were in the same direction, differences in the intervals of time for their emergence were noted in various structures of the brain (hippocampus, hypothalamus). (English summary) (15 ref.)—*I. D. London*.

8452. Ortiz, Aurelio; Glover, Alice, & Lang, William J. (San Marcos U., Medical School, Lima, Peru) **The effects of acute and chronic administration of chlorpromazine on the acquisition and extinction of positively reinforced operant responses.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 407-412.—Assigned 40 young albino rats to 1 of 4 groups receiving ip injections of saline or chlorpromazine (CPZ). CPZ depressed the acquisition of positively reinforced conditioned responses, the degree of depression depending on the dose level and task difficulty. High doses blocked the learning process at an early stage, and had a greater depressant effect than did a lower dose at the same stage. Chronic treatment even if discontinued during training decreased performance of a previously learned task and facilitated extinction. Continued chronic treatment decreased motor activity and ability to acquire a discriminative response. It is proposed that CPZ affects learning by depressing motor activity, and by impairing other processes that are involved in the acquisition of CRs. It appears that chronic CPZ has little permanent effect on the ability to learn new tasks, but may affect the retention of previously learned responses. (25 ref.)—*Journal abstract*.

8453. Ott, Tilmann & Matthies, Hansjürgen. (Medical Academy, Inst. of Pharmacology & Toxicology, Magdeburg, W. Germany) **Die Wirkung von Orotsäure**

auf die durch elektrokonvulsiven Schock ausgelöste retrograde Amnesie. [The influence of orotic acid on the retrograde amnesia caused by electroconvulsive shock.] *Psychopharmacologia*, 1971, Vol. 20(1), 16-21.—Investigated the influence of the RNA precursor orotic acid on the retrograde amnesia caused by ECS in rats using an optical discrimination test. ECS, given 2 hr. or less after training, led to significant retrograde amnesia in controls if tested 24 hr. later. The same effect was found in Ss treated with a single dose of 100 mg/kg orotic acid ip, given 10 min. before training. Contrary to these findings, no amnesia could be produced in Ss pretreated with a daily dose of 100 mg/kg orotic acid ip over 4 days. The prolongation of extinction, typical after orotic acid treatment, was also seen in these Ss. An explanation of these findings may be that repeated administration of orotic acid leads to an improved consolidation of memory, possibly via some changes in the central nucleotide and/or RNA metabolism.—*English abstract*.

8454. Panksepp, Jaak. (U. Sussex, Lab. of Experimental Psychology, England) **Drugs and stimulus-bound attack.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 317-320.—Studied the effects of chlordiazepoxide and methamphetamine on stimulus-bound attack in 28 albino rats. Chlordiazepoxide essentially abolished stimulus-bound affective attack while decreasing the threshold of quiet-biting attack. Methamphetamine accentuated affective attack and increased the threshold of quiet-biting. Generally, the drug effects on stimulus-bound affective attack simulated changes that occur during reflexive-fighting, and the drug effects on quiet-biting attack tended to simulate effects found with spontaneous mouse-killing.—*Journal abstract*.

8455. Rajecki, D. W. & Saegert, Susan. (U. Michigan) **Effects of methamphetamine hydrochloride on imprinting in White Leghorn chicks.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 7-8.—Reports that the state of arousal in young precocial birds is a determinant of the strength of the social bond formed during an imprinting opportunity. Imprinting is inhibited in Ss under the influence of sodium pentobarbital, a tranquilizer. Conversely, Ss aroused through exposure to additional external stimulation or the influence of the stimulant racemic amphetamine sulfate show enhanced social responses. In an experiment with 24 white Leghorn chicks using methamphetamine hydrochloride as a stimulant, it was found that, relative to saline controls, Ss under the influence of the excitant yielded reliably stronger indices of imprinting. *Journal abstract*.

8456. Randt, Clark T., Quartermain, David; Goldstein, Menek, & Anagnoste, Berta. (New York U., Medical School) **Norepinephrine biosynthesis inhibition: Effects on memory in mice.** *Science*, 1971(Apr), Vol. 172(3982), 498-499.—Diethylthiocarbamate, a dopamine beta hydroxylase inhibitor, decreases biosynthesis of norepinephrine in the brain. The effects of this inhibitor coincide with alterations in memory as this inhibitor was demonstrated in single-trial passive avoidance in 40 adult male C57BL/6J mice. *Journal abstract*.

8457. Russell, Roger W., Vasquez, Beatriz J., Overstreet, David H., & Dalglisch, Frank W. (U. California, Irvine) **Effects of cholinolytic agents on behavior following development of tolerance to low cholinesterase activity.** *Psychopharmacologia*, 1971, Vol. 20(1), 32-41.—The development of tolerance during

periods of chronically low levels of cholinesterase (ChE) induced by administration of diisopropyl fluorophosphate (DFP) is evidenced in systematic changes in behavioral variables. The present experiment studied the biochemical mechanisms involved by challenging tolerant and control Ss (22 naive male Sprague-Dawley rats) with pharmacological agents known to affect the cholinergic system: the cholinolytics, atropine, and methylatropine. Measures of the free operant behavior showed tolerance to have developed by the 9th injection of DFP, after which the challenge series began. Clear differences were apparent between the effects of the cholinolytic agents on the tolerant and control groups. Dose-response curves for both groups showed similar trends of decreasing performance with increasing dose level until a critical point was reached. With further increases in dose, there was a complete absence of responding in the majority of tolerant Ss, while controls continued to perform at about 40% normal. The fact that effects of the methylatropine challenge were not significantly different in tolerant and control Ss implies that the biochemical processes of tolerance had a major central component. (24 ref.)—*Journal abstract*.

8458. Sanghvi, Indravadan; Urquiga, Xavier, & Gershon, Samuel. (New York U., Medical Center) Exploration of the anti-depressant potential of L-dopa. *Psychopharmacologia*, 1971, Vol. 20(2), 118-127. Investigated the potential usefulness of L-dopa as an antidepressant with mongrel dogs. It was hypothesized that a potential antidepressant should potentiate the behavioral and cardiovascular effects of yohimbine, a naturally occurring indole alkaloid. The interactions of L-dopa with antagonists and drugs that potentiate its effects were also investigated. Ss were prepared by placing an indwelling cannula in the femoral artery for recording arterial pressure. Results indicate that L-dopa (30 mg/kg) produced sedative effects, whereas yohimbine produced stimulatory effects. L-dopa failed to potentiate yohimbine effects. Ro-4-4602 (50 mg/kg), a decarboxylase inhibitor, markedly inhibited the effects of L-dopa. Haloperidol (.1-2 mg/kg), a dopamine antagonist, completely prevented the behavioral and cardiovascular effects of L-dopa. Following imipramine (1.5 mg/kg) pretreatment, L-dopa failed to produce any behavioral effects. However, imipramine, when administered 10-15 min. after L-dopa, markedly increased behavioral effects but reduced the cardiovascular and emetic effects. Results are consistent with the literature, finding L-dopa not to be an antidepressant in man, but inducing, rather, motor mobilization. (30 ref.)—*Journal abstract*.

8459. Schoenfeld, R. I. (Harvard Medical School, Boston, Mass.) Melatonin: Effect on punished and nonpunished operant behavior of the pigeon. *Science*, 1971(Mar), Vol. 171(3977), 1258-1260. Injections of melatonin in 8 adult male White Carneaux pigeons had a dose-dependent, rate-increasing effect on responding maintained by a fixed-interval schedule of positive reinforcement. When a punishment contingency was added to the fixed-interval schedule, the overall rates were not increased although responding was increased during the initial part of each interval. (16 ref.)—*Journal abstract*.

8460. Schrold, J. & Squires, R. F. (A S Ferrosan, Research Lab., Soeborg, Denmark) Behavioural effects of d-amphetamine in young chicks treated with p-Cl-phenylalanine. *Psychopharmacologia*, 1971, Vol.

20(1), 85-90. d-Amphetamine administered to 5-day-old White Leghorn cockerels provoked wing droop, postural changes and twittering. p-Cl-phenylalanine methyl ester (H 69/17) which lowered the content of 5-hydroxytryptamine (serotonin) (5-HT) and 5-hydroxy-3-indoleacetic acid in the brain to about 30% of control values in chicks of the same age, induced no marked behavioral changes. Pretreatment with H 69/17 protected against the above mentioned effects of d-amphetamine. Simultaneously d-amphetamine induced marked excitation with aggressive behavioral components. It is concluded (a) that the predominant actions of d-amphetamine in newly hatched chicks are mediated via a serotonergic (tryptaminergic) mechanism, which masks the excitatory effects of the drug in this animal species; and (b) that there are great similarities between the behavioral changes seen after d-amphetamine in 5-HT depleted chicks and imipramine in normal chicks. (21 ref.)—*Journal abstract*.

8461. Seiden, Lewis S. & Martin, Teackle W. (U. Chicago) Potentiation of effects of L-dopa on conditioned avoidance behavior by inhibition of extracerebral dopa decarboxylase. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 453-458.—Found that it is possible to completely inhibit extracerebral dopa decarboxylase without inhibiting or only partially inhibiting cerebral decarboxylase by using suitable doses (25-50 mg/kg) of the compound, Ro-4-4602 (N-(diisopropyl-N-(2,3,4-trihydroxybenzyl)hydrazine). Male DBA-1 mice and Sprague-Dawley rats were trained to perform a conditioned avoidance response (CAR), and treated with reserpine, followed by Ro-4-4602, and then L-dopa; control Ss were treated with identical doses of reserpine and L-dopa but saline instead of Ro-4-4602. L-dopa reversed a reserpine-induced suppression of the CAR, and this reversal was potentiated by Ro-4-4602. Ro-4-4602 caused blockade of sympathomimetic effects of L-dopa. Catecholamine assay in groups receiving parallel treatment revealed that no dopamine was synthesized in heart from L-dopa in mice pretreated with Ro-4-4602 but that there was a rise in brain levels of dopamine. Results indicate that extracerebral conversion of dopa to dopamine is not essential to the reversal of a reserpine-induced suppression of a CAR. (17 ref.)

—*Journal abstract*

8462. Sherwin, Ira. (Harvard Medical School, Boston, Mass.) Differential action of diazepam on evoked cerebral responses. *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 445-452.—Studied evoked cerebral responses in 16 unanesthetized immobilized cats after iv administration of diazepam in divided doses. It was found that those sensory and motor responses which depend upon polysynaptic mechanisms were most sensitive to the depressant effects of diazepam. Species-specific differences in the effects of diazepam on cat, man, and the light-sensitive baboon (*Papio papio*) are discussed. It is concluded that the depressant effects of diazepam are exerted primarily on interneurons. It is suggested that this action may account for the observed beneficial effects in myoclonic disorders. (French summary) (27 ref.)—*Journal summary*.

8463. Stein, Larry & Wise, C. David. (Wyeth Lab., Philadelphia, Pa.) Possible etiology of schizophrenic progressive damage to the noradrenergic reward system by 6-hydroxydopamine. *Science*, 1971(Mar), Vol. 171(3975), 1032-1036.—Reports that single or repeated intraventricular injections of 6-hydroxydopamine

caused marked and long-lasting deficits in brain self-stimulation and other rewarded behaviors in the rat. The behavioral deficits, and the depletion of brain norepinephrine induced by 6-hydroxydopamine, were prevented by prior treatment with chlorpromazine. Episodic or continuous formation of endogenous 6-hydroxydopamine in man as a result of a genetically determined enzymatic error could selectively damage the binding capacity and, eventually, the structural integrity of the noradrenergic reward mechanism. Such damage might cause the fundamental symptoms and long-term downhill course of schizophrenia. (38 ref.)—*Journal abstract*.

8464. Sutton, Dwight & Burns, Jerry. (Arizona State U.) **Alcohol dose effects of feedback-maintained simple reaction time.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 151-159.—2 dose levels of alcohol were given to 10 adult volunteers (age range, 23-40 yr.) performing finger extension and finger flexion in an RT paradigm. 2 stimulus modes—visual and auditory—were investigated. RTs were briefer to auditory than to visual stimuli. Flexion and extension responses were approximately equal in RT latency. Alcohol impaired females in their performance of each response but did not affect males significantly. Ss with normally faster RTs were less affected by alcohol than were those with normally slower RTs.—*Author abstract*.

8465. Tewari, S. & Noble, E. P. (U. California, Irvine) **Ethanol and brain protein synthesis.** *Brain Research*, 1971, Vol. 26(2), 469-474.—Determined changes in the cerebral protein synthesizing system of mice chronically exposed to ethanol. Ss were 24 C57BL/6J male mice who received a 10% ethanol-water solution and 24 matched controls who received just water as their sole drinking fluid. It was found that "chronic ethanol imbibition of 10 days or longer duration exerts multiple effects on the protein synthesizing system of mouse brains." A rise in brain ribosomes was observed in Ss. These were functionally less active than those from controls, suggesting that "either fewer polysomes are present or that there are structural and/or functional aberrations in these polysomal units." Speculation on chronic alcohol usage in humans is made. (20 ref.)—P. Hertzberg.

8466. Valzelli, L. & Bernasconi, S. (Mario Negri Inst. of Pharmacological Research, Milan, Italy) **Differential activity of some psychotropic drugs as a function of emotional level in animals.** *Psychopharmacologia*, 1971, Vol. 20(1), 91-96.—Tested the activity of various psychotropic drugs on the abnormal behavior induced by prolonged isolation in both male Swiss albino mice and Wistar male rats. It is suggested that the different effects shown by the drugs on the various behavioral profiles of the 2 species considered are dependent on the emotional level of the experimental Ss. (29 ref.)—*Journal abstract*.

8467. VanGilder, John C. & O'Leary, James L. (Washington U., Medical School) **Effect of nembutal anesthesia upon Purkinje cell activation in the cat.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 173-188.—Recorded cerebellar evoked phenomena from 86 cats, comparing successively field potential and Purkinje cell (P cell) unit responses under local procaine block in the flaxedilized S and nembutal anesthesia. The configurations and latencies of the field potentials which followed stimulation of the folial surface and olivary and pontine afferent sources were not altered by the induction of nembutal, but unit P

cell responses were significantly changed. With extracellular microelectrodes, a clearly discernible depletion in spontaneous unit activity occurred during the transition to nembutalized state. With this depletion a change in P cell unit response to stimulation occurred. Before nembutal, surface folial stimulation may be followed by up to 14 unit spikes during the negative phase of the surface-evoked potential; after nembutal, by a maximum of only 2 such spikes. The olivocerebellar response changed from a single unit spike in the prenembutal record to the classical repetitive spike pattern in the nembutalized S. (French summary) (39 ref.)—*Journal summary*.

8468. Walsh, J. Michael & Guralnick, Michael J. (American U.) **The effects of epinephrine and chlorpromazine on visual cliff behavior in hooded and albino rats.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 1-3.—Tested 36 Long-Evans hooded and 36 Sprague-Dawley albino infant rats on the visual cliff. Ss were then observed for a 5-min period after receiving injections of epinephrine, chlorpromazine, or a placebo. Hooded Ss (a) chose the shallow side of the visual cliff more often; (b) spent more time on that side; and (c) were more emotional, as measured by fecal bolus counts. Albinos explored more, as indicated by their higher activity and crossover scores. Epinephrine tended to increase the emotionality of the albinos and markedly facilitated the response of avoiding the deep side of the visual cliff. Strain differences evident in visual cliff behavior are discussed in terms of differences in emotionality rather than ability to perceive depth. (22 ref.)—*Journal abstract*.

8469. Walter, S., Balzano, E., Vuillon-Cacciuto, G., & Naquet, R. (Lab. of Surgical Neurophysiology, Unit 41, Suresnes, France) **Effets comportementaux et électrographiques du diéthylamide de l'acide D-lysergique (LSD 25) sur le Papio papio photosensible.** [Behavioral and electrographic effects of D-lysergic acid diethylamide (LSD 25) on the photo-sensitive Papio papio.] *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 294-305. Studied the behavior, spontaneous electrographic activities, visual evoked potentials, and photosensitivity of 15 baboons (Papio papio) before and after iv administration of LSD 25. The changes in these parameters were noted and possible relationships between them investigated. There was a strict correlation between the disturbances of behavior (refusal of food), the disappearance of the visual evoked potential in the lateral geniculate body and the occipital cortex, the increase in the late wave of the occipital evoked potential, and the blocking of the irradiated frontorolandic response. It is concluded that the photosensitivity of Papio papio seems to require the integrity of the occipital evoked potential (primarily of the early wave, secondarily of the late wave) and the arrival of impulses in the frontorolandic region. (French summary) (46 ref.)—*English summary*.

8470. Wikler, Abraham; Pescor, Frank T., Miller, Dianne, & Norrell, Horace. (U. Kentucky, Coll. of Medicine) **Persistent potency of a secondary (conditioned) reinforcer following withdrawal of morphine from physically dependent rats.** *Psychopharmacologia*, 1971, Vol. 20(2), 103-117.—On 9 nights (8 PM to 8 AM) over a 25-day period, an anise-flavored aqueous solution of etonitazene, 5 mcg/ml, was provided as the sole drinking fluid for 12 male Wistar physically

dependent rats (MIEITZ) maintained on morphine 200 mg/kg up once daily at 8 AM (once actively abstinent each night) and for 12 saline-injected Ss. Only amine-flavored water was available in 12 comparable physically dependent and 12 saline-injected Ss. Beginning 3 days after abrupt and permanent termination of morphine or saline injections, all Ss were tested at intervals over a 287 day period on nocturnal choice drinking from 2 tubes (positions alternated). 1 contained amine-flavored water and the other, plain water. Analyses of variance on the mean volumes of each of the 2 fluids consumed by each S over blocks of choice-drinking tests reveal that through the 8th test (13th post-injection day), MIEITZ drank more amine-flavored water than any other group while there were no significant differences among the groups as regards consumption of plain water. Evidence indicates that the potency of secondary reinforcers so generated can persist long after morphine withdrawal. Implications for problems of relapse and treatment of opioid addicts are discussed. (11 ref.)—*Journal abstract*

8471 Woods, Donald J. & Routtenberg, Arvid. (Northwestern U.) "Self-starvation" in activity wheels: Developmental and chlorpromazine interactions. *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 84-93.—Conducted 4 experiments with a total of 30 30-45 and 22 70-90 day old male albino Sprague-Dawley rats. Adult Ss on a food-deprivation schedule showed increased running in activity wheels and a paradoxical depression of food intake. This "self-starvation" effect was markedly potentiated in younger Ss which, relative to controls, ran more and sustained greater weight loss than did older Ss. Chlorpromazine (a) reversed the self-starvation syndrome by depressing the activity and alleviating weight loss of the older Ss, and (b) exacerbated self-starvation with younger Ss. It is concluded that 30-45 day old Ss reacted to 23-hr deprivation with a severe stress response, perhaps related to the failure of incompletely developed neural and endocrine mechanisms to modulate the reaction to the self-starvation situation. (19 ref.)—*Journal abstract*

8472 Zakuon, V. V. & Ostrovskaya, R. U. (Inst. of Pharmacology, Moscow, USSR) Povyshenie ustoiichivnosti myshel k gipoksii pod vliyaniem trankvillizatorov benzodiazepinovogo ryada. [Increase in the resistance of mice to hypoxia under the influence of tranquilizers of the benzodiazepine series.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1971(Jeb), Vol. 71(2), 45-47.—Presents the results of a study on the influence of diazepam (seduxen), chloridazepoxide (telenium), and nitrazepam (mogadon) upon the survival time of white mice placed in a hermetic chamber with reduced O₂ content (8.7 volumetric %). Not less than 16 Ss were used in each experimental series. For comparative purposes meprobamate (a propandiol derivative) and the neuroleptic aminazine (chlorpromazine), were utilized. Drugs of the benzodiazepine series increased survival time, the most effective being diazepam. The protective effect of this preparation was retained for over 4-5 hr and enjoys a wide therapeutic range. It is suggested that diazepam may find some application in clinical practice when hypoxic states are involved. Meprobamate and aminazine displayed no clear protective action in hypoxia. (English summary) (18 ref.)—*J. D. London*

8473 Zavalich, Walter S. (Florida State U.) Gustatory nerve discharge and preference behavior of penicillamine treated rats. *Physiology & Behavior*,

1971(Apr), Vol. 6(4), 419-423.—Tested the hypothesis that penicillamine (D-Pen) induces hypogeusia, an impairment in gustation, by causing peripheral changes. 28 male Sprague-Dawley rats were tested both behaviorally and electrophysiologically over a wide range of NaCl concentrations. Ss were also tested with other solutions of various taste qualities for any other exaggerated preference. Large preferences for high concentrations of sodium saccharin, NH₄Cl, KCl, and NaCl solutions were found to exist in Ss treated with D-Pen. The electrophysiological behavioral, and exaggerated nerve activity responses were similar for control and D-Pen groups. It is concluded that D-Pen, despite producing marked preference shifts, does not alter the sensitivity of the taste bud to taste stimuli.—*Journal abstract*

CARDIOVASCULAR PROCESSES

8474 Bergman, Joel S. (Bowling Green State U.) Sources of information which contribute to the training and control of cardiovascular responses. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(2), B1, 162.

8475. Kleinman, Roger A. (U. Tennessee) The development of voluntary cardiovascular control. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5666-5667.

8476. Pastukhov, V. A. (Pavlov Inst. of Physiology, Leningrad, USSR) Krovosnabzhenie kory golovnogo mozga v norme i pri éksperimental'nom neuroze. [Blood supply of the cerebral cortex in the normal state and in experimental neurosis.] *Zhurnal Vyssheï Nervnoi Deiatel'nosti*, 1970(Sept), Vol. 20(5), 1064-1069.—3 dogs were used to study the changes in blood supply of the temporal cortical structures in response to various stimuli in the normal state and in experimental neurosis. Thermistors were implanted in Zones T₁ and T₂ of the auditory cortex. A tone (1500-2200 cps, 60 db.) increased the blood supply in this area, but rhythmic light (5 and 20 sec) after extinction of the orienting reflex, left it unchanged. After a number of combinations (85-120) of rhythmic light (20 sec) and the tone, light began to evoke the same changes as the tone did. It was possible to extinguish this reaction and to restore it. Rhythmic light at 5 sec served as differentiation. A conflict was then produced over a 4-day period, involving the positive and differential conditioned signals in combination with electroshock, leading to experimental neurosis expressed in (a) lengthening of latent periods and of the duration of changes in blood supply of the temporal cortex in response to both conditioned and unconditioned signals, (b) disinhibition of differentiation, and (c) wavelike changes in blood supply. Experimental neurosis lasted 1.5-2 mo. Changes in blood supply of the auditory cortex were shown to have a functional character and disappeared after the S's emergence from experimental neurosis without any therapy whatever. (English summary) (41 ref.)—*J. D. London*

8477 Prestrude, A. M. & Crawford, F. T. (Virginia Polytechnic Inst.) Tonic immobility in the lizard, *Iguana iguana*. *Animal Behaviour*, 1970(May), Vol. 18(2), 391-395.—Results from 8 male iguanas indicate that the tonic immobility response can be induced in the iguana by a combination of inversion, restraint, and moderate pressure. During immobility there was a systematic decline in respiration rate, the rhythm became

sporadic, and the magnitude irregular. Prolonged immobility did not seem to be consonant with a fear hypothesis, but could be the result of a period of cortical depression due to increased brainstem activity. (18 ref.)—*M. Strobel*

8478. Weisbard, Charles & Graham, Frances K. (U. Wisconsin) **Heart-rate change as a component of the orienting response in monkeys.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 74-83.—Reports that direction of the heart-rate (HR) response appears to distinguish, in many species, between a generalized orienting response accompanied by HR deceleration and a generalized defensive reflex accompanied by HR acceleration. 3 experiments with a total of 7 male and 11 female stump-tailed monkeys were conducted. HR was studied under conditions permitting the 2 reflexes to be distinguished. Deceleration was obtained when conditions were appropriate for eliciting orienting, i.e., when novel nonstartling moderately intense stimuli were presented to awake Ss. Acceleration was obtained when stimuli were intense.—*Journal abstract.*

ENVIRONMENT & STRESS

8479. Badia, Pietro; Culbertson, Stuart; Defran, R. H., & Lewis, Paul. (Bowling Green State U.) **Attenuation of rat vocalizations to shock by a stimulus: Sensory interaction effects?** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 131-136.—Studied the attenuation of distress vocalizations to shock by a stimulus preceding shock in 6 experiments with 48 Holtzman albino and 24 hooded female rats. Attenuation remained constant within and across 4 experimental sessions and occurred on the 1st trial. Significantly fewer vocalizations occurred when shock was preceded by onset of a visual stimulus with either a 3- or 6-sec trace or delay interval. Inhibition of vocalizations did not occur (a) when onset of both stimulus and shock was simultaneous, (b) when the stimulus was offset of stimulation, or (c) when stimulus was in the same sensory modality (tactual) as shock. A nonassociative interpretation emphasizing sensory interaction is supported.—*Journal abstract.*

8480. Bergström, Bengt & Arnberg, Peter. (Inst. of Military Psychology, Stockholm, Sweden) **The effect of threat- and task-oriented attitude upon performance under stress.** *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 14-20.—Studied tracking performance and arousal level in 30 army conscripts who were threatened with electric shocks. It was hypothesized that Ss with experimentally induced threat-oriented (despair) attitudes would degrade performance as a function of arousal, and that Ss with task-oriented (confidence) attitudes would retain normal performance under high arousal. Results show that performance deteriorated more under conditions of despair, but that the arousal-performance relation conformed to the activation theory in both conditions.—*Journal abstract.*

8481. Bevan, J. (Royal Naval Physiological Lab., Gosport, England) **The human auditory evoked response and contingent negative variation in hyperbaric air.** *Electroencephalography & Clinical Neurophysiology*, 1971(Mar), Vol. 30(3), 198-204.—Recorded the auditory evoked response (AER) and contingent negative variation (CNV) from 13 experienced male divers, before, during, and following an exposure to an increased ambient air pressure simulating a depth in sea

water of 300 ft. Results indicate that the AER was significantly affected at depth, while the CNV showed no significant changes. Results suggest that the AER and CNV are generated by independent mechanisms. The AER is considered to be attenuated by inhibition exerted during its propagation and passage through the ascending reticular activating system (ARAS). The CNV is considered to be a self-propagating phenomenon, initiated by the interaction between the specific, non-specific, and associational thalamic nuclei and, as such, to be at least partly independent of the changes assumed to occur in the activity of the ARAS. (French summary) (24 ref.)—*Journal summary.*

8482. Cabanac, M., Cunningham, D. J., & Stolwijk, J. A. (U. Claude Bernard, U.E.R. Médicale Lyon Sud-Ouest, Oullins, France) **Thermoregulatory set point during exercise: A behavioral approach.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 94-102.—Examined the finding that response to a peripheral thermal stimulus is an indicator of thermal status with respect to the thermoregulatory set point. 6 men and 3 women were provided with a glove perfused with water, adjustable in temperature from 15-45°C. Ss were asked to maintain the glove temperature at the level they considered most pleasant. In response to environmental temperatures ranging 15-45°C and to exercise at levels of 500 and 1,000 kgm/min, the selected glove temperature ranged 20-40°C. The preferred glove temperature (a) depended strongly on internal body temperature, (b) was affected to a lesser extent by mean skin temperature, and (c) was not affected by exercise alone. Results suggest there is no change in thermoregulatory set point during exercise. (27 ref.)—*Journal abstract.*

8483. Engel, J., Hanson, L. C., & Roos, B. E. (U. Göteborg, Sweden) **Effect of electroshock on 5-HT metabolism in rat brain.** *Psychopharmacologia*, 1971, Vol. 20(2), 197-200.—Administered repeated electroshock treatment (EST) on 3 consecutive days to 72 male Sprague-Dawley rats. The last treatment was given immediately after an injection of a tryptophan-hydroxylase inhibitor, H 22/54. Ss were killed 3 hr. later. 24 brainstems were pooled, analyzed for 5-hydroxytryptamine (5-HT) and 5-hydroxyindoleacetic acid (5-HIAA), and the values compared with a group of Ss receiving H 22/54 only. A significant decrease in 5-HT was seen in the EST group indicating an increase in the release of 5-HT after the repeated treatment. When the level of 5-HIAA in the EST group was compared with the level in the group treated with H 22/54 alone, the difference was slight. The small increase could be explained by the rather slow turnover rate of 5-HT in the CNS and thus of the synthesis of 5-HIAA. The possibility of an accelerated outflow of 5-HIAA from the CNS after EST should also be considered.—*Journal abstract.*

8484. Fishbein, William. (City Coll., City U. New York) **Disruptive effects of rapid eye movement sleep deprivation on long-term memory.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 279-282.—Examined the hypothesis that REM sleep deprivation will produce impairment of long-term memory. 64 hybrid mice deprived of REM sleep for 3, 5, or 7 continuous days, during the interval between a 1-trial inhibitory avoidance training experience and a subsequent retention test, displayed a temporary retrograde amnesia when tested 30 min. or 3 hr. following termination of REM deprivation. Ss did not recover from the amnesia if ECS was administered immediately following REM sleep

deprivation. In a further study, the generality of these findings was obtained by depriving 64 Swiss Webster mice of REM sleep during the interval between a discrimination training experiment in a black-white T-maze and the subsequent retention test. (29 ref.)—*Journal abstract.*

8485. Grosser, George S. & Percy, Hector E. (American International Coll.) **Postshock immersion of mice without memory disruption.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 119-122.—Immersed 36 male Swiss Webster mice in hot or cold water, or sawdust, immediately following a single trial on a passive-avoidance step-through task. In contradiction to the findings of B. Jacobs and C. Sorenson (see PA, Vol. 43:12587), retention was not significantly impaired. In Exp. II with 36 Ss, the manner in which the Ss were positioned on the apparatus was shown to be a determinant of the step-through latency. It is concluded that Jacobs and Sorenson have not provided enough evidence to support their contention that strong aversive stimulation which is insufficient to evoke convulsions will lead to memory disruption.—*Journal abstract.*

8486. Hamby, Wiley & Cahoon, D. D. (Auburn U.) **The effect of water deprivation upon shock elicited aggression in the white rat.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 52.—Recorded aggressive responses for 10 male naive Sprague-Dawley albino rats under conditions of (a) shock stimulation only, and (b) water deprivation plus shock. Results indicate that shock delivered while the S was water deprived elicited fewer aggressive responses than shock alone and that merely restraining the S did not elicit aggressive responses.—*Journal abstract.*

8487. Hokanson, Jack E., DeGood, Douglas E., Forrest, Marvin S., & Brittain, Thomas M. (Florida State U.) **Availability of avoidance behaviors in modulating vascular-stress responses.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 60-68.—Conducted 2 experiments with 24 and 30 male undergraduates to evaluate the arousal-reducing function of several cognitive factors in stressful situations. In Exp. I, Ss underwent an aversive 1/2-hr shock-avoidance procedure, in which the experimental Ss had optional control over rest periods, and a group of yoked controls had comparable rest periods imposed on them. The experimental group manifested substantially reduced systolic blood pressure levels relative to their yoked counterparts. Results suggest that the availability of an avoidance response had an arousal-reducing effect. In Exp. II, the rest periods were preceded by a reliable signal. Results indicate that anticipatory systolic reductions occurred in conjunction with the pretest signal and that these reductions varied as a function of the length of the subsequent rest period. (21 ref.)—*Journal abstract.*

8488. Korbel, Susan F., Johnson, Kenneth D., & Rowland, Paul S. (U. Arkansas) **Aftereffects of low intensity UHF radiation.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 50-51.—Examined behavioral aftereffects of UHF radiation in 30 male naive Sprague-Dawley albino rats. 15 Ss were exposed to UHF of low frequency (500 mHz.) and low intensity (.43-.15 milliwatts) for 38 consecutive days. For Days 39-55, UHF was not presented to experimental Ss. UHF Ss were less active than non-UHF Ss and continued to be less active for a short period of time after UHF termination.—*Journal abstract.*

8489. Luk'yanov, A. N. & Frolov, M. V. **Ispol'zovanie fiziologicheskikh signalov dlya otsenki emocional'nogo napryazheniya operatora.** [The use of physiological signals for evaluating the emotional tension of the operator.] In A. N. Luk'yanov & M. V. Frolov. "Signalny sostoyaniya cheloveka-operatora." (See PA, Vol. 44:11853).—Discusses (a) the EEG and emotional tension, (b) the analysis of output signals of the ECG integrator, and (c) the average number of intersections per unit time at the null level. Also included is a discussion of the transmissive characteristics of the link "breathing—vagus inhibition." Problems in the spectral analysis of speech signals, and application of spectral evaluation of the intonational characteristics of speech are considered.—*J. D. Levine.*

8490. Miller, Ralph R. & Springer, Alan D. (Brooklyn Coll., City U. New York) **Temporal course of amnesia in rats after electroconvulsive shock.** *Psychology of Behavior*, 1971(Mar), Vol. 6(3), 229-233.—Administered a single ECS to 34 albino male Sprague-Dawley rats immediately following 1-trial passive avoidance training in a step-through apparatus. Test trials 15, 30, 60, or 120 min. later found retention at 15 min. only. A 2nd experiment with 40 Ss replicated the 15-min retention effect and included a control group that indicated the phenomenon was not a systemic effect caused by the interaction of footshock and ECS. Other groups demonstrated that retention at 15 min., although appreciable, is not complete. Some implications for memory models are discussed. (21 ref.)—*Journal abstract.*

8491. Stern, Warren C. (Worcester Foundation for Experimental Biology, Shrewsbury, Mass.) **Effects of desynchronized sleep deprivation upon startle response habituation in the rat.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 31-32.—Assigned 56 naive male Sprague-Dawley rats to 1 of 4 treatments: (a) desynchronized (D) sleep deprivation, (b) desynchronized sleep deprivation and sleep recovery, (c) cold water immersion stress, and (d) normal conditions. Ss deprived of D sleep had faster habituation rates of click-induced startle responses than did normals, but the same habituation rates as stress controls. It is concluded that the faster habituation in the D sleep deprived group was probably not due to D sleep loss per se, but rather to the accompanying stress and/or increased activity levels.—*Journal abstract.*

GENETICS

8492. Broadhurst, P. L. (U. Birmingham, England) **New lights on behavioural inheritance.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 1-8.—The growing acceptance of the importance of hereditary influences in determining individual differences in behavior is observed. The contribution of psychogenetics is discussed. Also discussed are several experiments using cross-bred rats.—*V. S. Sexton.*

8493. Burt, Cyril. **Heredity and environment.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 9-15.—The essential research techniques and requisite calculations for heredity-environment studies are explained in terms of their historical development. How they may be applied to some of the most recently available data is illustrated briefly. (22 ref.)—*V. S. Sexton.*

8494. Gwadz, Robert W. (U. Notre Dame) **Monofactorial inheritance of early sexual receptivity in the**

mosquito, *Aedes atropalpus*. *Animal Behaviour*, 1970(May), Vol. 18(2), 358-361.—The autogenous strain shows an early onset of receptivity with a mean insemination time of 38 hr. The anautogenous strain shows a prolonged refractory period with a mean insemination time of 120 hr. Analyses of hybrids and backcrosses indicate that early receptivity is under the control of a single, autosomal, semidominant gene. The sexual behavior seems to differ as a result of differential rates of hormone production by the corpora allata. The autogenous strain, with a more rapid rate of hormone production and a consequently high juvenile hormone titer soon after emergence, becomes receptive early. The anautogenous strain with a slower rate of hormone production becomes receptive late. Hybrids are intermediate but more closely resemble the autogenous line. Application of a juvenile hormone analogue to the anautogenous strain, homozygous for late receptivity, produced sexually precocious females.—*M. Strobel*.

8495. Levine, Ralph L. (Michigan State U.) **Selective breeding for principal components and factors based upon behavioral traits.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 127-130.—Principal components or rotations of principal components are special cases of linear composites. As such a principal component can function as a selection index in breeding experiments, where, instead of selecting for 1 behavioral trait, selection is carried out on an index formed from 2 or more phenotypic characteristics. If the same weights are used in all generations and breeding lines, and if all groups and variables are standardized relative to the foundation stock, then the distributional parameters of the component scores will change, provided, of course, that heritability is sufficiently high. Similar methods can be used to select for more than 1 principal component at a time.—*Journal abstract*.

8496. Lindzey, Gardner; Loehlin, John; Manosevitz, Martin, & Thiessen, Delbert. (U. Texas) **Behavioral genetics.** *Annual Review of Psychology*, 1971, Vol. 22, 39-44.—Reviews major areas of research in the past 5 yr. involving (a) pathways of gene expression; (b) sensory and cognitive abilities and learning; (c) personality and temperament, and social behavior; (d) evolution; and (e) research methodology. A trend toward behavioral genetics as an interdisciplinary field of general interest and significance is noted. Research is seen as significantly broadened by extending from the molecular to the societal. (439 ref.)—*P. Hertzberg*.

PERSONALITY CORRELATES

8497. Underwood, Carol S. (Temple U.) **The relationship between body type and body fat and personality factors of college women.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5881-5882.

8498. Webb, Wilse B. & Friel, Janette. (U. Florida) **Sleep stage and personality characteristics of "natural" long and short sleepers.** *Science*, 1971(feb), Vol. 171(3971), 587-588.—Describes an experiment with 22 undergraduates who typically slept 5½ hr. or less each night and 32 Ss who typically slept 9½ hr. or more. Results indicate that Ss did not differ significantly on a battery of personality, scholastic, and medical measures (the MMPI, CPI, Cornell Medical Index, and the Zung Measurement of Depression Scale). Compared with controls not selected on a sleep length criterion, EEG

recordings of the short sleepers contained reduced amounts of Stage 2 and REM sleep. *Journal abstract*

NUTRITION & GASTROINTESTINAL PROCESSES

8499. Adlard, P. F. & Dobbing, John. (U. Manchester, England) **Vulnerability of developing brain: III. Development of four enzymes in the brains of normal and undernourished rats.** *Brain Research*, 1971, Vol. 28(1), 97-107.—The developmental profiles of 4 enzymes representative of different metabolic pathways or subcellular organelles were determined in the homogenates of whole brains of 0-21 day old control and undernourished male rats. Underfeeding the dams during gestation and lactation resulted in a 66% deficit in body weight of the young, compared with controls at 21 days. The activity deficits at 21 days were, respectively, 21, 14, and 11% for succinate dehydrogenase, fructose diphosphate aldolase, and acetylcholinesterase compared with a deficit in brain weight of 27%. β -N-acetylglucosaminidase was unaffected by undernutrition. Results indicate that the control of enzyme maturation in the brain may have both chronological and developmental components. (33 ref.)—*Journal summary*.

8500. Chow, Bacon F., Simonson, Maria; Hanson, Harley M., & Roeder, Loly M. (Johns Hopkins U.) **Behavioral measurements in nutritional studies.** *Conditional Reflex*, 1971(Jan), Vol. 6(1), 36-40.—Studies on the effects of dietary deficiencies have shown marked behavioral impairments in rats deprived of adequate quantities of specific vitamins. Recently, experiments have demonstrated that restriction of maternal dietary intake during gestation and lactation results in a variety of physiological and behavioral abnormalities in the progeny. These offspring are stunted, retarded in neuromotor development, impaired in maze learning ability, slow to extinguish a CR, and show a low level of exploratory activity, a high degree of emotional behavior and marked antisocial interaction. Patterns of change with increasing age in some of these measurements also distinguish these experimental animals from controls born of adequately fed dams. *Journal summary*.

8501. Ruckebusch, Yves; Grivel, Marie L., & Fargues, Marie J. (National Veterinary School, Lab. of Physiology, Toulouse, France) **Activité électrique de l'intestin et prise de nourriture conditionnelle chez le lapin.** [Electrical activity of the intestine and feeding associated with a visual conditioning in the rabbit.] *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 359-365.—Trained rabbits by conditioning procedures to associate feeding with a visual display of black and white horizontally placed stripes. The degree of movement of the various regions of the alimentary canal was made by recording the electrical activity of the gut. The intermittent activity of the pylorus and the rhythm of the ileum and caecum were markedly increased in rate following the actual ingestion of food. The total electrical activity of the pylorus and the duodenum was increased for a few min. when the S was placed in the experimental situation, but the caecum and ileum were not affected. The ileum did show a marked increase in the frequency of slow waves. It is concluded that increased movement of the gut occurs when the rabbit is placed in a situation where it normally receives food although the different regions of the alimentary canal respond in varying degree. It is possible that the increased activity of the pylorus and duodenum are

stimulated by the cephalic phase of classical conditioning, because this phenomenon disappears after vagotomy. (French summary) — *English abstract*.

8502. Smart, J. L. & Dobbing, John. (U. Manchester, England.) Vulnerability of developing brain: II. Effects of early nutritional deprivation on reflex ontogeny and development of behaviour in the rat. *Brain Research*, 1971, Vol. 28(1), 85-95. — During the last 2 wk of pregnancy and throughout lactation the food intake of female rats was restricted to about 1/3 that of a control group fed ad libitum. The growth, physical maturation, and behavioral development of control and undernourished male offspring were compared. At 21 days the body weight of the underfed young was 1/3 that of controls. The appearance of 2 out of 3 physical features, and of 4 out of 8 reflexes was significantly delayed in the undernourished group as were exploratory responses. Generally characteristics which normally appear in the 1st wk of postnatal life were not significantly affected, whereas most of those appearing later were significantly delayed. (18 ref.) — *Journal summary*.

ANIMAL PSYCHOLOGY

8503. Becker-Carus, Christian. (Max Planck Inst. of Psychiatry, Munich W. Germany.) Die Bedeutung der Tageszeit für Sensibilität, Reizaktivität und Entscheidungsaktivität bei Planarien (*Dugesia dorotocephala*). [The influence of time of day on sensibility, habituation and choice activity in planarians (*Dugesia dorotocephala*).] *Zeitschrift für Tierpsychologie*, 1970 (Oct), Vol. 27(7), 761-770. — 4 groups of planaria — morning, noon, evening, and night — were individually subjected to short electrical shocks every 60 sec. For the whole 17-day experimental period sensitivity in the evening and at night was considerably greater than in the morning and at noon. Habituation took place only during the 2nd 1/2 of the experimental period in the morning and evening groups, but during the whole experimental period for the noon and night groups. Strong responses were substituted by weak ones in all 4 groups. Choice behavior in a multiple Y maze showed that morning and night groups showed initially strong activity which sharply decreased during the experimental period. The activity of the noon Ss was weaker at the beginning but showed a slight tendency to increase during the test period. Maximum activity varied from midnight to morning to noon. Sensitivity was at a maximum between evening and midnight. — *K. E. Grossmann*.

8504. Duncan, I. J., Horne, A. R., Hughes, B. O., & Wood-Gush, D. G. (Agricultural Research Council, Poultry Research Centre, Edinburgh, Scotland.) The pattern of food intake in female brown leghorn fowls as recorded in a Skinner box. *Animal Behaviour*, 1970 (May), Vol. 18(2), 245-255. — Examined the temporal structure of feeding in fowls in a Skinner box. Each S exhibited a characteristic diurnal feeding rhythm with a sharp decline toward the end of the day. No periodicity was found between 20 min. and 4 hr. Some Ss showed bouts of feeding described as meals. Frequency distribution of interval between meal and meal size were of negative exponential form. Meal size was positively correlated with length of the interval that followed it. Positive correlation of meal size and the interval preceding it was inconsistent. A brief hypothesis con-

cerning the control of food intake in the fowl is postulated. — *M. Stöbel*.

8505. Emlen, Stephen T. (Cornell U., Div. of Biological Sciences.) The influence of magnetic information on the orientation of the indigo bunting, *Passerina cyanea*. *Animal Behaviour*, 1970 (May), Vol. 18(2), 331-334. — Examined, in 3 series of experiments, the hypothesis of geomagnetic orientation in migrating birds. (a) Directional preferences of caged buntings in a planetarium were observed only in the presence of celestial information and deteriorated to randomness with geomagnetic cues only. (b) Repeated testing with geomagnetic cues in a visual-cueless chamber failed to develop directional preferences. (c) Attempts to classically condition responses to directional change of 1-sec duration in the horizontal component of an artificially induced magnetic field have been unsuccessful. The hypothesis that indigo buntings can perceive and use static magnetic fields as directional cues was confirmed by the experimental data. (47 ref.) — *M. Stöbel*.

8506. Hangartner, Walter; Reichson, Jack M., & Wilson, Edward O. (Harvard U., Biological Lab.) Orientation to nest material by the ant, *Pogonomyrmex badius* (Latreille). *Animal Behaviour*, 1970 (May), Vol. 18(2), 331-334. — Results indicate that: (a) Workers separated from laboratory colonies of the harvesting ant preferred sand from their own nests over purified sand and sand originating from other nests of the same species. They were able to distinguish these materials by odor alone. (b) All of 8 closely grouped colonies in a wild population in Tampa, Florida, were able to recognize their own nest sand. (c) This ability to discriminate nest material appeared to be greater in the afternoon than in the morning. (d) The possible role of nest odors in the origin of colony odors and vice versa, is briefly discussed. — *Journal summary*.

8507. Jander, Rudolf. (U. Frankfurt/Main, Zoological Inst. W. Germany.) Ein Ansatz zur modernen Elementarbeschreibung der Orientierungshandlung. [An attempt at a modern elementary description of orientation activities.] *Zeitschrift für Tierpsychologie*, 1970 (Oct), Vol. 27(7), 771-778. — The steadily increasing scientific knowledge in ethology is lacking a definite system of definitions which makes factual-objective communication virtually impossible. Modern elementary description of orientation (as an example) should at least comprise the following 3 steps: (a) Discrimination between the orientational and the coordinational aspect of patterned movement as well as between the perceptual processes which localize and those which serve other functions. (b) Geometrical descriptions of movement in space: discrimination of distance, orientation and directional (rotational) orientation. Thereby 2 types of redirected oriented progression can be distinguished: of resetting of the afferent system (change of taxis) and of resetting of the efferent system (change of kinesis). (c) Discrimination is essential between instantaneous environmental stimuli, individual memory, genetic information (instinct), and stochastic processes. Endokinetic orientation must be distinguished from exokinetic orientation. The term "kinesesthetic orientation" is to be canceled. (24 ref.) — *K. E. Grossmann*.

8508. Keiper, Ronald R. (Pennsylvania State U., Mont Alto.) Studies of stereotype function in the canary (*Serinus canarius*). *Animal Behaviour*, 1970 (May), Vol. 18(2), 353-357. — Route-tracing and spot-picking, 2

stereotypies of caged canaries, were observed in 5-min periods. Presentation of both novel stimuli (plastic head and a mirror) and social stimuli (view of a bird in an adjacent cage) significantly reduced both stereotypies. Grouping of birds also caused a decrease by physically disrupting the stereotypies. Administration of sex hormones activated alternate behaviors which reduced the number of route-tracings. These results suggest that in caged canaries these stereotypies occur primarily to supply the bird with a source of stimulation. (15 ref.)—*M. Strobel*.

8509. Martinek, Z. & Lát, J. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **Long-term stability of individual differences in exploratory behaviour and rate of habituation in dogs.** *Physiologia Bohemoslovaca*, 1969, Vol. 18(3-4), 217-225.—Tested 13 young and 10 adult laboratory dogs of Horák's breed at 10-mo intervals: Results indicate significant long-term stability of (a) individual differences in various indicators of exploratory activity, particularly the frequency of grid-crossings, rearings, or duration of locomotion; (b) a composite indicator comprising the frequency of grid-crossings, rearing, or sniffing; and (c) individual rates of habituation to a new environment. These results were also obtained with young Ss, tested pre- and postpuberty, indicating that the changes associated with sexual maturation did not significantly influence the stability of the selected indicators. (20 ref.)—*Journal summary*.

8510. Oppenheim, Ronald W. (Dorothea Dix Hosp., Raleigh, N.C.) **Some aspects of embryonic behaviour in the duck (*Anas platyrhynchos*).** *Animal Behaviour*, 1970(May), Vol. 18(2), 335-352.—A total of 321 Peking and mallard duck and white leghorn chick embryos were used in a series of observations and experiments on embryonic behavior. It was observed that amount of movement increased with embryonic age from Day 5 to Day 17. Activity occurred in bursts. Beginning at Day 22 the embryo assumed hatching position. 16 hr. prior to hatching a sudden increase in back movement of the head led to hatching. Sequence and character of movement were similar to the chick embryo. Contrary to earlier reports, neither head movement nor bill clapping was affected by lifting the right wing from its normal position over the embryo's head. (38 ref.)—*M. Strobel*.

8511. Vince, Margaret A. & Cheng, R. (Psychological & Statistical Lab., Cambridge, England) **The retardation of hatching in Japanese quail.** *Animal Behaviour*, 1970(May), Vol. 18(2), 210-214.—Examined the natural conditions which retard hatching in Japanese quail. In Exp. I, reducing the difference between normal and delayed eggs to 15 hr. gave negative results. In Exp. II, by increasing the number of delayed eggs with which the quail embryo was in contact, it was shown that hatching can be retarded. Thus, retardation is a function of amount of retarding stimulation.—*M. Strobel*.

8512. Webb, Wilse B. & Friedman, Joyce. (U. Florida) **Attempts to modify the sleep patterns of the rat.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 459-460.—Utilized 3 extensive behavior control procedures to modify sleep patterns in 38 male Long-Evans rats: (a) restriction of activity from weaning for 3 mo., (b) prevention of sleep during a set 6-hr period/day by wheel enforced movement for 30 days, and (c) shock contingently associated with the onset of sleep during a set and well cued 6-hr period/day for 10 days. Little or no modification of any enduring character was found

when compared with control conditions. Data suggest a strong inherent control of the sleep response in the rat.—*Journal abstract*.

COMPARATIVE PSYCHOLOGY

8513. Crook, John H. (U. Bristol, England) **Social organization and the environment: Aspects of contemporary social ethology.** *Animal Behaviour*, 1970(May), Vol. 18(2), 197-209.—Discusses developments within ethology, focusing on the relations between social behavior, ecology, and population dynamics. In socioecology, recent studies reveal that close correlations exist between the forms of avian and mammalian social organization and their respective ecological niches. In sociodemography, research suggests that socially mediated mortality is of great significance in the density-dependent control of bird and mammalian numbers. Studies of social processes outline the dynamics of social change within relatively stable group structures through the relationships between dominance, kinship, and competition-contingent cooperation. (62 ref.)—*M. Strobel*.

8514. Pollard, J. S., Baldock, M. D., & Lewis, R. F. (U. Canterbury, Christchurch, New Zealand) **Learning rate and use of visual information in five animal species.** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 29-34.—Conducted 2 experiments with cross-bred domestic fowls and compared learning rates and use of visual information with those found for species in previous studies. In Exp. I, 18 Ss were run on standard closed field test problems and their performance compared with that of rats, cats, possums, and ferrets. Ss exhibited learning rates similar to those of possums and lower than those of rats, cats, and ferrets, but showed little use of available visual cues. In Exp. II, 12 Ss were run through the same problems with the walls of the maze problems painted black instead of white while the maze pathway remained white. While their learning rates remained unchanged, Ss made fewer errors in the high contrast maze and gave evidence of using visual cues in a manner similar to cats. The 2 experiments demonstrate the value of "control by equation" for interspecies comparison, i.e., of using proportional rather than absolute measures of performance in describing and interpreting the performance of different species on learning tasks.—*Journal abstract*.

8515. Radabaugh, Dennis C. (Ohio State U.) **A comparative study of learning in two species of centrarchid fish.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5719-5720.

8516. Williams, D. I. (U. Hull, England) **Ethology and human behaviour.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 17-22. Analyzes the feasibility of drawing inferences about human behavior from observation of the so-called lower orders of the animal kingdom. It is argued that animals are not merely analogues of human behavior; they are complex organisms in their own right. It is cautioned that we would be wise to learn from them, to model our theories on insights that we can only gain by artificially structuring their lives, but that ultimately the only model for the behavior of man is man. (16 ref.) *V. S. Sexton*.

NATURAL OBSERVATION

8517. Brown, Jerram L. (U. Rochester, Center for

Brain Research) Cooperative breeding and altruistic behaviour in the Mexican jay, *Aphelocoma ultramarina*. *Animal Behaviour*, 1970(May), Vol. 18(2), 366-378. A flock of Mexican jays consists of 8-20 birds, typically 2 or more breeding pairs and a number of nonbreeding yearlings and adults. The feeding of the nestlings was shared by all flock members with 38-53% of the feeding visits by the parents and the remainder by altruistic jays. Parents showed a significant preference for feeding their own nestlings as long as they remained in the nest. After the young left the nest the parents no longer showed a preference for feeding their own fledglings.—M. Strobel.

8518. Davis, G. James & Lussenhop, John F. (U. Wisconsin) Roosting of starlings (*Sturnus vulgaris*): A function of light and time. *Animal Behaviour*, 1970(May), Vol. 18(2), 362-365. Starlings were observed returning to roost from August 21 to October 1, 1966. Initial departure towards the roost was closely correlated with light intensity. The time of departure from the feeding areas would probably show a better correlation with light intensity than would the time of departure for the 1st and final assemblies. Starlings arrival at the roost was not simply a function of the light-time stimulus, but also depended on the light intensity at the time starlings began flying, the varying distances they had to fly to the final roost, and behavioral interactions en route (16 ref.)—*Journal summary*.

8519. Fishelson, Lev. (Tel-Aviv U., Israel) Behaviour and ecology of a population of *Abudefduf saxatilis* (Pomacentridae, Teleostei) at Eilat (Red Sea). *Animal Behaviour*, 1970(May), Vol. 18(2), 225-237. —Describes the habitat, schooling, feeding, and reproductive behavior over a 1-yr period, under natural conditions. The fish inhabiting shallow waters spend the night separately in coral crevices and gather after sunrise in groups to feed on plankton. Schooling appears after feeding as a preliminary to establishing breeding colonies. The male builds a nest and invites a female with special action patterns. Entrance of the female in the nest releases spawning behavior. The male spawns with several females consecutively. Frequency and correlation of action bonds are strongly dependent on the strength of the producing stimulus. During the winter schooling disappears. (27 ref.)—M. Strobel.

8520. Henshaw, John. (Box 593, College, Alaska) Consequences of travel in the rutting of reindeer and caribou (*Rangifer tarandus*). *Animal Behaviour*, 1970(May), Vol. 18(2), 256-258. Observations of rutting reindeer indicate that during herding, breeding was greatly intensified and that courtship behavior exhibited in stationary groups did not occur. This may be explained by concepts which illustrate movement, high density of animals, high excitement, and antler contact as possible erotic stimuli. The maintenance of movement, as well as high density, appears to be important to caribou during the rutting season. *Journal summary*.

EARLY EXPERIENCE

8521. Angermeier, W. & Phelps, J. (Florida Presbyterian Coll., Primate Neurosciences Lab.) Early experience and levels of noxious stimulation in monkeys. *Psychologische Forschung*, 1971, Vol. 34(3), 247-252. —"An analysis conducted in retrospect revealed

that monkeys reared in isolation had a lower threshold level of shock (RLS) in order to perform a continuous operant task than did monkeys reared in environments which permitted varying degrees of visual, tactile, and social stimulation. This behavior prevailed (a) under conditions of both avoidance and escape training and (b) at the time of initial exposure to shock and (c) thereafter. A limited confirmation of Fuller's theory of "sensitization" is discussed"—R. Gunter.

8522. Carter, Carol S. & Marr, John N. (U. Arkansas) Olfactory imprinting and age variables in the guinea-pig, *Cavia porcellus*. *Animal Behaviour*, 1970(May), Vol. 18(2), 238-244. —Neonates reared with mothers or littermates which had natural, ethyl benzoate acceptance odors showed preferences for the real mothers in a choice test after exposure of 15 or 30 days. Preference scores increased with length of exposure time. The 15 day (13 day of age) exposure was most effective. No exposure at a later time. Regardless of age or duration of exposure to an experimental odor, groups showed a preference for a natural odor when tested at 60 days of age.—M. Strobel.

8523. Deutsch, Robert & Roberts, Larry E. (McMaster U., Hamilton, Ontario, Canada) Effect of aversive stimulation and early handling on skin conductance, defecation and activity in *Mus musculus*. *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 125-127. —Conducted 2 experiments with 25 and 12 female hybrid mice to determine the effects of an aversive stimulus (sustaining of 17 and early handling. Presentation of aversive stimulus always elicited an increase in skin conductance and defecation, but the locomotor response was a decrease early in testing and an increase later on. Early handling abolished each component of the response pattern. Results suggest control of the electrodermal system by a mechanism that regulates emotional defecation and agonistic locomotor responses. Autonomic responses occur whenever this mechanism is aroused but the locomotor response that follows depends upon cues that are present and S's previous experience with them. *Journal abstract*.

8524. Flittinghoff, N. A., Lindburg, D. G., & Mitchell, G. (National Center for Primate Biology, Davis, Ca.) Failure to find polydipsia in isolation-reared monkeys. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 277-278. —Compared the water consumption of 6 adult male rhesus monkeys, reared in social isolation, with that of 5 fetal-reared controls. Isolate polydipsia, reported elsewhere, was not found in the present study. A possible explanation of this unexpected result (difference in relative ages of Ss) is presented.—*Journal abstract*.

8525. Malakhovskaya, D. B. & Dmitrieva, L. E. (Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) O posledstviyakh trenirovki vrozhdennyykh refleksov v rannem postnatal'nom periode. [On the effects of training inborn reflexes in the early postnatal period.] *Zhurnal Vysshego Nervnogo Deyatel'nosti*, 1970(Sep.), Vol. 20(5), 955-960. —123 rabbits were used to study the effects of methodical evocation of the cleaning reflex, elicited by electrostimulation of the skin of the post-erolateral surface of the neck. Each experimental session employed 10 such stimulations, 91 Ss were subjected to only 1 session at the age of 5-49 days; 32 Ss, to daily sessions for 8 wk from the age of 5 days. In Group 1 the main form of reaction to the stimulation was scratching movements with lesser or greater participation of other cleaning reactions, depending on age (early or later).

respectively). In Group 2 the character of development of the reflex was different: replacement of the scratching reflex by the shaking reflex. Thus, early methodical evocation of the cleaning reflex affects its development. (English summary)—*I. D. London.*

8526. Miller, Barbara V. & Levis, Donald J. (U. Iowa) **The effects of long-term auditory exposure upon the behavioral preference of rats for auditory stimuli.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 178. —Conducted 2 experiments with a total of 150 rats who were reared from birth in constant tone and nontone environments and subsequently tested with tone and white noise stimuli. Tone-reared Ss indicated no preference for tone, absence of tone, or white noise. Non-tone-reared Ss preferred the tone to white noise. Tone-reared Ss were significantly heavier and less emotional in open-field testing. Results (a) pose difficulty for the hypothesis that exposure to a stimulus increases its attractiveness, and (b) supports the hypothesis "that long-term exposure to tone retards learning of a stressful but not a nonstressful task."—*S. Knapp.*

8527. Nagy, Z. Michael & Anderson, James A. (Bowling Green State U.) **Body temperature reduction in young C3H mice following removal from the nest.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 101-102. —Examined the ability of 140 young C3H mice to maintain nest-level body temperatures upon removal from the nest as a function of age. Separate groups of Ss were tested at 1, 5, 8, 10, 12, 15, or 20 days of age. Ss were placed in small chambers maintained at 24° C, and colonic temperatures were recorded immediately upon removal from the nest, and 3 and 15 min. following exposure to 24° C. Results demonstrate that Ss less than 12 days of age exhibited losses in body temperature, with younger Ss showing the greater losses, while Ss older than 12 days increased their temperatures over the 15-min interval.—*Journal abstract.*

8528. Nielsen, Thomas C. (U. Aarhus, Inst. of Psychology, Denmark) **Visual and tactual exploration in rats reared in different degrees of visual and tactual stimulation.** *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 53-60. Reared 4 groups of 8 male albino rats in 4 possible combinations of high and low visual and tactual stimulation. Early tactual enrichment increased later tactual exploration regardless of visual stimulation. Visual enrichment did not influence exploration in the tactual enrichment groups, but in the tactual deprivation groups it seemed to produce more visual and less tactual exploration. The most deprived group exhibited a higher locomotor activity which could not be explained in terms of an increased tendency to explore.—*Journal abstract.*

8529. Quadagno, David M. & Banks, Edwin M. (U. California, Medical School, Los Angeles) **The effect of reciprocal cross fostering on the behaviour of two species of rodents, *Mus musculus* and *Baiomys taylori*.** *Animal Behaviour*, 1970(May), Vol. 18(2), 379-390. —*Baiomys* and *Mus* pups were cross-fostered and their adult behavior compared with controls. Open field activity increased in cross-fostered *Baiomys* and decreased in cross-fostered *Mus* indicating differential handling by the dams. Results from the social preference tests indicate that females were more affected by cross-fostering than males. Pair encounters revealed on fighting, grooming, attempted mounts, approach, and withdrawal behavior that cross-fostered Ss were reacting

more positively to the foster species than to conspecifics. Cross-fostered male and female *Mus* did not lose their ability to mate with a conspecific which implies that sexual behavior in this species is less susceptible to change due to early experience than other social behavior. (26 ref.)—*M. Strobil.*

8530. Schlottmann, Robert S. (Louisiana State U., Agricultural & Mechanical Coll.) **Mother-infant separation in the java monkey (*Macaca irus*).** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5641.

8531. Thoman, Evelyn B. & Komer, Anneliese F. (Stanford U., Medical School) **Effects of vestibular stimulation on the behavior and development of infant rats.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 92-98. —Assigned 181 newborn rats from 19 litters to 1 of 3 groups which were (a) swaddled and rotated, with brief periods of nonrotation; (b) swaddled only; or (c) given no treatment. Treatment was given daily for 10 min. for 14 days, beginning on the 1st day after birth. Vocalization was observed during the treatment periods. Observations of cessation of crying during rotation indicate that vestibular stimulation is a highly effective stimulus for arresting the distress call of the infant rat from the 1st day of life. The developmental effects of rotation were evident in increased exploratory behavior at 20 days of age and in higher weaning weights. These effects were clearly attributable to the addition of vestibular stimulation to the stimuli provided by handling and swaddling.—*Journal abstract.*

8532. Walk, Richard D. & Bond, Elizabeth K. (George Washington U.) **The development of visually guided reaching in monkeys reared without sight of the hands.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 115-116. —Conducted a modified replication of a study by R. Held and J. Bauer (see PA, Vol. 41:5770). 2 male macaque monkeys were reared without sight of the hands. Ss were taught to reach toward a dowel stick they could see. When the hands were uncovered, neither prolonged hand watching nor inability to reach toward objects was observed. Ss reached toward gross objects on the 1st day and gradually improved. It is concluded that visual deprivation of the sight of the hands did not appear to hinder visually guided reaching as much as the Held-Bauer study indicated.—*Journal abstract.*

INSTINCTS

8533. Gallup, Gordon G., Nash, Richard F., & Fillson, Alton L. (Tulane U.) **Tonic immobility as a reaction to predation: Artificial eyes as a fear stimulus for chickens.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 79-80. —In 2 experiments with 60 Production Red chickens, it was found that young habituated Ss exposed to artificial eyes suspended overhead remained immobile in response to manual restraint appreciably longer than did controls and were more susceptible to immobility. Results are discussed in relation to a defensive-distance dimension and in terms of the notion that tonic immobility may have evolved in response to predation.—*Journal abstract.*

8534. Lee, C. T. & Estep, Daniel. (U. Texas) **The developmental aspect of marking and nesting behaviors in Mongolian gerbils (*Meriones unguiculatus*).** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 312-313. —Studied developmentally the marking and nest-building behaviors of 10 male and 10 female gerbils. Ss of

both sexes began to mark at 2 wk. of age, though males did not mark more often than females until 4 wk. of age. Both males and females were able to use scent to build nests at 8 wk. of age. No sex difference was found in initial consumption at any age level. The marking and nesting activities were positive functions of age. *Journal abstract*

8535. Selman, I. E., McEwan, A. D., & Fisher, E. W. (Glasgow U., Veterinary School, Scotland.) Studies on natural suckling in cattle during the first eight hours post partum. I. Behavioural studies (dams). *Journal Behaviour*, 1970(May), Vol. 15(2), 284-289. —Observed the behaviour during the 1st 8 hr postpartum of 30 cows and heifers, particularly the position at parturition, locking and grooming, maternal orientation, maternal rejection, and resting behaviour. Marked elevations in a set pattern of activity were recorded on only a few occasions, but it was nevertheless concluded that the experienced dams were the best mothers. (28 ref.) *Journal summary*

8536. Selman, I. E., McEwan, A. D., & Fisher, E. W. (Glasgow U., Veterinary School, Scotland.) Studies on natural suckling in cattle during the first eight hours post partum. II. Behavioural studies (calves). *Journal Behaviour*, 1970(May), Vol. 15(2), 284-289. —Observed the behaviour of 30 calves during the 1st 8 hr postpartum, particularly behaviour prior to standing, teat seeking, and suckling. In the majority of cases a very similar pattern of behaviour was exhibited. However, wide variations were found to occur in the time for 1st suckling. 7 of the 30 calves did not suckle during the observation period. Several reasons for delayed suckling are defined. (17 ref.) *Journal summary*

MOTIVATION & EMOTION

8537. Badia, Pietro & Culbertson, Stuart. (Bowling Green State U.) Stimulus induced attenuation of rat vocalizations to tail shock. Shock intensity effects. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 267-268. —Reports 3 studies with a total of 10 male and 1 female naive Holtzman albino rats, dealing with induction of distress vocalizations to shock by a preceding stimulus. 2 factors were considered: shock intensity and postural adjustments. Shock intensity was varied in 2-V steps from 8-18 V in Study A, 12-22 V in Study B, and 18-28 V in Study C. Postural changes were controlled by using a restraining cage and applying shock to the tail. Stimulus-induced suppression was relatively constant at intermediate intensities but at the highest intensities it did not occur. Number and duration of vocalizations increased with intensity. Postural adjustment was not a factor. *Journal abstract*

8538. Burghardt, Gordon M., Asken, Henry, & Musmeci, Marilyn. (U. Tennessee.) A supplementary note on the feeding behavior of the lizard, *Anolis carolinensis*. *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 49-50. —Takes issue with the statement of H. Asken, M. Musmeci, I. Smare, and I. Stephan (see 8A, Vol. 45:403) that there has been little research on repulsive feeding behavior. Other studies, including 3 by G. Burghardt, are noted. Special note is made of 1 of these studies, which is considered nearly identical to that of Asken, et al. A reply by Asken and Musmeci argues that (a) previous research is comparatively limited and different in nature, and (b) that their experiment was different in procedure and in variables investigated. S. Knapp

8539. Colquhoun, George L. (Princeton U., Adjunct Research Lab.) Partitioning of a restricted food source in a territorial iguanid (*Anolis carolinensis*). *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 50-51. —Reports on the effects of behavior of 6 pairs of lizards each day for 5 days following a 48-hr deprivation period. Each pair of Ss was observed in an ad libitum food situation for all pairs. 1 S dominated the food situation throughout the observation period. Food offered during the 1st day of observation was taken by the dominant Ss by the dominant and subordinate Ss. Food offered on the 5th day was taken by the dominant Ss (90.4%). This difference was statistically significant ($p < .031$) and suggests that territoriality can function to ensure the holder of that territory access to most of a limited food supply. *Journal abstract*

8540. Coover, Thomas L., & Powell, D. A. (Chiswick Animal Hospital & Hosp., Denver, Colo.) Effects of age and housing conditions on shock-induced aggression. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 269-270. —In an experiment with 24 experimental rats, it was demonstrated that the variability of aggression rates over sessions was, in part, a function of age. As the Ss were housed outside the experiment, age was not shown to be an important determinant of elicited aggression, primarily because the effects of this variable were confounded by housing conditions. *Journal abstract*

8541. Driver, Paul & Renner, K. Edward. (U. Illinois.) Self-punitive behavior: Masochism or confusion? *Psychonomic Science*, 1971(Jul), Vol. 78(4), 333-337. —Considers the phenomenon of self-punitive behavior in rats. A possible experiment was conducted with 22 naive female Ss. Previous work had suggested that by choosing to receive a painful shock, the rats were showing a preference for punishment thus providing an analogue for masochism. This extension to masochism was considered inappropriate, however, because of the use of the concept of choice and the attribution of a state of preference to the S without an adequate preference methodology. The apparent paradoxical effects of punishment fees in self-punitive behavior were resolved by making a conceptual distinction between instrumental learning about response-contingent outcomes (expectancies) and motivational states (preference). *Journal abstract*

8542. Hargrave, George F., & Bolles, Robert C. (U. Washington.) Rat's aversion to flavors following induced illness. *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 91-92. —Established preferences in 24 male Long-Evans rats for 1 of 2 flavors of a novel food. Ss were then trained in a $2 \times 2 \times 2$ factorial design varying flavor, environment, and ip injections of 15% isotonic NaCl solution. Results confirm previous reports that rats can learn from a single induced illness to avoid a novel food encountered just prior to becoming ill, and indicate the relative specificity of the adequate stimulus. Rats appear to avoid the taste of the illness-associated food but not its smell or its location. *Journal abstract*

8543. Kierckoper, H., et al. (Texas A & M U., Inst. of Life Science.) An analysis of locomotor behaviour of goldfish (*Carassius auratus*). *Animal Behaviour*, 1970(May), Vol. 18(2), 317-330. —The movements of individually observed naive goldfish, 25-30 cm long in a novel open field tank $5 \times 5 \times .5$ m deep were con-

tinuously monitored during periods from 11-69 hr. The size, direction, and sequence of turns, length of steps, and velocities were computed, and their relationships analyzed by an online computer system. Locomotor patterns and the effects of time (decrease in novelty content) were assessed in the light of available data in other species. It is concluded that spontaneous alternation may be related to orientation but not to exploratory behavior. (91 ref.)—*Journal summary.*

8544. Knutson, John F. (U. Iowa) **The effects of shocking one member of a pair of rats.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 265-266.—In an experiment with 10 experimentally naive male hooded rats, it was found that when 1 member of a pair of Ss was insulated from electric footshock, a frequency of aggression was obtained which was far lower than that which has typically been reported in the shock-elicited aggression literature. Also the shocked Ss developed a relatively high frequency of stereotyped responses which served as partially successful avoidance responses. Data support earlier data indicating that avoidance or escape responses to shock will take priority over attack responses to shock.—*Journal abstract.*

8545. Oatley, Keith & Dickinson, Anthony. (U. Sussex, Lab. of Experimental Psychology, Brighton, England) **Air drinking and the measurement of thirst.** *Animal Behaviour*, 1970(May), Vol. 18(2), 259-265.—Compared air licking and water licking in 34 adult male rats. Results indicate that: (a) Number of licks on a water spout and on a low or high pressure air stream hose were nearly a linear function of length of deprivation. (b) Histograms of intervals between licks were also similar for water and air. (c) Ss took more licks to air than to water and rate of licking air did not diminish as fast as for water. This would be expected if air had its mildly satiating effect in providing decaying short-term feedback. (d) Part of the satiating effect of air may be due to gut distension. (e) Air drinking, although it does not remove all feedback from drinking provides a useful measure of thirst, free of the absorptive effects of drinking water.—*M. Strobel.*

8546. Palfai, Tibor; Kutscher, Charles L., & Symons, James P. (Syracuse U.) **Schedule-induced polydipsia in the mouse.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 461-462.—Gave 4 male mice a food pellet every 150 sec. for 3 hr. All Ss developed polydipsia. When the scheduled feeding was discontinued, water intake decreased. Polydipsia redeveloped following the reintroduction of the schedule immediately or after 9 days of ad lib feeding. High negative correlations existed between water intake and body weight in all Ss.—*Journal abstract.*

8547. Platt, Jerome J., Reiser, David L., & Merkner, James. (Hahnemann Medical Coll.) **Response to stimulus change and related temporal parameters in rabbits and guinea pigs.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 173-178.—Reports on the performance of rabbits and guinea pigs in the response to the stimulus change paradigm. Rabbits responded to stimulus change at better than the .001 level while guinea pigs did not respond at a probability level significantly different from chance. An examination of temporal parameters revealed that length of time spent exploring the choice point on both the familiarity and test trials was significantly related to having made the predicted response for rabbits, but not for guinea pigs.—*Author abstract.*

8548. Strouthes, Andrew. (State U. New York,

Binghamton) **Thirst and saccharin preference in rats.** *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 287-292.—Conducted 3 experiments with a total of 112 water-deprived adult male albino Sprague-Dawley rats. Ss initially showed higher water than saccharin consumption regardless of whether the liquids were presented singly or as a choice, and whether food was available or withheld during testing. More saccharin than water was consumed later. The reversal from water to saccharin was positively related to hours of water deprivation and percent saccharin concentration and occurred with either continuous or interrupted exposure. It is concluded that rats must 1st drink water in order to reduce their water deficit to some threshold before saccharin is drunk. Postingestional and oral factors then become responsible for ingestion of large quantities of saccharin.—*Journal abstract.*

LEARNING

8549. Corning, W. C. & Lahue, R. (U. Waterloo, Ontario, Canada) **Reflex "training" in frogs.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 119-120.—Investigated the report that repeated stimulation of a point on the dorsal skin of the frog will result in a specific enhancement of the wiping reflex of that zone. Tests of the specificity of this enhancement in 10 frogs (*Rana pipiens*) demonstrate that all areas of the skin and all wiping reflexes were sensitized when the S was given reflex "training." Handling 10 controls indicates that the increased nonspecific response rate may be due to factors other than learning.—*Journal abstract.*

8550. Cranford, Jerry L. & Clayton, Keith N. (Indiana U.) **Stimulus novelty effects during stimulus equivalence testing.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 30.—Analyzed the transfer test data from an experiment which factorially combined percent reward (50 vs. 100%) and duration of confinement (2 vs. 20 sec.) in the presence of cue values from 2 redundant stimulus dimensions. Rats performed better on test trials which paired the previously negative cues with novel compound cues than on trials in which the previously positive cues were paired with a novel compound. Long confinement durations and partial reward during acquisition increased this difference. Results give further evidence that novelty affects test performance in single-dimensional transfer tests following redundant cue training.—*Journal abstract.*

8551. Meltzer, Donald & Freeman, Betty J. (Southern Illinois U.) **Maintenance of response summation under conditions of minimum stimulus intensity.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 287-289.—Conditioned 4 male hooded rats on a multiple schedule, in which different composite stimuli were associated with extinction and a variable-interval reinforcement schedule. The composite extinction stimulus consisted of light plus tone. The composite stimuli associated with reinforcement were light plus silence and tone plus darkness. After response rate had stabilized, 3 test intervals were presented to an S in each session. During 2 of the test intervals the composite stimuli were the same as the stimuli associated with reinforcement. During the 3rd test interval the composite stimulus was darkness plus silence. Response rate was highest during the 3rd test interval, and this rate difference was maintained for 60 sessions.—*Journal abstract.*

8552. Premack, David. (U. California, Santa Barbara) **Language in chimpanzee?** *Science*, 1971(May), Vol. 172(3985), 808-822.—Efforts to teach language to a chimpanzee involved 2 sets of problems: (a) developing a list of exemplars (things an S must do to give evidence of language); and (b) a corresponding list of instructions for training. The training effort reported concerns an African-born female chimpanzee about 6 yr. old when the study began. Essential elements of training involved (a) establishing a transaction between the S and trainer, and (b) deciding on the salient perceptual classes into which the transaction should be divided. As each new class was developed, the language requirement was increased accordingly. S's ability to acquire language based on this training procedure is traced through a variety of exemplars. Photographs are included of pieces of plastic representing units of language. (20 ref.)—*P. McMillan*.
8553. Saunders, J. C., Teague, Joy; Slonim, Deborah, & Pridmore, P. A. (Monash U., Clayton, Victoria, Australia) **A position habit in the monotreme *Tachyglossus aculeatus* (the spiny ant eater).** *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 47-51.—Trained 4 animals of the species *Tachyglossus aculeatus* to make a position response on a T maze task. During acquisition the number of correct choices as well as running speed systematically improved. Extinction of the habit showed a return to chance behaviors and lengthening of running time. It is concluded that the T maze task is a satisfactory method for studying learning in this species.—*Journal abstract*.
8554. Smith, Stanley G. & Malott, Richard M. (U. Mississippi) **An analysis of the nonmatching components of the stimulus matching paradigm.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 73-75.—Trained 2 naive White Carneaux pigeons on a simultaneous split-field single-key stimulus-matching procedure. The decline of keypecking during nonmatching stimuli was examined. Observations during nonmatching conditions indicate that as keypecking declined discrete overt patterns of behavior emerged to each of the 2 nonmatching compounds. The decline in keypecking and the emergence of discrete overt patterns of behavior was observed to occur 1st to 1 nonmatching compound and then to the 2nd combination. (20 ref.)—*Journal abstract*.
8555. Thomas, R. David; Ernst, A. John, & Andry, Diane K. (U. Colorado) **More on masking of stimulus control during generalization testing.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 85-86.—Gave 24 domestic pigeons single-stimulus training with a white vertical line on a yellow (576 nm.) background. For $\frac{1}{2}$ the Ss, the houselight was on during the entire experiment, while for the other $\frac{1}{2}$ it was off. A generalization test along the angularity dimension was conducted, with the 576-nm surround present on only $\frac{1}{2}$ the stimulus presentations. In the houselight-off group, the relative generalization gradient was flatter with the yellow surround present, indicating masking of angularity by wavelength; however, there was no such difference in the houselight-on group.—*Journal abstract*.
- Conditioning**
8556. Baker, Thomas W. & Lougee, Michael. (Lawrence U.) **Determinants of the conditioned suppressive properties of a stimulus.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 61-63.—Manipulated probability of signaled shock, shocks/total CS duration, contingency of CS and shock, and shock density in a CER paradigm. 12 Wistar and 24 Sprague-Dawley albino male rats served as Ss. Both contingencies and shocks/total CS duration were found to influence amount of suppression. Relationships between probability of signaled shock and CS duration are discussed.—*Journal abstract*.
8557. Byrum, Ronald P. & Jackson, Donald J. (Eastern Michigan U.) **Response availability and second-order conditioned suppression.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 106-108.—Followed CER training days, 18 male Sprague-Dawley rats were given 2nd-order conditioning (SOC) trials under 1 of 2 conditions: (a) response lever present during all 10 SOC days, and (b) lever absent during the 1st 3 SOC days. There was noise; CS, was a flashing light. A 2nd experiment with 16 Ss reversed the 1st- and 2nd-order stimulus. Ss were given 5 days of SOC with the lever absent for $\frac{1}{2}$ the Ss. In both studies, when the lever was returned for all subsequent SOC days showed no significant difference between groups with respect to either acquisition of SOC or extinction of 1st-order conditioning. Results offer support to A. Kamil's (see PA, Vol. 43:6623) hypothesis that his failure to find a correspondence between 1st- and 2nd-order conditioned suppression might be due to counterconditioning of CS, to the food reinforcement obtained during SOC.—*Journal abstract*.
8558. Daurova, F. K. & Kolotygina, R. F. (Inst. Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Issledovanie spetsifichnosti obratnykh svyazei.** [An investigation of the specificity of feedback connections.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1083-1085.—3 dogs were Ss in a study to test whether feedback, like the direct CR, possesses the property of specificity. The method considered adequate to investigate this question, employed under the same experimental conditions, was an indifferent stimulus (vibrator), "covered" by an alimentary UCS, and another stimulus (tone), "covered" by a nociceptive UCS (electroshock). If feedback possessed specificity, the test ("covered") stimulus should evoke the reaction of that UCS with which it was combined. Under the experimental conditions reactions to the isolated application of the test stimuli did not appear in all Ss, showing up not more than 50-75% of the time. However, if a reaction to the tone appeared, it was always defensive in character. Alimentary or mixed reaction never appeared. Similarly for the reaction to vibrator which was always alimentary in character. The specificity of feedback is taken as evidence for its CR nature.—*I. D. London*.
8559. Dobrovolskaya, V. N. (Pavlov Inst. of Physiology, Leningrad, USSR) **Osobennosti pishchevogo povedeniya v ontogeneze u sobak.** [Features of alimentary behavior in ontogenesis in dogs.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 961-968.—Experimental materials on 46 2-8 mo. old puppies were extracted from the archives of the Pavlov Institute of Physiology and subjected to reanalysis and statistical treatment, in order to elucidate several age-specific and individual features of alimentary-motor behavior in their ontogenetic aspect. Elaboration of a motor CR to the place of alimentary reinforcement under conditions of complex choice took place more slowly in 2-mo-old Ss than in older Ss. A wide range of

iological Psychology, 1971(Jun), Vol. 76(1), 137-144. —Used a CER procedure to investigate blocking of inhibitory Pavlovian conditioning in 3 experiments with 16 male Sprague-Dawley rats each. Relative to a prior treatment involving only free shocks, a prior treatment in which occurrences of a visual CS were negatively correlated with occurrences of electric shock reduced the magnitude of the inhibitory CR elicited by a redundant auditory CS which subsequently was added to the visual CS. Following inhibitory conditioning to the compound, there was no evidence that the added auditory CS elicited a larger inhibitory CR than did a novel stimulus in a control group. Retention of an inhibitory CR to the auditory element of the compound CS was no more affected by interpolated inhibitory conditioning to the visual element than it was by interpolated free shocks. —*Journal abstract.*

8568. Varga, M. E., Kuznetsova, G. D., & Myslobodskii, M. S. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Izmenenie senzornogo poslerazryada na svet v khode vyrobotki klassicheskogo oboronitel'nogo uslovnogo refleksa u krysa*. [Alteration of sensory afterdischarge in response to light in the course of elaborating a classical defensive conditioned reflex in rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 975-981. —Ss were 18 white rats (CS was 5 flashes of light at 1-sec intervals; UCS was electrostimulation of the snout, starting with the 4th flash and including the 5th; UCR was a washing reaction). During elaboration of the CR, recordings were made of (a) the evoked responses to light, (b) the EEGs of the visual and sensorimotor cortical areas, and (c) the EMG of the cervical muscles. In the process of developing the conditioned connection, sensory afterdischarges were suppressed, occurring sooner, the more intense the unconditioned reinforcement. The number of sensory afterdischarge waves to each of the 5 flashes was inversely related to the numerical order of the flash. A new situation, hunger, and any indifferent stimuli, eliciting an orienting reaction, had the same blocking effect. An increase in sensory afterdischarges occurred in quiet customary settings, with a decrease in the intensity of painful reinforcement, and during extinction of the CR. It is concluded that the character of the changes in the cortical reactions to the CS, and the number of sensory afterdischarges is a function of the cerebral activation level at the given time and is not connected with the specific details involved in the establishment of a conditioned connection. (English summary) (30 ref.) —*I. D. London.*

8569. Voevodina, O. N. & Khananashvili, M. M. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) *Formirovaniye i vzaimodeystviye dvukh sistem uslovykh refleksov, vyrobotannykh odnovremennno pri stereotipnom i sluchainom poryadkakh podkrepleniya signalov*. [Formation and interaction of two systems of conditioned reflexes, elaborated simultaneously with stereotypic and random reinforcement of signals.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Sep), Vol. 20(5), 1076-1078. —2 situational motor-alimentary CRs were simultaneously elaborated in 2 dogs, with (a) location of the S in the experimental chamber assuming "signal significance," and (b) reinforcement delivered in "stereotypic (rhythmic) and random order." The data showed that in both cases 2 nervous processes emerged, to a considerable degree independent of each other: 1 of which was characterized

by a rhythmic form of cerebral reaction; the other a reaction to each signal. At the same time a mutual influence of these systems upon each other was observed so that, for example, the system, being organized on a basis of random reinforcement, began to pursue a rhythmic course. As the number of experimental sessions increased, general symptoms, pointing to difficulties in flow of higher nervous activity, arose. With the elaboration of 2 systems, random reinforcement in the formation of behavior became the leading factor in the emergence of these symptoms, and the sharper emotion-tension induced by conflict of the excitatory and inhibitory processes. —*I. D. London.*

Discrimination

8570. Danson, Carl & Creed, Thomas. (California State Coll., Long Beach) *Successive reversals of a visual social stimulus*. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 282-285. —Describes an experiment with 2 male squirrel monkeys in which high and near-zero rates of response of 1 S were successively reversed as the occasion for reinforcement and nonreinforcement of the other S. Both rates of response were discriminated by the 2nd S. The acquisition of the alternating discriminations in the sequence of reversals was much more rapid than the earlier discriminations. Results indicate that a wide range of rates of response may serve as social stimuli and that the learning-set (learning-to-learn) phenomenon appears to be relevant to social as well as nonsocial episodes. —*Journal abstract.*

8571. Freeman, N. H. (U. Durham, England) *Spatial variation as a conventional cue*. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 262. —Distance-discrimination studies confound the attentional response with the effective response by varying the length of the path to food. However, it is possible to use spatial variation exactly like a conventional cue by varying the length of the path to the choice point. In 2 experiments with 14 and 16 female hooded rats, 120 trials were sufficient to obtain evidence of discrimination between 4- and 13-in cues. —*Journal abstract.*

8572. Hunter, Maxwell W. & Kamil, Alan C. (Massachusetts) *Object-discrimination learning set and hypothesis behavior in the northern bluejay (Cyanocitta cristata)*. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 271-273. —4 northern bluejays received 700 trials of object-discrimination learning set. Acquisition of the task was shown by an average performance level of 72% correct for Trial 2 on the last 100 problems of the experiment. This figure is superior to asymptotic Trial 2 levels for many subprimate mammalian species and comparable to the marmoset. Analysis of data for "hypothesis behavior" reveals several important features of the Ss' responding, many of potential comparative significance. In particular, (a) consistent decreases in responding due to stimulus preferences and 3rd trial responding, (b) a dramatic drop in random responding, and (c) steady increases in win-stay/lose-shift-object (maximum strategy) coincided with increasing proficiency. —*Journal abstract.*

8573. Mackintosh, N. J. & Cauty, Ann. (Dalhousie U., Halifax, Nova Scotia, Canada) *Spatial reversal learning in rats, pigeons, and goldfish*. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 281-282. —Trained 4 male hooded rats, 4 White Carneaux pigeons, and 4 goldfish under comparable conditions for 40 trials daily on a spatial discrimination and a series of 30 daily

reversals. All 3 groups showed a significant reduction in errors/reversal over the course of the experiment, but the rats improved much more rapidly than the pigeons, who in turn improved more rapidly than the goldfish. —*Journal abstract.*

8574. Malone, John C. (Duke U.) **Properties of the fixed-interval S^o .** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 57-59.—Administered 3 generalization tests with novel stimuli to 4 experienced White Carneaux pigeons after fixed-interval (FI) training. In all cases, responding increased during test intervals, but the amount of elevation varied among tests. Results support an analogy between FI and Pavlovian delayed conditioning, although Pavlov's simple interpretation of the latter remains open to question. —*Journal abstract.*

8575. Means, Larry W., Hardy, William T., Gabriel, Michael, & Uphold, John D. (East Carolina U.) **Utilization of odor trails by rats in maze learning.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 160-164.—Conducted 3 experiments with a total of 62 male and 14 female Long-Evans rats to examine the adequacy of odor trails of rats receiving reinforcement as cues for discrimination learning in a T maze. After considerable training, Ss learned to select the arm entered by a previously reinforced S at better than chance levels when a paper floor was used and changed between each pair of Ss. A permanent wooden floor failed to produce any evidence of learning. If the number of Ss providing the odor trail was increased from 1-6, Ss showed improved discrimination performance after 105 trials on wooden floors. It is concluded that the odor trails of previously reinforced rats provide a weak cue, but one sufficient to influence discrimination performance. (21 ref.) —*Journal abstract.*

8576. Tribhawan, T., Rucker, W. B., & McDiarmid, C. G. (U. Nebraska) **Demonstration of a Kamin-like effect after appetitive training.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 41-42.—Trained 40 male WF/MAI rats for 18 trials in a 3-choice discrimination apparatus with responses to the dark stimulus rewarded by food. After an interval of 5 min., 1, 4, 8, or 24 hr., Ss were given 18 trials of training with the discrimination reversed, the light stimulus becoming the rewarded cue. Memory of the original training, as indicated by errors made on the reversed discrimination (adjusted by analysis of covariance) was a U shaped function of intersession interval. Reversal learning of Ss tested 4 hr. after original training showed the least interference. Results are consistent with concepts of successive phases of memory but are inconsistent with explanations of the I. Kamin (see PA, Vol. 33:3155) effect based on incubation of fear. —*Journal abstract.*

8577. Waller, T. Gary. (U. Waterloo, Ontario, Canada) **The effect of overtraining on two extradimensional shifts in rats.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 123-124.—Trained 32 male naive albino Holtzman rats to criterion or beyond criterion on an orientation discrimination task (left vs. right oblique stripes). Ss were then given an extradimensional shift to a discrimination between 2-tradimensional shapes (cross vs. triangle) or between large and small checkerboard patterns. Position of the positive cue (left or right) was the only variable irrelevant dimension in either phase of the experiment. Overtraining on the orientation discrimination improved performance on both transfer problems. —*Journal abstract.*

8578. Wildemann, Donald G. & Holland, James G. (U. Pittsburgh) **The effects of delay and difficulty on discrimination learning and stimulus generalization.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 307-308.—Following training on an easy size discrimination, 6 adult naive White Carneaux pigeons were matched on the basis of stimulus control by the positive stimulus following generalization tests. 3 Ss were immediately retrained on a more difficult discrimination along the same dimension, while the remaining Ss were retrained after a 6-mo delay. The 6-mo-delay group took longer to learn the more difficult discrimination and displayed less stimulus control on a subsequent generalization test. —*Journal abstract.*

8579. Williams, John T. & Robertson, Sam G. (U. South Carolina) **Brightness discrimination learning in caimans.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 259-262.—Trained 12 caimans to escape shock in a T maze with either brightness cues or confounded brightness and spatial cues relevant. After criterion was reached on the confounded problem, the position of the brightness cues were then varied for these Ss with position becoming an irrelevant cue and the color of the positive cue unchanged. Although the confounded problem was learned more quickly than the brightness problem, there was no statistically reliable difference in the overall training required to learn the brightness problem regardless of prior training on the confounded task. —*Journal abstract.*

8580. Zentall, Thomas; Collins, Norman, & Hearst, Elliot. (U. Pittsburgh) **Generalization gradients around a formerly positive S^- .** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 253-259.—After mastering a successive discrimination between a blank key (S^+) and a vertical line (S^-), 8 experimentally naive female White Carneaux pigeons in 2 groups were tested for line tilt generalization in extinction. The vertical line had always been associated with nonreinforcement of keypecking in 1 group, but for the other group it had served earlier as a stimulus associated with reinforcement. As Ss in both groups yielded gradients with a minimum at the S^- value, but the latter group made appreciably more responses during testing. Further generalization tests, conducted with reinforcement at all line-tilt values, suggested other differences between the groups. —*Journal abstract.*

Avoidance & Escape

8581. Doolittle, John H. (Sacramento State Coll.) **The effect of thigmotaxis on negative phototaxis in the earthworm.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 311-312.—Measured the negative phototaxis (right avoidance) responses of 20 earthworms under 2 thigmotactic (bodily contact) conditions: presence or absence of an alley. As predicted by A. C. Smith, the absence of an alley greatly increased the time taken by Ss to move away from a light source. It is concluded that thigmotaxis is a powerful motivational variable in the earthworm. —*Journal abstract.*

8582. Hussey, Frederick A. (Brandon U.) **Avoidance learning in the golden hamster. The effect of CS-US interval.** *Psychonomic Science*, 1971(Apr), Vol. 24(A), 5-7.—Investigated the influence of the interstimulus interval (ISI) on shuttlebox avoidance learning in the male golden hamster. 5 groups of 10 Ss learned a barrier-jumping response under a delayed conditioning

the other 3 species. Results indicate that species-specific defense reactions may interact with the particular behavioral task in which the organism is studied.—*Journal abstract.*

8592. Wilcoxon, Hardy C., Dragoin, William B., & Kral, Paul A. (George Peabody Coll. for Teachers) **Illness-induced aversions in rat and quail: Relative salience of visual and gustatory cues.** *Science*, 1971(Feb), Vol. 171(3973), 826-828.—Describes 2 experiments with 40 male Sprague-Dawley rats and 40 adult male bobwhite quail. Results indicate that the quail, like the rat, learned in 1 trial to avoid flavored water when illness was induced by a drug $\frac{1}{2}$ hr. after drinking. In contrast to the rat, however, quail also learned to avoid water that was merely darkened by vegetable dye. The visual cue was even more salient than the taste cue in quail.—*Journal abstract.*

Reinforcement

8593. Capaldi, Elizabeth D. (Purdue U.) **Rewarded goal-box placements and subsequent instrumental performance in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 152-159.—Studied the effect of direct placements over the goal cup followed by orthodox running trials in the alley. In Exp. I with 60 Holtzman male albino rats, following placements, 45 running trials were given to a reward of .99 or .09 gm., followed by 30 trials of .09 gm., followed by 21 trials of .99 gm. In Exp. II with 40 Holtzman female albino rats, following placements, 63 running trials were given to a reward of .09 gm. followed by 10 extinction trials. In both experiments the effects of placements were manifest throughout all subsequent running trials. Results suggest that on placement trials an instrumental reaction was made and that subsequent instrumental performance was facilitated by large-reward and inhibited by small-reward placements. (21 ref.)—*Journal abstract.*

8594. Coulson, G. E., Koffer, K. B., & Coulson, V. (York U., Toronto, Ontario, Canada) **Reinforcement of ethanol consumption in rats by an increase in the frequency of food-pellet delivery.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 103-104.—Increased the frequency of food-pellet delivery to 4 male Sprague-Dawley food-deprived rats, contingent upon drinking either distilled water or a 9% (volume for volume) ethanol solution. In spite of the contingency of a minimum interval of 3 sec. between drinking the reinforced liquid and pellet delivery, an increase in the frequency of pellet delivery from 1/120 sec. to $\frac{1}{15}$ sec. on the average acted as a positive reinforcer for drinking that liquid associated with the greater pellet frequency.—*Journal abstract.*

8595. Hammer, Lois R. (George Washington U.) **Reinforcement magnitude effects with overtraining.** *Psychonomic Sciences*, 1971(Mar), Vol. 22(5), 295-297.—Repeated a standard runway experiment on shifts in reinforcement magnitude, but with a much more extended acquisition phase. Ss were 8 male Sprague-Dawley albino rats assigned to 1 of 2 groups receiving either large or small reward. After 50 trials, the groups did not differ. Subsequent increase or decrease in reward did not change running times appreciably. Because much competing behavior was observed in this situation, the appropriateness of runway measures is questioned. (16 ref.)—*Journal abstract.*

8596. Harrison, J. M., Downey, P., Segal, M., & Howe, M. (Cambridge U., Psychological Lab., England) **Control of responding by location of auditory stimuli: Rapid acquisition in monkey and rat.** *Journal of the Experimental Analysis of Behavior*, 1971(May), Vol. 15(3), 379-386.—Attempted to determine the conditions necessary for rapid acquisition of control of responding by location of noise and tone bursts in the monkey. 4 adult naive squirrel monkeys were run in an enclosure that contained 4 loudspeakers and 4 manipulanda. 2 conditions were used in training. In the adjacent condition, a stimulus (noise or tone burst) was presented through 1 of 2 speakers and a response on the manipulandum remote from the speaker was reinforced with food. In the nonadjacent condition, a stimulus was presented through 1 of 2 speakers, and a response on a manipulandum remote from the speaker was reinforced with food. Acquisition of control was measured by change in the percentage of reinforced responses during training. In the adjacent condition, responding came under control of location within 0-3 sessions. In nonadjacent conditions, Ss required 14-20 sessions to come under control of location. These latter numbers are comparable to those reported in the literature for localization discrimination in monkeys.—*Journal abstract.*

8597. Hughes, Ronald G. (U. North Carolina, Greensboro) **Response-reinforcement interactions in multiple interval schedules.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 305-306.—2 adult Silver King pigeons were initially exposed to multiple variable-interval (VI) schedules of reinforcement. After responding was maintained, a limited-hold requirement was added to 1 component. Each scheduled availability of reinforcement terminated if no response occurred within a 1-sec period of time. Response rate increased and reinforcement rate decreased in the limited-hold component. Response rate in the unchanged VI component increased. When responding was extinguished in the changed component, positive behavioral contrast was observed in the unchanged VI component.—*Journal abstract.*

8598. McCain, Garvin; Dyleski, Kenneth, & McElvain, Gerald. (U. Texas, Arlington) **Reward magnitude and instrumental responses: Consistent reward.** *Psychonomic Monograph Supplements*, 1971, Vol. 3(16), 249-256.—Presents a series of 7 experiments in which 232 male and female Holtzman and Long-Evans rats were run to large or small consistent reward in a straight alley. Terminal acquisition differences were present after limited (24 trials) training and in the early stages of extended training, but there were no significant or substantial differences after 54, 60, 70, 78, 90, 116, or 135 trials. Large-reward groups were less resistant to extinction than small-reward groups after 24-90 trials but not after 116 or 135 trials. Results are contrary to earlier assumptions regarding the effects of reward magnitude. 2 possible approaches to these results are considered. (28 ref.)—*Journal abstract.*

8599. Porter, John J., Madison, Harry I., & Swatek, Alan J. (U. Wisconsin, Milwaukee) **Incentive and frustration effect of direct goal placements.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 314-316.—Studied the effects of rewarded direct goalbox placements (DPs) prior to runway training on 1st-trial acquisition and resistance to extinction. Ss were 106 male Holtzman albino rats in 3 experiments. DPs directly over

the foodcup enhanced 1st-trial performance, but did not produce an overlearning-extinction effect (OLE). DPs requiring running to the foodcup produced the OLE but also reversed the 1st-trial results. Results are discussed in terms of K. W. Spence's conception of the role of fractional anticipatory goal response in incentive and frustration.—*Journal abstract.*

8600. Traupmann, Kenneth; Wong, Paul T., & McCain, Garvin. (U. Texas) **Reward magnitude and instrumental responses: A comment.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 13-15. Presents criticisms of the studies of G. McCain (see PA, Vol. 44:16241) which found that reward magnitude effects disappeared with extended training. It is maintained that statistical shortcomings and lack of control for such variables as drive level, sex, weight of Ss, and performance within days account for the results. A reply by G. McCain (a) defends the appropriateness of the statistical methods, (b) argues that all magnitude studies are potentially confounded by uncontrolled variables, and (c) restates his conviction that "under some conditions differences due to reward magnitude disappear at asymptote."—S. Knapp.

Reinforcement Schedule

8601. Alleman, Harold D. (U. Iowa) **Interresponse-time reinforcement.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5650.

8602. Arnold, John E., & Shanab, Mitri E. (U. California, Santa Barbara) **The effect of long N-ITR intervals upon the PRE.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 263-264.—42 naive male albino Sprague-Dawley rats in 6 groups were given 1 trial/day for 19 days in a straight runway according to a 3×2 design. Schedule of reinforcement was varied in 3 ways: (a) partial reinforcement with intertrial reinforcement (ITR) after nonrewarded trials, which preceded rewarded (R) trials; (b) partial reinforcement with ITR following selected R trials; and (c) consistent reinforcement with ITR given according to 1 or the other of the above ITR schedules. The administration of ITR occurred either 2 or 24 hr. after 4 designated trials. Results of 24 extinction trials do not support predictions based on the view that the aftereffects of nonreward remain readily replaceable over long periods of time.—*Journal abstract.*

8603. Contrucci, Joyce J., Hothersall, David, & Wickens, Delos D. (Ohio State U.) **The effects of a novel stimulus introduced into a DRL schedule at two temporal placements.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 97-99.—Introduced a potentially disinhibiting novel stimulus early or late into a 20-sec DRL interval after 18 Sprague-Dawley rats had attained criterion performance on this schedule. Evidence was found for disinhibition, the inhibition of inhibition, of the leverpressing response. The effect decreased over stimulus presentations within any 1 test session and likewise decreased over test days. Results support a traditional interpretation of inhibition and the disinhibition phenomenon rather than a mediating response explanation.—*Journal abstract.*

8604. Haney, R. R., Bedford, John A., & Berryman, Robert. (U. Mississippi) **Schedule control in the White-Necked raven, *Corvus cryptoleucus*.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 104-105.—5 White-Necked ravens were run to behavioral stability on

each of 3 moderate schedules of positive reinforcement: (a) fixed-ratio 50, (b) fixed-interval 4 min., and random-interval 2.5 min. The sequence of schedule exposure for any 1 S was different from that for any other S. Temporal variations in rates emitted by Ss under these schedules were characteristic of those emitted by other species more typically used in operant conditioning studies.—*Journal abstract.*

8605. Keehn, J. D., & Colotla, V. A. (York U. Toronto, Ontario, Canada) **Schedule-induced drinking as a function of interpellet interval.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 69-71.—Reinforced 2 male albino rats with 45-mg Noyes pellets on fixed-interval (FI) schedules from 15 sec. to 5 min. Ss exhibited a bitonic relationship between level of polydipsia and interval value. This relationship depended on the frequency distribution, and duration of drinking. At shorter FI drinks occurred frequently shortly after reinforcement and drink durations and frequencies varied directly with interval length. At longer intervals, drinking seldom occurred after reinforcement but was more frequent later in the interval. Late drinks were usually brief.—*Journal abstract.*

8606. Marx, Melvin H., & McLean, Jim. (U. Missouri) **Postdiscrimination gradients as a function of variation in reward schedules.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 55-56.—Trained 6 male White Carneaux pigeons on discrimination of wavelength stimuli and tested for postdiscrimination generalization gradients. 3 Ss were trained on multiple fixed-interval (FI) 30-sec (.50 reinforcements) extinction and 3 on variable-interval (VI) 60-sec as a control. No peak shifts were found in the FI-trained Ss, and the VI-trained Ss failed to show consistent peak shifts. Results suggest that the number of S+ days provided prior to discrimination training may be an effective variable in the production of peak shift.—*Journal abstract.*

8607. Rosen, Alexander J., & Freedman, P. E. (U. Illinois, Chicago) **Goal-box experience and partial reinforcement runway effects in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 145-151.—Conducted 2 experiments with 30 and 48 Holtzman male albino rats. Independent variable manipulations included: (a) number of tube licks of sucrose reward/trial in continuous, partial, and varied reinforcement conditions; and (b) time in the goal box on nonreinforced trials for food-pellet partial reward conditions. Results appear to support a frustration hypothesis competing response interpretation of runway PRE.—*Journal abstract.*

8608. Shull, Richard L. (U. North Carolina, Greensboro) **Postreinforcement pause duration on fixed-interval and fixed-time schedules of food reinforcement.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 77-78.—Studied 3 adult male Silver King pigeons under 3 different schedules that arranged equivalent constant minimum-time intervals between food presentations. Schedules were (a) a fixed-interval schedule, where reinforcement depended on a response after 2 min. had elapsed; (b) a conjunctive fixed-time schedule, where reinforcement depended on a response after an elapsed 2-min interval and a response without regard to order; and (c) a fixed-time schedule, where food was presented every 2 min. without regard to S's responding. Response rates were much lower under Schedules b and c than under a. Postreinforcement pauses were about equal under all 3 conditions, provided the duration of the

postreinforcement pause for Schedule c was based only on intervals containing at least 1 response.—*Journal abstract.*

8609. Snapper, Arthur G., Shimoff, Elliot H., & Schoenfeld, William N. (FDR Veterans Administration Hosp., Montrose, N.Y.) **Response effects of response-dependent and clock-dependent fixed-interval schedules of reinforcement.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 65-67.—Trained each of 2 groups of 16 male Charles River CD rats under fixed-interval schedules of positive reinforcement. 1 schedule was programmed "by the response," in that each 3-min interval was timed from the end of the preceding reinforcement. The other schedule was programmed "by the clock," with periods of reinforcement availability occurring every 3 min. after the start of the session. Comparisons of response rate and temporal discrimination revealed no significant differences in performance under the 2 procedures. Rank-order correlations were found to be significant between 2 measures of temporal discrimination, but there was no significant correlation between response rate and temporal discrimination across Ss.—*Journal abstract.*

8610. Ten Eyck, Robert L. (Florida State U.) **Effects of rate of reinforcement time upon concurrent operant performance.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5680.

8611. Trubachëv, V. V. (Inst. of Experimental Medicine, Leningrad, USSR) **Vliyaniye veroyatnostnogo podkrepleniya na dinamiku oboronitel'nykh uslovnykh refleksov u krolkov.** [Influence of probabilistic reinforcement on the dynamics of defensive conditioned reflexes in rabbits.] *Zhurnal Vysshei Nervnoi Deyatelnosti*, 1970(Sep), Vol. 20(5), 917-922. —16 rabbits (8 subjected to partial reinforcement, 8 to 100%) were used to study the formation and extinction of motor-defensive CRs to tactile stimulation of the rear thigh, following a schedule of electroreinforcement 50% of the time (both stereotypic and random). Defensive CRs were formed with both kinds of partial reinforcement. A comparison of several indices of the general motor and the specialized CR, involving its appearance and the stabilization, revealed differences in the 2 groups. In stabilization, revealed differences in the 2 groups. In random 50% reinforcement, the appearance and initial stabilization of the general motor CR proceeded as fast as in the case of 100% reinforcement; however, final stabilization took place later. The specialized CR was finally stabilized much later. In the process of elaborating the reflex with 50% reinforcement, there were disclosed both a differentiation between reinforced and unreinforced stimuli and an effect of "maximization," i.e. CRs running 20-30% beyond the expected 50%. Extinction of CRs after partial reinforcement was characterized by a high incidence of restoration in the 1st experiments as compared to the case with 100% reinforcement. (English summary)—*J. D. London.*

Punishment & Extinction

8612. Beecroft, Robert S. (U. North Dakota) **Patterns in avoidance extinction.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 53-55. —Analyzed avoidance extinction in 60 female hooded rats by classifying running times as fast, medium, or slow. The contingent probabilities of runs of various speed or extinction on the following trial were determined. The most probable transitions were to runs of the same speed class.

Extinction was much more probable following slow runs than after medium or fast runs. Increasing the amount of avoidance training contributed to resistance to extinction by lengthening the sequence of fast runs at the beginning of extinction.—*Journal abstract.*

8613. Bilková, J. & Radil-Welsh, T. (Czechoslovak Academy of Sciences, Lab. of Neurocybernetics, Prague) **The extinction of a certain type of avoidance reaction in rats.** *Physiologia Bohemoslovaca*, 1969, Vol. 18(5-6), 463-467.—Elaborated avoidance CRs in 15 male hooded rats. The avoidance CR consisted of jumping to a safe platform within 5 sec. after the start of the stimulus. The CS was the insertion of a safe platform and blinking lights. The UCS consisted of electric shocks to the paws. The reflex was elaborated 4 times with subsequent extinction by applying the CS without the UCS. Stimuli were applied at 60-sec intervals. The rate of extinction and the duration of the latent periods were determined in 3 situations: (a) stimuli repeated every min., (b) alternative application and omission of stimuli for 10 min. each, and (c) alternative application and omission of stimuli at 5-min intervals. The rate of extinction for a and b was approximately 47 min., while in c extinction occurred after only 34 min. The latent periods were gradually prolonged during extinction. A significant negative correlation was found between the rate of extinction and the average duration of latent periods. After the omission of several stimuli the latent period of the 1st subsequent reaction was prolonged.—*Journal summary.*

8614. Bitgood, Stephen C. & Platt, John R. (U. Iowa) **A discrete-trials PREE in an operant situation.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 17-19.—Assigned 3 groups of 8 male homing pigeons to different ratio schedules of reinforcement during acquisition and extinction training with a discrete-trials operant procedure. A group with all trials reinforced was less resistant than a 50% reinforcement group. Any increments in resistance to extinction due to variations in number of responses (and presentation) were demonstrated to be inadequate to explain this discrete-trials partial-reinforcement extinction effect. It is concluded that discrete-trials resistance to extinction is more sensitive to acquisition variations in reinforcement trial than in reinforcement response.—*Journal abstract.*

8615. Boyer, William S., Russin, Raymond, & Cima, Henry A. (Colorado State U.) **Extinction in a straight alley as a function of varied quality and quantity of reward sequence.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 92-93.—Extinguished 6 groups of 11 albino rats in a straight alley after receiving 2 trials each on 1 of the following varied quality and/or quantity of reward sequences: (a) 1 regular pellet followed by 1 regular pellet, (b) 1 regular pellet followed by 1 regular pellet, (c) 1 regular pellet followed by 16 sucrose pellets, (d) 1 sucrose pellet followed by 16 sucrose pellets, and (e) 16 sucrose pellets followed by 16 sucrose pellets. Evidence was found for an extension of the sequential hypothesis to include quality of reward: greater resistance to extinction occurred when a high-quality reward followed a low-quality reward than when the opposite sequence occurred. Variations in both quantity and quality of reward produced more resistance to extinction than variations in quantity of reward alone.—*Journal abstract.*

8616. Cicala, George A. & Ilm, Ronald R. (U. Delaware) **The effects of prefeed conditioning shock**

intensity on initial shuttle response rate. *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 67-68.—Investigated the effects of prelear conditioning shock intensity on unreinforced shuttle response rate, using 63 male Wistar rats. Results indicate that unreinforced shuttle response was inversely related to prelear shock intensity. The CS enhanced shuttling equally for all prelear shock groups. Data suggest that prelear conditioning decreases initial shuttle response rate, while the CS partially reverses this effect. An interpretation of demonstrated facilitation by prelear conditioning is offered. *Journal abstract.*

8617. Gerry, J. E. (Dalhousie U., Halifax, Nova Scotia, Canada). **Peak shift on the tonal-frequency continuum: The effects of extinction and punishment.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 33-34.—Attempted to extend the generality of the peak shift phenomenon to the tonal-frequency dimension. 2 naive White Carneaux pigeons were given extended intradimensional discrimination training on the tonal-frequency dimension. Both Ss displayed peak shifts early in discrimination training and loss or reduction of peak shift after more extended training. Introduction of response-contingent shock after each response to the S appeared sufficient to either yield marked recovery of peak shifts or increase the magnitude of existent peak shift. Results complement those obtained on color and line orientation. *Journal abstract.*

8618. Marx, Melvin H., & Witter, David W. (U. Missouri). **Differential resistance to extinction as a function of fixed-interval contrast in training.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 285-286.—Employed differential fixed interval (FI) schedules to test the previously advanced motivational theory of extinction, which predicts positive or negative contrast effects in extinction as a function of acquisition experience, in an experiment with 40 naive female hooded Long-Evans rats. Ss trained on both FI 10- and 40-sec schedules of bar presentation and extinguished on FI 10 sec (all within a discrete-trial experimental design) were significantly more resistant to extinction than were controls both trained and extinguished on FI 10 sec. However, Ss receiving mixed training and extinguished on FI 40 sec, were significantly less resistant to extinction than were controls trained and extinguished on FI 40 sec. Findings are interpreted as lending additional support to the motivational theory of extinction. *Journal abstract.*

8619. Patten, Richard L., & Hendricks, Reginald L. (Iowa State U.). **Primary stimulus generalization effect in latent extinction of latent acquisition.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 75-76.—Assigned male Wistar rats to 2 groups receiving latent acquisition training placements to reward in the goalbox of a straight runway. 18 Ss received latent extinction training placements to nonreward in either the runway goalbox or a distinctive goalbox. 18 controls received either latent acquisition training only or neither type of training. Running speed data from a single test trial provided evidence for the operation of primary stimulus generalization in producing latent acquisition and latent extinction effects. *Journal abstract.*

8620. Tedford, W. H., & Leibensperger, Patricia K. (Southern Methodist U.). **Immediate vs delayed shock on a spatial dimension.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 83-84.—Compared preferences for short, medium, or long spatial delays of shock, using 36 female Sprague-Dawley albino rats. Significant

preferences were found (a) for long over either short or medium delay, and (b) for short over medium delay. Results are interpreted in terms of the ambiguity of the choice situation when punishment is absolutely certain. Ss prefer to have it immediately; when there is some ambiguity present, delayed punishment is selected. *Journal abstract.*

8621. Treichler, F. Robert; Graham, Marilyn M., & Schweikert, G. Edward. (Kent State U.). **Social facilitation of the rat's responding in extinction.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 291-293.—Compared the extinction performances of a total of 168 adult male Hanover albino rats in several experiments when provided either individual or paired conditions during operant acquisition and/or extinction. Enhanced resistance to extinction was observed when Ss were trained alone and subsequently extinguished in pairs. All other combinations of conditions yielded lower and non-differential levels of responding during testing. This pattern of results did not appear specific to condition-dependent changes in the nature of stimuli associated with reinforcement. It is suggested that results could be attributed to a limited-term arousal effect of social pairing. *Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

8622. Avis, Harry H., & Treadway, Jerry T. (Edgewood Arsenal Research Lab., Md.). **Mediation of rat-mouse interspecific aggression by cage odor.** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 293-294.—Placed 10 hooded male Wistar killer rats in each of 4 cage conditions: home cage, rat-soiled cage, neutral cage and mouse-soiled cage. Latencies to attack and kill were measured when male ICB Swiss mice were placed with Ss. It was found that the mouse-soiled condition was most effective in increasing latency to kill and reducing the number of killing responses. *Journal abstract.*

8623. Barlow, George W. (U. California, Museum of Vertebrate Zoology, Berkeley). **A test of appeasement and arousal hypotheses of courtship behavior in a cichlid fish, *Etilophus maculatus*.** *Zeitschrift für Tierpsychologie*, 1971(Oct), Vol. 27(7), 779-806.—Tested 2 hypotheses about courtship behavior: (a) appeasement, equivalent to potential for attack, quivering (amount of courtship) should be positively correlated with relative size of mate, and (b) arousal, courtship should be maximal for the male when he is large and for the female when she is small. A "rover" was exposed to 6 cichlids in glass chambers, all were of either sex. In heterosexual interactions quivering by the chamber males conformed to the arousal hypothesis. Chamber and rover females appeared to follow the appeasement model. Males quivered more than females. Females and rover males tended to attack more when relatively large, but chamber males may have attacked more when relatively small. Rover males, essentially intruders, quivered as the appeasement hypothesis predicted. Females commonly formed homosexual pairs and even threesomes. Females evoked more courtship from males and from females than did males. If females were about equal in size, and in a group, they could overcome the aggressive behavior typical of isosexual interactions. Males were not as "sexy" as females, and were more aggressive among themselves than were females; they did not form homosexual pairs. (20 ref.)—*Journal abstract.*

8624. Birch, Martin. (Dysons Perrins Lab., Oxford, England) **Pre-courtship use of abdominal brushes by the nocturnal moth, *Phlogophora meticulosa* (L.) (Lepidoptera: Noctuidae).** *Animal Behaviour*, 1970(May), Vol. 18(2), 310-316.—A high percentage of male nocturnal lepidoptera possess glandular eversible organs. 30% of British Noctuidae have a complex brush organ producing a pheromone. Release of the female sex attractant at a specific time prompts the male to fly upwind, locate the female, and to evert the brushes just before attempting to copulate. Intact males usually succeed, but those without brushes do not. The male gland discharges only once and the pheromone is then stored on the brushes in sufficient quantity for up to 3 matings. Male eversible glandular organs in other families appear to have the same species-isolating function, with some exceptions.—*Journal summary*.

8625. Brady, U. Eugene; Tumlinson, James H., Brownlee, Robert G., & Silverstein, Robert M. (U. Georgia) **Sex stimulant and attractant in the Indian meal moth and in the almond moth.** *Science*, 1971(Feb), Vol. 171(3973), 802-804.—Isolated cis-9, trans-12-tetradecadien-1-yl acetate from the female Indian meal moth, *Plodia interpunctella* (Hübner), and the female almond moth, *Cadra cautella* (Walker). It is the major if not the sole component of the sex stimulatory and attractant pheromone of female *Plodia*, and is present in the pheromone of the female *Cadra* along with at least 1 synergist. The distinction between the bioassays for sexual stimulatory response and for attraction is emphasized.—*Journal abstract*.

8626. Compton, J. M. & Scott, J. P. (Bowling Green State U., Center for Research on Social Behavior) **Allelomimetic behavior system: Distress vocalization and social facilitation of feeding in telomian dogs.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 165-179.—Food consumption and distress vocalization were measured for 11 5-wk-old telomian dogs twice daily for 16 days. All Ss were tested alone and together each day in the same pen. The kind of pen (home or strange) was alternated each day. Highly significant differences ($p < .001$) for both food consumption and distress vocalization occurred between alone and together conditions. Ss ate more when together and emitted more distress vocalizations when alone. Differences between home and strange pen conditions were apparent in both food consumption and vocalization only at the outset of the experiment, indicating rapid familiarization. However, there was a strong inverse relationship between rankings in separation distress and food consumption, indicating that isolation inhibition as well as social facilitation may contribute to differences in the alone vs. together conditions. (22 ref.)—*Author abstract*.

8627. Dewsbury, Donald A. (U. Florida) **Copulatory behaviour of rice rats (*Oryzomys palustris*).** *Animal Behaviour*, 1970(May), Vol. 18(2), 266-275.—Studied the copulatory patterns of rice rats in 69 tests, each continued to a satiety criterion of $\frac{1}{2}$ hr. without an intromission. Females were in hormone-induced estrus. The basic motor patterns resembled those of laboratory rats but were less exaggerated. There was a low ejaculation frequency with all tests terminating in fewer than 4 complete series. Copulation was resumed with a change of female. The 2nd series was faster than the 1st or the 3rd as it contained fewer intromissions. Pursuit of the female by the male during the postejaculatory interval was in contrast to all other species given

systematic study. Female resistance played an important role in the termination of copulation. (17 ref.)—*Journal summary*.

8628. Gallup, Gordon G. & Hess, John Y. (Tulane U.) **Preference for mirror image stimulation in goldfish (*Carassius auratus*).** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 63-64.—Presented a continuous choice between orienting toward a mirror or another conspecific behind plexiglas to 10 goldfish. Ss exhibited a distinct preference for mirror-image stimulation. The ratio of time spent in association with the mirror plus a target fish to time in the neutral zone showed a tendency to increase as a function of the amount of social deprivation imposed prior to testing. Implications for theories that attribute the appetitive properties of mirror confrontation to the fact that it elicits an aggressive display are discussed.—*Journal abstract*.

8629. Johnson, Robert P., Sachs, Carl A., & Boitano, John J. (Fairfield U.) **The primacy of size-age dimension over familial relationships in shock-elicited aggression in rats.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 71-72.—Tested 42 34-47 day old Sprague-Dawley albino rats in a shock-elicited fighting situation. Ss exhibited significantly more attacks when paired with a littermate as compared with a natural or a surrogate mother. Attack suppression occurred during the initial test sessions only for the natural mother paired with her young when contrasted with the number of encounters between the young and the surrogate mother.—*Journal abstract*.

8630. King, Edith G. (U. Oklahoma) **Social organization in captive chimpanzees: The effects of number of individuals, space, and coalitions upon the dominance hierarchy.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6159.

8631. Latané, Bibb; Schneider, Emily; Waring, Peter, & Zweigenhaft, Richard. (Ohio State U.) **The specificity of social attraction in rats.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 28-29. Conducted 2 experiments with naive Sprague-Dawley rats on social attraction. In Exp. I, 54 male Ss, housed alone or in pairs, were tested daily with either the same partner or with a stranger. All Ss were highly and increasingly attracted to each other, but were not more attracted to familiar rats than to strangers. Isolated Ss became more gregarious than pair-housed Ss by the 4th day of testing. In Exp. II, 36 female Ss, tested in trios with a stranger and a cagemate, again showed no preference. Results indicate that rats do not develop specific attachments.—*Journal abstract*.

8632. Rivero, William T. (Louisiana State U.) **Survival stamina as a function of social interaction.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 20. Examined the possible effects of social facilitation upon survival stamina of 49 male albino Long-Evans rats running on a motorized treadmill. A 2-tailed t test indicates that paired Ss ran significantly ($p < .05$) longer than did single Ss. Results suggest that as a result of social facilitation, animal pairs exhibited greater survival stamina than single animals. *Journal abstract*.

8633. Rosenblum, Leonard A. & Lowe, Arthur. (State U. New York, Downstate Medical Center, Brooklyn) **The influence of familiarity during rearing on subsequent partner preferences in squirrel monkeys.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 35. Placed together 15 laboratory-born adolescent squirrel monkeys, drawn from 4 separate rearing groups

of S, 4, 4, and 2 Ss. Strong consistent preferences for interacting with others of the same rearing group were observed in 6 wk. of initial observation and persisted in follow-up observations 14 mo. later. Play was the major type of interaction between strangers and may serve as the primary mechanism through which social integration occurs.—*Journal abstract.*

SENSORY PROCESSES

8634 Bagdonas, A., Bel'kovich, V. M., & Krushinskaya, N. L. (Inst. of Developmental Biology, Moscow, USSR) *Vzaimodelstvie analizatorov u del'fina-belobochki pri razlichenii geometricheskikh figur pod vodoi.* [Interaction of the analyzers in the white-sided dolphin in discrimination of geometric figures under water.] *Zhurnal Vysshego Nervnogo Razvitiia*, 1970(Sep), Vol. 20(5), 1070-1075. Utilizing motor-alimentary CRs a dolphin (*Delphinus delphis*) learned underwater differentiation of geometric figures (square, triangle) discriminated by recourse to their optic and acoustic properties and presented under various conditions of visibility. Under conditions inadequate for use of the echolocational analyzer S employed primarily vision in order to discriminate figures. Under conditions limiting visual discrimination the echolocational analyzer was relied on. Under poor visual conditions, correct responses were 10-20% lower than under good visual conditions. Spatial orientation under water, it is concluded, is brought about in the dolphin through the close interaction of the visual and auditory analyzers. (English summary) *J. D. London*

8635 Bartoshuk, L. M., Harned, M. A., & Parks, L. H. (John B. Pierce Foundation Lab., New Haven, Conn.) *Taste of water in the cat: Effects on sucrose preference.* *Science*, 1971(Feb), Vol. 171(3972), 699-701.—Electrophysiological recordings show that water is not tasteless to cats. Also, unlike most mammals cats appear indifferent to sucrose, but this may be because the taste of the sucrose is masked by the taste of the water in which it is dissolved. Results of 2 experiments with 9 adult cats indicate that when water taste was suppressed by the addition of small amounts of sodium chloride, Ss took sucrose avidly (20 ref.) *Journal abstract.*

8636 Campbell, Mary L., & Wachs, Theodore D. (Purdue U.) *Activity level in rats as a function of hyperstimulation and sex of animal.* *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 109-110.—Attempted to define the relationship between hyperstimulation and activity in 20 male and 20 female Holtzman albino rats. 20 Ss were exposed to 30 sec. of intense strobe light before being allowed access to an open field, and 20 controls were not exposed to the strobe light. The procedure was repeated over a 3-day period. Results indicate a significant increase in general activity following hyperstimulation. There were no significant differential sex effects of hyperstimulation. *Journal abstract.*

8637 Chaddock, Barbara. (Florida State U.) *Wave-length difference discriminations in the rhesus monkey.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5654.

8638 Chaddock, Thomas E. (Florida State U.) *The visual detection of X-ray by the rhesus monkey.* *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5654.

8639 Dugg, Anne I., & Windsor, Doug E. (U. Guelph, Ontario, Canada) *Olfactory discrimination limits in gerbils.* *Canadian Journal of Zoology*, 1971(Mar), Vol. 49(3), 283-285.—Gerbils were studied because of the complete lack of information on their olfactory ability. They were found to have a "keen sense of smell" even though they come from a dry habitat where olfactory discrimination was theorized to be of less importance than in a more humid climate. Discrimination was better when their bedding was changed daily. Olfactory acuity was suggested as being important to social interactions in the gerbil as well as in the few species of other small mammals that have been studied by other investigators. *J. M. Rafter*

8640 Dellus, Juan D., & Thompson, Gillian. (U. Durham, England) *Brightness dependence of colour preferences in herring gull chicks.* *Zeitschrift für Tierpsychologie*, 1970(Oct), Vol. 27(7), 842-849.—Herring gull chicks chose 1 of 2 stimulus panels illuminated with colored lights. Responses to red panels were hardly affected by intensity differences at all, whereas the responses to green and white light were markedly affected by intensity differences reaching an optimum and then decreasing again. A model is proposed to explain both spectral and intensity preferences. Differential amplification of the photopic modulators generate the spectral response pattern with red and blue maxima and green minimum. By inhibition of the photopic modulators having a higher threshold by the scotopic dominant having a lower threshold the model accounts for the response dependency on intensity differences in connection with green and white light. (22 ref.)—*K. E. Grossmann*

8641 Hamm, Connie L. (Northern Michigan U.) *Exposure learning of auditory stimuli by rats.* *Psychonomic Science*, 1971(Apr), Vol. 23(1-B), 81-82.—Tested 48 Holtzman albino rats for preference for a familiar or a novel tone. 2 experimental groups were exposed to either a solid (S) or a pulsing (P) tone continuously from birth, and later were compared to a control (C) group raised in the absence of tone. Group differences in preference for solid or beeping tone emerged only after a 2-wk silent period. Significantly greater preference for the pulsing tone was shown by Group P over Group C and by Group C over Group S. No difference was obtained between Groups C and P. The confounding effects of a natural preference for intermittent tone are discussed.—*Journal abstract.*

8642 Hein, Alan & Diamond, Rhea M. (Massachusetts Inst. of Technology) *Independence of the cat's scotopic and photopic systems in acquiring control of visually guided behavior.* *Journal of Comparative & Physiological Psychology*, 1971(Jun), Vol. 76(1), 31-38.—Exposed neonatal kittens (Total N = 16) in 3 experiments to scotopic levels of illumination while freely locomoting in an enclosure. Subsequently, visually guided behaviors were displayed at scotopic levels of illumination but were absent at photopic levels. This result is attributed to the fact that visual feedback from movement was restricted to the rod system. It is suggested that the capacity to mediate visually guided behaviors can be acquired independently by scotopic and photopic systems.—*Journal abstract.*

8643 Humphrey, Nicholas. (U. Oxford, Inst. of Experimental Psychology, England) *Colour and brightness preferences in monkeys.* *Nature*, 1971(Feb), Vol. 229(5287), 615-617.—Investigated visual stimuli pref-

ferences of 4 male rhesus monkeys. Ss were placed in testing chambers (painted black on the interior), and visual stimuli were projected on a wall in the chamber. A single response key was positioned above a food pellet tray. Ss were given 15 days of training with irrelevant stimuli to insure familiarization with the experimental situation. Ss were then tested 6 days a wk. For each level of brightness, 2 measurements were made (separated by 2 wk.), and for each color, 3 measurements (separated by 1 wk.) were made. In each session, 2 stimuli were presented which would appear alternately with each key pressing. "To exercise a preference the monkey had simply to hold the key down when he preferred the current stimulus and release and press again when he did not." After a total of 100 sec., a house light came on and the key was inoperative for a 50-sec rest period at which time S received 5 banana pellets. The sequence terminated after 10 cycles, and the total time spent with each stimulus was tabulated. Results show that preferences were consistently stable. Brightness preferences were monotonically related to brightness over the range used, while color was monotonically related to wave length. (20 ref.)—*B. A. Stanton.*

8644. Jaeger, Robert G. & Hailman, Jack P. (U. Maryland) Two types of phototactic behaviour in anuran amphibians. *Nature*, 1971(Mar), Vol. 230(5290), 189-190.—Investigated speculated spectral and brightness preferences in 2 species of frogs. Methods of testing followed criteria suggested by Hailman and experimental apparatus previously used by W. R. Muntz. Ss were placed in a dark apparatus which faced 2 transilluminated screens and were permitted to jump towards either screen (choice). 6 monochromatic stimuli (30 different combinations) and 6 different intensities (all having the same white spectrum) were presented in a randomized sequence to each S. Finally, Ss were tested on paired colors of rank-order intensity. Results show that ranid Ss demonstrated a true preference for high frequencies of light while the leptodactylid Ss demonstrated an inverted curve of spectral sensitivity (violet and red). In the intensity testing, ranid Ss were monotonically photopositive, whereas leptodactylid Ss were monotonically photonegative over the entire intensity range (dark apparatus to unfiltered white light). It was suspected that the ranid spectral response was a true color preference. Additional testing with manipulation of paired variables led to the conclusion that the responses are examples of species differences in phototactic behavior (exemplified by photopositivity to white light with blue color preference and photonegativity to white light without color preference).—*B. A. Stanton.*

8645. Marks, H. E., Seago, J. D., & Remley, N. R. (U. Georgia) The effect of anosmia on taste preference behavior as a function of deprivation conditions. *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 9-11.—In 2 experiments with 21 naive female Holtzman rats, anosmic and normal Ss were compared in a single-bottle preference test. The amount of water, sucrose, saccharin, and quinine solutions consumed was studied. Under food deprivation, anosmic Ss consumed reliably more water and sucrose and less saccharin and quinine than normal Ss; under water deprivation the order of these relationships was reversed.—*Journal abstract.*

8646. O'Connell, R. (San Fernando Valley State Coll.) The response to stimulus change as a brightness scaling technique. *Psychonomic Science*, 1971(Mar), Vol. 22(5), 275-277.—Tested 96 male

Sprague-Dawley albino rats in 8 conditions. Trial 1 exposed S, through plastic plates, to the 2 arms of a T maze, each of a different brightness. Prior to Trial 2, on which choice was permitted, 1 or both arms were changed in brightness. The magnitudes of the proportions of choice of the changed side were not fully consistent with the size of the brightness changes; hence, a scaling analysis was not justified. 1 set of Ss was retested after 4 mo.; the correlation between the conditions on initial test and retest was .90, when entry of an arm with 4 feet was used as the choice measure.—*Journal abstract.*

8647. Schiffman, H. R., Lore, Richard; Passafiume, John, & Neeb, Robert. (Rutgers State U.) Role of vibrissae for depth perception in the rat (*Rattus norvegicus*). *Animal Behaviour*, 1970(May), Vol. 18(2), 290-292.—Investigated the role of the vibrissae in the visual cliff performance of rats. With a moderately low centerboard height. Ss lacking vibrissae showed a marked preference for the optically shallow side of the apparatus. In contrast, intact Ss did not exhibit a preference for either side. Results indicate that tactual cues are prepotent over visual ones for the rat when conflicting information from both sensory modalities is present.—*Journal summary.*

8648. Simmons, James A. (Princeton U., Auditory Research Lab.) Echolocation in bats: Signal processing of echoes for target range. *Science*, 1971(Mar), Vol. 171(3974), 925-928.—In an experiment with echolocating bats (*Eptesicus fuscus* and *Phyllostomus hastatus*) it was found that Ss could discriminate between the nearer and farther of 2 targets. Their errors in discrimination were predicted accurately by the autocorrelation functions of their sonar cries. These bats behave as though they have an ideal sonar system which cross correlates the transmitted cry with the returning echo to extract target-range information. (18 ref.)—*Journal abstract.*

8649. Smith, Ronald G. (Wright State U.) Intake differentiation by rats of equimolar sodium chloride and lithium chloride solutions. *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 11-12. Examined the frequent use of sodium chloride solutions in taste-aversion and bait-shyness experiments as taste equivalents or control solutions for lithium chloride toxin. In 2 experiments with a total of 19 male Sprague-Dawley rats, it was demonstrated that Ss can readily discriminate between .12 M NaCl and equimolar LiCl when both solutions are continuously available in their home cages. Additional work indicates that the learned discrimination was based primarily upon taste cues but that place cues could also be utilized.—*Journal abstract.*

8650. Verberne, Gerda. (Max Planck Inst. of Physiology of Behavior, Starnberg, W. Germany) Beobachtungen un Versuche über das Flehmen katzenartiger Raubtiere. [Observations and experiments on flehmen in various felidae species.] *Zeitschrift für Tierpsychologie*, 1970(Oct), Vol. 27(7), 807-827.—When flehmen occurs, the animal lifts its head to the horizontal or even higher, it opens its jaw and withdraws its lips so that the teeth are exposed, especially the upper teeth. The tongue protrudes until it covers the lower incisors. The usual behavior pattern which more or less regularly accompanies flehmen is sniffing, licking, and head-shaking. All mammal species capable of perhoming flehmen have a still functioning Jacobson's organ. Flehmen and the accompanying behavior pat-

terns most probably serve to facilitate and strengthen stimulation of the sensory cells of this organ. The performance of sniffing and flehmen cannot be exhaustively explained in sensory terms. Since the experimental results do not provide sufficient grounds for a quantitative analysis of the interdependencies, an attempt was made to present the probable functional relationships involved by means of a flow diagram. (24 ref.)—*K. E. Grossmann.*

8651. Ward, Jeannette P. & Doerflein, R. Stephen. (Memphis State U.) **Critical flicker frequency in the bushbaby, *Galago senegalensis*.** *Psychonomic Science*, 1971(Apr), Vol. 23(1-A), 43-45. Investigated the capacity of 4 adult male bushbabies, *Galago senegalensis*, to discriminate intermittent visual stimuli. CFF was estimated at 4 flash intensities by a modified method of limits. The maximum behavioral CFF obtained for this nocturnal prosimian was 27.4 sec. Results are discussed in terms of the retinal structure of galago and are compared to human scotopic CFF. *Journal abstract.*

8652. Williams, Timothy C. & Williams, Janet M. (State U. New York, Buffalo) **Radio tracking of homing and feeding flights of a neotropical bat, *Phyllostomus hastatus*.** *Animal Behaviour*, 1970(May), Vol. 18(2), 302-309. Results indicate that: (a) Flights released from 20 km were accurately directed homeward, those from 30 km less so; bats released at 60 km wandered in all directions. (b) Bats regularly made rapid well oriented flights to and from their feeding areas. No 2 bats followed the same routes during these flights. (c) The same visual orientation systems which allow these bats to return rapidly during homing experiments may also facilitate flight to and from feeding areas. (25 ref.)—*M. Strobel.*

DEVELOPMENTAL PSYCHOLOGY

8653. Aziz, Abdul. (U. Delhi, School of Economics, India) **The legibility of isolated letters of Bengali alphabet.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 96-99.—Investigated the legibility of the Bengali alphabet (an Indian language) using 5 18-25 yr. olds and 5 8-14 yr. olds. Each of the 42 consonants was presented in random order tachistoscopically for 25 trials. The Ward-Wolfwitz Runs Test did not show significant effects of fatigue or practice. Intergroup differences and letter-to-letter differences in legibility are reported.—*K. C. Panda.*

8654. Bevan, William & Steger, Joseph A. (Johns Hopkins U.) **Free recall and abstractness of stimuli.** *Science*, 1971(May), Vol. 172(3983), 597-599.—Studied the relation of abstractness of stimuli to efficiency of free recall in 90 undergraduates and 90 4th graders. Groups were shown a sequence of objects, pictures, and object names and were asked to recall what they had seen. Recall tests were conducted either immediately after presentation of the stimulus-sequence, after 24 hr., or after 1 wk. Objects were recalled more frequently than pictures, and pictures more frequently than words. Adults performed better than children, except in the case of objects.—*Journal abstract.*

8655. FitzPatrick, Alan J. (U. Missouri) **Effects of presentation modes and procedures and grade level on acquisition and retention of paired-associates.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5198.

8656. Grusec, Theodore & Grusec, Joan E. (Toronto, Ontario, Canada) **Information seeking about uncertain but unavoidable outcomes: Effects of probability, valence, and intervening activity.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 177-183. Conducted experiments with 48 6th graders and 64 undergraduates varying (a) pleasant/unpleasant future event, (b) high/low probability of the event, and (c) presence/absence of distracting activities. The future event was indicated in a closed envelope which Ss could open at any time during the E's 20-min absence. Ss opened the envelopes almost immediately, but adult females sought information significantly more quickly than adult males ($p < .05$). Young Ss in the distracting activity-high probability groups delayed longer than those in other conditions. Motivations accounting for the results are suggested.—*S. Knapp.*

8657. Hartup, Willard W. & Yonas, Albert. (U. Minnesota) **Developmental psychology. Annual Review of Psychology**, 1971, Vol. 22, 337-392.—Reviews research in developmental psychology in relation to humans, noting 2 exceptional publications in this field. *Principles of Perceptual Learning and Development* by E. J. Gibson, and *Attachment and Loss* by J. Bowlby. The review includes studies on (a) infancy; (b) perception and cognition; (c) intelligence; (d) language; (e) learning and motivation; and (f) social and personality development. (397 ref.)—*P. Hertzberg.*

8658. Looft, William R. (U. Wisconsin) **Perceptions across the life span of important informational sources for children and adolescents.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 207-211.—Persons of age samples extending across the major portion of the life span were interviewed regarding whom they perceived to be the most important transmitters of information to children and to adolescents. Parents were perceived to be most significant for children, and peers were most significant for adolescents, although the importance of parents for adolescents was also mentioned frequently. Agents perceived to be of somewhat less importance included the mass media, schools and/or teachers, and churches. The late-adolescent/young-adult samples attributed importance to parents less frequently than any other age group.—*Journal summary.*

8659. McCullers, John C. (U. Oklahoma) **Verbal paired-associate learning in children and adults with anticipation, recognition, and recall methods.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 112-117.—Tested 110 6th grade girls and 110 undergraduate women on the same 10-pair list of words under conditions of comparable methodology and procedure in a between-Ss factorial design. Both groups showed the slowest learning with recognition methods due to the manner in which recognition was assessed. Although adults learned faster than children, within-group differences were greater than between-group differences. In terms of speed of learning as well as the distribution of correct responses, omissions, and overt errors, both groups appeared to belong to a common developmental level for this type of task. (16 ref.)—*Journal abstract.*

8660. Murray, John B. (St. John's U., Jamaica, N.Y.) **The generation gap.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 71-80.—G. S. Hall provided the framework for the "generation-gap" problem. In Hall's time, as in the present, authors disagreed whether generation differences were real or only apparent.

Difficulty in answering the question of whether the generation-gap issue is a new problem or only a new label for an old issue was traced to: (a) the many different incidents included under the 1 title, (b) Ss included in descriptions of generation-gap problems vary among themselves, and (c) the varying limits set for generation-gap issues. Several theories advanced to explain the symptoms of the generation-gap issue are described.—*Author abstract.*

8661. Phye, Gary D. (U. Missouri) **Incidental verbal learning: A developmental study.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5211.

8662. Sakabe, N., Arayama, T., & Suzuki, T. (Shinshu U., Faculty of Medicine, Matsumoto, Japan) **Human fetal evoked response to acoustic stimulation.** *Acta Oto-Laryngologica*, 1969, Suppl. 252, 29-36.—Recorded human fetal evoked response to acoustic stimuli from the abdominal wall of 6 mothers at the 32nd-38th wk. of pregnancy. Tone bursts with 1000-Hz frequency, 50-msec duration, and decay time were given every 4 sec. through a bone vibrator attached to the maternal abdominal wall at the nearest place to the fetal ear. The responses were conducted through an active electrode located on the maternal abdominal wall in the vicinity of the fetal vertex and were averaged by a digital computer. The typical wave form of the response consisted of 4 prominent deflections: a negative, a positive, a negative, and a positive deflection with respective peak latencies of 100-150, 200-300, 500-600, and 700-800 msec. These deflections of the fetal evoked response were considered to correspond to the 4 components (N_1 , P_2 , N_2 , P_3) of the slow "vertex potential" to auditory stimulus in young children. However, no decision could be reached as to whether the obtained response originated in the fetal brain and depended on the fetal auditory function. (German summary)—*Journal abstract.*

8663. Torrance, E. Paul. (U. Georgia) **Dyadic interaction as a facilitator of gifted performance.** *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 139-143. Presents 4 studies supporting the hypothesis that working in pairs facilitates creativity. In Exp. I, it was found that college students benefit more from this interaction than 5 yr. olds, their mean scores of originality being 86.4 determined by the Torrance Test of Creative Thinking as compared to 32.4 as judged by Torrance's Mother Goose Problems Test. This was explained by the decrease in egocentrism with age. Exp. II compared college juniors working in dyads and independently. The Ask-and-Guess Test and Product Improvement Test were used and the dyads again showed higher means of creativity (27.1 vs. 18.2). Consistent findings were attained with disadvantaged children. In Exp. IV, it was found that children working in pairs attempted more difficult tasks than those working alone or before a class.—*S. Krippner*

8664. Warren, David H. (U. California) **Intermodality interactions in spatial localization.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 114-133. Adults localize unseen auditory targets better with their eyes open than closed. This visual facilitation phenomenon was studied in 4 experiments to provide information about intermodality organization. Ss were 68 2nd and 6th graders, undergraduate and graduate students. Results indicate that the necessary condition for facilitation is the presence of structured visual input. While vision facilitated the pointing response to auditory targets, auditory acuity was improved. Results are

interpreted in terms of a visual mapping of auditory stimuli. Developmental work shows that Ss through 6th grade did not show visual facilitation effects. *Journal abstract.*

INFANCY

8665. Ball, William & Tronick, Edward. (Harvard U., Center for Cognitive Studies) **Infant responses to impending collision: Optical and real.** *Science*, 1971(Feb), Vol. 171(3973), 818-820.—24 2-11 wk. old infants responded to symmetrically expanding shadows, which optically specify an approaching object, with an integrated avoidance response and upset. This response did not occur for asymmetrically expanding shadows nor for contracting shadows that specify an object on a miss path and a receding object. The response was observed in all Ss regardless of age. The addition of kinetic depth information to the displays did not increase the intensity or likelihood of the response. In Exp. II, 7 Ss defensively reacted to the approach of a real object except when it was on a miss path.—*Journal abstract.*

8666. Bower, T. G., Broughton, J., & Moore, M. K. (Harvard U.) **Development of the object concept as manifested in changes in the tracking behavior of infants between 7 and 20 weeks of age.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 182-193. Studied the tracking behavior of infants in 4 experiments with a total of 38 2-5 mo. old Ss. Linear and circular trajectories, with partial occlusion of the trajectories were used. Results indicate that it was not until the age of about 4 mo. that Ss could be said to be tracking a moving object as an object.—*Journal abstract.*

8667. Fagan, Joseph F. (Case Western Reserve U.) **Infants' recognition memory for a series of visual stimuli.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 244-250. Employed the tendency of infants to distribute attention selectively to novel and familiar visual stimuli to study infants' recognition memory for a series of visual targets. 5-mo.-old infants demonstrated an unequal distribution of visual fixation to novel and familiar stimuli with more attention to the novel on both immediate and delayed stimulus-recognition tests for each of 3 novelty problems administered during a single testing session. The degree of differential fixation to novel targets exhibited no reliable decline from immediate to delayed testing and was not significantly altered by the serial order which the problem occupied during immediate recognition testing.—*Journal abstract.*

8668. Ferrer Guillén, Alfonso. (Inst. of Political Studies, Youth Inst. Madrid, Spain) **La relación madre-hijo y sus efectos en el desarrollo psicosexual durante la infancia.** [The mother-child relationship and its effects in the psychosexual development during infancy.] *Revista del Instituto de la Juventud*, 1970(Jun), Vol. 32, 7-56. Studied the infant's needs, e.g., satisfaction of appetite, environment, security, affection, and affection of the tenderness, and how they are the foundations for the attainment of an emotional and social life without serious disturbances or deviations. The mother's function in the psychoaffective and social development of the child is studied, e.g., a rigid disciplinary may unconsciously have a feeling of hostility toward the child. The seriously have a feeling of hostility toward the child. The relationship must have a double purpose: confidence in self and others. A child who was loved for himself as a person can express himself with confidence and feeling

that he is a true individual. But when the relationship consists of 1 at the service of the other, the way to autonomous growth is closed. (44 ref.)—*M. Faragana*

8669. Fitzgerald, Hiram E. & Bruckbill, Yvonne. (Michigan State U.) **Tactile conditioning of an autonomic and somatic response in young infants.**

Conditional Reflex, 1971(Jan), Vol. 6(1), 41-51.—Tactile classical conditioning of an autonomic reflex (pupillary dilation and constriction) and a somatic response (eyeblinking) was attempted in 2 separate experiments with 1-mo-old infants. The tactile CS was effective for conditioning eyeblink but was ineffective for elaborating conditional pupillary reflex dilation or constriction. These differences were related to the interaction between stimulus and response in infant conditioning and the source of nervous system innervation of the CR as it relates to conditionability.—*Journal summary*

8670. Greenberg, David J. & Welzmann, Fredric. (U. Nebraska) **The measurement of visual attention in infants: A comparison of two methodologies.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 234-243.—Tested 12 8-wk-old and 12 12-wk-old infants to determine fixation times to 3 checkerboard patterns of equal area, a 2×2 , 8×8 , and 24×24 . Each S was tested twice, once with a single stimulus presentation and once with paired-comparisons. Both methods were similar in depicting age and sex differences. Older Ss looked longer at the more complex patterns while female Ss fixated complex patterns longer, relative to simpler patterns, than did males. The paired-comparisons method was superior in distinguishing "blank looking" from meaningful perceptual-cognitive interaction with a stimulus. Results suggest that since females are more able to process information from static stimuli, they are ahead of their male age peers in their perceptual-cognitive development within this age range. (23 ref.)—*Journal abstract*

8671. Jensen, D. R. & Engel, R. (Virginia Polytechnic Inst.) **Statistical procedures for relating dichotomous responses to maturation and EEG measurements.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 437-443.—Applied a statistical approach to determine whether the ability to walk unaided at 1 yr. was related to neonatal photic latency measurements. 1,058 Ss were assigned to groups established on the basis of conceptional ages. Neonates having long photic latencies contributed proportionately fewer free walking individuals at the 1-yr examination, whereas the fast reactors at birth exhibited a higher percentage of early walkers. The significance of this relationship is demonstrated. It is concluded that the statistical procedures used apply equally well to other electrophysiological measurements and to other dichotomous responses for which the assumptions outlined here are satisfied. (French summary)—*Journal summary*

8672. Landers, William F. (Texas Technological U.) **Effects of differential experience on infants' performance in a Piagetian Stage IV object-concept task.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 48-54.—Examined the effects of differential experiences on Piaget's finding that infants in Stage IV of object-concept development were unable to find an object they saw hidden at a 2nd position (B) after finding it earlier at the 1st position (A) of hiding. 42 7.5-10.5 mo. old infants, assigned to 1 of 3 equated groups, were observed playing a 2-position hidden-object game. Ss who had

experience reaching and finding an object at the 1st position made longer error runs at this position than Ss who had more searching experience at A or Ss who had experience reaching objects hidden at A but no experience reaching. Results are interpreted to support and extend previous observations and explanations of Stage IV of object-concept development. (15 ref.)—*Journal abstract*

8673. LeCompte, Güneş K. (U. Houston) **Violation of infants' expectations as a method of diagnosing levels of object concept.** *Dissertation Abstracts International*, 1971(May), Vol. 31(9-B), 5668.

8674. Ornitz, E. M., et al. (U. California, Center for the Health Sciences, Los Angeles) **The EEG and rapid eye movements during REM sleep in babies.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 350-353. Quantified EEG activity of 10-18 cps and eye movement activity during REM sleep in normal 6-8 mo. old infants. These values were compared to those previously reported for 19-47 mo. old normal and autistic children. The amount of 10-18 cps activity was greater and the mean duration of eye movement shorter in the infants than in the normal children, but was similar to that of the autistic children. The mean duration of eye movement bursts in the infants increased linearly with successive REM sleep periods. (French summary) (22 ref.)—*Journal summary*

8675. Pechstein, J., et al. (U. Munich, W. Germany) **Zusammenhänge zwischen EEG-Schätzalter und psychomotorischem Entwicklungsstand bei Kindern aus Säuglingsheimen.** [Relationship between EEG estimated age and psychomotor development condition in children from orphanages.] *Nervenarzt*, 1971(Feb), Vol. 42(2), 79-85.—Investigated the relationship between the EEG and clinically diagnosed developmental state in 99 3-18 mo. old healthy infants who were reared in various orphanages. An attempt was made to determine whether evidence of retarded development would be found in these infants as would be expected from recent research with animals. A correlation between degree of development as clinically diagnosed and EEG variables was found. Infants with retarded development had "younger" EEGs. These results support the idea that exogenous stimulation during early development is important. (41 ref.)—*E. R. Wist*

8676. Sameroff, Arnold J. (U. Rochester) **Can conditioned responses be established in the newborn infant: 1971?** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 1-12. Examines the learning capabilities of the human newborn. Classical conditioning is difficult to demonstrate in the newborn, while operant conditioning is possible. 2 hypotheses are evaluated as explanations for difficulties in conditioning the newborn: (a) the newborn is unable to respond to stimulus change, or (b) the newborn is able to respond to a general change but cannot respond to specific differences in stimulation. It is proposed that classical conditioning may involve the integration of 2 sensory modalities: that of the CS and the UCS. The newborn infant must 1st develop cognitive systems, through his experience with various stimuli, to differentiate each modality separately before he can integrate any 2 modalities in classical conditioning. The roles of the orienting and defensive reactions are discussed. (65 ref.)—*Journal abstract*

8677. Simner, Marvin L. (U. Western Ontario, London, Canada) **Newborn's response to the cry of another infant.** *Developmental Psychology*, 1971(Jul)

Vol. 5(1), 136-150.—Conducted 4 experiments with a total of 97 male and 98 female newborn infants to determine whether reflexive crying occurs in newborns and to define the parameters that control this behavior. It was found that (a) vocal properties of the newborn's cry were effective in promoting crying in other newborns, and (b) that feedback from the infant's own cry may be instrumental in the development of this behavior. Data were obtained questioning the likelihood of a direct relationship between reflexive crying and the later development of preverbal vocal behavior. Ancillary results pertaining to a seasonal trend, sex differences, and the role of arousal in supporting reflexive crying are provided. (39 ref.)—*Journal abstract*.

8678. Spaner, Steven D. (Southern Illinois U.) **Application of multivariate techniques to developmental data: The derivation, verification, and validation of a predictive model of twenty-four month cognitive development.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5216-5217.

8679. Taguchi, K., Picton, T. W., Orpin, J. A., & Goodman, W. S. (U. Toronto, Ontario, Canada) **Evoked response audiometry in newborn infants.** *Acta Otolaryngologica*, 1969, Suppl. 252, 5-17.—Recorded the auditory evoked responses of 250 normal infants (6 hr. to 12 days old) during natural sleep, using an averaging computer. The evoked responses had 2 prominent components (P_2 and N_2), which in deep sleep were of larger amplitude and of longer peak latency than in light sleep. Ss showed lower thresholds to lower frequency stimuli. The thresholds of Ss less than 2 days old were higher than those of older Ss. The peak latency of component N_2 was longer in younger Ss especially in deep sleep. There was a significant air-bone gap in the thresholds of Ss under 2 days old; this indicates a conductive hearing impairment in the early days after birth. Infant maturity cannot be determined precisely through study of the evoked responses because of their great variability. (German summary) (23 ref.)—*Journal abstract*.

8680. Van den Daele, Leland D. (Educational Testing Service, Princeton, N.J.) **Infant reactivity to redundant proprioceptive and auditory stimulation: A twin study.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 269-276.—Continuous redundant stimulation inhibits infant activity. This effect appears independent of specific experience or response history. In this study, the contribution of genetic disposition to regulation of infant response to redundancy was evaluated through observation of the behavior of 3 sets of fraternal twins and 6 sets of identical twins to combinations of redundant proprioceptive and auditory stimulation. Treatment was associated with a significant decline of infant activity independent of zygosity, and when groups were compared, identical twins were significantly more concordant for behavior during and after treatment. (18 ref.)—*Author abstract*.

8681. Ventis, William L. (U. Tennessee) **A comparison of modes of maternal reinforcement for infant behavior during the first year of life.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5646.

CHILDHOOD

8682. Brodie, Barbara M. (Michigan State U.) **An explorative study of the perceptions of healthy**

children toward illness. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5838.

8683. Butts, Ted M. (U. Alabama) **A study of race and social class variables and psycholinguistic, cognitive, and perceptual measures of selected first grade children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5193.

8684. Delorme, Andre & Pinard, Adrien. (U. Montreal, Inst. of Psychology, Quebec, Canada) **Relations entre la notion et la perception de la vitesse relative chez l'enfant.** [Relations between the idea and the perception of relative speed of the child.] *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 209-216.—Administered 2 tasks bearing on the perception and concept of relative velocity to 7-, 9-, 11-, and 13-yr-old children (24 at each age level). The perceptual task presented an illusion created by the movement of a target on a moving background, while the conceptual task was a modified version of Piaget's technique. In each task the 2 movements involved were either in the same (MS) or in the opposite direction. It was found that the illusion appeared earlier than the corresponding concept under the MS condition. The possibility of a retroactive effect of the concept on the percept is suggested.—*English summary*.

8685. Feldmann, Harry. (U. Geneva, Switzerland) **Psychomotor assessment and rehabilitation of socio-culturally deprived children.** *Acta Paedopsychiatrica*, 1970(Sep), Vol. 37(9-10), 268-293.—In the absence of physical or mental disturbances, certain socio-cultural influences may prevent a normal cultural adaptation because of social or educative difficulties in integration. The testing of children with cultural deprivations must never be made by means of static tests based on examination of mental level or intellectual efficiency, but only by means of a dynamic examination of the learning capacity of a given order. The educability and learning capacity of such children must be examined as a function of psychomotor potential and of plasticity of the neurological substratum. A method of psychomotor rehabilitation based on Jaques-Dalcroze rhythms, where the influence of music is considerable, permits the study of learning the model to imitate, of the recognition of corporal space, then temporal space, and finally field space, basic elements for grapholevel learning and the formation of conceptual thought. When motricity is redeveloped, the child is able to acquire a wider control of intellectual exigencies and of the socialization of his new environment. (39 ref.)—*G. Rubin-Rabson*.

8686. Gochman, David S. (U. Michigan) **The health ideation pictures (HIP): Reliability and internal consistency.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 271-278.—Describes a series of 11 pictures which provide a method of measuring health ideation and adaptive health behavior. Responses were obtained from 31 8-10 yr. old Cub Scouts. Coding procedures established for general perceptual awareness, health ideation, and adaptive health behavior, proved to be highly reliable, and the pictures were found to provide internally consistent measures within each dimension.—*Journal abstract*.

8687. Hanlon, Camille C. (Connecticut Coll.) **The effects of social isolation and characteristics of the model on accent imitation in fourth-grade children.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 322-336.—Investigated some possible deter-

minants of sociolinguistic change through the use of an experimental analogue. General American speakers were asked to learn the role of a British character in a puppet play under varying motivational conditions. 27 male and 25 female 4th graders served as Ss. In the absence of any instruction to do so, Ss who were exposed to a tape recorded model presented as nurturant and powerful imitated the model's British accent to a greater extent than did Ss who heard the same model presented as helpless. The effect of preceding social isolation interacted with the sex of the S and/or that of the model.—*Journal abstract*

8688. Johnson, Peter A. & Staffieri, J. Robert. (Bates Coll.) **Stereotypic affective properties of personal names and somatotypes in children.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 176.—Assigned 120 male 8-12 yr olds to 8 groups. Each group was requested to select adjectives from a list of 36 behavioral descriptions for 5 randomly ordered presentations of various names and/or body types. 6 names were selected for degree of commonness, and 4 body types were silhouetted: extreme endomorph, mesomorph, ectomorph, and dysplastic. Results indicate that (a) Ss had a stereotypic concept of traits associated with body types and names, and (b) body type was dominant.—*S. Knapp*

8689. Kabanova-Meller, Evgeniya N. (USSR Academy of Pedagogical Sciences, Inst. of Psychology, Moscow) **Formirovanie priemov umstvennoi deyatel'nosti i umstvennoe razvitiye uchashchikhsya.** [The means of mental activity and the mental development of schoolchildren.] Moscow, USSR: Prosveshchenie, 1968. 287 p. 1 R. 16 K.

8690. Lang, Harold W. (North Texas State U.) **Relationship of the self-concept of fifth-grade Negro students with their knowledge of Negro leaders and events.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5082.

8691. Langmeier, Josef & Matějček, Zdeněk. (Postgraduate Medical Inst., Prague, Czechoslovakia) **Mental development of children in families and in infants' homes.** *Social Science & Medicine*, 1970(Dec), Vol. 4(5), 569-577. Outlines the development of residential homes for children in Czechoslovakia. Improvements in physical, educational, and psychological care are discussed. Comparisons of the physical, motor, adaptive, social, and language development of 5-36 mo. old infants raised in families with those raised in institutions reveal the latter group developing at below normal levels, improving by the 3rd yr., but always below the rate of the family raised children. Specific suggestions are made for the organization of residential homes and day nurseries. Innovative programs being established are noted.—*S. Knapp*

8692. Lerner, Richard M. & Schroeder, Christine. (Eastern Michigan U.) **Kindergarten children's active vocabulary about body build.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 179.—Categorized the words that 50 male and 26 female kindergartners used to describe fat and thin children as (a) physique and physical, (b) social, (c) personal, and (d) irrelevant. Ss made significantly more content than irrelevant statements and more physical than social or personal statements. Irrelevant statements were the 2nd most frequently made, followed by social and then personal statements. Results support the hypothesis of body build-behavior attitudes in children.—*S. Knapp*

8693. Lewis, Melvin; McCollum, Audrey T., Schwartz,

A. Herbert, & Grunt, Jerome A. (Yale U., Medical School) **Informed consent in pediatric research.** *Children*, 1969(Jan), Vol. 16(4), 143-148.—Deals with the problems of medical research on children, i.e., ethical concerns, possible harm or benefits to the child, the child's consent, and parental consent. 4 children participating in such research and the particular circumstances involved in their cases are discussed. Recommendations to be followed when children participate in medical research are presented: (a) a review committee should assess the research; (b) a professional should be available to deal with possible risks to the child; (c) the researcher should interview parents and the child; (d) a social worker or psychiatrist should be available to counsel parents if necessary; (e) interdisciplinary staff meetings should be held; and (f) follow-up care should be provided.—*D. I. Lickarczyk*

8694. Madden, Lowell E. (Ball State U.) **Impact of information about Negroes on attitude change.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5039-5040.

8695. Mansfield, Richard S. (Harvard U.) **Developmental trends in the effects of noise on problem solving.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5884.

8696. Martin, J. E. & Molfese, Dennis. (Pennsylvania State U.) **Some developmental aspects of preferred adjective ordering.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 219-220.—Reports developmental normative data on the preferred adjective ordering phenomenon from an experiment with 381 4th, 5th, 7th, and 9th graders. Results show that (a) the ordering phenomenon is well established by the 9th yr., and (b) the variance of the scale values of the adjective on the dimension of preferred order is greater for older than for younger Ss.—*Journal abstract*

8697. Moore, James E. & Kendall, Diane G. (Communications Inst. of America, Dallas, Tex.) **Children's concepts of reproduction.** *Journal of Sex Research*, 1971(Feb), Vol. 7(1), 42-61.—A questionnaire was administered to 69 middle-class nursery schoolchildren to determine their knowledge of sexuality and birth. The results were in agreement with previous findings that few preschool-age children have any clear notion of human reproduction. The results provided no clear support for either the Freudian or Piagetian notions of the origins of babies. Although preschool children are curious about sex and reproduction the real understanding does not exist until about age 11. The following implications for sex education are made: (a) 3-5 yr. old children are curious, ready, and capable of learning accurate concepts of human reproduction; (b) sex education for young children is necessary; and (c) parents need sex education themselves. (29 ref.)—*E. B. Jaffa*

8698. Steinman, Warren M. & Boyce, Kathleen D. (U. Illinois) **Generalization imitation as a function of discrimination difficulty and choice.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 251-265.—Reinforced 4 5-yr-old girls for imitating 12 responses and did not reinforce imitation of 12 other responses. The nonreinforced responses were selected to be either topographically similar or dissimilar to the reinforced responses. Responses were modeled singly or in pairs. Nondifferential imitation occurred only on single-presentation trials. Ss imitated discriminatively on the choice trials even though they continued to imitate the same nonreinforced responses on the single-pres-

entation trials. Similarly, when the reinforcement contingencies were reversed by reinforcing the previously nonreinforced imitations, only the behavior on the choice trials was affected. Results suggest that generalized imitation may be a function of the methods used and is not necessarily related to a failure to discriminate response contingencies. (24 ref.)—*Journal abstract.*

8699. Stitt, Jane D. (U. Texas) **Family and social background factors as they influence cognitive and perceptual development in children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5860.

8700. Wadlington, Walter. (U. Virginia, Law School) **A new look at the courts and children's rights.** *Children*, 1969(Jul), Vol. 16(4), 138-142.—Discusses several of the areas in which the courts have been increasingly concerned with the protection of children's rights. Several precedent cases are mentioned. Topics discussed are the rights of illegitimate children and of children affected by divorce proceedings, damage suits brought against parents by their children, and the rights of children to express opinions in society, such as engaging in political protest. (24 ref.)—*D. T. Lekarzyk.*

8701. Ward, William C. & Legant, Patricia. (Educational Testing Service, Princeton, N.J.) **Naming and memory in nursery school children in the absence of rehearsal.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 174-175.—Conducted 3 studies with a total of 83 nursery school children on the effects of labeling on short-term memory. Ss in each study were assigned to 1 of 2 groups in which they viewed stimuli pictures (a) in silence, or (b) during verbal naming. Following presentation of stimuli, Ss engaged in a 20-sec conversation with the tester and then attempted to select "target" stimuli from an array. Results indicate that naming without rehearsal significantly facilitated recall (combined $p < .002$).—*S. Knapp.*

8702. Yavuz, Halide S. (Robert Coll., Istanbul, Turkey) **Development of retention and organization occurring in free recall in Turkish children.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 203-209.—Examined sex and age differences in the development of item retention and organization occurring in free recall. The study compares the free recall of objects as perceptual stimuli in normal 8- and 12-yr-old children. The analyses of the data were conducted in terms of item retention and stimulus category repetitions. Results are interpreted in terms of Piaget's theory of conceptual development.—*Author abstract.*

Learning

8703. Adams, Janice F. (U. Wisconsin) **Learning to learn on a concept attainment task as a function of age and socioeconomic status.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5832.

8704. Allen, Sara A., Spear, Paul S., & Lucke, Jon R. (Chico State Coll.) **Effects of social reinforcement on learning and retention in children.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 73-80.—Administered an easy or difficult 2-choice simultaneous discrimination task to 96 male and female 1st-2nd graders and 96 male and female 5th-6th graders. 3 reinforcement conditions (approval, disapproval, or silence) were varied by 2 (female adult Es, each testing 24 Ss in each age-sex subgroup. Knowledge of results was provided independently after each response. Retention was measured after 8 days by a 3rd female E. Results suggest that disapproval affects both motivation and learning. Ss

receiving criticism responded at slower rates, made more errors, and were less likely to reach criterion than Ss receiving praise or silence. Younger Ss, especially boys, were more affected by disapproval than were older Ss. The differential effects of approval and disapproval for younger and older Ss on rate of response were also found on the retention test. (16 ref.)—*Journal abstract.*

8705. Dohme, John A. (U. Arizona) **The relative efficacy of vicarious and direct reinforcement systems on two socially-transmitted learning tasks.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5656.

8706. Findlay, Alice D. (U. Strathclyde, Glasgow, Scotland) **An investigation of the emergence of ability for partial and complete multiplication of classes in young school children.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 96-98.—Piaget's theoretical position assumes that complete multiplication will be an earlier development in the child than partial multiplicative classification and his experimental findings support this hypothesis. The present study doubts these findings since Piaget used different experimental situations in investigating the 2 types of multiplication. It was, therefore, hypothesized that children would find simple multiplication easier and hence make more correct responses in the finite choice situation than in the creative response situation. Results of an experiment with 96 5-10 yr. old children show that the sequential appearance of complete and partial multiplicative classification may be due to the experimental situations used, and therefore, complete multiplication as a necessary prior development to partial multiplication remains as an open question.—*Journal abstract.*

8707. Gusinow, Joan F., Price, Louis E., & Gusinow, M. A. (U. New Mexico) **A versatile apparatus for simple and complex learning.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 229-233.—Describes an apparatus which (a) automatically or manually presents any of a number of stimuli, (b) programs reinforcements for 3 problems independently, (c) concurrently allows for variation of all relevant intervals, e.g., stimulus presentation time, delay of reinforcement, ITI; and (d) automatically prints out latencies and correct or incorrect responses. It is suggested that this programming is especially suitable for studies in such areas as discrimination learning, learning set, operant conditioning, instrumental conditioning, and concept formation.—*Journal abstract.*

8708. Hassett, Irene D. (U. New Mexico) **The effect of type of reinforcer on several lower-class cultural groups.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5200.

8709. Hyman, Lester M. (Michigan State U.) **The effects of irrelevant dimensions and stimuli on two-choice discrimination learning by children.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 249-250.—Presented 8 9-yr-old children with 24 8-trial simultaneous 2-choice visual discrimination problems. Each problem contained 8 different stimuli. In 11% of the problems the stimuli varied along 2 dimensions with 1 dimension irrelevant, and for the other 12 problems the stimuli varied along 3 dimensions with 2 dimensions irrelevant. Even though the number of irrelevant stimuli was the same, the 2-irrelevant-dimension problems were significantly more difficult than the 1-irrelevant-dimension problems. There was significant learning on both

types of problems and no significant interactions. —*Journal abstract.*

8710. Keller, Harold R. (U. South Carolina) **Children's acquisition and reversal behavior in a probability learning situation as a function of programmed instruction, internal-external control, and schedules of reinforcement.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 281-295. —Tested 192 5th-6th graders with a 3-choice contingent task in a $2 \times 2 \times 3$ factorial design combining (a) programmed instruction on selected probability concepts vs. no programmed instruction; (b) internal vs. external locus of control; and (c) 33, 66, and 100% schedules of reinforcement. The dependent measures were the percentage of correct acquisition responses, correct reversal responses, and pattern responses, as well as posttests on probability concepts. Major findings were associated with schedules of reinforcement. In acquisition and reversal, Ss under 100% reinforcement during acquisition tended to maximize the greatest, followed by the 66 and 33% conditions, in that order. The ordinal relationship among schedules was the exact reverse of the maximizing approach for the pattern responses. A partial reinforcement effect was obtained in reversal. Evidence indicates that programmed instruction and locus of control affected maximizing behavior, patterning behavior, and resistance to extinction (though these variables did not interact with reinforcement schedule in the predicted direction). Posttest data indicate that instructed Ss learned more than uninstructed Ss. (31 ref.) —*Journal abstract.*

8711. Lane, Joseph M. (U. Georgia) **The effects of verbal pretraining on the learning of paired associates by Negro and white first graders.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5851.

8712. Levin, Joel R. & Horvitz, James M. (U. Wisconsin) **The meaning of paired associates.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 209-214. —Presented a printed paired-associate list containing 6 different types of items to 60 6th graders. 4 of the item types consisted of sentence-embedded paired associates on the study trials, followed by test trial cues varying in terms of their similarity in meaning to the study materials. The 2 remaining item types served as base-line measures of performance, i.e., controls. It was found that (a) the greater the semantic similarity between the study and test trial contexts, the greater was the recall of paired-associate items; and (b) at the same time, control item types presented in conjunctive phrases were better recalled than those presented in sentences. (24 ref.) —*Journal abstract.*

8713. Livesey, P. J. & Little, Audrey. (U. Western Australia, Nedlands) **Sequential learning by children.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 33-38. —64 yr. olds (3 male and 3 female) were trained on a 4-response double-alternation task and another 6 were trained on a comparable single-alternation task. On learning the task to criterion Ss were presented with sequences of extended length (8 response then 12 response). On mastering these they were then transferred to the alternative 4-response sequence. Unlike cats and monkeys, children mastered the single-alternation task more readily than the double-alternation task. Having learned the 4-response sequence all Ss were able to extend the sequence to 8- and then the 12-response length. As with cats and monkeys, learning 1 of the sequences (e.g., single alternation) appeared to facilitate

subsequent learning of the other sequence (double alternation). From their spontaneous verbalization appeared that children established symbolic representation of the sequence. With a number of 4-yr-old Ss, verbalization of the correct solution preceded correct performance of it. —*Journal abstract.*

8714. Mahoney, Vincent D. (U. California, Berkeley) **A branch analysis of graphing behavior in the learning hierarchies within Piagetian stages.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(A), 5204-5205.

8715. Massari, David J. (Temple U.) **Reinforcement effectiveness in children as a function of stimulus satiation.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 310-321. —Employed 128 pre-school boys in a $4 \times 2 \times 2$ factorial design using (a) 25, 45, or 65 repetitions; (b) a good or bell reinforcer; and (c) a good or bell satiator. 2 additional groups each were run as controls to determine the effectiveness of good and bell in the absence of satiation treatment. Following the experimental treatment, Ss were given learning and 25 extinction trials on a fixed color-post discrimination learning task. Support for stimulus satiation and satiation generalization was found on the learning and extinction data. The obtained functional relationships were generally curvilinear. (10 ref.) —*Journal abstract.*

8716. Richards, Ronald J. (Southern Illinois U.) **The effects of social deprivation, physiological arousal, and need for approval upon verbal conditioning with social and nonsocial reinforcers.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5213.

8717. Ryan, Sarah M. (U. Minnesota) **A developmental investigation of crossmodal transfer of shape and texture dimensions in children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5675.

8718. Tollerson, John D. (U. Tennessee) **Response stability as a function of response chains in children.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5645.

8719. Turner, Charles. (Columbia U.) **Effects of race of tester and need for approval on children's learning.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 240-244. —Gave 80 white male parochial school 9th graders a simple serial learning task. 8 black and white, male and female, Es administered the test individually and motivated the Ss with verbal approval during the testing. It was found that those Ss tested by same-race male testers performed significantly better than Ss tested by different-race male Es. No correlation was found between Ss need for approval as measured by the Marlowe-Crowne Social Desirability scale and speed of learning. —*Journal abstract.*

8720. Wallace, Janet G. (U. Tennessee) **Social reinforcer efficacy: An experimental and observational analysis.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5683.

8721. Wohlwill, Joachim F. (Pennsylvania State U. Div. of Man-Environment Relations) **Effect of correlated visual and tactual feedback on auditory pattern learning at different age levels.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 213-228. —Studied the role of correlated visual and tactual information for the learning of a set of 6 auditory patterns, 8 notes long. 4 groups of 36 males age

Race, social class, and age of achievement of conservation on Piaget's tasks. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5843-5844.

8731 Hyer, Leon A. (Chicago, Ill.) A study of the relationship of cognitive styles to problem solving. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5201-5202.

8732 King, William L. (City Coll., City U. New York) A nonarbitrary behavioral criterion for conservation of illusion-distorted length in five-year-olds. *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 171-181.—Perceptually reversed the apparent length of 2 unequally long sticks by placing them in a Muller-Lyer illusion. 29 male and 18 female nursery school children served as Ss. After providing S with the information necessary to discount the illusory effect, he was asked to solve a problem which required him to choose either the physically longer or shorter of the 2 sticks. Choice of stick provided a behavioral criterion for conservation which was achieved by a majority of Ss. It is suggested that criteria relying solely on linguistic competence or based entirely upon feedback procedures will misdiagnose conservation.—*Journal abstract*

8733 Levene, Harold F. (Florida State U.) Children's comprehension and production of ambiguous sentences. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5669.

8734 Martin, Claude & Olson, David. (Ontario Inst. for Studies in Education, Toronto, Canada) Variety of exemplars versus linguistic contexts in concept attainment in young children. *Developmental Psychology*, 1971(Jul), Vol. 5(1), 13-17.—Tested the hypothesis that children learn concepts better through linguistic cues than through a variety of exemplars. 58 kindergartners were divided into 4 matched groups and taught 4 new concepts as follows: (a) with 3 instances (each presented twice) combined with 6 similar sentences; (b) with 3 exemplars (each presented twice) combined with 6 different sentences; (c) with 6 different exemplars combined with 6 similar sentences; and (d) with 6 different exemplars combined with 6 different sentences. Contrary to expectation, neither main effect, variety of exemplars, nor level of linguistic context was significant; however, a strong interaction between these factors was obtained. (20 ref.)—*Journal abstract*

8735 Palermo, David S. (Pennsylvania State U.) Characteristics of word association responses obtained from children in grades one through four. *Developmental Psychology*, 1971(Jul), Vol. 5(1), 115-123.—Administered a 100-item word association test to 50 boys and 50 girls in each of the Grades 1-4. The stimulus words were presented orally and the responses were given orally by Ss. Results are analyzed in terms of the frequency of various classes of responses, and comparisons are made of the oral and written methods of administration. Results suggest that the frequency of the most popular responses, contrast and superordinate responses, and paradigmatic responses increased over the grade levels included. The oral administration procedure appeared to increase the probability of popular and contrast responses but to decrease the probability of superordinate responses. (22 ref.)—*Journal abstract*

8736 Penk, Walter. (Veterans Administration Hosp., Dallas, Tex.) Developmental changes in idiodynamic set responses of children's word associations. *Developmental Psychology*, 1971(Jul), Vol. 5(1), 55-

63.—Conducted a $5 \times 3 \times 2 \times 2$ factorial study on 100 7-11 yr. olds, varying 5 age levels, 3 idiomatic types of stimulus words, 2 sexes of S, and 2 Es. The response set for functional relationships did not decrease as anticipated. The response set based on word classes obtained a significant quadratic age trend, means increasing from ages 7-10, and decreasing at age 11. The response set for dimensional words increased at age 11, as expected; however, the developmental changes were more complex than originally supposed because non-monotonic growth patterns occurred under the S sex and stimulus set conditions. Such trends necessitated changes in hypothesized developmental trends for each idiodynamic set, as well as changes in the terms by which development was conceptualized. *Journal abstract*

8737 Pollio, Howard R. & Whitacre, Janet D. (Tennessee) Some observations on the use of natural numbers by preschool children. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 167-174. Presented 3 groups of approximately 20 $3\frac{1}{2}$ to 6 yr. old children each with a number of tasks designed to assess skill in counting and enumeration. Contrary to usual expectations, certain counting tasks were more difficult than enumeration tasks, although both did show clear age trends. Results also show that Ss who could count when given a new point from which to start (regardless of age) performed consistently better on all other numerical tasks, perhaps indicating that fluent counting does not depend primarily on rote factors, but rather upon the recognition that natural numbers are a rule-governed system independent of the immediate perceptual environment. Results are also discussed in terms of Piaget's analysis of numerical development, with present findings seen as essentially supporting this analysis.—*Journal abstract*

8738 Schaeffer, Benson; Lewis, Joan A., & Van Decar, Annette. (U. Oregon) The growth of children's semantic memory: Semantic elements. *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 296-309.—Conducted 3 experiments with 42 1st, 52 5th and 42 9th graders, using semantic oddity problems. Results support the position that children learn superordinate elements later than subordinate ones. 1st graders understood very little about the superordinate elements, animate and inanimate. 5th graders understood them somewhat better, and 9th graders apparently understood them perfectly (but only used them when pressed). In contrast, 1st graders understood the subordinate elements, plant, animal, vehicle, and utensil, fairly well, and 5th and 9th graders apparently understood them perfectly. It is suggested that responses to semantic oddity problems reflect knowledge of semantic elements (competence), rather than use (performance), and that semantic oddity problems based on words give approximately the same results as those based on pictures.—*Journal abstract*

8739 Wivott, Suzanne P. (U. Wisconsin) Bases of classification of geometric concepts used by children of varying characteristics. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5865.

Abilities

8740 Ali, Faizunisa & Costello, Joan. (Inst. for Juvenile Research, Chicago, Ill.) Modification of the Peabody Picture Vocabulary Test. *Developmental*

Psychology, 1971(Jul), Vol. 5(1), 86-91.—Undertook a modification of the Peabody Picture Vocabulary Test (PPVT) to (a) standardize administration procedures and (b) control factors observed to affect adversely test performance of preschool disadvantaged children. The modified PPVT (MPPVT) consisted of 70 items randomized for difficulty level, specified stimulus instructions, and a controlled schedule of verbal reinforcements. The PPVT was administered to 52 and the MPPVT to 56 black children from the same preschool population. Results suggest that the MPPVT positively influenced test scores, and was well accepted by examiners. There were no sex differences. Errors increased when the reinforcement schedule changed from 100 to 50%. Suggestions are offered to increase the PPVT's usefulness with other age groups. (23 ref.)—*Journal abstract*.

8741. Eubanks, John L. (U. Alabama) **The relationship of mental age to visual memory and word analysis in eight, nine, and ten year old children of selected intellectual levels.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5196-5197.

8742. Feldman, Carol & Shen, Michael. (U. Chicago) **Some language-related cognitive advantages of bilingual five-year-olds.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 235-244.—Monolingual and bilingual 5-yr-old Head Start children were compared in their ability at tasks involving object constancy, naming, and the use of names in sentences. The 3 tasks constitute a natural sequence of language skills. They were all found easier for bilinguals than monolinguals, and this was clearest on nonverbal measures. In a further analysis it was found that switching names and using names in sentences was better in bilinguals but the knowledge of names and facility for acquiring new names was equivalent in the 2 groups. It is suggested that young children might first perceive names as attributes of things they name. With such a notion they might nonetheless easily learn new words. However, they later learn that names refer to the things they name because someone so uses them. Having a notion of meaning as a function of use might facilitate acquisition of the ability to use labels in sentences.—*Journal summary*.

8743. Friedman, Ronald. (U. Iowa) **The relationship between intelligence and performance on the Stroop Color-Word Test in second- and fifth-grade children.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 147-148.—The Stroop Color-Word Test was administered to 93 2nd and 5th graders. Significant correlations between time scores on the Stroop and intelligence were obtained for 5th graders. Absence of significant correlations for 2nd graders suggests that the required interference to make this a useful cognitive control task does not occur with younger children.—*Author abstract*.

8744. Goodnow, Jacqueline J. (George Washington U.) **Eye and hand: Differential memory and its effect on matching.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 89-95.—Hypothesized that memory for objects inspected by hand is less stable than for objects inspected by eye, and is more vulnerable to the increased load created by a greater number of comparison objects. 52 kindergartners, 40 4th graders, and 156 undergraduates completed matching tasks varying tactual and visual inspection and number of comparison objects. Results indicate that memory for information gathered by hand (a) was less stable than for information gathered by eye, and (b) was more likely to show loss when the number of comparison

objects was large. As memory demands increased, accuracy declined 1st on any matching that began with inspection by hand. (French & German summaries) (17 ref.)—*Journal abstract*.

8745. Jayagopal, Rajabather. (U. New Mexico) **Problem solving abilities and psychomotor skills of Navajo Indians, Spanish Americans and Anglos in junior high school.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5035.

8746. Kazakova, T. G. **Risovanie mladshikh doshkol'nikov.** [Drawings of younger preschool children.] USSR: Prosveshchenie, 1971. 25 K.—Discusses the possibility of developing artistic pictorial feeling in drawings of small children. Specific features of drawings made by 2-4 yr. old children were analyzed, and the pedagogical guidance of the children's drawing process was outlined. The essential features which should be utilized when forming images in drawings of small children were determined. Individual peculiarities of drawings were shown.—*J. Halev*.

8747. Keely, Karen. (U. Western Australia, Nedlands) **Age and task effects in short-term memory of children.** *Perception & Psychophysics*, 1971(Jun), Vol. 9(6), 480-482.—Tested 12 male and 12 female 4-, 8-, and 14-yr-old children on a visual memory task with easy- or hard-to-label displays and with or without repetition of stimuli over trials. 8 pictures were displayed in serial order, and the task was to find the card in the array that matched an identical probe card. Performance improved with age, and strong serial position effects were obtained for all ages and tasks. In contrast to previous studies, primacy effects were obtained for the youngest Ss tested. Task difficulty increased with difficulty of labeling and with repetition, but order to task difficulty remained the same for all ages. The d' measure, borrowed from signal detection theory, revealed differences in criterion levels over serial position, which in earlier studies had been confounded with strength of memory.—*Journal abstract*.

8748. Norton, James C. (U. Arizona) **The effect of set size, age, and mode of stimulus presentation on information processing speed.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5670.

8749. Owen, Dean H. (Ohio State U.) **Developmental generality of a form recognition strategy.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 194-205.—Conducted 1,250 trials in a form recognition task with a 5-yr-old male S. S was required to find a form among 25 others on each trial. 50 different 8-sided randomly derived polygons were used as forms to be recognized, each presented in 25 different problems. Factors based on physical measures of the forms were correlated with observed latencies using multiple regression to assess an information utilization strategy. Comparisons of the regression profile and correlations of a physical measures with latency for the S with those for a group of 25 adults indicate that use of form information was highly consistent across age levels. (21 ref.) *Journal abstract*.

8750. Skioptu, U. **Nekotorye psikhologicheskie problemy esteticheskogo vospitaniya.** [Some psychological problems involved in aesthetics training.] *Doshkol'noe Vospitanie*, 1970(Dec), Vol. 43(12), 75-76.—Presents the results of a study of over 800 drawings by kindergarten children. It is concluded that a "complex disharmony exists between the development of drawing abilities (the technique of drawing) and the development of imagination (the ability to see in one's mind the

object)." This also affects the child's ability to symbolize.—*J. D. London.*

8751 Wright, Elsie L. (U. Alabama) A correlational study of selected sociological variables and two ranges of Stanford-Binet Intelligence quotients among culturally disadvantaged preschool children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5219.

Perception

8752 Filderman, Irving P. (Memphis State U.) An analysis and investigation of the relationship between distance and near visual acuity among one hundred and twenty fourth, fifth, and sixth grade students. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5841.

8753 Greenspan, Steven B. (Indiana U. Div of Optometry) Effects of children's nearpoint lenses upon body posture and performance. *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Dec), Vol. 47(12), 982-990. In a pilot study, 11 4-13 yr old children performed a nearpoint pencil-and-paper task while wearing: (a) plano lenses, (b) lenses which corrected the S's ametropia, and (c) a +.50 to +1 D addition in combination with ametropic correction. 3 distances between body points were measured photographically. 7 Ss showed significant changes in posture and performance while wearing nearpoint lenses of various powers. Data for all Ss suggest trends related to lens power. These trends featured systematic alterations in nearpoint working distance and performance with reference to a critical lens power approximated by dynamic retinoscopy for each S. (17 ref.)—*Journal abstract.*

8754 Pope, Peggy & Snyder, Robert T. (Prince George's County Board of Education, Upper Marlboro, Md.) Modification of selected Bender designs and interpretation of the first graders' visual-perceptual maturation with implications for Gestalt theory. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 263-267. 30 1st graders of average ability were administered Cards 3 and 7 of the Bender Visual Motor Gestalt Test and 4 modifications of each. Cards judged easy were reproduced with slightly less error. Interpretation of performance was in terms of the Gestalt principle of good continuation.—*Journal abstract.*

8755 Werdelin, Ingvar & Stjernberg, Gunnar. (School of Education, Malmö, Sweden) The relationship between difficulty and factor loadings of some visual-perceptual tests. *Scandinavian Journal of Psychology*, 1971, Vol. 12(1), 21-28. Investigated the possibility of changing factor loadings by varying the difficulty and complexity of the same visual-perceptual tests. 171 6th graders were given 27 tests. Some of the tests defined reference factors; others were differently difficult versions of 4 tests from separate parts of the visual-perceptual field. Data were treated by factor analysis, yielding 4 factors: reasoning (R), space (S), number (N), and perceptual speed (P). It was found that (a) the more difficult the test, the higher its loadings on the S and R factors; and (b) the easier the test, the higher its loadings on the N and (particularly) the P factors.—*Journal abstract.*

Personality

8756 Carmichael, Laraine M. & McFarland, Margaret

B. (U. Pittsburgh) Expressions of personality in creations of latency age children. *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 271-279. Investigated whether or not demonstrable relationships exist between children's personality traits, and the characteristics of their creations and use of materials. 3 latency-age children were given the task of using a variety of materials characterized by color, shape and texture to make a creation under controlled conditions. Results indicate the existence of definite relationships between personality traits and creation characteristics.—*Author abstract.*

8757 Eysenck, Sybil B., Nias, D. K., & Eysenck, H. J. (Inst. of Psychiatry, London, England) The interpretation of children's Lie scale scores. *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 31-37. 390 11-13 yr old children were given an intelligence test (the Progressive Matrices nonverbal intelligence test) and a 100-item personality inventory, purporting to measure extroversion (E), neuroticism (N), and the tendency to put themselves in the best light (L scale). Factor analysis of the intercorrelations between items gave rise to 3 clearly defined independent factors identified as E, N, and lying (L). Intelligence correlated significantly only with L ($r = -.29$). It is suggested that results support an interpretation of the L scale in terms of "lack of insight" rather than propensity to lie, although under highly motivating conditions the L scale may fulfill this function also.—*Journal abstract.*

8758 Minetos, Peter. (U. Alabama) Influence of male intervention figure upon sex-role identification of certain preschool children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5208.

8759 Richardson, S. A. & Green, A. (Albert Einstein Coll. of Medicine, Yeshiva U.) When is black beautiful? Coloured and white children's reactions to skin colour. *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 62-69. Explored the values London school children hold toward peers with dark as compared to light skin color. Ss were 195 black and 399 white 10-11 yr. old children. Values were defined as choice or preference behavior. Preference rankings were obtained using a set of pictures of a child in which all characteristics were held constant except skin color and the presence or absence of a physical handicap. On the average, boys and girls, black and white, preferred light to dark skin color. A black S without a physical handicap was liked more than white Ss with physical handicaps. Other results were obtained.—*Journal abstract.*

8760 Taviel de Andrade, Antonio R. (Inst. of Social Security for Government Workers, Mexico, D.F.) Algunas consideraciones sobre la reacción de celos en los niños. [Some considerations on the reaction of jealousy in children.] *Revista de la Clínica de la Conducta*, 1969(Feb), Vol. 2(4), 38-44. Theorizes that jealousy in the child is a reaction of self-preservation and security. The theory is based on the fact that the child (a) is in the process of maturing, (b) depends almost wholly on adults for the satisfaction of his physical needs, and (c) needs to develop in an environment which assures his self-preservation. Expressions of child jealousy are described (a) regression to infantile behavior, (b) aggressiveness directed toward the mother or siblings, (c) sadness or tendency to depression, (d) changes in diet, and (e) upsets in bowel and urine elimination. It is concluded that all these manifestations have a common denominator.

nator: with this form of competition and egoism, the child captures the greater attention of the adults he depends on. This manifested jealousy, is the mechanism which tends to preserve his personal security in a changing environment on which he depends wholly because of his biological immaturity. (French summary)—*English summary.*

8761. Wolfensberger-Hässig, Christoph. **Über angeborene und erworbene Ängste im frühesten Kleinkindalter.** [Concerning innate and acquired anxiety in the earliest years of childhood.] *Praxis der Psychotherapie*, 1969(Oct), Vol. 14(5), 225-235.—Describes an 8-mo-old child who developed a phobic reaction accompanied by avoidance following the sight of his mother washing her hair and using hair curlers. A 2nd case of a 9-mo-old child who saw her father taking a bubble bath and experienced an anxiety attack is described. In both cases reactions were attributed to fears evoked by the unknown or strange. In early childhood, the following are seen to be typical sources of anxiety: (a) perceived increased head size in parents (caused by wearing curlers, a hat, etc.), (b) absence of a parent, (c) the appearance of strangers, (d) observation of aggressive acts performed by a parent, and (e) observation of fear on the part of a parent. Other common phobias, e.g., electric shavers, electric coffee grinders, etc., are discussed.—*B. A. Stanton.*

8762. Yando, Regina M. & Kagan, Jerome. (Harvard U.) **The effect of task complexity on reflection-impulsivity.** *Cognitive Psychology*, 1970(May), Vol. 1(2), 192-200.—Classified 2nd graders as either reflective, impulsive, or nonextreme on the basis of their performance on the original 6 variant Matching Familiar Figures (MFF) Test. Following classification, 84 Ss were given 10 different forms of the MFF, with an increasing number of alternative responses, to determine whether or not they would retain their preferred mode of decision-making behavior independent of task complexity. Ss' tendency to be reflective or impulsive was a remarkably stable feature of their problem-solving behavior and a better predictor of errors than the number of alternative responses. The educational implications of the findings are discussed.—*Journal abstract.*

Social Behavior

8763. Barnes, Keith E. (South Okanagan Mental Health Center, Kelowna, British Columbia, Canada) **Preschool play norms: A replication.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 99-103.—Compared present preschool play behavior with play norms collected by M. Parten (see PA, Vol. 7:3543) in 1927. 42 3-5 yr. old preschoolers, enrolled in a cooperative kindergarten, were observed in a daily 1-hr free-play session over a period of approximately 12 wk. Results indicate that the present play behavior of preschoolers was significantly less social. 2 possible explanations for such change are suggested: (a) the number of hours preschoolers are exposed to the mass media, and (b) the marked reduction in family size that has occurred in the last 2 decades.—*Journal abstract.*

8764. Christy, Pauline R., Gelfand, Donna M., & Hartmann, Donald P. (U. Utah) **Effects of competition-induced frustration on two classes of modeled behavior.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 104-111.—Assigned 135 1st and 2nd grade boys in S pairs to witness either an aggressive or a nonaggressive

high active model, or engage in social interaction with an adult. Each S then experienced either success or failure in competitive games, or played noncompetitively. Observation of free-play behavior revealed that (a) competition facilitated the class of modeled behavior under both aggressive and high active conditions; (b) success and failure were equally effective in enhancing the class of modeled response; and (c) the relative ordering of the effects of success, failure, and no competition was consistent within Ss' grade level, but differed across grades. Results suggest that current vicarious experiences, whether aggressive or high active, play a major role in determining the nature of response to competition-induced frustration. (21 ref.)—*Journal abstract.*

8765. Cohen, Stewart. (U. Illinois) **An examination of frustration-aggression relations in boys during middle childhood.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 129-140.—Standardized interviews focusing on interpersonal experiences characterized by reports of punitiveness, restriction, and rejection in social relations with mother, father, teacher, and peers were administered to 4th and 6th grade boys. Scores derived from a conversion of the interview data were correlated with a sociometric measure of aggression. For the 4th graders, reports of frustration experiences for all 4 socialization agents considered were significantly correlated with the sociometric aggression measure. In all cases the correlations were negative. For the 6th graders, reports of frustration in peer relations were positively correlated with the aggression measure. A comparison of results with previously reported findings indicated a need for further research on the developmental implications of frustration-aggression relations in childhood. (28 ref.)—*Author abstract.*

8766. Douglas, Virginia I. & Shaffer, H. B. (McGill U., Montreal, Quebec, Canada) **Developmental changes in the attribution of blame.** *Canadian Psychologist*, 1971(Apr), Vol. 12(2), 248-253.—Constructed a story completion test to measure developmental changes in the methods used by children to assign blame in situations where the cause of unpleasant events was left ambiguous. Ss were 115 5-12 yr. old elementary schoolchildren. Results indicate that the tendency to blame others decreased with age whereas responses involving sharing of blame or recognition of impersonal and accidental causes increased with age. Findings suggest that a valuable tool for personality assessment of children could be constructed using the test described here together with story completion items designed to tap mechanisms for coping with other critical stress situations. (French abstract)—*Journal abstract.*

8767. Hamm, Norman H. & Hoving, Kenneth L. (U. Nebraska, Omaha) **Conformity in children as a function of grade level, and real versus hypothetical adult and peer models.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 253-263.—2 experiments were conducted with 2nd, 5th, and 8th graders to test the hypothesis that conformity to peers, as opposed to adults, is a positive function of age. Hypothetical (Exp. I) adults, and real (Exp. II) adults and peers chose different, but equally correct answers on a series of modified Asch-line tasks. Results indicate that (a) when either norm group chose 1 of the correct matches, in Exp. I, conformity to the chosen comparison line was an increasing linear function of grade level; and (b) the tendency of Ss to conform to peers, rather than adults, in Exp. II, was a

positive function of grade level. The former result conflicts with studies which report a negative or curvilinear relation between conformity and age; the latter result is consistent with standard treatments of adult-peer relations.—*Author abstract.*

8768. Hupkiewicz, Walter G. (State U. New York, Buffalo) **Film mediated aggression and its effect on children's interpersonal play.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5662

8769 Kagan, Spencer & Madsen, Millard C. (U. California, Los Angeles) **Cooperation and competition of Mexican, Mexican-American, and Anglo-American children of two ages under four instructional sets.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 32-39.—A game measuring cooperation and competition was played in pairs by 128 4-5 yr. old Anglo- and Mexican-Americans and by 192 7-9 yr. old Anglo-Americans, Mexican-Americans, and Mexicans. Cooperative play allowed both pair members to receive rewards; competitive play was irrational, allowing no S to reach his goal. The number of moves pairs took to reach a goal indicated that 4-5 yr. olds were more cooperative than the older Ss ($p < .001$). Among the 7-9 yr. old Ss, Mexicans were most cooperative, Mexican-Americans next most, and Anglo-Americans least cooperative ($p < .001$). Among the older Ss, instructional sets designed to create an "I" orientation increased competition, whereas sets stressing a "we" orientation increased cooperation ($p < .001$). Qualitative differences between patterns of play were noted for the cultural and age groups. Sex differences were not found. *Journal abstract.*

8770. Keasey, Charles B. (U. California, Berkeley) **Sex differences in yielding to temptation: A function of the situation.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 25-28.—It was hypothesized that the general lack of sex differences in resistance of temptation studies has resulted from the masculine nature of the "ray-gun" task employed. A less sex-typed task, a bowling game, was played by 54 boys and 54 girls from 4 6th grade classes. Girls yielded significantly more on all indices: proportion yielding, frequency, magnitude, and latency. It is concluded that obtained sex differences must be interpreted in light of the nature of the task employed.—*Author abstract.*

8771. Masters, John C. (U. Minnesota, Inst. of Child Development) **Effects of social comparison upon children's self-reinforcement and altruism toward competitors and friends.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 64-72.—Predicted that (a) children will engage in greater self-reward in the presence of a female E; (b) the self-reward data will replicate earlier studies; (c) self-reward and altruism will be negatively correlated; and (d) the effect of social comparison upon altruism will be the inverse of the effect upon self-reward. 120 4-5 yr. old boys and girls were instructed in same-sex pairs by a male graduate or a female undergraduate E in a game which varied payoff and social comparison. The predictions were confirmed with the exception that the negative relationship between self-reward and altruism was slight, though significant. (15 ref.)—*Journal abstract.*

8772. Peterson, Rolf A. (U. Illinois, Chicago) **Aggression as a function of expected retaliation and aggression level of target and aggressor.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 161-166.—Investigated the effects of previous aggression level of

aggressor and target persons, along with level of threatened retaliation, in an experimental situation which required aggressive responding. 4 male aggressors and 2 male targets, classified as high or low in aggressiveness, were selected from each of 10 3rd grade classrooms. Each aggressor responded to a high and low aggressive target; $1/2$ the aggressors expected retaliation and $1/2$ did not. Results suggest that low aggressive boys inhibit aggression when retaliation is expected whereas high aggressive boys aggress more when retaliation is expected than when it is not. (16 ref.)—*Journal abstract.*

8773. Slaby, Ronald G. & Parke, Ross D. (Washington) **Effect on resistance to deviation of observing a model's affective reaction to response consequences.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 40-47.—Presented a film to 132 5-8 yr. old boys and girls in which a male peer was either rewarded or punished for touching prohibited toys and subsequently displayed either a positive affective reaction (smile), a negative reaction (crying), or no reaction. Boys who saw the model rewarded deviated more than those exposed to a punished model, whereas response consequences had no effect on the girls. The model's affective reaction to rewarding and punishing consequences had a differential influence on Ss' behavior. Following a rewarding outcome, the negative affective reaction by the model produced less deviation than did the corresponding display of positive affect; however, when the model's affective reactions followed punishment, the negative reaction led to more deviant behavior than did the expression of positive affect. The importance of distinguishing these 2 classes of events in studies of modeling is stressed.—*Journal abstract.*

8774. Staub, Ervin. (Harvard U.) **A child in distress: The influence of nurturance and modeling on children's attempts to help.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 124-132.—32 male and 32 female kindergartners interacted with a female E who was either warm and friendly (nurturance) or neutral and task oriented (no nurturance). The E then went into an adjoining room, either to help a child there in response to mild distress cues (modeling) or to check on a child there (no modeling). Subsequently all Ss heard sounds of severe distress from the adjoining room while they were alone. Modeling and nurturance significantly increased attempts to help the distressed child. It is suggested that nurturance has an independent effect on behavior, and may have decreased fear of disapproval by Ss for possibly inappropriate behavior. Helping behavior was negatively related to family size. Correlations between teachers' ratings of Ss and their helping behavior were positive for boys and negative for girls. (28 ref.)—*Journal abstract.*

8775. Strauss, Richard B. (U. Tennessee) **The effect of changing a single behavior upon a behavior repertory.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5643-5644.

Parent-Child & Family Relations

8776. Biermann, Gerd. **Die Mutter-Kind-Beziehung in der frühen Kindheit.** [The mother-child relation in early childhood.] *Praxis der Psychotherapie*, 1969(Oct.), Vol. 14(5), 214-225.—Presents a comprehensive review of the nature of the close symbiotic mother-child relationship during the 1st yr. of life, especially the

formation of the basic behavior structure. The infant's earliest object relation is the infant's relation to the mother's breast which also serves as the 1st love object. Etiological factors involved in disturbances in the development of this relationship are primarily related to maternal anxiety which is seen to result in auto-aggressive, psychosomatic reactions in the child (e.g., asthma, eczema, colitis). The following are discussed as disturbances in maternal behavior which exert adverse influences on normal development in the child: (a) over-protectiveness, (b) cyclic mood changes, (c) overt or latent hostility, and (d) primary rejection of the child.—B. A. Stanton.

8777. Delhees, Karl H., Cattell, Raymond B., & Sweney, Arthur B. (U. Illinois) **The objective measurement of children's intrafamilial attitude and sentiment structure and the investment-subsidiation model.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 87-113.—Reviews alternative schemes and describes a new vector model for family research: the investment-subsidiation model. The factor-analyzed results of its empirical application to 160 children using 4 new, objective motivational devices on 38 intrafamilial attitudes revealed 10 drive factors (pugnacity, gregariousness, fear, assertion, narcissism, appeal, protection, acquisition, sensuality, and curiosity) and 3 sentiments (to father, mother, and sibling). It is proposed to set up batteries (the Family Motivation Analysis Test) useful for diagnosis and research on family attitude change. (34 ref.)—*Author abstract.*

8778. Freeman, Mary A. (Northwestern U.) **A comparative analysis of patterns of attitudes among mothers of children with learning disabilities, and mothers of children who are achieving normally.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5125.

8779. Roche, Dermot D. (New Ulster U., Coleraine, Ireland) **The Bene-Anthony Family Relations Test: Variations and reliability of administration procedure.** *Papers in Psychology*, 1970(Apr), Vol. 4(1 2), 12-15.—The Family Relations Test measures the direction and intensity of a child's feelings towards various members of its family, as well as the child's estimate of their reciprocal regard for him. This study increased the choice range for the child by providing for variations in administration procedures. The profiles from 2 such variations were compared with that obtained by standard procedures. The results showed no significant differences for "self," "father," "siblings 1 and 2," but significant ($p < .01$) differences for "nobody" and "mother." Despite these results, it is concluded that the standard technique possesses the greater utility.—S. L. Warren.

8780. Rosenberg, B. G. & Sutton-Smith, B. (U. California, Berkeley) **Sex role identity and sibling composition.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 29-32.—Examined responses of parents and children in 2-child families (boy-boy, boy-girl) to the Gough Scale of Psychological Femininity (89 families). Results indicate that sibling sex status is a significant source of variance in father sex-role scores while mothers are not similarly affected by the character of the siblings. This finding replicates an earlier finding with girl-girl and girl-boy families that fathers' scores are more feminine when they have sons than when they have daughters. The results suggest that girls' sex role is more affected by other family members, while boys are more

affected by sex-role standards outside the home.—*Journal summary.*

8781. Tocco, Thomas S. (U. Florida) **A mapping of parent-child self-concept transmission in Florida Model Follow Through participants.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5861.

ADOLESCENCE

8782. Biller, Henry B. & Liebman, Donald A. (U. Massachusetts) **Body build, sex-role preference, and sex-role adoption in junior high school boys.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 81-86.—Investigated the relationship between body build and 2 aspects of sex role (preference and adoption) in 9th grade boys. Height, weight, and chest girth were taken into account in body build categorizations. A questionnaire was used to assess sex-role preferences, and teachers rated the Ss on a multidimensional measure of sex-role adoption. Several relationships appeared among body build and the measures of sex role, but body build generally appeared to be more related to sex-role adoption than to sex-role preference. Endomorphs and ectomorphs, as a group, scored somewhat more masculine in sex-role preference but mesomorphs were rated higher (more favorably) on both masculine and feminine traits.—*Author abstract.*

8783. Brand, Judith. **The effect of highly aggressive content in comic books on seventh grade children.** *Graduate Research in Education & Related Disciplines*, 1969(Fal), Vol. 5(1), 46-61. Examined the influence of comic books with aggressive content upon the aggressive feeling of 90 12-yr-old Ss. In groups of 9, Ss wrote stories about 3 TAT cards, read a comic book, and then wrote stories about 3 other TAT cards. 3 types of comic books were used: nonaggressive, aggressive with human characters, and aggressive with nonhuman characters. The TAT stories were rated by 2 school psychologists and the E using the Jensen scale. A 3-way analysis of variance (Prior Level of Aggression \times Sex \times Type of Comic Book Exposure) was done using the posttest TAT ratings for 60 Ss. All 3 main effects were significant ($p < .05$), but none of the interactions was significant.—C. B. Tatham.

8784. Brown, Roger L. & O'Leary, Michael. (U. Illinois) **Pop music in an English secondary school system.** *American Behavioral Scientist*, 1971(Jan), Vol. 14(3), 401-413. The survey included approximately 700 students in 3 secondary English schools. Ss completed 2 self-administered questionnaires, 1 dealing with pop music and communication behaviors, and 1 dealing with friendship patterns, attitudes toward school, and demographic variables. In predicting interest and involvement in pop music, sex proved most evident, with girls scoring higher on most indices. Data further suggest "that involvement in the teen culture is more a function of where youngsters are headed in the social structure than where they have come from in terms of parental status." J. Parnicky.

8785. Casese, Sylvia F. **Contributo sperimentale allo studio dei rapporti oggettuali nell'adolescenza.** [Experimental contribution to the study of objective relationships in adolescence.] *Bollettino di Psicologia Applicata*, 1968, No. 85-87, 25-44. Made an experimental contribution to clarify the type of relationships in the normal adolescent regarding the psychoanalytical interpretation of the personality. 30 15-17-yr-old normal Ss without social inadaptability or character

disorders were given the Phillipson Object Relations Technique. The technique consists of 13 tables of objective relationships of 1, 2, or 3 persons, or a group, sex and age are ambiguous. Results show a prevalence of problems connected to the 1st yr. of life. In the majority of cases, an anxiety arose which indicated the prevalence of an Oedipus theme when confronted with a diagram of 3 figures. A small number of Ss gave answers which can be considered manifestations of depressive anxiety. The Oedipus problem finds solution in the tendency of the adolescent to detach himself from the family. This solution does not create an anxious type situation in the normal adolescent in which primitive defenses reappear. —A. M. Faraglia.

8786. Chaffee, Steven H., McLeod, Jack M., & Atkin, Charles K. (U. Wisconsin) **Parental influences on adolescent media use.** *American Behavioral Scientist*, 1971(Jan), Vol. 14(3), 323-340. Presents data based on a 1968 field study of 1,300 families in 5 eastern Wisconsin cities. Information was obtained via an interview with 1 parent and 2 questionnaires completed by an adolescent from each family. Although "the modeling correlations based on comparisons within each family... are weak and not very supportive of a direct-influence modeling interpretation, it appears that families with similar parent-child communication structures indirectly produce characteristic media use patterns that are shared by parent and adolescent on the average." Implications for future research are briefly suggested. (16 ref.) —J. Parnick.

8787. Clarke, Peter. (U. Washington) **Children's response to entertainment: Effects of co-orientation on information-seeking.** *American Behavioral Scientist*, 1971(Jan), Vol. 14(3), 353-369. Ss were 312 high school students from 2 suburban schools. Questionnaires were administered 4-5 days after students attended a symphony concert. Items included measures of information seeking and of coorientation. 6 hypotheses were tested. 40% of the Ss sought information about the symphony. None of the variables studied accounted for information seeking as much as the presence of favorable co-orientation partners. (32 ref.) —J. Parnick.

8788. Culey, James L. (U. South Dakota) **A study of the self-concept, self-acceptance, and ideal self of adopted and nonadopted adolescent children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5658-5659.

8789. Danneberg, Erika. **Gruppenbildung in einer Mädchenklasse.** [Group formation in a class of girls.] *Gruppendynamik*, 1970(Apr), No. 2, 155-180. Studied the group structure and the position of individuals within groups of 33 16-yr-old Viennese high school girls because teachers usually know classes as totals, but individuals only in exceptional cases. Methods used were a questionnaire, a sociogram, and in some cases the Family Relations Test. Results point to the formation of 2 groups, 1 of which was homogenous regarding background and vocational interests and followed parental rules and school norms; the 2nd was less homogenous, had more tensions and problems, but was richer in interests and more critical of self and others. Roles of some of the girls, pairing, and isolates are discussed. Despite raising doubts about the general validity of results, it is believed that a description and an attempt at interpretation of group structure can be of help in school guidance and vocational consultations. —M. J. Stanford.

8790. Hill, John P. & Shelton, Jev. (Eds.) **Readings**

in adolescent development and behavior. Englewood Cliffs, N.J.: Prentice-Hall, 1971. xii, 446 p. \$7.50/paper.

8791. Josselyn, Irene M. **The capacity to love: A possible reformulation.** *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 6-22. Suggests 2 instinctual drives: the autoplasic drive or urge to be loved, and the alloplastic drive or the capacity to love others. The assumption is that turning outward for a need becomes a capacity to love as well as accepting love. If the inherent alloplastic drive is minimized, has atrophied from disuse, or is experienced with fear, character distortions and a feeling of loneliness, fulfillment ensues. The adolescent is discussed in relation to all-plastic drives as expressing an awareness of something lacking in himself. The stress placed on the need to be loved with little emphasis on the inherent urge to love, may explain some of the pseudo or genuine social pathologies of both adolescents and adults, thus, indicating guidelines for goals in working with the adolescents. —Journal summary.

8792. Lystad, Mary H. (National Inst. of Mental Health, Bethesda, Md.) **Adolescent social attitudes in South Africa and Swaziland.** *American Anthropologist*, 1970(Dec), Vol. 72(6), 1389-1397. —Analyzed the content of stories written by 42 male and 53 female South African and 52 male and 40 female Swaziland 13-19 yr old urban black students. The nature of the actors and their relationships in the stories suggest that, although South Africans in their early years encounter more elements of modernity than the Swazis, in their present situation they view the world as having less rational elements, fewer psychological satisfactions, and more threats to their physical welfare than do the Swazis. (15 ref.) —Journal abstract.

8793. Quadrio, Assunto & Peri, Giovanni. (Catholic U. of the Sacred Heart, Milan, Italy) **L'evoluzione degli interessi e delle aspirazioni nella pre-adolescenza: Ricerca longitudinale.** [Development of interests and aspirations in pre-adolescence: Longitudinal research.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 210-226. Results tend to confirm Piaget and Inhelder's concepts of "adolescent egocentrism" which represents an inconsistency and a contradiction between certain internal aspects of personality and other precarious, totally heterogeneous, and externally mediated information. This condition produces a marginality that derives from the conflict between infantile models, on the 1 hand, and resistance to change to new and more mature models on the other hand. (26 ref.) —L. L'Abate.

8794. Quadrio, Assunto & Peri, Giovanni. (Catholic U. of the Sacred Heart, Milan, Italy) **L'utilizzazione dei concetti di caso e di fortuna nel pensiero del pre-adolescente.** [Utilization of concepts of chance and luck in the thinking of the pre-adolescent.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 190-209. —In front of a guessing task, preadolescents assume a prevalently egocentric attitude that does not allow them to use correctly the notion of probability. (34 ref.) —L. L'Abate.

8795. Simpson, Elizabeth L. (U. California, Berkeley) **The antecedents of democratic values: A study of psychological deprivation and the development of beliefs.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5859.

8796. Sinha, L. N., Krishna, K. P., & Sinha, J. K. (L. Patna, India) **Sex differences in colour preference of adolescents.** *Manas*, 1970(May), Vol. 17(1), 17-20. —50

13-19 yr. olds ranked 7 colors: red, orange, yellow, green, blue, indigo, and violet. Preferential rankings by the 2 groups were significantly different for red and orange. There was considerable agreement among males in their rankings of the 7 colors. This was not so in case of females. The rank-order correlation for the mean rank value of colors for the 2 sexes was not statistically significant.—C. Mehrotra.

8797. Wade, Serena E. (San Jose State Coll.) **Adolescents, creativity, and media: An exploratory study.** *American Behavioral Scientist*, 1971(Jan), Vol. 14(3), 341-351.—Reports results based on 105 high school sophomores from 2 upper-middle-class communities. Creative "potential" (divergent thinking) was determined by scores on 3 Guilford tests (Ideational Fluency, Alternate Uses, and Consequences); leisure activities were obtained via a questionnaire covering specific media behavior, media selection procedures, integration of media materials into other cognitive and behavioral patterns, and home environment. "The leisure time of the creative adolescent is full....[He] is a 'joiner'; he is also a hobbyist.... He reads about as much, watches TV less, and generally exposes himself to more highly diversified activities (including media) than his less creative peers." (15 ref.)—J. Parnicky.

8798. Ward, Scott & Wackman, Daniel. (Harvard U.) **Family and media influences on adolescent consumer learning.** *American Behavioral Scientist*, 1971(Jan), Vol. 14(3), 415-427.—Data were obtained from a 1970 survey of 1,094 8th-12th graders. Ss filled out self-administered questionnaires in randomly selected classrooms in 12 schools. Variables measured included: recall of ads, attitudes toward TV ads, materialism, effects of ads on buying, exposure to TV and magazines, family communication about consumption, social utility reasons, communication utility reasons, and various consumption reasons. A comparison of results, between younger and older students, indicate no significant differences on the learning variables, but do show differences on nearly all communication variables. (25 ref.)—J. Parnicky.

ADULTHOOD & OLD AGE

8799. Ansello, Edward F. (U. Missouri) **Age and meaningfulness with differentially paired associates: Acquisition and retention.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5190.

8800. Baltes, Paul B., Schaie, K. Warner, & Nardi, Anne H. (West Virginia U.) **Age and experimental mortality in a seven-year longitudinal study of cognitive behavior.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 18-26.—Examined the effect of age-related experimental mortality (e.g., physical survival and dropout) in a longitudinal study of intelligence and involving a carefully selected sample of 500 21-70 yr. old male and female Ss. After 7 yr., 302 Ss could be retested with Thurstone's Primary Mental Abilities Battery and Schaie's Test of Behavioral Rigidity. The performance of retest participants was compared with nonparticipants at the 1st occasion of measurement. 3 independent analyses of variances were conducted using estimated factor and scores for general intelligence, cognitive flexibility, and visuomotor flexibility as dependent variables. Significant differences between retest participants and nonparticipants were obtained for all age groups, with retest participants showing higher mean performances. Implications for the

internal and external validity of cross-sectional and longitudinal age gradients are discussed. (42 ref.)—*Journal abstract.*

8801. Hazen, Bronwyn R. **Is society meeting its responsibility to the aged?** *Australian Occupational Therapy Journal*, 1970(Jul), Vol. 17(3), 24-38.

8802. Leech, Shirley & Witte, Kenneth L. (U. Arkansas) **Paired-associate learning in elderly adults as related to pacing and incentive conditions.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 180.—Tested the hypothesis that the high number of omission errors found in research on verbal learning in elderly Ss may be due to overanxiousness. 12 male and 16 female 59-85 yr. old Ss were tested on a paired-associate task involving 4 pairs of CVC trigrams, presented at a fast or slow rate. All Ss received 3 tokens for correct responses and no tokens for omissions. $\frac{1}{2}$ the Ss received 1 token for commission errors, and the others no tokens for such errors. Reinforcing Ss for commission errors was significantly effective in reducing the omissions and number of trials to criterion ($p < .05$). The 2 incentive groups were not significantly different in commission or total errors. Pacing variables were not significant. Methodological difficulties are discussed.—S. Knapp.

8803. Lynch, Denis J. (U. Toledo) **Future time perspective and impulsivity in old age.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 245-252.—Examined the extent of future time perspective in an aged sample, and stated hypotheses concerning its relationship to other cognitive, behavioral, and personality variables. The hypothesis suggesting a relationship between impulsivity and extent of future time perspective was partially supported. The possible explanations for the lack of agreement between behavioral and self-report measures of impulsivity were considered, particularly in terms of the self-concept of the aged individuals. (22 ref.)—*Author abstract*

8804. Wilkie, Frances & Eldorfer, Carl. (Duke U., Medical Center) **Intelligence and blood pressure in the aged.** *Science*, 1971(May), Vol. 172(3986), 959-962.—Related diastolic hypertension to significant intellectual loss over a 10-yr period among 106 individuals initially examined at 60-69 yr. of age. Such loss was not found in their age peers in association with normal or mild elevations of blood pressure. Of 96 Ss initially examined at 70-79 yr. old, none with hypertension completed the follow-up program, and those with normal and mildly elevated blood pressure showed some intellectual decline over the decade. At the initial examination, hypertension was related to lower intelligence test scores only among those Ss who subsequently did not complete the follow-up program. Results suggest that hypertension is related to intellectual changes among the aged. *Journal abstract*

SOCIAL PSYCHOLOGY

8805. Ancona, Leonardo. (Catholic U. of the Sacred Heart, Milan, Italy) **La dinamica normale e patologica del comportamento sociale.** [Normal and pathological dynamics of social behavior] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 129-158.—From an experimental perspective, social behavior is related to an experimental perspective, social behavior is related to Levin's concepts of democratic, anarchic, and laissez-faire climates, Asch's phenomenological viewpoint, and

Witkin's field dependence-interdependence. From a clinical perspective, social behavior is related to Freudian defense mechanisms, communication theory, and Bateson's "double bind." (52 ref.)—*L. L. Abbot*

8816 Cole, Richard R. (U. Minnesota) **Top songs in the sixties: A content analysis of popular lyrics.** *American Behavioral Scientist* 1971(Jan) Vol. 14(1) 389-400.—The content of top 10 single songs during each yr. of the 1960s, based on ratings by "Billboard," were analyzed by 2 persons on the following variables: mood, love-sex, religion, violence, and social protest. Results indicate that most of the songs were sung by males and love-sex was the predominant theme. No formula for popularity was uncovered. (15 ref.)—*J. Paruleva*

8817 La Fave, Lawrence. (U. Windsor, Ontario, Canada) **Seven deadly sins of sociological scientism.** *et al.* 1967(Wint) Vol. 1(2) 14-15.—Discusses the "sins": (a) Concrete humanism assumes that sociology qua science must explain unique concrete and historical fact. (b) In puppet conformism, a social norm is a point. Once one conceives a social norm, thus it seems logical to conclude that social change cannot occur without nonconformity to this point. (c) In naive phenomenologism a type of unwarranted rationalism is envisioned which assumes a 1:1 relation (veridicality) between one's perception and the external world—that 2 people in the same place at the same time share the same experience. (d) Simplistic conceptualism is defined as an unwarranted type of rationalism in which an under-complicated isomorphism reifies mental experience to behavior. (e) Homocentrism. Since an area such as animal sociology exists, one hardly needs to be autistic to conceive that possibly that field is a part of sociology's domain. (f) Cultural relativism. Absolute and differential limens throw a blanket of soot on Lock's tabula rasa, and side with Gestalt negativism against empiricism in the psychology of perception. (g) Nonexplanationism. Not only are most sociologists ignorant of the new mathematics, but also of the new-new mathematics (the various modal logics) which are especially relevant to the very peculiar needs of the social sciences.—*Author abstract*

8818 Samsonov, R. **Sotsial'naya psikhika i formirovanie ubezhdenii.** [Social psychology and formation of conviction.] USSR: Aftan, 1970. 1 R. 10 K.—Examines basic problems associated with the formation of convictions according to basic laws of social psychology. The substance of the concepts "social psychology" and "ideology" are considered. Interrelationships and interactions of these phenomena with unity in the consciousness of the individual and social as well as rational and emotional factors are analyzed. Warns against the transformation of communistic ideas and convictions of masses during the purging of old ideology from social psychology.—*I. Hales*

CULTURE & SOCIAL PROCESSES

8819 Bergström, Lars. (Stockholm U., Sweden) **What is a conflict of interest?** *Journal of Peace Research*, 1970, No. 3, 197-217.—Presents a preliminary survey of different interpretations and definitions of "conflict of interest." Only those conflicts which involve 2 distinct parties, especially between groups and classes, are discussed. As a point of departure, it is presumed that there is a conflict of interest between 2 parties if, and

only if, their interests are incompatible. Subjective, objectivist, individualistic, and normative interpretations of "interest" are distinguished. The various interpretations of "incompatible" are examined. The suggestion that conflict theories tend to neglect "real" conflicts of interest is discussed. (Russian summary) (20 ref.)—*Journal summary*

8820 Derogowski, Jan B. (U. Aberdeen, Scotland) **Chain-type drawings: A further note.** *Perceptual & Motor Skills* 1971(Feb) Vol. 30(1), 102.—In an extension of H. Werner and W. Hudson's studies, an identification task with a set of 18 assorted animal models was presented to rural Zambian women with little or no education. 27 Ss were presented with 3 possible drawings of the drawings and asked to choose a better drawing, an elephant model being on display. 6 Ss were given 1 drawing and asked to point to the depicted animal in the array of models. Analysis suggests that there is no difference between the side-view and the chain-type drawings, both of which were preferred over the front view. The postulate that preferred chain-type drawing leads less often to identification than the non-preferred drawing was believed to hold if one contrasts the chain-type with the front-view drawing and not with the side-view drawing.—*P. Hertzberg*

8821 Derogowski, Jan B. (U. Aberdeen, Scotland) **Responses mediating pictorial recognition.** *Journal of Social Psychology*, 1971(Jun) Vol. 84(1), 27-33.—Groups of 20 Zambian women of little schooling were used in all 4 possible combinations of 2 kinds of stimuli (toys and their photographs) and 2 response arrays (toys and their photographs). Under all conditions Ss were given a stimulus (a photograph or a toy) and were required to identify the corresponding stimulus in an array. Results suggest that apart from the previously reported difficulties in the handling of pictorial material, additional difficulties arise when Ss are required to translate from 1 level of abstraction into another (photographs into toys and vice versa). (20 ref.)—*Journal summary*

8822 Dobkin de Rios, Marlene. (California State Coll., Fullerton) **A note on the use of ayahuasca among urban mestizo populations in the Peruvian Amazon.** *American Anthropologist*, 1970(Dec) Vol. 72(6), 1419-1422.—Relates the use of the psychedelic vine, ayahuasca (principal chemical agent, harmine), by ayahuasca (principal chemical agent, harmine), by mestizo folk healers to variables, e.g., cultural expectations of drug experiences and belief systems concerning illness. The subjective personal experience inherent in psychedelic use is considered to take on cultural coloration, as determinants of hallucinatory experience show strong relationships to cultural data.—*Journal abstract*

8823 Evans-Pritchard, E. E. (Oxford U., England) **Sexual inversion among the Azande.** *American Anthropologist*, 1970(Dec) Vol. 72(6), 1428-1434.—Describes male and female homosexual relationships as they were practiced among the Azande of the Sudan in pre-European times. Between males such relationships were approved of in the bachelor military companies and provided a sexual outlet for young men who could not marry until well into their 20s and 30s. Between females, especially in large polygamous homes where sexual outlets were limited, homosexual relations were said to have been frequent, but highly disapproved of. Some translations of a few texts on the subject are presented.—*Journal abstract*

8814. Fromm, Erich & Maccoby, Michael. **Social character in a Mexican village: A sociopschoanalytic study.** Englewood Cliffs, N.J.: Prentice-Hall, 1970, xv, 303 p. \$8.95.

8815. Morte, Walter J. (Florida State U.) **Selected personality traits of Negro senior high school pupils in northern Florida, as related to school racial composition and sex of pupils.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5774.

8816. Portmann, Adolf. **Die Kindheit des Menschen.** [The childhood of man.] *Praxis der Psychotherapie*, 1969(Oct), Vol. 14(5), 209-213.—Discusses the value of fossils in studying early forms of human behavior. The effects of the theory of evolution in the earlier phases of Neo-Darwinism and their application to the study of human evolution are considered. The evolution of speech and the development of CNS organs are briefly discussed.—*B. A. Stanton*.

8817. Spaltro, Enzo. **Proposta di modelli psicologici dello sviluppo economico.** [Proposal on psychological models of economic development.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 307-315.—Kaldor's model of economic development using concepts of needs, expectations, learning, and risk is discussed and elaborated upon.—*L. L'Abate*.

8818. Spaltro, Enzo. **Psicologia dello sviluppo economico.** [Psychology of economic development.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 240-306.—Economic development needs to be considered according to psychological concepts of threshold awareness of needs, and of unhappiness and discontent. (45 ref.)—*L. L'Abate*.

8819. Testa Alavez, Juan. (Inst. of Political Studies, Youth Inst., Madrid, Spain) **Los jóvenes y la participación política.** [Youth and political participation.] *Revista del Instituto de la Juventud*, 1970(Dec), Vol. 32, 107-129. Develops the concept of patriotism as the "country of sons" rather than of forefathers. The concept of politics embraces both civil and social service. Political preparation and awareness must be emphasized in youth. To participate in politics is to be conscious that anything can be perfected. It is suggested that lowering of the voting age, possibility of eligibility in various areas, and associative action would aid in integrating youth in political areas. The young have a general desire to employ their energies in civil service of underdeveloped areas. Political participation of young people takes on an international picture. Their ideas are not only theoretical; protests against war, organizations which seek cooperation with international institutions, and programs to fight ignorance, hunger, and natural disaster have solid support from the young. The young wish to participate in an international society to construct a world in which the rights of man, peace, and brotherhood are found not only on paper, but in actuality.—*A. M. Farfaglia*.

8820. Tiberi, Emilio. **L'Italia dei francesi: Indagine su modelli socio culturali condotta secondo la metodologia della contingency-content analysis.** [The Italy of the French: Investigation of the socio-cultural models according to the methodology of the contingency-content analysis.] *Bollettino di Psicologia Applicata*, 1968, No. 85-87, 45-107.—Studied critically an investigation of the Italians by Frenchmen. The psychological study of a country cannot confine itself within the narrow limits of sociology or anthropology. It is concluded that because of the formal aspect under

which the study was undertaken, the investigation does not emigrate from the field of applied psychology. An impoverished representation of Italy and of its people is presented—reduced to its nervous system and its skeleton. "This was the scope of the application of a radiographic system of analysis, like the contingency content analysis." Data are explained and elaborated upon in order to clarify some of the findings. (37 ref.)—*A. M. Farfaglia*.

Ethnology

8821. Cowan, Gloria. (Wayne State U.) **Achievement motivation in lower class Negro females as a function of the race and sex of the figure.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 42-46. Administered TAT pictures, selected to elicit achievement motivation, to 102 black high school females. The race and sex of the figures in the pictures were varied. The figures portrayed black and white males and black and white females. Results were: (a) more achievement motivation to male as compared to female figures for female Ss, and no effect of race of figure on need achievement; and (b) female Ss wrote longer stories to black than white figures and to female than male figures.—*Journal abstract*.

8822. Glitter, A. George & O'Connell, Stephen M. (Boston U.) **Racial appearance of ideal blacks.** *CRC Report, Boston U.*, 1970(Dec), No. 48, 1-20. Describes a study of racial appearance of black male and female models. Data were collected from 4 issues/yr of *Ebony*, from 1952-1968. Pictures of 24 male and 24 female models were selected for each year. 34 photographs were also selected from 2 current issues and rated for racial appearance variables. Results indicate that (a) both males and females tended to be more Caucasian than Negroid in terms of physiognomy, skin color, and hair texture; and (b) while male models tended, with time, to become more Negroid in appearance in terms of all of these variables, female models did so only in terms of skin color.—*Journal abstract*.

8823. Jones, Stanley E. (Queens Coll., City U. New York) **A comparative proxemics analysis of dyadic interaction in selected subcultures of New York City.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 35-44.—2 studies investigated subcultural and sex differences in spatial orientation behavior. 2-person groups of adults in 4 separate poverty subcultures (Negro, Puerto Rican, Italian, and Chinese) were observed engaging in social interaction on the public streets of New York City. Trained judges made estimates of the interpersonal distance and mutual shoulder orientation of each dyad. Regardless of subcultural group membership, women were found to be more direct in shoulder orientation than men, an outcome which appears to parallel the findings of previous studies of eye-contact behavior. There was some evidence, as informants had predicted, that black males were less direct than males in other minority groups, although this result did not approach statistical significance. Finally, result did not approach statistical significance in all of the interaction distance was strikingly similar in all of the subcultures studied, contrary to expectations, suggesting the inference that poverty groups are rather homogeneous in the structuring of interpersonal distance.—*Author abstract*.

8824. Kiser, Clyde V. (Ed.) **Demographic aspects of the black community.** *Milbank Memorial Fund Quar-*

terly, 1970(Apr), Vol. 48(2, Pt. 2), 368 p. — Presents the proceedings of a conference on demographic aspects of the black community. Papers were presented on (a) specific demographic studies: regional and metropolitan distributions, age, education, occupation, income and poverty, voting, urbanization, and patterns of residential segregation; (b) attitudes toward marriage and the family, marriage and marital stability, and illegitimacy; and (c) fertility and family planning, contraceptive practice, and utilization of contraception and family planning programs. The discussions following each paper are reported. — S. Knapp

8825. Tedeschi, James T. & Levy, Terry M. (State U. New York, Albany) **Task-relevant information, social reinforcement, and race as factors affecting performance.** *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 148-155. — Hypothesized that lower-class blacks, who have been found to have an external control orientation to their environment, would be more responsive to social reinforcements in a skill task than in a chance task situation. Conversely, it was expected that middle-class whites, who have been shown typically to maintain internal control orientations, would be more responsive to social reinforcements in a chance task than in a skill task situation. 48 male 5th and 6th graders (24 lower-class blacks and 24 middle-class whites) were assigned to social reinforcement and control conditions. The independent variables, social reinforcement, type of task, and ethnic group of Ss were used in a $3 \times 2 \times 2$ analysis of variance. Results confirm the original hypotheses. (French summary) (16 ref.) — *Journal abstract*

8826. Yackley, Andrew & Lambert, Wallace E. (Haile Selassie I U., Addis Ababa, Ethiopia) **Inter-ethnic group competition and levels of aspiration.** *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 135-147. — Studied cultural variations of aspirations in a competitive situation using 9-11 yr. old French Canadian and English Canadian boys of similar social class backgrounds. Ss were assigned to solely French Canadian or English Canadian teams for a table hockey tournament. Each team played a same culture and a different culture team. French Canadian boys had higher aspirations for scoring points, especially when competing against English Canadian teams. These aspirations proved to be unrealistic in actual competition. It is argued that French Canadians possibly feel relatively deprived and hence overemphasize affective rather than cognitive factors when setting aspirations. Findings are discussed in terms of social evaluation theory, child-rearing values and practices, and societal influences which discourage the development of need achievement. (French summary) (21 ref.) — *Journal abstract*

Social Structure & Social Role

8827. Hofstetter, Merlin I. (U. Oregon) **The meaning of appropriate role behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5518-5519.

8828. Kakar, Sudhir. (Indian Inst. of Management, Ahmedabad) **The theme of authority in social relations in India.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 93-101. — 31 stories, depicting situations of authority, were collected from 3 Indian states and their contents analyzed. The findings indicate that the most dominant authority theme in the story readers (prescribed texts for Indian schools) pertains to authority in

family situations. The main source of the authority is conditional. Its acceptance is traditional-moral, rational/legal, person, and competence being considerations by their relative insignificance. An interesting finding is that of the image of the superior as portage in these story readers, which in 100% of the cases is that of an autocrat—either assertive or nurturant—and that these authority figures enforce their authority primarily by providing conditional rewards to, and arousing guilt in the subordinate individual. — *Author abstract*

8829. Kaplan, Howard B. (Baylor Coll. of Medicine, Houston, Tex.) **Social class and self-derogation. A conditional relationship.** *Sociometry*, 1971(Mar), Vol. 34(1), 41-64. — Proposes that the lack of empirical support for the hypothesis of an inverse linear relationship between social class and self-derogation is due to the conditional nature of the relationship. The relationship is observed only for those segments of the population for which certain conditions hold. 4 such general conditions are stated. 9 variables were selected which appeared to reflect the presence of 1 or more of the conditions. For each variable it was hypothesized that, for Ss characterized by the variable, self-derogation would progressively increase as social class decreased. 500 personal interviews were studied. All but 1 hypothesis was supported at a statistically significant level. Results are interpreted (a) as congruent with the "conditional relationship" explanation; and (b) as supporting theoretical statements regarding the general conditions under which an experience, attribute, or behavior influence the genesis of self-derogatory attitudes. Methodological limitations and implications for future research are discussed. (5 p. ref.) — *Journal abstract*

8830. Leik, Robert K. & Nagasawa, Richard. (U. Washington) **A sociometric basis for measuring social status and social structure.** *Sociometry*, 1970(Mar), Vol. 33(1), 55-78. — Discusses a procedure for employing an economic input-output model, adapted by C. H. Hubbell (see PA, Vol. 40:2817) for sociometric clique structure analysis, to the analysis of the concepts of social status and structure. The procedure measures aspects of status and structure in a manner which derives directly from the meaning of the concepts, rather than as an assumed correlate of the concepts. Data from 125 members of a women's service club and a women's union are used to illustrate the plausibility and potential utility of the measure. Findings indicate that status and structure so measured covary predictably with certain control variables, and that some new and theoretically important information may be added by this type of analysis. (30 ref.) — *Journal abstract*

8831. Stephan, Walter G. & Stephan, Cookie. (U. Texas) **Role differentiation, empathy, and neurosis in urban migrants and lower-class residents of Santiago, Chile.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 1-6. — Interviewed 60 lower-class male residents of Santiago, Chile. 30 Ss were urban migrants; the other 30 Ss were born in Santiago. Projective measures of role differentiation and empathy were collected, as well as demographic information and a measure of neurosis. As predicted, role differentiation and empathy were positively correlated with each other and negatively correlated with neurosis. Urban-born Ss were higher in role differentiation and lower in neurosis than migrants; both groups were similar in empathy. Age and education seemed to be important variables in-

fluencing these relationships. Results are discussed in terms of transition problems of urban migrants. (20 ref.)—*Journal abstract.*

Religion

8832. Anderson, James D. (Episcopal Diocese of Washington, D.C.) **Pastoral support of clergy-role development within local congregations.** *Pastoral Psychology*, 1971(Mar), Vol. 22(212), 9-14.—Clergymen "who can be helped to see more clearly the specificity of role conflict and misunderstanding can also be helped to utilize the reality of those issues as opportunities in the mission and management of parish life." The consultant can often assist the clergymen in this fashion, at the same time helping him to find guides in decision making and in carrying out his day to day ministry. The consultation principle is illustrated with an example.—*O. Strunk.*

8833. Brown, Thomas E. (Northeast Career Center, Princeton, N.J.) **Career counseling as a form of pastoral care.** *Pastoral Psychology*, 1971(Mar), Vol. 22(212), 15-20.—Describes the activities of the Northeast Career Center in Princeton, New Jersey, in terms of the crises of integrity, power, capacity, failure, destination, role, and meaning. These various crises, experienced by clergymen, may best be resolved by looking within for clarity, since they cannot be resolved in the institution itself.—*O. Strunk.*

8834. Brown, Thomas E. (Northeast Career Center, Princeton, N.J.) **Career counseling for ministers.** *Journal of Pastoral Care*, 1971(Mar), Vol. 25(1), 33-40.

8835. Collie, Robert M. (United Methodist Church, Columbus, O.) **Counseling the middle-aged pastor.** *Pastoral Psychology*, 1971(Mar), Vol. 22(212), 50-53.—No longer faced with a crisis of "image" as is the youthful minister, the middle-aged pastor is struggling with what he has and with the possibilities of new dimensions. The 4 areas which lead the middle-aged clergymen to feelings of entrapment and with which he must cope are: (a) vocational, (b) marital, (c) intrapersonal, and (d) professional.—*O. Strunk.*

8836. de Bont, W. (U. Montreal, Quebec, Canada) **Le célibat sacerdotal aux Pays-Bas.** [The celibacy of priests in the Netherlands.] *Vie Spirituelle Supplément*, 1969(Sep), Vol. 22(90), 430-441.—In 1968 a survey was conducted among all Catholic clergy in the Netherlands. The 39 questions mainly concerned attitudes towards the church law of celibacy. 83% responded (N = 7,381). The present article summarizes the main results and criticizes the statistical analysis, especially the faulty use of multiple correlation techniques.—*Author abstract.*

8837. de Bont, W. (U. Montreal, Quebec, Canada) **Le sécularisation de l'eschaton.** [The secularization of ethics.] *Vie Spirituelle Supplément*, 1969(Nov), Vol. 22(91), 462-482.—Prevalent contemporary morality is shown to be considerably more relaxed than the old Christian one. It is "secular" in a double sense: (a) The goal of human strivings is no longer a faraway contact with God but the more or less immediate satisfaction of man's basic drives, of which there are about 13 according to Cattell's factor analyses, altruism being 1 of them. (b) The means to reach this goal are determined by more or less rational considerations, not by biblical or ecclesiastical authority. A survey of pertinent research shows why the decline of Christian and the upsurge of hedonistic morality does not lead to chaos: (a) Most people have quite limited basic drives, e.g., the low use of

pornography in liberal Denmark. (b) Religious ethics produce only more ascetism but not more altruism than secularized morality. (c) Other faraway absolutes, e.g., democracy, are sometimes substituted for the religious ones, in which case there is a rather limited version of secularization. (d) Most people act very differently from what their official Christian ethics proclaim. So the gap between traditional Christian and hedonistic morals is more verbal than real. (40 ref.)—*Author abstract.*

8838. Godin, Andre. (Lumen Vitae, Brussels, Belgium) **Pastoral psychology in French-speaking Europe (Belgium-France-Switzerland).** *Pastoral Psychology*, 1971(Jan), Vol. 22(210), 41-47.—Although few seminaries or theological institutes in Belgium, France, and Switzerland have introduced psychological supervision of pastoral activities, recent developments show definite trends—Rogerian influences in Belgium, psychoanalytic orientations in France and Switzerland, and training groups in many areas. Described is the program at the Institutes for Cathetics and Pastoral Work in Brussels, Louvain, Paris, Strasbourg, Lyon, Fribourg. These training centers are emphasizing much more direct experience and field work.—*O. Strunk.*

8839. Houts, Donald C. (St. Paul's School of Theology, Kansas City, Mo.) **Ego identity and professional preparation for ministry.** *Journal of Pastoral Care*, 1971(Mar), Vol. 25(1), 12-23.—Basing research on the ego-identity work of Erikson and instrumentation on Marcie's Ego Identity Status scale, 111 male students seeking their 1st professional degree were interviewed to determine identity achievement, foreclosure, moratorium, and identity diffusion. It is suggested that graduate theological education presupposes that effective ministry is more akin to integrity of life style than to mere successful role definitions.—*O. Strunk.*

8840. Mahon, Robert. **An example of the use of professional development groups in support of new ministers.** *Pastoral Psychology*, 1971(Mar), Vol. 22(212), 31-38.—Describes the Parish Internship Program of the Episcopal Dioceses of Washington and Maryland as an example of the use of professional development groups in support of new ministries. Evaluation of this experience indicates that it is "imperative that there be an understanding of the need to restore harmony within the clergy before serious thought can be given to trying to influence the laity."—*O. Strunk.*

8841. Pruyser, Paul W. (Menninger Foundation, Topeka, Kan.) **A psychological view of religion in the 1970s.** *Bulletin of the Menninger Clinic*, 1971(Mar), Vol. 35(2), 77-97.—Argues "that religion will continue to influence the minds of men [discusses the] manifestations of the irrational which influence religion or are intertwined with it, and [sketches] new trends and forces that are likely to influence religion in a creative direction." *J. Z. Fhas.*

8842. Puerta, Ricardo A. **Psychologism and the Catholic Church.** *Cornell Journal of Social Relations*, 1970(Fal), Vol. 5(2), 182-198.—Analyzed the legitimization process of psychologism within the Catholic church within the last 50 yr. 3 differentiated states are involved: (a) total rejection of psychologism because its philosophical foundations seemed to contradict those of the Church; (b) there was a long debate between its practical utility and concepts of man and society behind it, and (c) there was a partial acceptance of its philosophical principles and theories, as well as total agreement with its practices. The symbols and practical consequences that

the legitimization process has brought into the formation of new priests and into the new relationship between the priest and his parishioner are examined. The religious model formulates the understanding of man in terms of "faith" and "religious issues" and the psychological model explains it through "scientific reasons" and "psychological issues."—J. DiGiovanni.

8843. Sims, Bennett J. (Virginia Theological Seminary, Alexandria) **Continuing education as a peer support experience in the dynamics of change.** *Pastoral Psychology*, 1971(Mar), Vol. 22(2), 39-43, 66.—Describes the continuing education program at the Virginia Theological Seminary. Several years of experience led to the conviction that continuing education for ministers must be based in an affirmation of the personhood of the minister and then helping "him develop skills appropriate to the practice of ministry in a time of social and institutional upheaval."—O. Strunk.

8844. Sims, Edward R. (St. Francis Episcopal Church, Potomac, Md.) **WECA: A response to passivity and isolation among parish ministers.** *Pastoral Psychology*, 1971(Mar), Vol. 22(2), 44-49.—Provides a brief history of the founding and development of the Washington Episcopal Clergy Association, an organization attempting to answer the question, "Can a medieval class-profession find happiness in the 20th century?"—O. Strunk.

8845. Stewart, Charles W. (Wesley Theological Seminary, Washington, D.C.) **Training pastoral supervisors for seminary field education.** *Journal of Pastoral Care*, 1971(Mar), Vol. 25(1), 24-32.

8846. Thurston, Branson L. (Syracuse 1) **A comparison of selected psychological health factors and perceptions of administrative procedures in those ministers and seminary students perceiving the administrative role to be more integral to an effective ministry and in those perceiving that role to be less integral.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5868.

Cross Cultural Comparison

8847. Kilbride, Janet E., Robbins, Michael C., & Kilbride, Philip L. (U. Missouri) **The comparative motor development of Baganda, American white, and American black infants.** *American Anthropologist*, 1970(Dec), Vol. 72(6), 1422-1428.—Examined the developmental motor quotients (DMQs) of 71 male and 92 female 1-24 mo. old rural Baganda infants. Ss were found to be significantly more advanced in motor development in the 1st yr. of life when compared to the sample of white and black American children studied by N. Bayley (see PA, Vol. 39:11902). Although the Ss were not as precocious as M. Geber's sample of Uganda infants, the same downward trend in degree of motor development during the 2nd yr. of life was found. As age increased, DMQ decreased, but at the age of 24 mo., Ss still obtained an average DMQ higher than either American sample. Several interpretations of these results are considered. (26 ref.)—*Journal abstract*.

8848. Martin, William A. (Victoria U., Wellington, New Zealand) **Word-fluency: Intellect or personality?** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 17-24.—65 European and 62 Maori high school Ss were subjected to a battery of tests which included Thurstone's Word Fluency Test. Maori superiority in word fluency production was found not to rest upon a

personality factor (surgency), but to derive from definite word fluency ability. Of the 8 factors derived from the data, only 7 were applicable to the Maori, including a verbally biased intelligence factor, 2 personality factors, and 2 fluency factors. A "missing link" factor applied to Europeans only. There was some evidence which suggested that there was incompatibility between the Maoris' level of intellectual differentiation, on the 1 hand, and their relatively high "g" ratings, on the other.—*Author abstract*.

8849. Munroe, Robert L. & Munroe, Ruth H. (Pitzer Coll.) **Male pregnancy symptoms and cross-sex identity in three societies.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 11-25.—Investigated the correlates of husband's symptoms during wife's pregnancy in 3 societies—American, Black Carib, and Logoli. Men who experienced symptoms generally gave female-like responses on covert measures of sex identity and hyper-masculine responses on overt measures. The hyper-masculine responses were interpreted as attempts to deal with an underlying cross-sex identity. In 2 societies—American and Black Carib—male symptomatology was associated with father absence or adult male absence during the 1st 10 yr. of life. (28 ref.)—*Author abstract*.

8850. Nerlove, Sara B., Munroe, Ruth H., & Munroe, Robert L. (U. California, School of Social Sciences, Irvine) **Effect of environmental experience on spatial ability: A replication.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 3-10.—This cross-cultural study with 13 Kenya Gusii age-matched, boy-girl pairs and 13 cross-cultural age-matched, boy-girl pairs of Kenya Gusii and Kenya Logoli children, 5-8 yr. old, is a replication of an earlier finding (see R. L. Munroe & R. H. Munroe, PA, Vol. 45:7927) among the Logoli. The results showed that Gusii males were more distant from home than Gusii females ($p = .01$); those Gusii children more distant from home were superior on spatial tasks to those children less distant from home ($p = .01$ for copying block patterns and for copying geometric figures; $p = .02$ for the Arthur revision of the Porteus Mazes); the cross-cultural pairs showed the same sex difference in distance from home, i.e., males were more distant irrespective of cultural affiliation ($p = .01$); and within the cross-cultural pairs those children more distant from home were superior on spatial tasks ($p = .06$ for copying block patterns, and $p = .03$ for copying geometric figures).—*Author abstract*.

Family

8851. Ancona, Leonardo. (Catholic U. of the Sacred Heart, Milan, Italy) **La psicologia dell'amore coniugale.** [Psychology of conjugal love.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 113-128.—Matrimonial bliss rests upon a delicate equilibrium of affectivity and reason. Such a balance needs to be continuously maintained, nourished, and reconquered.—L. L'Abate.

8852. Arasteh, Josephine D. (National Inst. of Mental Health, Bethesda, Md.) **Parenthood: Some antecedents and consequences: A review of the mental health literature.** *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 179-202.—This preliminary survey of the mental health literature discusses both the "antecedents" and "consequences" of parenthood. Under the former heading are grouped such topics as: (a) sex attitudes, knowledge of contraceptive information

and birth control programs to impart such knowledge effectively; (b) "unwanted" conceptions in terms of illegitimacy and abortion; (c) sterilization; and (d) family counseling. If conception is allowed to take place and a child is born, a vast and intricate network of family dynamics gradually emerges. Of relevance here are: (a) the effect of family size and spacing ("density") on the child and his parents, and (b) the ordinal position and sex of the child. (104 ref.)—*Author abstract.*

8853. Bragg, Barry W. & Allen, Vernon L. (U. Toronto, Ontario, Canada) **Ordinal position and conformity: A role theory analysis.** *Sociometry*, 1970(Dec), Vol. 33(4), 371-381.—Applied role theory to the problem of birth order and conformity to a same-sex peer group. 73 male and female undergraduates from 2-sibling families were studied. Results show highest conformity for later-born females with a same-sex sibling, and least for later-born males with a same-sex sibling. An intermediate level of conformity was exhibited by later-born Ss having cross-sex siblings. In the case of 1st-borns, no difference in conformity occurred as a function of sex of their sibling. The pattern of results for conformity is congruent with predictions made from role theory. (20 ref.)—*Journal abstract.*

8854. Havassy-de Avila, Barbara. (Whitby Psychiatric Hosp., Ontario, Canada) **A critical review of the approach to birth order research.** *Canadian Psychologist*, 1971(Apr), Vol. 12(2), 282-305.—Reviewed the birth order literature to demonstrate that the present emphasis on birth order differences with a deemphasis on theory has resulted in confusion. Birth order research topics reviewed were: child-rearing practices; affiliation, dependence, and conformity; intelligence and achievement; and alcoholism. 2 suggestions are made concerning the direction of future birth order research: (a) the importance of theoretically-derived research as opposed to research focused on differences, and (b) the value of a moderator variable. (French abstract) (55 ref.)—*Journal abstract.*

8855. Hedri, A. (53 Bächlerstr., Zurich, Switzerland) **Wohstands-Ehekrisen.** [Marital crises in prosperous families.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 35-38.—Describes a syndrome of marital crises in relatively financially prosperous families. 1,350 married couples (seeking divorces) were investigated between 1960 and 1961 for sources of marital conflict. Results show that 49% attributed character clashes as sources; 35%, infidelity; 20%, alcoholism; 18%, financial difficulties; 16.5%, sexual problems; and 13.5%, miscellaneous difficulties. Illustrative cases are presented to substantiate statistics. —B. A. Stanton.

8856. Mundigo, Axel. (Cornell U., International Population Program) **Scarcity and family planning in Honduras.** *Cornell Journal of Social Relations*, 1970(Fal), Vol. 5(2), 102-118.—Presents a case for the usefulness of the concept of scarcity which, differing from poverty, extends beyond the economic characteristics of the environment to include social-psychologically scarce resources. Data from a fertility and family planning survey conducted in Honduras to demonstrate the scarcer the resources—as measured by both material and sociopsychological indicators—the more difficult it is to plan not only the children a family wants to have, but also any other activity involving distant goals. Honduras has had an official family planning program since 1965, and the Family Planning Association dates from 1962.

While the total population is 2½ million, 50% of its population is less than 15 yr. of age. Declining mortality and high fertility have made the rate of population growth soar to 3.4% per year, among the highest in the hemisphere.—J. DiGiovanni.

8857. O'Keefe, Garrett J. (U. Wisconsin) **Family communication orientations and interpersonal agreement, accuracy and congruency.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6161.

8858. Okel, Edward. (Ohio State U.) **Modes of resolving differences as a function of marital relatedness and need for approval.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5632-5633.

8859. Smith, Robert C. (U. California, Irvine) **Verbal discussion versus note passing tasks in the study of family role structure.** *Journal of Nervous & Mental Disease*, 1971(Mar), Vol. 152(3), 173-183.—Compared 2 methods of eliciting family interaction: verbal discussion (discussion tasks) and note passing in a communication network (communication network tasks). A small sample of white, middle-class families consisting of mother, father, and adolescent child performed 8 tasks in which they had to reach a single final decision on family relevant problems. Analysis of data showed that the communication network medium yielded (a) a significantly more equal influence and equal communication family role structure, (b) an influence structure which was more unusual or less expected than the role structure on discussion tasks, and (c) an influence structure which correlated significantly less well with the competence structure perceived by all family members. These results support the contention that the communication network cannot be substituted for the representation of role structure obtained from verbal discussion tasks (20 ref.)—*Journal abstract.*

Social Change & Social Programs

8860. Born, David O. (Southern Illinois U.) **Psychological adaptation and development under acculturative stress: Toward a general model.** *Social Science & Medicine*, 1970(Apr), Vol. 3(4), 529-547.

—Examined psychological stresses affecting individuals from tradition-oriented societies who are subjected to acculturative pressures from Western, modernized societies. A cognitive construct, the *mazeway*, was used as a psychological frame-of-reference because of its adaptability to several sociocultural approaches to behavior theory. Primary stress is seen to derive from relative deprivation and, in particular, withdrawal of status respect. Adaptation to socially-induced stress approximates 4 modes: retreatism, reconciliation, innovation, and withdrawal. Innovation and withdrawal are seen to be improbable in the tradition-oriented society. Both retreatism and reconciliation can lead to successful psychocultural adaptation. Several case studies lend support to this theoretical framework (French Spanish, & German summaries) (70 ref.)—*Journal abstract.*

8861. Ehrenberg, Miriam. (New School for Social Research) **Attitudinal and personality differences between entrepreneurial and bureaucratic men.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5517-5518.

8862. Forest, Laverne B. (U. Wisconsin) **Commitments of leaders as predictors of attitudes toward new social issues in a rural community**

social system. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(14-A), S109.

8863. Licuanan, Patricia B. (Pennsylvania State U.) **The impact of modernization on Philippine adolescents.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), S606, S607.

8864. Sawyer, Jack. (Northwestern U.) **Relative deprivation: A politically-biased concept?** *Psychiatry*, Washington, D.C., 1971(1 Feb), Vol. 34(1), 91-99. Considers "relative deprivation" as used by F. J. Crawford and M. Naditch (see PA, Vol. 45, 8061) to be a biased use of a concept and because it "fits with the competitive orientation of the dominant institutions of our society it does not readily appear as a bias."—E. M. Upchurch.

SEXUAL BEHAVIOR

8865. Jesser, Clinton J. (Northern Illinois U.) **Reflections on breast attention.** *Journal of Sex Research*, 1971(1 Feb), Vol. 7(1), 13-25. Outlines the psychoanalytic, phylogenetic and sociocultural approaches to breast attention. Psychoanalysis treats breast attention as a consequence of events occurring at the oral stage of infancy, as a consequence of sexual and/or authority problems with mothers, or as a manifestation of interest in survival. The phylogenetic approach deals with the preconditions to sexual attraction and sexual involvement at the nonhuman level. The sociocultural approach treats breast attention in the context of social controls and sex-learning patterns. (2* ref.)—E. B. Juffa.

8866. Kaats, Gilbert R. & Davis, Keith E. (U.S. Air Force Academy) **Effects of volunteer biases in studies of sexual behavior and attitudes.** *Journal of Sex Research*, 1971(1 Feb), Vol. 7(1), 26-34. Attempted to determine whether or not individuals who are willing to report their sexual behavior and attitudes are significantly different from those who will not report such behavior. An extensive questionnaire including 24 items from Reiss' scales of sexual standards was administered to 1 control group consisting of 84 males and 97 females, a "voluntary selection" group of 26 males and 65 females, and a "voluntary completion" group of 155 males and 222 females. With respect to Ss who selectively completed the self-report sexual behavior and attitudes questionnaire, the data do not support the conclusion that volunteers are different from nonvolunteers. As compared to nonvolunteers, volunteers who took the effort of going to the research site reported more liberal sexual attitudes, had more noncoital experience, but were not different with respect to premarital coital rites. It is concluded that changes in sexual behavior are not merely a reflection of changes in reporting.—E. B. Juffa.

Birth Control & Abortion

8867. Kothandapani, Virupaksha. (U. North Carolina, Chapel Hill) **Prediction of contraceptive behavior: A three-dimensional approach.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6159, 6160.

8868. Rosario, Florangel Z. (Syracuse U.) **An analysis of social-psychological and cultural variables found in family planning diffusion studies.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6163.

ATTITUDES & OPINIONS

8869. Baer, Daniel J. & Mosele, Victor F. (Boston

Coll.) **Political and religious beliefs of Catholics and attitude toward involvement in the Vietnam war.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 16-24. For a sample of 688 adult Catholics, significant associations were found between a Likert-type statement concerning support of American commitment in Vietnam and their political and religious beliefs. Ss who favored involvement in Vietnam more likely felt that the country should be independent from government control, that local tax revenues should remain within the local community, and rejected the suggestion of forming a common market with Europe. With regard to religious beliefs, supporters of official American policy less likely felt that clergy should marry, that fasting laws of the church should be relaxed, or that contemplative religious orders are no longer needed. It appears that acceptance of religious freedom as is related to conservative political views.—Journal summary.

8870. Blank, Esther P. & Aronson, Sidney J. (Johns Hopkins U.) **Effects of previous order and proportion of similar attitude statements on attraction during a subsequent series of dissimilar statements.** *Psychological Science*, 1971(1 Feb), Vol. 22(4), 245-246. "Under conditions in which groups received completed attitude questionnaires of 'strangers,' which were filled out by E in accordance with the Ss' responses to an initial questionnaire. Order and proportion of similar attitude statements for the 1st 12 statements were varied, and the effects of these variations were measured during the presentations of the subsequent 12 dissimilar statements, using a continuous mode of responding. Previous exposure to different orders and proportions had no effect on later responses. Regardless of previous experiences, different groups responded with similar strength of attraction when exposed to blocks of dissimilar or all dissimilar attitude statements."—Journal abstract.

8871. Blizard, Peter J. (Victoria U., Wellington, New Zealand) **The social rejection of the alcoholic and the mentally ill in New Zealand.** *Social Science & Medicine*, 1970(Dec), Vol. 4(5), 513-525. Interviewed a representative urban sample of 263 Ss on their attitudes toward the mentally ill and alcoholics. Ss completed the Social Distance Scale after reading each of 5 case histories describing a normal person, a compulsive neurotic, a simple schizophrenic, an alcoholic, and a paranoid schizophrenic. Results indicate that (a) attitudes were closely related to the extent to which behavior departed from "normal," (b) age and educational status of respondents was unrelated to attitudes, and (c) previous contact with mental illness and authoritarianism were significantly related to attitudes. It is concluded that social judgments and rejection of the mentally ill are based on moral-normative criteria. (French & German summaries) (35 ref.)—Journal abstract.

8872. Cauthen, Nelson R., Robinson, Ira E., & Krauss, Herbert H. (Veterans Administration Hosp., New Orleans, La.) **Stereotypes: A review of the literature 1926-1968.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 103-125. Stereotypes are conceptualized as models of the world guiding behavior. The literature on minority group stereotypes is discussed in the framework of 5 dimensions: content, uniformity, direction, intensity, and familiarity. Stereotypes are regarded as linguistic models guiding the expression of prejudice. Several illustrations of stereotypes guiding behavior are offered.

A brief theoretical sketch of stereotypes as linguistic behavior is presented. (95 ref.)—*Author abstract.*

8873. Crosby, Richard W. (Canadian Facts Co., Toronto, Ontario.) **Attitude measurement in a bilingual culture.** *Journal of Marketing Research*, 1969(Nov), Vol. 6(4), 421-426.—In order to determine whether French-English measured differences in attitude were a function of the scaling devices used, 2 experiments were conducted. Results from bipolar (balanced) scales showed more French-English agreement than unipolar (unbalanced). Subsequently, the concept of target-hit-accuracy was judged using bipolar (balanced) positively and negatively loaded and numerical scales; results showed no French-English differences.—*J. C. Franklin.*

8874. Dawson, William E. & Brinker, Richard P. (U. Notre Dame) **Validation of ratio scales of opinion by multimodality matching.** *Perception & Psychophysics*, 1971(May), Vol. 9(5), 413-417.—Requested 71 male and 1 female undergraduates, in 3 experiments, to adjust loudness and force of handgrip (and in 1 experiment apparent duration) to match the strength of their opinions regarding racism, occupational desirability, and pronounceability of trigrams. For each stimulus item, median settings of 1 continuum were plotted as a function of median settings of the other. The resulting power-function exponents agree with previous cross-modality matches and with results of a cross-modality match of loudness and duration produced by Ss in the present experiments. Results provide validation of ratio scales of opinion and further establish the direct scaling methods used to obtain them.—*Journal abstract.*

8875. Dytell, Rita S. **An analysis of how people use groups as a source of information on which to base judgments.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6157.

8876. Feinberg, Lawrence B. (Syracuse U.) **Nonimmediacy in verbal communication as an indicator of attitudes toward the disabled.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 135-140.—Relatively unstructured statements about disabled and nondisabled persons, obtained from 25 undergraduate students, were analyzed for nonimmediacy and correlated with scores on the Attitude Toward Disabled Persons Test. Results revealed a significant inverse relationship between measured attitudes toward the disabled and the degree of nonimmediacy in communications about the disabled. Statements about the disabled contained significantly more nonimmediacy than statements about the nondisabled among Ss with low (negative) measured attitudes toward the disabled.—*Author abstract.*

8877. Gillmore, Gerald M. (Michigan State U.) **Legalism, antinomianism, situationalism: Three moral decision-making orientations.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6158.

8878. Larsen, Knud S. (Oregon State U.) **Affectivity, cognitive style, and social judgment.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 119-123.—Investigated whether cognitive style contributes to item displacement using the Thurstone method of equal-appearing intervals. 263 undergraduates rated 121 statements on each of 3 issues (communism, liquor by the drink, and TV), representing a gradient of affectivity from highly intense to neutral. The predictor variables were cognitive complexity and dogmatism. For cognitive complexity, the overall results were not significant. Dogmatism was relatively independent of affectivity,

and highly dogmatic Ss consistently displaced more items into the extreme categories across all 3 issues, including the neutral issue. Results suggest that a cognitive style, independent of any affectivity dimension, may contribute to item displacement and to distortion of social judgment. (22 ref.)—*Journal abstract.*

8879. Lawson, E. D. (State University Coll. New York, Fredonia) **Semantic differential analysis of men's first names.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 229-240.—To investigate stereotypes associated with men's 1st names, 180 Ss completed semantic differential scales. In Exp. I, 50 men and 50 women rated common 1st names. In Exp. II, 40 men and 40 women rated a sample of common and random men's 1st names. Significance tests show the relationship of names to concepts assumed to measure the evaluative, potency, and activity factors. 3-dimensional models constructed for both studies show the relative positioning of names. Results indicate: (a) confirmation of the existence of stereotypes, (b) positive evaluation of common names, and (c) general agreement on evaluation of names by men and women. (17 ref.) *Journal summary.*

8880. Mack, Jeanne. (Texas Woman's U.) **The dating and rating preferences of a group of male and female college students.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5519. **Dating & rating preferences, popularity & characterization of prospective marriage partner, college students.**

8881. Ofshe, Richard & Ofshe, Lynne. (U. California, Berkeley) **A comparative study of two scaling models: Paired comparisons and scalogram analysis.** *Sociometry*, 1970(Dec), Vol. 33(4), 409-426.—Reports the results of a study in which the same set of attitude statements were scaled with paired comparisons and scalogram procedures, which theoretically, should produce identical rank orders. Data from 4 independent samples of a total of 209 undergraduates were scaled using both models. Resulting paired comparisons and scalogram estimates of the rank orders of the statements correlated with values of .24, +.14, =.14, and .05. When the attitudes were measured and the respondents ranked with respect to the strength of their attitudes, the rank orders correlated with values of .14, =.06, +.13, and +.13. Data are presented which suggest that the scalogram procedure produced the incorrect results. A tentative explanation for the different results is reported. (30 ref.)—*Journal abstract.*

8882. Rambo, William W. (Oklahoma State U.) **Attitude measurement: The problem of predictability.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 43-48. **Attitude scale construction techniques give, at best, only indirect attention to the prediction capabilities of individual items. Although conventional scaling procedures can be augmented by an item analysis sequence that uses known-affiliation groups, many uncertainties surround this approach. Laboratory analogues of the social processes central to a scale are recommended as a source of data for item analysis. The group autokinetic experiment is suggested as an example of a laboratory analogue of the social processes central to a scale intended to measure attitudes toward dissent.**—*Journal abstract.*

8883. Reich, John W. & Moody, Carl A. (Arizona State U.) **Stimulus properties, frequency of exposure, and affective responding.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 27-35.—Investigated several variables which might be useful in explaining the

and used to guide the study of both collective and noncollective behavior transactions. It is concluded that the dimensions of associations specify both the nature and degree of bondness present between participants. (29 ref.)—*Journal abstract.*

8912. Criddle, William D. (U. British Columbia, Vancouver, Canada) **The physical presence of other individuals as a factor in social facilitation.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 229-230.—Attempted (a) to establish whether or not the physical presence of other individuals is a necessary condition for the occurrence of social facilitation in humans, and (b) to examine the drive hypothesis of social facilitation using 60 female nursing students. Ss learned competitive or noncompetitive lists of paired associates while alone or while observed from behind a 1-way screen. Analysis of the competitive list data suggest that dominant responses were enhanced at the expense of subordinate responses when Ss were observed through a 1-way screen. No affect attributable to observation was found in the noncompetitive list data.—*Journal abstract.*

8913. Davis, Loren E. (Oklahoma State U.) **Socio-game behavior in groups and nongroups.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5517.

8914. Delia, Jesse G. (U. Kansas) **Cognitive complexity and the effect of schemas on the learning of social structures.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6157.

8915. Dodson, Jerry P. (Purdue U.) **Participation in a biracial encountergroup: Its relation to acceptance of self and others, racial attitudes, and interpersonal orientations.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5120-5121.

8916. Fiedler, Fred E. (U. Washington) **Note on the methodology of the Graen, Orris, and Alvares studies testing the contingency model.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 202-204.—Discusses some methodological shortcomings of the study by G. Graen, J. Orris, and K. Alvares (see PA, Vol. 46:Issue 4) on the contingency model. The critique points out that (a) the position power manipulation was probably ineffective and at best very weak; (b) differences between supposedly structured and unstructured tasks were unnecessarily small, especially since other tasks were readily available; and (c) an analysis of variance of leader Least Preferred Co-worker (LPC) scores yielded a highly significant F ratio indicating that some octants in the 2nd study contained primarily high LPC leaders while others contained primarily low LPC leaders. In view of their methodological inadequacies, it is concluded that the experiments did not constitute an adequate test of the contingency model.—*Journal abstract.*

8917. Foa, Edna B. (U. Missouri) **Frustration-aggression as exchange of resources.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5518.

8918. Frank, Frederic & Anderson, Lynn R. (Bowling Green State U.) **Effects of task and group size upon group productivity and member satisfaction.** *Sociometry*, 1971(Mar), Vol. 34(1), 135-149.—Tested I. Steiner's (see PA, Vol. 40:10588) model for predicting the interaction of group size and task type. 144 male and 144 female undergraduates were assigned to same-sex groups of 2, 3, 5, or 8 persons and worked conjunctive or disjunctive tasks. Results show that increases in group size (a) enhanced quantitative performance of disjunctive tasks where performance was a function of the most

competent member, and (b) were detrimental to performance on conjunctive tasks where performance was a function of the poorest member. The same Size \times Task interaction was found in ratings of the tasks for pleasantness and enjoyment. Other satisfaction and group atmosphere ratings show main effects due to task type and group size, with disjunctive tasks and odd-size groups producing more satisfaction.—*Journal abstract.*

8919. Gallo, Philip & Sheposh, John. (San Diego State Coll.) **Effects of incentive magnitude on cooperation in the Prisoner's Dilemma game: A reply to Gumpert, Deutsch, and Epstein.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 42-46.—Attempted to isolate the variables responsible for the finding by P. Gumpert, M. Deutsch, and Y. Epstein (see PA, Vol. 43:8275) that Ss played the Prisoner's Dilemma game more cooperatively when imaginary money rather than real money was used. In Exp. I, 60 male and 60 female undergraduates were assigned to 1 of 3 groups: (a) imaginary money, (b) initial payment and imaginary money, and (c) real money. The instructions were modified in Exp. II with 40 male and 40 female undergraduates. In both studies, Ss playing for real money were more cooperative than those playing for imaginary money, but the differences did not reach significance. A combined analysis did yield a significant difference in favor of real money. It is suggested that the relationship between real money and cooperative behavior is a highly complex function of a number of variables.—*Journal abstract.*

8920. Godwin, William F. (Indiana U.) **Subgroup pressures in small-group consensus processes.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5660-5661.

8921. Goldberg, Richard M. (U. Cincinnati) **Changes in self-ideal discrepancies in sensitizers and repressors as a function of a sensitivity training experience.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5622.

8922. Graen, George; Orris, James B., & Alvares, Kenneth M. (U. Illinois) **Contingency model of leadership effectiveness: Some experimental results.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 196-201. Conducted 2 parallel experiments with 78 and 96 undergraduates to replicate and further study the contingency model of leadership effectiveness proposed by F. Fiedler. Ss were assigned to 3-man groups and completed a high and a low structured task after selecting a leader. Ss completed a measure of leadership style, the Least Preferred Co-worker (LPC) scale, a group atmosphere scale, and a leader behavior scale. None of the observed correlations for either study reached significance, and in Exp. II, only 2 of the 7 correlations were in the hypothesized direction. Results along with those of other studies are discussed as casting doubt on the plausibility of the contingency model.—*Journal abstract.*

8923. Graen, George; Orris, James B., & Alvares, Kenneth M. (U. Illinois) **Contingency model of leadership effectiveness: Some methodological issues.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 205-210.—Discusses a number of methodological issues raised by F. Fiedler (see PA, Vol. 46:Issue 4) concerning empirical studies designed to test several hypotheses derived from his contingency model of leadership effectiveness. A number of recommendations are suggested to enhance the information-producing value of

future studies designed to test these hypotheses.—*Journal abstract*

8924. Hackman, J. Richard & Vidmar, Neil (Yale U.) **Effects of size and task type on group performance and member reactions.** *Symmetry* 1978(Mar), Vol. 33(1): 31-54. Assessed the effects of group size (2-7 members) and certain task characteristics (production, discussion, and problem solving) on group performance and member reactions. 162 male undergraduates from each of 2 universities performed 3 15-min tasks. Results show that (a) size had negligible effects on performance characteristics and strong effects on member reactions; (b) dyads tended to be most satisfied and dissatisfaction increased in approximately linear fashion for larger groups; (c) type of task strongly affected both performance characteristics and member reactions; and (d) there were no substantial interactions between size and task type in predicting member reactions or group performance. Results are discussed in terms of (a) the uniqueness of dyads in comparison to other groups sizes; (b) the question of "optimal" group size; (c) the means by which the strong effects of task type may take place; and (d) questions raised by the finding that some substantial differences were obtained for Ss from the 2 different universities. (20 ref.)—*Journal abstract*

8925. Harrison, Roger. (Development Research Assoc. Cambridge, Mass.) **Research on human relations training: Design and interpretation.** *Journal of Applied Behavioral Science* 1971(Jan), Vol. 7(1): 71-85. Presents a review of the methodological problems involved in planning and conducting research on changes in interpersonal behavior as a function of the teaching-learning process. The article is directed to both creators and consumers of research on human relations training. (16 ref.)—*D. Jewell*

8926. Hewitt, Jay. (U. Missouri, Kansas City) **Interpersonal attraction as a function of the type of favorable and unfavorable evaluation.** *Psychonomic Science* 1971(Feb), Vol. 22(4): 197-198. In an experiment with 30 male undergraduates, Ss received personal evaluations from 3 confederates and then rated their liking for each individual. Favorable evaluations produced more attraction than unfavorable evaluations regardless of whether they were consistent or inconsistent with S's perception of himself. The specific content of the evaluation was more important when the evaluation was unfavorable than when it was favorable. Different types of favorable evaluation were not associated with differential degrees of liking. Unfavorable evaluations that were inconsistent with S's perception of himself produced greater hostility than those that were consistent with S's perception of himself.—*Journal abstract*

8927. Horai, Joann. (U. Miami) **The attribution of intent and the norm of reciprocity under dyadic conflict.** *Dissertation Abstracts International* 1971(Mar), Vol. 31(9-B): 5664.

8928. Kahan, James P. & Pichevin, Marie F. (U. Southern California) **Free-choice dissonance: An interpersonal simulation.** *Representative Research in Social Psychology* 1971(Jan), Vol. 2(1): 11-20. Prepared a videotape in which a French translation of J. W. Brehm's (see PA, Vol. 31:4251) free-choice cognitive dissonance experiment was acted out. This tape in high school to 54 undergraduate women, who were asked to predict the S's final responses to a desirability ques-

tionnaire. Following D. J. Bem (see PA, Vol. 41:1358-), was predicted that the Os would successfully predict the responses and show an awareness of the effects of dissonance. Results indicate that there were no differences in the judgments between dissonance conditions. Some trends over all Ss are examined.—*Journal abstract*

8929. Lane, Irving M., Messé, Lawrence A., & Phillips, James I. (Louisiana State U.) **Differential inputs as a determinant in the selection of a distributor of rewards.** *Psychonomic Science* 1971(Feb), Vol. 24(1): 25-29. Investigated perceived differences in the belief that others will allocate rewards equitably in an experiment with 60 male undergraduates. Results indicate that Ss incorrectly perceived that individuals with inputs that were both the highest and most similar to their own would be the most equitable in their allocation of distributors tended to allocate rewards equitably regardless of their own inputs.—*Journal abstract*

8930. Levinger, George; Senn, David J., & Jorgensen, Bruce W. (U. Massachusetts) **Progress toward permanence in courtship: A test of the Kerckhoff-Davis hypotheses.** *Symmetry* 1978(Dec), Vol. 33(4): 427-431. Attempted to replicate and extend the study of A. Kerckhoff and K. Davis (see PA, Vol. 37:1536) on the effects of value consensus and need complementarity on mate selection. Samples of 330 "steadily attached" couples from 2 state universities reported on their courtship relationships in both the fall (Time) and the spring (Time) of the school year. Previous findings, that value consensus and need complementarity would enhance progress toward permanence, received only marginal support. Additional analyses of other Time paper-and-pencil compatibility indices also failed to relate substantially to the Time changes. The best predictors were the partners' own Time feelings about their relationship. It is suggested that there are 2 supplementary processes involved in deep-going relationships: (a) member similarity governing the manner partners discover one another, and (b) pair communality, determining the development of the relationship. (19 ref.)—*Journal abstract*

8931. Lindskold, Svann & Tedeschi, James T. (Ohio U.) **Reward power and attraction in interpersonal conflict.** *Psychonomic Science* 1971(Feb), Vol. 22(4): 211-213. 72 male and 72 female undergraduates played a Prisoner's Dilemma game, modified to include occasional promises to the S stating that he would be given extra points if he cooperated on the next trial. The probability and magnitude of promised reward and the overall cooperativeness of the promisor were manipulated. Females cooperated more and evaluated the promisor more favorably than did males. It is concluded that the norm of reciprocity overrode the effects of the manipulations on compliance for the reason that the promisor was unconditionally accommodative on the promise trials. An indirect relationship between ratings of the promisor's potency and his rewardingness was obtained. (18 ref.)—*Journal abstract*

8932. Luszki, Walter A. (165 Maple St., Charleston, S.C.) **Psych yourself to better tennis.** Hollywood Calif. Creative Editorial Service, 1971. xiii, 148 p. \$3.50 (paper). Discusses the psychology of tennis from 7 aspects: ego, emotional, and interpersonal relations. Ego aspects are discussed from the viewpoints of using your IQ, concentration and distractions, foreknowledge

psychological warfare, and behavior modification. Emotional aspects, from the viewpoints of love and kill in tennis, Freud on the tennis court, controlling jitters in tournament tennis, and magical thinking in tennis. The interpersonal relations are covered under social psychological aspects in tennis. Psychological principles are applied to tennis. The book's intent is to guide players from "public-parks players" to the career tournament player. Illustrations of principles are drawn from the author's experience and from observations and comments of many of the world's best tennis players.
—Author abstract.

8933. Mackenzie, Kenneth D. (U. Waterloo, Ontario, Canada) **An analysis of risky shift experiments. *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 283-303.** Analyzed risky shift experiments, including the decision problem, the concept of risk employed, contending hypotheses, and statistical deficiencies. The Wallach-Kogan choice dilemma instrument used in most experiments on group risk taking has 12 questions. Each question has a status quo or sure thing with a utility U_1 and a risky alternative which, if successful, yields a utility of U_1 and if unsuccessful, a disutility of $-U_2$. Allowing for possible utilities for gambling or risk-taking and caution, an expected utility function for taking the risky alternative can be formed. Ss' task of determining the minimum probability for accepting the risky alternative is the solution of the utility function for p . This solution and its changes in value have infinitely many possible explanations. The concept of risk used in such experiments is shown to be questionable. Analysis of current explanations of risky shift demonstrates that these explanations are not testable using the Wallach-Kogan questionnaire. Suggestions are made to reformulate the research problem. (63 ref.)—*Journal abstract*.

8934. Mascaro, Guillermo F. (U. Florida) **Interpersonal attraction and uncertainty reduction as functions of judgmental similarity. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 71-75.**—Tested the effects of 3 levels of judgmental similarity on evaluative attraction and on uncertainty reduction. 36 male undergraduates served as Ss. A significant increase in evaluative attraction and a nonsignificant increase in certainty were found, as similarity in quantitative (error-choice type) judgments increased. Findings extend the generality of the similarity-attraction hypothesis and suggest limited support for the effectance-reduction hypothesis. (15 ref.)—*Journal abstract*.

8935. McDaniel, James W., O'Neal, Edgar, & Fox, Ellen S. (Adrian Coll.) **Magnitude of retaliation as a function of the similarity of available responses to those employed by attacker. *Psychonomic Science*, 1971(Feb), Vol. 22(4), 215-217.**—Under the guise of a stress and problem-solving experiment, 56 male undergraduates in a $2 \times 2 \times 2$ factorial design were given either electric shocks or a negative point rating at 1 of 2 levels (control or attack). Ss were then allowed to retaliate with electric shock or a negative point rating. As predicted, retaliation was greater under the attack condition. Ss in the attack condition who were allowed to respond in the same manner by which they were attacked retaliated more than Ss responding in the different mode. Results are interpreted in terms of their implications for the frustration-aggression hypothesis.
—*Journal abstract*.

8936. Mezei, Louis. (U. Detroit) **Perceived social**

pressure as an explanation of shifts in the relative influence of race and belief on prejudice across social interactions. *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 69-81. Measured the degree of acceptance and rejection of 4 stimulus persons, varying in race and belief, for 10 social interactions. 131 white and 28 black male and female undergraduates served as Ss. The race of the stimulus persons was black or white, and the beliefs used were pro- or anticomunism or strong civil rights legislation. For the 2 beliefs combined, race prejudice was significantly higher than belief prejudice for marriage, dating, and accepting as kin. For 6 interactions, belief prejudice was higher than race prejudice. Perceived social pressure to race prejudice was significantly higher than to belief prejudice for the interactions for which race prejudice was higher than belief prejudice. Adjustment of both race and belief prejudice scores for the operation of perceived social pressure resulted in the reversal of the observed relationship between race and belief prejudice for the 3 intimate interactions. (25 ref.)—*Journal abstract*.

8937. Mills, Judson & O'Neal, Edgar. (U. Missouri) **Anticipated choice, attention, and halo effect. *Psychonomic Science*, 1971(Feb), Vol. 22(4), 231-233.**—Conducted an experiment with 44 male undergraduates to clarify the interpretation of a finding by E. O'Neal and J. Mills that the anticipation of making choices about other persons increases the intercorrelation of traits attributed to those persons. An attention interpretation of their finding assumes that greater attention was paid to the choice stimuli and that increased attention increased the intercorrelation of traits. Although the O'Neal-Mills finding was obtained, no support was found for either of the assumptions of the attention interpretation. Ss did not spend longer ranking the choice stimuli, and a successful manipulation of attention did not increase the intercorrelation of the rankings. It is concluded that a desire for certainty about the prospective choice provides the best explanation of the influence of anticipated choice in the halo effect.—*Journal abstract*.

8938. Mills, Theodore M. & Rosenberg, Stan. (State U. New York, Buffalo) **Readings on the sociology of small groups.** Englewood Cliffs, N.J.: Prentice-Hall, 1970. viii, 247 p. \$3.95(paper).

8939. Nydegger, Rudy V. (Washington U.) **Leadership status and verbal behavior in small groups as a function of schedule of reinforcement and level of information processing complexity. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6160.**

8940. Pam, Alvin. (State U. New York, Buffalo) **A field study of psychological factors in college courtships. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5609.**

8941. Patterson, Miles L., Mullens, Sherry, & Romano, Jeanne. (U. Missouri, St. Louis) **Compensatory reactions to spatial intrusion. *Sociometry*, 1971(Mar), Vol. 34(1), 114-121.**—Examined reactions to the "immediacy" of an intruder in a university library. 40 male and 40 female undergraduates seated alone at a study table were selected as targets for intrusion by 1 of the 2 female Es who alternated between the roles of intruder and rater. Approaches to the S involved 4 seated positions: (a) adjacent, (b) across, (c) 2 seats adjacent, and (d) 3 seats adjacent to S. Hypothesized compensatory reactions to increased immediacy were found in leaning and blocking responses, while differences opposite those predicted were found in frequency of cross

glancing. Although few Ss left during the 10-min period of intrusion there was evidence that among those who left the shortest latencies were in the condition of greatest immediacy. *Journal abstract*

8942. **Henz, Laura P.** (State U. New York, Buffalo) **Pretraining and within training discriminative indices of retention of facilitative conditions.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(2-B), 5645-5636.

8943. **Richman, Joel L.** (Syracuse U.) **An analysis of the concept of cooperation in the Prisoner's Dilemma game. Some need structure correlates.** *Dissertation Abstracts International*, 1971(May), Vol. 31(1-A), 6162-6163.

8944. **Roberts, Joan L.** (Columbia U.) **The effects of personality characteristics on cooperation.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5519-5520.

8945. **Rudman, Sydney** (Memphis State U.) **Positive changes in self-concept as a function of participation in encounter groups and encounter-type groups.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5674.

8946. **Saks, Stephen M.** (Carnegie-Mellon U.) **Need for stimulation as a factor in social behavior.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 19(1), 124-134. Sketches a theory which would account for the findings in recent experiments that (a) Ss classified as "reducers" on the kinaesthetic aftereffects task are particularly likely to seek out and respond favorably to complex, interesting, and intense stimulus situations, and (b) that Ss classified as "augmenters" are particularly likely to seek out and respond favorably to quiet, dull and simple stimulus situations. These differential tendencies are considered to stem from differences among individuals in a putative need for stimulation. 4 experiments with a total of 97 male and 56 female undergraduates were conducted to investigate various ramifications of the theory. Results indicate that individuals high in measured need for stimulation: (a) react favorably to interesting stimuli, (b) attend closely to complex verbal communications, (c) exhibit high levels of activity in a deprived stimulus situation, and (d) show high levels of talking in a group discussion. (35 ref.) *Journal abstract*.

8947. **Shaw, Marvin E. & Breid, George R.** (U. Florida) **Effects of attribution of responsibility for negative events on behavior in small groups.** *Sociometry*, 1970(Dec), Vol. 33(4), 382-393. Examined the effects of attribution of responsibility (AR), sanctioning, and number of accusers on the reactions of others to the accused and on the effectiveness of groups in which the accused holds membership. 168 male undergraduates served as Ss. In Phase 1, 1 team was composed of either 2 or 3 naive Ss, the other of 1 naive S and either 1 or 2 confederates. During the course of the game the confederate(s) accused the naive team member of being responsible for team losses and, under some conditions, sanctioned him for the losses. In Phase 2, the accused and members of the other team (the nonaccused) worked together as members of a problem solving group. Results of Phase 1 demonstrate clearly that AR to a person for negative events induces that person to: (a) view his accusers less favorably, (b) be less satisfied with the performance of his team, and (c) see accusers as having less ability and as being less cooperative. The nonaccused saw the accused and his team in a similar way.

The nonaccused preferred not to work with the accused. The number of Phase 1 had no effect on problem solving effectiveness in Phase 2. *Journal abstract*.

8948. **Shaw, Marvin E. & Breid, George R.** (U. Florida) **Some effects of attribution of responsibility upon the effectiveness of small problem-solving groups.** *Psychological Science*, 1971(Feb), Vol. 22(2), 129-134. Examined the effects of attribution of responsibility for a negative event to 1 member of a group upon the effectiveness of that group. 3 experimental conditions were studied: (a) attribution of responsibility (AR + S) — members of the group were made aware that 1 of them had been accused of passing bad checks and had been sanctioned (given a suspended sentence for it); (b) AR only — members of the group were made aware that 1 of them had been accused of the passing of bad checks (passing bad checks) but was not sanctioned for it (charges were dropped); and (c) control — no information about the negative event. Each group solved 2 problems. Results show that the AR + S condition required the longest time for task completion, the AR only condition an intermediate amount of time, and the control condition, the least amount of time. Findings are interpreted in terms of member acceptance of the accused member was not fully accepted by the group and this rejection interfered with effective group interaction. *Journal abstract*.

8949. **Turney, John R.** (Cornell U.) **The cognitive complexity of group members, group structure, and group effectiveness.** *Cornell Journal of Social Relations*, 1970(Fall), Vol. 5(2), 152-165. Examined the effectiveness of small groups performing a complex information processing task over an extended time period as a function of the cognitive abstractness-concreteness of the group members. Groups having a majority of cognitively abstract members were more effective than groups with a majority of concrete members. Reason for the relative effectiveness of the groups was their ability or inability to establish functional group structures. The relative advantages and disadvantages for group effectiveness of abstract and concrete persons are discussed. 35 members of 8 teams were assigned based on their scores on a sentence-completion test measuring cognitive concreteness-abstractness. The emergent leaders were 2 of the group's abstract members. A heterogeneous abstract-concrete team may be more effective than a homogeneous abstract team in some task situations where there are a number of such highly structured tasks. — *DiGeronimo*

8950. **Vroom, Victor H. & Deci, Edward L.** (Carnegie-Mellon U.) **Leadership, social value, and the risky shift.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 33-41. Hypothesized (a) that there is, in general, a correlation between riskiness and esteem and (b) that if high esteem persons within any group are and (b) that if high esteem persons within any group are high esteem people are conservative, there will tend to be a conservative shift. To test this hypothesis, 50 29-33 yr old business executives were divided into groups composed so as to have high positive or high negative correlation between riskiness and esteem. An 8-item version of the Wallach and Kogan Choice Dilemma Task questionnaire and a sociometric questionnaire were given to all Ss. It was predicted that the groups with positive correlation would have a significantly more risky shift than those with negative correlation. Neither hypothesis was supported. However, implications were

found for a "value hypothesis," and 2 formulations are discussed. (17 ref.)—*Journal abstract.*

8951. Weitzel, William F. (Wayne State U.) **Behavioral and personality correlates of Machiavellianism: A small group experiment.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6165-6166.

8952. Wright, Paul H. (U. North Dakota) **Byrne's paradigmatic approach to the study of attraction: Misgivings and alternatives.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 66-70.—A recent article by W. Griffitt and D. Byrne overstates the case for limiting zeal in developing new methodological and theoretical approaches to the study of attraction. The article presents a detailed outline of the paradigmatic approach favored by Byrne and his associates. The present paper discusses conceptual and methodological misgivings about the Byrne paradigm. Contrary to the suggestion of Griffitt and Byrne, an approach to attraction is recommended that focuses on a detailed conceptual analysis of specific dyadic relationships rather than a continued emphasis on undifferentiated attraction-in-general.—*Journal abstract.*

8953. Young, Douglas. (U. Edinburgh, Scotland) **We are what we do.** *Papers in Psychology*, 1970(Apr), Vol. 4(1-2), 21-23.—Comments on Goffman's view of the self and of self-interaction and how this view is related to the study of life institutions, demonstrating the truth in the statement that all the world's a stage and we are all in fact players.—S. L. Warren.

8954. Zander, Alvin & Ulberg, Cyrus. (U. Michigan, Research Center for Group Dynamics) **The group level of aspiration and external social pressures.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 362-378.—Describes an experiment with 96 11th grade boys in which the difficulty of an external standard pressed upon a group and the success or failure of the group on its task were made to be independent events. When Ss' usual preference for harder aspiration levels was ruled out, a harder external standard was no more influential than an easier one. Regardless of its difficulty, an external standard was less influential if it was inappropriate to the prior performance of the group or to an S's strength of desire for group success; in such an instance, an S's aspiration for his group was determined by the preference of his teammates. Ss with greater desire for group success set harder aspiration levels and performed better than those with less.—*Journal abstract.*

8955. Zellner, Miriam & Levinger, George. (Hunter Coll., City U. New York) **Liking and self-evaluation: Comfort and respect as sources of attraction.** *Representative Research in Social Psychology*, 1971(Jan), Vol. 2(1), 58-65.—Employed L. Festinger's social comparison theory to qualify the assertion that similarity leads to attraction. It was proposed that such a statement is applicable more to liking relations based on feelings of comfort than on feelings of respect for the liked other. A study conducted with 80 undergraduates confirms this proposal. Nevertheless, for both sorts of liking, similar characteristics of the liked other were considered more attractive and important by respondents than dissimilar characteristics. Implications of these findings are discussed.—*Journal abstract.*

Influence & Communication

8956. Beatty, David J. (Michigan State U.) **An approach to conflict resolution using the dialogue**

as an intervention mechanism. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6155.

8957. Craig, Kenneth D. & Weiss, Stephen M. (U. Calgary, Alberta, Canada) **Vicarious influences on pain-threshold determinations.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 53-59.—Examined the effects of having models dissimulate different levels of pain susceptibility on Os' pain thresholds. 30 male undergraduates and a confederate model ostensibly received identical electric shocks, increasing from an undetectable level in increments of .5 ma. up to the level at which the S reported pain. Making responses contingent upon the S's ratings, the model either delayed or hastened advances along a 5-point rating scale of the severity of the experience. Observing a model tolerate pain led to pain thresholds more than 3 times greater than the thresholds reported by Ss observing a model who was less tolerant. Findings are discussed in the context of the effects of social influences on pain reports and theories of vicarious experience. (22 ref.)—*Journal abstract.*

8958. De Long, Alton J. (Pennsylvania State U., Coll. of Human Development, Div. of Man-Environment Relations) **Seating position and perceived characteristics of members of a small group.** *Cornell Journal of Social Relations*, 1970(Fal), Vol. 5(2), 134-151.—Considers the perceived characteristics of group members on 8 rating scales as a function of seating position in order to ascertain aspects of the communicative "leading" of seating positions in the group environment. The perceived characteristics of members of a small group, across all rating scales, were directly related to the linear distance between their respective seating positions and the seating position of the recognized leader of the group. Those closer to the leader spatially were rated higher across all scales, while those farther away were rated lower. Seating position, in terms of territorial propinquity to the leader, does possess a considerable range of communication value, the specifics of which are a function of the overriding context. J. DiGiovanni.

8959. Hammer, Mark A. (Indiana U.) **The effects of model exposure, status, and task competence on imitative behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6158-6159.

8960. Hillmann, Günther. (U. Munich, W. Germany) **Zentralisierte Organisation und Gruppenprozesse.** [Centralized organization and group processes.] *Gruppendynamik*, 1970(Apr), No. 2, 134-154. Because of changes in society, the lives of individuals and groups have taken on new forms. Individuals are more dependent upon groups and groups are more rigidly organized and have lost human aspects. In order to cope with the masses, groups or organizations go through various stages of development in which they are exposed to various forces. Through cooperation organizations may handle their members but need strong centralization. This central organ or management is plagued by demands of members and is the target of unsolvable conflicts. However, management and persons constituting it are different organisms and behave differently. Reasons for this stem from expectations members of organizations have and from the fact that sometimes individuals reach these managerial positions who use it as a "mousehole." Problems of organizations and their members cannot be solved from within and by organizational means. (42 ref.)—M. J. Stanford.

8961. Lapassade, Georges. (U. Tunis, Tunisia) **Von der Gruppendynamik zur institutionellen Analyse.** [From group dynamics to institutional analysis.] *Gruppendynamik*, 1970(Apr), No. 2, 124-133.—Prior to group seminars a structure has been set up constituting the "inner institutional system" which stands in relation to "outer institution" that produced the seminars. Analysis of events has to consider relations between inner and outer institutions. These dimensions are accessible to experience as elements of the seminar situation, have to be analyzed and conveyed by feedback to everybody concerned. This structural analysis as part of the sociopsychological process leads to new modalities for the practice of seminars, i.e., to 2 stages. In Stage 1, there are 2 supplementary groups: (a) the T-group learning group dynamics, and (b) the total group engaging in structural analysis. In Stage 2, participants take totality of the educational organization in their own hands; as a "committee" they become organizers for training. This is designated as a seminar for "autoformation."—M. J. Stanford.

8962. Lewis, Gordon H. (Carnegie-Mellon U., School of Urban & Public Affairs) **Bales' Monte Carlo model of small group discussions.** *Sociometry*, 1970(Mar), Vol. 33(1), 20-36.—Simulated R. F. Bales' Monte Carlo model of group discussions and compared this to data from actual discussions. 5 simulated 5-man groups and 28 real 5-man groups were studied. Comparison shows that the model is inadequate in its attempt to represent the process of act initiation. A fundamental deficiency of the model is considered to be its requirement that the reaction probabilities be equal for all members of a group. (16 ref.) *Journal abstract.*

8963. Reid, David W., & Ware, Edward E. (U. Waterloo, Ontario, Canada) **A factorial study of judgments of vocally expressed emotion and meaning.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 161-162.—Studied the vocal expression of 10 different emotions in content-free speech by 5 encoders to 20 decoders. 3 significant main effects and 2 significant interactions between emotions and encoders, and emotions and decoders were found. No significant relationships were found between S's ratings of the emotions on 12 semantic differential scales and any of the 5 statistically significant effects. *Author abstract.*

8964. Schlenker, Barry R., Bonoma, Thomas; Tedeschi, James T., & Pivnick, William P. (State U. New York, Albany) **Compliance to threats as a function of the wording of the threat and the exploitativeness of the threatener.** *Sociometry*, 1970(Dec), Vol. 33(4), 394-408.—Varied accommodative or exploitative strategies of a simulated source of threats and compellant or deterrent wordings of the threat in a $2 \times 2 \times 2$ orthogonal design. 20 male and 20 female undergraduates participated in a message-modified version of the Prisoner's Dilemma game. Results indicate that when a threatening simulated source was accommodative following the sending of a threat, the target was more compliant to the threat and informed the source of his intention to comply more frequently than when the source employed an exploitative strategy. Results are interpreted in terms of the signaling capacities of threats when followed by subsequent beneficent behavior of the source. Compellant wording of a threat was found to (a) heighten the perception of a hostile and exploitative source, (b) increase compliance to threats, and (c) cause the target to try to deceive the source with statements of intention. Overall, females were more cooperative than

males but in the compellant-exploitative condition they were much less cooperative. (28 ref.)—*Journal abstract.*

8965. Stephenson, Geoffrey M., & Fielding, Geoffrey T. (U. Nottingham, England) **An experimental study of the contagion of leaving behavior in small gatherings.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 81-91.—It is suggested that certain examples of "behavioral contagion" can be interpreted in terms of C. Homans' theory of distributive justice. The action of an initiator may give him an advantage over the other members of the group. Behavioral contagion occurs when the remaining group members seek to nullify the initiator's advantage by following him. Experiments are described which demonstrate behavioral contagion and test the theory in relation to the act of leaving a small coacting group. Deprived groups contagied more than equitably treated groups, and privileged groups contagied least of all, compared with deprived, equity, and privileged control groups of Ss who worked in isolation.—*Author abstract.*

8966. Waldman, David M. (U. South Carolina) **Exposure to a nonaggressive model, similarly to the model, and level of prior anger arousal as determinants of adult aggressive behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5520.

Social Perception & Motivation

8967. Barnhart, Sara A. (Northwestern U.) **The effects of the locus of an ideal behavioral model and video-tape self-confrontation upon self-concept and group behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5552.

8968. Boyanowsky, Ehor O. (U. Wisconsin) **Ingroup norms, retaliatory threat and self-identity as determinants of discriminatory behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6156.

8969. Briscoe, May E. (U. Florida) **Attribution of responsibility and assignment of sanctions for violations of positive and negative norms.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6156.

8970. Donnerstein, Edward & Donnerstein, Marcia. (Northern Illinois U.) **Variables affecting black aggression.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 157-158.—24 black high school students administered electric shock to either a white or black confederate under anonymous or nonanonymous conditions. After the administration of shock, Ss indicated the level of shock they would expect from the target. No significant sources of variance were obtained for delivered shock, however, Ss anticipated more shock from a black target.—*Author abstract.*

8971. Goldstein, Jeffrey H., & Arms, Robert L. (Temple U.) **Effects of observing athletic contests on hostility.** *Sociometry*, 1971(Mar), Vol. 34(1), 83-90.—Assessed hostility among 150 male spectators before or after a college football game to determine the effects of witnessing a competitive and aggressive sport on O's tendencies to aggress. As a control, 81 male spectators were also interviewed before or after a competitive though nonaggressive sport (a college gymnastics meet). Results indicate that hostility increased significantly after observing the football game, and this increase in hostility did not interact with Ss' preferred outcome of the game. No such increase in hostility was found for those observing a gymnastics meet. Findings are dis-

cussed in terms of various theoretical approaches to aggression. (19 ref.)—*Journal abstract.*

8972. Halpin, Stanley M. (Purdue U.) **Complex social comparison.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5518.

8973. Houchins, Wayne L. (U. Alabama) **An investigation of the relative importance of race and of shared belief in social choice.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5200-5201.

8974. House, William C. (Indiana U.) **Effects of the perceived origins of a personality characteristic on the degree of perceived change of the characteristic.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5625-5626.

8975. Kaplan, Martin F. (Northern Illinois U.) **Context effects in impression formation: The weighted average versus the meaning-change formulation.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 92-99.—Conducted 2 experiments with a total of 136 undergraduates in which Ss formed impressions of persons described by sets of personality-trait adjectives, and then rated the likeableness of 1 test trait in the set. Test-trait ratings were shifted toward the values of the other traits in the set. This context effect was the same for traits high and low in connotative variability, as predicted by the weighted average model, but contrary to a change-in-meaning hypothesis. Trait credibility and extremity of person-impression ratings directly influenced the magnitude of the context effect in agreement with the weighted average model.—*Journal abstract.*

8976. Koulack, David. (U. Manitoba, Winnipeg, Canada) **Level of aspiration: A function of group scores, sample questions, and anchor distance.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 155-156.—2 studies dealing with the effects of different types of anchors on the level of aspiration were carried out. In Study I (N = 150 undergraduates), it was demonstrated that sample-question difficulty as well as bogus group anchor points play a role in determining the level of aspiration. Study II (N = 61 undergraduates) examined the effect of changing the upper limit of possible scores on the level of aspiration. It was found that increasing the ceiling permitted judgments exceeding bogus group scores.—*Author abstract.*

8977. Lowe, Charles A. (Carnegie-Mellon U.) **Flattery versus honesty: The effects of involvement on attributions of an evaluator's intent, ability, and likability.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5519.

8978. Miller, Arthur G. (Miami U.) **Social perception of internal-external control.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 103-109. 420 male and 324 female undergraduates were given photographs, previously scaled as being high, moderate, or low in physical attractiveness, and were instructed to fill out Rotter's Internal-External Locus of Control (I-E) Scale as they thought the person in the photograph would. Persons low in attractiveness were perceived as more external in I-E control than persons either high or moderately attractive, there being no difference between the latter. Males perceived females as significantly more external than males, although female Ss did not make this distinction. Results demonstrate the relevance of I-E in interpersonal perception, and in particular the cue value of physical attractiveness in evoking varying perceptions of I-E in a 1st impression setting. (24 ref.)—*Journal abstract.*

8979. Moore, James C. & Krupat, Edward. (York U.,

Toronto, Ontario, Canada) **Relationships between source status, authoritarianism, and conformity in a social influence setting.** *Sociometry*, 1971(Mar), Vol. 34(1), 122-134.—Experimentally confronted 45 male undergraduates, who varied in level of authoritarianism, with disagreements from a "high" or "low" status source on an ambiguous perceptual task. It was found that low authoritarians conformed greatly to the high status source and very little to the low status source while high authoritarians were not differentially susceptible to the 2 sources. The behavior of high authoritarian Ss did not vary as a function of self-esteem, while low authoritarians demonstrated a strong negative relationship between self-esteem and conformity. Results are interpreted as supportive of W. McGuire's analysis of the relationship between authoritarianism and influenceability. It is suggested that in the typical social influence experiment it is important to view the S as an active source rather than simply a passive recipient of information. (29 ref.)—*Journal abstract.*

8980. Porter, Euan; Argyle, Michael, & Salter, Veronica. (Oxford U., Inst. of Experimental Psychology, England) **What is signalled by proximity?** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 39-42. Attempted to determine how proximity is perceived as a cue in dyadic interaction with 54 15-17 yr old boys Ss held conversations with 3 confederates at distances of 2 ft, 4 ft, and 8 ft, and completed 21 7-point rating scales. Proximity did not account for any significant amount of variance in any scale. Confederates were perceived differently after interviews than after informal conversations. Ss did not give more favorable ratings to confederates who sat nearer their own preferred proximity, as determined by the method of limits. It is concluded that while proximity has certain clear determinants, e.g., liking and emotional adjustment, these are not reflected in the way proximity is perceived. *Journal abstract.*

8981. Reisman, Stephen R. (U. North Carolina, Chapel Hill) **An expansion of Heider's theory of attribution processes and its relation to responsibility.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6162.

8982. Rosnow, Ralph L., Wainer, Howard, & Arms, Robert L. (Temple U.) **Personality and group impression formation as a function of the amount of overlap in evaluative meaning of the stimulus elements.** *Sociometry*, 1970(Dec), Vol. 33(4), 472-484.—Tested the hypothesis implicit in S. Feldman's set-theoretic model of impression formation that averaging is prepotent when the elements in a stimulus manifold are independent, whereas summation predominates when elements have overlapping meaning. 72 male and 35 female undergraduates made comparative judgments of pairs of individual men or women and of groups of men or women described by sets of correlated or uncorrelated personality trait adjectives. Contrary to Feldman's prediction but consistent with an alternative hypothesis implied by D. Dustin and P. Baldwin (see PA Vol. 40:669), there was increasing evidence of the differential effectiveness of adding as the amount of overlap in meaning of the stimulus elements decreased. No differences in the mode of stimulus integration were attributable to sex differences or personality vs. group impressions. (31 ref.)—*Journal abstract.*

8983. Rule, Brendan G., Haley, Hugh, & McCormack, James. (U. Alberta, Edmonton, Canada) **Anti-Semitism, distraction and physical aggression.** *Canadian Jour-*

Journal of Behavioural Science, 1971(Apr), Vol. 3(2), 174-182. — Examined the aggressive responses of persons who varied in level of anti-Semitism and who were either distracted or not distracted from an insulter. 34 male undergraduates, chosen as Ss through a questionnaire which included the 10-item Anti-Semitism Scale and the 28-item California F Scale, participated in a paired associate learning task in which their performance was determined by a tape recorded series of disparaging remarks presumably given by their peer. Following this critical Ss either relaxed under conditions where voice and movement cues from their insulter were heard, or Ss observed a film designed to distract them from their insulter. The critical Ss were then requested to teach their peer a paired associate list under conditions in which they administered shock to their partner. Results of the $3 \times 2 \times 3$ repeated measures analysis of variance with 3 levels of anti-Semitism, 2 distraction conditions, and 3 levels of shock delivered to the peer. Ss tended to rate themselves as less annoyed and less anxious under distraction conditions. Ss varying in anti-Semitism did not differ in the amount of shock delivered to their partner. The situational demands may have been powerful enough to override the effects of personality differences. 2 interpretations are offered for the finding that the highly prejudiced Ss perceived the shock delivered to their peer as more painful than the less prejudiced Ss: (a) the possibility that this difference reflected the highly prejudiced Ss' lower guilt level for aggressing, and (b) the possibility that the highly prejudiced Ss used different mechanisms to reduce the discomfort engendered by harming another person than those used by their less prejudiced peers. (French summary) (25 ref.)—*Journal abstract*

8984. Sheikh, Anees A. & Miller, Patrick A. (Marquette U.) **Investigation of some variables influencing stereotypy in interpersonal perception.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 213-216. — 3 groups of 26 white Ss each (8th graders, high school seniors, and undergraduate university students) were tested in 2 sessions: (a) they rated 2 black and 2 white individuals, after listening to their interviews and seeing their photographs, on 6 evaluative and 6 nonevaluative semantic differential scales, and (b) 1 wk later they rated "blacks in general" and "whites in general" on the same scales. Results indicate that stereotypy in interpersonal perception did not differ as a function of age. The stereotypy was greater on the evaluative than on the nonevaluative dimensions, and this was more so for the white interviewees than for the black interviewees. —*Author abstract*

8985. Tiberi, Emilio & Maderna, Alessandro M. **Ricerca sugli effetti di un premio in denaro che precede un comportamento di scelta competitiva.** [Research on the effects of a money prize which precedes an action of competitive choice.] *Bollettino di Psicologia Applicata*, 1968, No. 85-87, 3-24. — Studied 2 possible behaviors in competitive situations: (a) the behavior of the person who profits from a privileged condition in terms of wealth and social status, and (b) the behavior of the person who finds himself in the opposite position. 40 Ss were divided into 2 groups. B was the group which was given the advantage and A was at a disadvantage. The inequality was created by means of a money prize given to B in 2 different instances arbitrarily, and as an

earned prize in a test given in the presence of 4 competitors who were incorporated in which no prize was given. It is concluded that (a) B was more competitive than A in the situation where the money prize was earned, (b) A was more competitive than B in the situation where the money prize was arbitrary, and (c) the difference in the competition was equalized.

8986. Wyer, Robert S. (U. Illinois). **The prediction of the evaluation of social role occupants as a function of the favorableness, relevance and probability associated with attributes of these occupants.** *Sociometric Psychology*, Vol. 3(4), 79-96. — Investigated the evaluation of persons occupying various social roles as a function of 3 variables: (a) the subjective probability of the role occupant being evaluated possesses various personal attributes, (b) the favorableness of the attributes, and (c) their relevance to the evaluation of the role. Each variable was defined on the basis of "university students" ratings along a category scale. A partial extension of M. Fishbein's (see PA 68-1076) formulation was used in generating estimates of the favorableness of a role occupant in the absence of specific information about him, and the effects of specific information about the occupant along specific trait dimension. The value of considering the variables in predicting the magnitude of evaluation was demonstrated. *Journal abstract*

COMMUNICATION

8987. Akhmanova, O.S. (Ed.) **Voprosy optimizatsii testestvennykh kommunikativnykh sistem.** [Optimization of natural communicative systems.] Moscow: SSR, Moscow U., 1971. 1 R. 40 K. — Discusses optimization of human communications with the aid of natural language. Changes in language should be carefully deliberated and rules should be simplified. An urgent problem of modern linguistic theory and of theory of communications. General problems of semantics are presented, and characteristics of people's communicative behavior are described. — J. Haller

8988. Cooper, Robert D. (Kent State U.) **A conceptual model and semantic differential technique for semantic communications research.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5195-5195.

8989. DeVito, Joseph A. (Herbert H. Lehman Coll., City U. New York). **Communication: Concepts and processes.** Englewood Cliffs, N.J.: Prentice-Hall, 1970. viii, 231 p. \$8.50 (cloth), \$4.95 (paper).

8990. Dropsy, Jacques & Sheleen, Laura. **Expression corporelle et relations humaines.** [Bodily expression and human relations.] *Bulletin de Psychologie*, 1969-70, Vol. 23(13-16), 750-757. — Discusses the importance of the body and mind being jointly used in communication. Some Oriental conceptualizations of man as a unit are reviewed. Also, presented is the evolution of the author's method of educating toward integration of consciousness of the body in our relations with reality. — J. E. Smith

8991. Greenberg, Bradley S., Dervin, Brenda, Dominick, Joseph R., & Bowes, John. **Use of the mass media by the urban poor: Findings of three research projects, with an annotated bibliography.** New York, N.Y.: Praeger, 1970. xvi, 251 p. \$13.50.

8992. Kolbanovskii, V. N. & Sherkovin, Yu. A.

Problemy sotsial'noi psikhologii i propagandy. [Problems in social psychology and propaganda.] USSR: Politizdat, 1971. 73 K.

8993. **Rubio Dominguez, Jose R. El "rock": Lenguaje de una nueva cultura.** [The "rock": Language of a new culture.] *Revista del Instituto de la Juventud*, 1970(Dec), Vol. 32, 57-84.—Studied rock music in records and festivals. Rebellion and skepticism as reflected in the music of the Beatles are examined. The Rolling Stones' Mick Jagger is considered to be an agitator of masses, sex symbol, and "a great and alarming spectacle." The record is the principal vehicle of expression. The rock record is compared to records of symphonic music and jazz. Bob Dylan's influence is evaluated as "the brain conductor of the new music." The rock style and music festivals are a part of the culture of the young communes, university and intellectual circles, racial minorities, and the artistic vanguard. Rock controls and directs itself. "The human element is now a product of the rock, but not vice versa."—A. M. Farfaglia.

8994. **Sechrest, Lee & Olson, A. Kenneth.** (Northwestern U.) **Graffiti in four types of institutions of higher education.** *Journal of Sex Research*, 1971(Feb), Vol. 7(1), 62-71.—Male toilet wall inscriptions were studied in trade schools, junior colleges, 4-yr colleges, and professional schools. Trade schools had more inscriptions per stall; heterosexual inscriptions had their highest frequency in the trade schools and junior colleges, and the lowest frequency in the 4-yr and professional schools; and hostile comments were more frequent in the trade schools and junior colleges. The inscriptions reflected the directions of preoccupation and interest of the groups involved, and the results were consistent with differences expected on the basis of socioeconomic status.—E. B. Jaffa.

8995. **Spatro, Enzo.** **The role of mass communication in development process.** *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 227-239.—Discusses mass communication in terms of information, theory concepts, economic concepts, and payoffs.—L. L'Abate.

8996. **Weiss, Walter.** (Hunter Coll., City U. New York) **Mass communication.** *Annual Review of Psychology*, 1971, Vol. 22, 309-336.—Reviews literature within a 3-yr period beginning in January 1967 which indicates that "at this time the area of mass communications lacks conceptual coherence and comprises diverse research interests." Discussions include (a) the information function, (b) uses and gratifications of the media, (c) Negroes and the media, (d) violence and the media, (e) diffusion and national development, and (f) political campaigns. (180 ref.)—P. Hertzberg.

Language

8997. ———. **Novoe v lingvistike: VI. Yazykovye kontakty.** [New in linguistics: VI. Language contacts.] USSR: Progress, 1970. 1 R. 90 K.—Analyzes methods used when studying language contacts including sociological aspects of contacts, new methods (also statistical ones), descriptions of various situations, e.g., the bilingual, and recent psycholinguistic investigations of the interference process in bilingualism. Language changes during the process of contacts are described, e.g., the phenomena of borrowing the phonological,

morphological, and syntactical changes of speech structure.—I. Halev.

8998. **Barron, Nancy M.** (U. Missouri) **Grammatical case and sex role: Language differences in interaction.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6155.

8999. **Bourque, Linda B. & Back, Kurt W.** (California State Coll., Los Angeles) **Language, society and subjective experience.** *Sociometry*, 1971(Mar), Vol. 34(1), 1-21.—Considers that the availability of language codes determines the individual's ability and willingness to describe feeling states. Reports of transcendental experiences, for which 2 language codes, religious-mystical and aesthetic, are available in United States' society, were studied. A weighted sample of 3,218 cases based on 1,553 interviews was taken from data collected through a national survey organization. Ss were asked a series of 10 questions on whether they had had a transcendental experience, what had caused it, how frequently they had had such experiences, and whether the experience had affected their lives in any way. Data give tentative confirmation to the hypothesis that the kind of feeling state does not depend on the nature of the experience, but on the person's position in the social structure. (29 ref.)—*Journal abstract.*

9000. **Cummings, Herbert W.** (Michigan State U.) **Specified cognitive structures and their effects on language encoding behaviors.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6157.

9001. **Evers, Karl H.** (U. Minnesota) **The effects of bilingualism on the recall of words presented orally.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5197.

9002. **Frumkina, R. M.** **Veroyatnost' elementov teksta i rechevoe povedenie.** [Probability of the text elements and speech behavior.] USSR: Nauka, 1971. 65 K.

9003. **Gioriti, Giuseppe.** **Effetti di contesto sulle qualità espressive di serie di immagini.** [Context effects in the expressive quality of a series of images.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 329-376.—Reviews physiognomic experiences from the basis of their identification, fundamental dimensions, contextual qualities, and level of adaptation. Using a rating scale based on intensity, 2 series of adjectives were ranked according to positive or negative affectivity (91 ref.)—L. L'Abate.

9004. **Gioriti, Giuseppe & Dogana, Fernando.** **Uno studio in tema di simpolismo fonetico: L'espressione fonetica di dimensioni tattili.** [Study on phonetic symbolism: Phonetic expression of tactile dimensions.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 377-415.—Results support the 1914 Claparede and the 1916 English studies on the influence of phonetic qualities of a name and physiognomic or characterological traits of a person. (115 ref.)—L. L'Abate.

9005. **Gross, Albert E. & Lohman, Barry M.** (Rutgers State U.) **Attributes of German and English adjectives and nouns.** *Psychonomic Monograph Supplements*, 1970, Vol. 3(15), 243-248.—Reported values for selected attributes of 20 German nouns, 20 German adjectives, and a common English equivalent of each. 40 female undergraduates who were naive in German served as Ss. The attributes are produced meaningfulness, ratings of concreteness, familiarity, imagery, pronounceability, specificity; 4 descriptive constants of distributions of 1st

associations and of 2nd associations, and 3 estimates each of spoken and written frequencies of stimuli and of primacies of 1st and 2nd associations. Relationships among these attributes of words are described across Ss and for meaningfulness and rated attributes, for individual Ss. The relationships are compared with those obtained in other recent extensive assessments of attributes of verbal stimuli. (US ref.)—*Journal abstracts*

9008. Panfilov, V. Z. *Vzaimootnosheniye yazyka i myshleniya*. [Interrelationship of language and thought.] USSR Nauka, 1971. 1 R. 31 K. Examines the relation between the logical forms of thought and the grammatical structure of language. The principle of relative independence of the language was presented, and an original interpretation was given to the theory of sentences. A series of important problems in logic and grammar was investigated.—*J. Hulev*

9009. Perjak, Vid. *Semantičke zavisanosti među pojmovima*. [Semantic dependences between concepts.] *Psichologija*, 1969-1970 (Oct.), Vol. VI(1), 5-13. The network model of concepts shows the interdependence of concepts. In 2 experiments, the following is verified: (a) dependence of internal ties between concepts (i.e., ties between concepts within the conceptual category) on the external ties (i.e., ties between concepts which belong to different conceptual categories) and (b) dependence of external ties between concepts. Generally, results confirm both dependencies which stem from the model. However, in certain cases, there are deviations from the predicted trends. (Russian summary)—*English summary*

9010. Russ, Kenneth L. (U. Pittsburgh). *Prediction of language behavior as a function of induced anxiety in subjects and judges*. *Dissertation Abstracts International*, 1971 (Mar), Vol. 10(9-B), 5639-5640.

9011. Shriberg, Lawrence D. (U. Kansas Medical Center, Kansas City). *Phonetic symbolism in four voiceless fricatives*. *Perceptual & Motor Skills*, 1970 (Feb), Vol. 30(1), 295-299. 48 college students rated 4 voiceless fricatives /f, s, sh, and th/ on 12 bipolar scales of a semantic differential. Analysis of variance revealed significant main effects and significant interaction effects for Sound × Dimension ($p < .001$) and Sound × Scale ($p < .001$). The greater sensitivity of the presumed kinesthetic scales for some sounds suggests that both the scale and the articulatory characteristics of a sound may determine whether ratings reflect primarily denotative or connotative semantic systems.—*Journal abstract*

9012. Smith, Olin W. & Koutstaal, Cornelius W. (Bowling Green State U.). *Some correlates of language distance and their factor structure*. *Perceptual & Motor Skills*, 1970 (Feb), Vol. 30(1), 207-210. 4 studies have yielded 8 variables that are related to J. H. Greenberg and J. J. Jenkins' concept of language distance. These values for each of the 24 CCVCs of Greenberg and Jenkins' List I were correlated. The correlations were subjected to a principal components analysis with a varimax rotation. 3 factors that account for 96% of the variance are reported: (a) the perception and production of speech sounds, (b) language distance, and (c) the effort involved in pronouncing sounds subvocally.—*Journal abstract*

9013. Taylor, Insup. (York U., Toronto, Ontario, Canada). *How are words from two languages organized in bilinguals' memory?* *Canadian Journal of Psychology*, 1971 (Jun), Vol. 25(3), 228-240. 30 English-speaking undergraduates, skilled in French, gave con-

tinuous word associations to equal numbers of French and English key words. The 1st response could be in either language. Thereafter, in 1 experimental condition, Ss could switch languages at will. In the other conditions, Ss were instructed to switch language each time. Rapid switching produced fewer, as compared to slower, free switching resulted in as good performance as unilingual association, perhaps because Ss chose to switch at their natural word organization boundaries. The free switching condition revealed that the probability of switching out of either language was lower than the probability of remaining in the current language, indicating stronger intra- than interlanguage associations. (Summary of French summary)—*Journal abstracts*

9014. Upadhyay, S. N. (Ravishankar U. Raipur, India). *Order of presentation as a factor in the speed of free associative responses*. *Indian Psychology Review*, 1970 (Jan), Vol. 6(2), 88-91. Studied the speed of free associations to 4 types of 20 words each: a frequently used and less frequently used, emotionally charged and uncharged syllables, as a function of the order of presentation using a 4 (List) × 4 (Order) Latin square design. 48 postgraduate boys and girls were divided into 4 groups and were given 1 min to associate freely to as many items in the list as they could. Analysis of results using analysis of variance showed that the items presented first were less frequently responded to in terms of free associative responses. Less frequently used words and uncharged syllables were less promptly associated compared to frequently used and emotionally charged words. The List × Order interaction was not significant.—*K. C. Pandita*

Psycholinguistics

9015. ———. *Semanticheskaya struktura slova*. *Psicholingvistiicheskie issledovaniya*. [The semantic word structure. Psycholinguistic investigations.] USSR Nauka, 1971. 70 K. Considers the problem of the meaningful structure of words. New theoretical principles are presented and a series of new experimental methods for the analysis of meaning are described.

9016. Cromer, Richard F. (Medical Research Council, Developmental Psychology Research Unit, London, England). *In defence of the empirical method: A reply to Broadbent concerning psycholinguistics*. *Bulletin of the British Psychological Society*, 1970 (Oct), Vol. 23(3), 271-279. This article constitutes a rejoinder to an earlier article by D. E. Broadbent who is described as having chosen "the field of psycholinguistics to vent his attack on those he feels to be unempirical." The author admits that many heated arguments have arisen between those who have offered theories that the human mind is innately endowed in some way to acquire language, and those who cannot countenance such notions. Broadbent's views are discussed as well as some of the ongoing studies of language acquisition, after which it is stated that "it is simply untrue to claim that the transformational account of language acquisition plays down the importance of the empirical method."—*J. S. Sexton*

9017. Fillenbaum, Samuel. (U. North Carolina). *Psycholinguistics*. *Annual Review of Psychology*, 1971, Vol. 22, 251-308. Reviews work in psycholinguistics from 1965-1969. The historical background is presented and the relation between linguistic and psychological

formulations discussed. Highlights include (a) biological foundations and the problem of universals (the nativistic thesis and language universals); (b) language acquisition (methodological issues, theoretical perspectives, and semantic and syntactic development); and (c) experimental psycholinguistics (speech perception and phonology, syntax, semantics, the analysis of word meaning, processing strategies, uses of language, and processing in real time). (209 ref.)—*P. Hertzberg*.

9016. Hörmann, Hans. (Ruhr U., Bochum, W. Germany) **Psycholinguistics: An introduction to research and theory**. Trans. H. H. Stern. New York, N.Y.: Springer-Verlag, 1970. xii, 377 p.

AESTHETICS

9017. Barrett, S. Barre. (U. Kansas) **A study of the interrelationship and influence of scholastic aptitude and perception upon aesthetic sensitivity in college students**. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5835.

SMOKING & DRUG & ALCOHOL USE

9018. Baer, Daniel J. & Katkin, Joseph M. (Boston Coll.) **Limitation of smoking by sons and daughters who smoke and smoking behavior of parents**. *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 293-296.—408 17 23 yr. old smokers were asked questions related to their own beliefs about smoking and the smoking behavior of their parents. Sons were less likely to believe they smoked too much if only their father smoked while daughters were less likely to do so if only their mother smoked. The contrast of only 1 parent smoking seems a more important factor for offspring than when both or neither parents smoke.—*Author abstract*.

9019. Berger, Emanuel M. (U. Minnesota) **MMPI item differences between smoker and nonsmoker college freshmen males**. *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 446.—Presents an item analysis of scores on the MMPI for 81 smoker and 59 nonsmoker undergraduates, cross-validated with 60 smokers and 40 nonsmokers. 10 items were found that significantly distinguished the groups, while an additional 36 items were suggestively discriminating. Results indicate that nonsmokers (a) generally showed greater aversion to social and other kinds of excitement, (b) indicated more worry about their health, (c) admitted to a lack of confidence. Smokers revealed a preference for excitement and admitted to behavior conflicting with authority or social mores.—*S. Knapp*.

9020. Hager, David L. (Michigan State U.) **Adolescent drug use in middle America: Social-psychological correlates**. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6158.

9021. Lynch, William J. (U. Tennessee) **The performance of LSD users on certain neuropsychological tests**. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5630-5631.

9022. Reiter, Henry H. (C. W. Post Coll., Long Island U.) **Some EPPS differences between smokers and non-smokers**. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 253-254.—Reports that 30 smokers and 30 nonsmokers differ significantly on the EPPS in change (Chg), nurturance (Nur), exhibition (Exh), and deference (Def). Smokers scored higher in Chg and Exh while

nonsmokers were higher in Nur and Def. The differences supported previous findings regarding less social responsibility among smokers.—*Journal abstract*.

PERSONALITY

9023. Cammer, Leonard. (110 E. 82nd St., New York, N.Y.) **Personality: A biologic system**. *Conditional Reflex*, 1971(Jan), Vol. 6(1), 52-61.—The personality of man is a biologic system structured on the individual's genetic and anatomic-physiologic potentials for species-specific adaptations. The system also projects him into a social and physical environment. His relationship with this environment is as integral to his being as the unity of his organ parts are to the function of his body. His personality is the end product of all the processes inherent in this biosocial interaction. It is the final statement of his biologic presence on this planet.—*Journal summary*.

9024. Pease, Kenneth. (U. Manchester, England) **The myth of the moral personality**. *Papers in Psychology*, 1970(Apr), Vol. 4(1-2), 16-20. This essay starts with the premise that our judgment of others as moral or immoral is central to our view of them. It then asks why, if morality as a personality trait is so important, psychologists have not recognized it as such by intensive investigation. Examining the history of the study of morality, it is concluded that the reason for disillusionment is the fact that morality is not a useful concept for the psychologist. The only thing that moral behaviors "have in common is the attribution to them of the words good, bad, right or wrong by those who look on." It is pointed out that there is not a personality trait on which defines that a person will act morally in all situations. Morality is, then, a blanket term useless for the scientific analysis of personality. 2 strategies which may be fruitful in the continued study of morality by psychologists are described. (27 ref.)—*S. I. Warren*.

9025. Rosenberg, E. H. (Tel-Aviv U. Medical School, Israel) **A changing view of experience**. *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 117-124.—"A brief look at the implications of scalar usage, with Erikson as an example of this type of scale, suggests that normative concepts, concepts of good and bad, health and unhealth, are tautological, lack relevance to a criterion of mental health, and are unrealistic in accounting for change." A probabilistic and inter-actional network is discussed—a nondevelopmental construction free from deterministic mechanisms of causality.—*W. Vernon*.

9026. Sarason, Irwin G. & Smith, Ronald E. (U. Washington) **Personality**. *Annual Review of Psychology*, 1971, Vol. 22, 393-446. Reviews literature on personality with the view that "the science of personality revolves around the study of individual difference variables and behavioral predispositions which underlie trans-situational consistencies in behavior." In this light, the relevance of situational vs. dispositional variables to the study of behavior is considered. Attention is focused on work in (a) personality assessment (new scales, recent developments, construct validation approaches, birth order, and sex); (b) personality development (developmental trends, response to reinforcements, behavioral antecedents, and behavior acquisition); (c) personality and social behavior (altruistic behavior, interpersonal attraction, aggression, and cognitive dissonance); (d)

behavior therapy; and (e) interpersonal aspects of experiments. (317 ref.)—*P. Herzberg.*

PERSONALITY TRAITS & PROCESSES

9027. **Ancona, Leonardo & Pareyson, Rosetta.** (Catholic U. of the Sacred Heart, Milan, Italy) **Contributo allo studio della aggressione: La dinamica della obbedienza distruttiva.** [Contribution to the study of aggression: Dynamics of destructive obedience.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 70-99. The Italian replication and enlargement of S. Milgram's study on obedience and disobedience to authority, under conditions of actions against another person is related to Anna Freud's "identification with the aggressor," Fromm's "authoritarian conscience," and the Adorno, et al. "authoritarian personality."—*L. L'Abate.*

9028. **Bhushan, L. I.** (Bhagalpur U., India) **Personality factors and leadership preference.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 125-126.—Explored the relationships between certain personality factors and preference for authoritarian and democratic types of leadership. Ss were 400 male college students who came from middle- and lower-middle-class families. A 30-item Likert-type leadership preference scale (in Hindi), Hindi versions of California F Scale, A-S Reaction Study, Budner's scale of tolerance-intolerance of ambiguity, and the Eysenck Personality Inventory were used to measure the personality factors and leadership preferences. Results showed that preference for a democratic type of leadership is negatively related to authoritarianism, intolerance of ambiguity, and neuroticism, and is positively related to ascendance and extraversion. Organismic variables, i.e., age, education, and residential background, are not related to leadership preference.—*K. C. Panda.*

9029. **Block, Jack; Block, Jeanne; Siegelman, Ellen, & von der Lippe, Anna.** (U. California, Berkeley) **Optimal psychological adjustment: Response to Miller's and Bronfenbrenner's discussions.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 325-328.—Evaluates the interpretations and criticisms offered by D. Miller (see PA, Vol. 45:6296) and U. Bronfenbrenner (see PA, Vol. 45:4219) of an earlier article by E. Siegelman, J. Block, J. H. Block, and A. van der Lippe (see PA, Vol. 45:4232). Miller's view that clinical psychologists will not agree among themselves in defining optimal psychological functioning does not appear to be empirically supported. His interpretation of the findings in terms of social class and the bureaucratic-entrepreneurial distinction did not receive support when further analyses of the data were undertaken to test his views. While agreeing with Miller that psychologists should be aware of the social requisites of a culture and subculture in formulating their evaluations of character, it was further argued that the idea of cultural relativism unwittingly could operate to justify pathogenic, growth-limiting cultural arrangements. The Bronfenbrenner critique was judged not helpful.—*Journal abstract.*

9030. **Cattell, Raymond B.** (U. Illinois) **Estimating modulator indices and state liabilities.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 7-33.—Proposes an extension of the familiar factor analytic model which deals with traits to enable it to fit the psychological theory of modulation of behavior by ambient situations which change individuals' state levels and role involvements. More substance is given to this devel-

opment, defining more precisely the basic assumptions, the new concepts and setting out procedures for calculating new parameters. Most important among the latter are (a) the modulator values for each person in a situation, (b) the characteristic individual state level, and (c) the change in the group state level as a result of individual state changes. This model is also particularly development for integrating the traditional interest of psychometricists, centered on individual differences, with the tradition interests of experimentalists (researchers in learning and perception) centered on group changes in group means. It is suggested that this model brings to practical experimental work with concepts of mood, role, and the measurement of ambient-situational factors the precision characteristic of individual difference psychometry in a way not previously possible in this domain. (31 ref.)—*Journal abstract.*

9031. **Fletcher, Minos B.** (U. Tennessee) **A study of the relationship between aggression in the verbally reported content of dreams and some conceptually related measures of personality.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5620.

9032. **Kelly, Carol H.** (U. Colorado) **Stress, trait anxiety, and type of coping process.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5628.

9033. **Larsen, Knud S. & Schwendiman, Gun.** (Brigham Young U.) **Perceived aggression training as a predictor of two assessments of authoritarianism.** *Journal of Peace Research*, 1970, No. 1, 69-71. Investigated correlations between perceived aggression training practices, dogmatism, and chauvinistic nationalism. 157 male and 148 female 17-35 yr. old university students completed (a) a scale dealing with various forms of aggressive behavior as a child and the perceived reactions of the mother and father, (b) Levine's Internationalism-Nationalism Scale, and (c) Rokeach's Dogmatism Scale. Results indicate that perceived aggression training was significantly related to both dogmatism and chauvinism. No sex differences were found. Findings suggest that dogmatism and chauvinism are separate factors.—*S. Knapp.*

9034. **Lester, D. & Collett, L. J.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Fear of death and self-ideal discrepancy.** *Archives of the Foundation for Thanatology*, 1970, Vol. 2(3), 130.—Partial support was found for the hypothesis that those persons who perceive a large discrepancy between their real self and ideal self fear death more than those who perceive little discrepancy.—*Author abstract.*

9035. **MacDonald, A. P. & Hall, Janet.** (West Virginia U.) **Internal-external locus of control and perception of disability.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 338-343.—Collected ratings of the seriousness of various disabilities from 211 male and 200 female undergraduates. Ss rated the disabilities as they would affect "self" and "other" in their feelings about themselves and in their social relationships. As predicted, externally controlled Ss (as measured by the Rotter Internal-External Control Scale) rated physical disabilities as more debilitating than did the internally controlled. In contrast to externals, internals rated emotional disorders as being more debilitating relative to physical disabilities. Data are interpreted as adding to the construct validity of internal-external locus of control. Implications pertaining to reaction to disability are discussed.—*Journal abstract.*

9036. Moore, Dan W. (North Carolina State U.) **The influence of the structure of belief-disbelief systems on individual behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5088.

9037. Podd, Marvin H. (State U. New York, Buffalo) **The relationship between ego identity status and two measures of morality.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5634.

9038. Sharma, Sagar. (Government Coll. of Education, Chandigarh, India) **Self concept and adjustment.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 71-76.—Reviews research studies on self-concept along 2 dimensions: (a) positive-negative self-concept, and (b) perceived self- and ideal-self-discrepancies. Studies conducted on normal Ss report a linear relationship between self-concept and adjustment. A curvilinear relationship is reported between the 2 variables when Ss were neurotics, psychotics, alcoholics, etc. Some methodological deficiencies of the existing measures of self-concept are discussed and further research directions are suggested. (36 ref.)—K. C. Panda.

Behavior Correlates

9039. Ancona, Leonardo & Croce, Maria A. (Catholic U. of the Sacred Heart, Milan, Italy) **Dinamica psichica e dinamismo cinematografico.** [Psychic dynamics and cinematographic dynamism.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 1-19.—Emotional consequences of movies are longer lasting and more impactful than previously assumed. Individuals with depressive tendencies tend to prefer movies with themes of intimacy and slow action. Extroverts prefer exciting, action-packed movies. War movies or sadistic themes are preferred by individuals who seem to deny these feelings in themselves. Themes of power, despotism, and oppression may be preferred by individuals with authority conflicts.—L. L'Abate.

9040. Bhushan, Rajnish. (H. D. Jain Coll., Arrah, India) **Intolerance of ambiguity in conformists and nonconformists.** *Manas*, 1970(May), Vol. 17(1), 35-39.—Using Bernberg's Human Relations Inventory for measuring social conformity and Budner's 7-point Likert-type scale for assessing intolerance of ambiguity it was found that conformist males were more intolerant of ambiguity than the nonconformist males.—C. Mehrotra.

9041. Donahue, Daniel & Sattler, Jerome M. (Ohio U.) **Personality variables affecting WAIS scores.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 441.—Assigned 32 undergraduate Es and 32 undergraduate Ss to 1 of 4 groups based on their scores on a hostility and a dominance scale. Each E interviewed 1 S for 10 min., rated the S on warmth and likability, and scored 4 WAIS verbal subtests completed by the S. Each S also rated the E for warmth and likability. Results indicate that (a) nonhostile Es gave more credit to hostile-dominant Ss and to nonhostile-nondominant Ss than to nonhostile-dominant Ss, (b) E's liking of S and rating of S's warmth were significantly related to total scores, and (c) S's ratings of E's warmth and likability were not positively related to S's test scores. It is concluded that E bias was present.—S. Knapp.

9042. Kumari, Kiran. **Sensory-motor learning in high and low anxious male and female undergraduates.** *Manas*, 1970(May), Vol. 17(1), 29-34.—On the basis of scores on the MA scale 20 male and 20 female undergraduates were divided into high and low

anxious groups. They were then asked to perform a sensorimotor task using a mirror star-tracing device. 3 measures were obtained for performance on this task: time taken in sec. on each trial, number of errors made, and the number of trials taken to reach the criterion of 1 errorless trial. Low anxious females took more time in performing the task than high anxious females; a reverse pattern was seen for high and low anxious males. Results obtained on the other 2 criterion measures were in the same direction.—C. Mehrotra.

9043. Lindauer, Martin S. & Reukauf, Lynn C. (State University Coll. New York, Brockport) **Introversion-extraversion and figure-ground perception.** *International Personality & Social Psychology*, 1971(Jan), Vol. 1(6), 107-113.—Investigated the relationship between figure-ground perception and introversion-extraversion in 3 groups of 5 male and 15 female undergraduates each, selected on the basis of their scores on the Introversion-Extraversion scale of the Eysenck Personality Inventory. Results for 6 ambiguous patterns, measured in terms of the initial percept, its latency and duration, and the number of reversals fail to confirm either W. McDougall's or H. Eysenck's theories relating the 2 phenomena. Only the reversal rate, which was lowest for introverts, and high for both extroverts and introverts, indicates any link between the perceptual and personality dimensions. The nature of figure ground, especially with respect to personality and of introversion-extraversion with reference to perception is discussed. Although data suggest some relationship between the 2 perceptual variables, certain cautions are considered. It is suggested that additional clarification appears necessary prior to further investigation of the existence of an effect and its determinants. (33 ref.)—Journal abstract.

9044. O'Connor, Constance A. (U. Southern California) **A study of personality needs involved in the selection of specific leisure interest groups.** *Dissertation Abstracts International*, 1971(May), Vol. 31(1), A5585.

9045. Ojha, H. (Bhagalpur U. India) **An experimental study of prestige suggestion in female extraverts and introverts.** *Manas*, 1970(May), Vol. 17(1), 1-5.—Tested whether extraverted females are more suggestible than introverted females. The MPI was administered to 200 female undergraduates. 2 distinct groups were then formed on the basis of MPI scores. In Session I of the prestige suggestion experiment all Ss ranked 12 slogans of national importance. In Session II the Ss ranked the same 12 slogans but this time they were paired with the names of leaders. The pairing was done in a reversed order for each S. In the pairing Session I was linked up with the leader whom S had given a rank of 12. The mean prestige suggestion score of introverts was significantly higher than that of extraverts.—C. Mehrotra.

9046. Paulson, Michael D. (U. North Dakota) **Differential behavior on skill and chance tasks as a function of perceived locus of control.** *Dissertation Abstracts International*, 1971(May), Vol. 31(1), A5586.

9047. Pederson, Andrew M. (U. North Dakota) **Effects of test anxiety and coaching groups on learning and performance.** *Perceptual & Motor Skills*, 1971(Jun), Vol. 33(2), 62.—Explored the relationship between a personality variable and behavior in coaching groups of male undergraduates differing in test anxiety (high, middle,

low) were equally divided at random into 2 groups and given either a paired-associate learning task or 2 performance tasks (vowel cancellation and multiplication problems) under 1 of 2 conditions. The Ss worked in coaching groups of 4 Ss each while the remainder worked on the tasks alone. With the learning task, no significant differences were found between Ss who learned in groups and those who learned alone regardless of anxiety level. With the performance tasks, the group situation was detrimental for both the high- and middle-anxious Ss while facilitative for the low-anxious Ss on the vowel cancellation task; however, no significant effects were found on the multiplication task. —*Journal abstract.*

9048. Selvey, Carmel L. (Columbia U.) **Concerns about death in relation to sex, dependency, guilt about hostility, and feelings of powerlessness.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5641.

9049. Sinha, R. M. (Gaya Coll., Magadh U., India) **Perceptual judgements of dependence prone persons in presence and absence of external cues.** *Mamta*, 1970(May), Vol. 1(1), 41-47. —Dependent proneness taken independently does not influence the perception of either time or length of a line. However, it is effective in interaction with a contextual factor in influencing the extent of error on the Müller-Lyer illusion. Male college students scoring high on dependent proneness overestimated the standard. Ss with low scores on this variable were more sensitive to the contextual factor whereas high scorers were more easily influenced by their personality disposition. —C. Mehrotra.

9050. Smith, Ronald F. & Flenning, Frank. (U. Washington) **Need for approval and susceptibility to unintended social influence.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 383-385. —Investigated the relationship between Ss' need for approval and their susceptibility to the subtle unintended influence of biased Eas. 48 female undergraduates divided into high- and low-need-for-approval groups (on the basis of their Marlowe-Crowne Social Desirability scale scores) were tested by 6 male Eas. It was suggested that prior failures to find such a relationship were due to the absence during the programmed pretask interaction of L and S of cues which would be likely to arouse Ss' approval motivation and thereby make him more susceptible to E's influence. A single sentence designed to arouse Ss' motivation was thus inserted into the standard pretask instructions. Under these conditions, Ss high in need for approval demonstrated a significant susceptibility to E's expectancy effects, while low-approval-motivation Ss did not. —*Journal abstract.*

9051. Sieln, Steven H. (Veterans Administration Hosp., Brooklyn, N.Y.) **Arousal level in repressors and sensitizers as a function of response context.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 386-394. —Gave 30 male and 30 female undergraduate repressors and sensitizers "noncontextual" and "contextual" tasks, with GSR as a measure of arousal. In the contextual situation, Ss were aware that they would be required to give free associations which might be self-revealing. In the noncontextual situation, Ss were not aware that they would eventually be required to form free associations. Results from the noncontextual task show that repressors had lower arousal levels than sensitizers during perception and verbal report, but higher during free association. Findings were reversed in

the contextual condition. Analogies were drawn to the behavior of repressors (hysterics) and sensitizers (obsessives) in psychoanalysis: repressors are more easily induced by the free association condition, whereas sensitizers are able to use free association to diminish emotional reactivity. —*Journal abstract.*

9052. Williams, J. G. (U. Bath, School of Education) **Personality factors and the acquisition of swimming skill.** *Papers in Psychology*, 1970(Apr), Vol. 4(1-2), 10-12. —Investigated personality and motor fitness differences between groups of 100 swimmers and 100 nonswimmers, 12 yr. of age. Swimmers scored significantly higher on measures of extroversion and slightly higher in stability (using the Junior Eysenck Personality Inventory). It is concluded that extroversion is an important variable associated with learning to swim and as such may rate as helpful information in the preparation of strategies for teaching the skill. —S. L. Warren.

9053. Williams, John L. (U. Waterloo, Ontario, Canada) **Personal space and its relation to extraversion-introversion.** *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 156-160. —Empirical, behavioral and questionnaire measures to test the hypothesis that extroverts would prefer to be physically closer to people with whom they were interacting than would introverts. Ss were 40 male extrovert and introvert undergraduates selected on the basis of either a high or low score on the Extraversion scale of the MMPI and a score close to the group mean on the Neuroticism scale. It was found that extroverts did not generally differ from introverts in their distance preferences but did consistently indicate that they could comfortably allow people to get closer to them than did introverts. (French summary). —*Journal abstract.*

INTELLIGENCE

9054. Bukvić, Aleksandar. **IQ granice za test Domino-48.** [IQ interval for Domino-48 Test.] *Psihologija*, 1969, 1970(Oct), Vol. 3(1), 127-128. —Administered the Domino-48 Test to a sample of 962 Yugoslavian college freshmen. The IQ norms thus established were, in all probability, more rigorous than the ones that would be arrived at for a more representative sample of this population. (Russian summary). —*English summary.*

9055. Dyer, Frederick N. (U.S. Army Medical Research Lab., Ft. Knox, Ky.) **A comparison of chromatic and achromatic versions of the Stroop Color-Word Test.** *Psychonomic Science*, 1971(Feb), Vol. 22(4), 235-237. —Administered the Stroop Color-Word Test to 25 chromatic versions of the Stroop Color-Word Test to 25 male 17-34 yr. old soldiers with visual acuity and color vision within normal limits. When the patches were rectangles, achromatic shades were named slightly faster than colors. With interference to naming from the use of incongruent names as stimuli, achromatic shades were named much faster than colors. Interference from incongruent names thus appears to amplify processing time differences and may prove useful for temporal analysis of the visual processing of hue, luminance, and saturation. Extensions of the Stroop test to other perceptual attributes should allow similar analyses of these attributes. —*Journal abstract.*

9056. Gold, Franklin J. (U. Nebraska) **Freedom of control, and experimental intelligence.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5159.

9057. Janković, Dženana. **Povezanost faktora introvertnost-ekstravertrnost i neurotičnost-emocionalna stabilnost sa uspehom ispitnika na subtestovima "Opšta informisanost" i "Shvatanje"** (Wechsler-Bellevue skala inteligencije, forma I). [Relationship between the factors of introversion-extraversion and neuroticism-emotional stability, and the Ss' performance on the Information and Comprehension subtests (Wechsler-Bellevue Intelligence Scale, Form I).] *Psihologija*, 1969-1970(Oct), Vol. 3(1), 95-102.—Using a sample of 118 female 1st- and 2nd-yr psychology students, 4 basic subsamples were formed based on results on the Eysenck Personality Inventory: (a) neurotic extroverts, (b) neurotic introverts, (c) emotionally stable extroverts, and (d) emotionally stable introverts. Ss responded individually to items which were contained in the Information and Comprehension subtests; prior to this, the groups had been equalized in respect to the mean IQ obtained by the Domino Test. By comparing the average performance of these subsamples on the subtests, the conclusion was that simultaneous effect of both of Eysenck's personality dimensions could influence the performance on an intelligence test. Qualitative analysis of responses, as well as the Ss' behavior in the test situation, also revealed differences between the different subsamples. Results substantiate the notion of the necessity of a systematic examination of the "nonintellectual" factors which enable their influence to be controlled when administering the general intelligence tests. (Russian summary)—*English summary*.

9058. Jensen, Arthur R. (U. California, Inst. of Human Learning, Berkeley) **The role of verbal mediation in mental development.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 39-70.—Various types of verbal and symbolic mediational processes which facilitate learning and comprise largely what is meant by "intelligence" are viewed in terms of both maturation and learning. Current research gaps and some directions for future research in this field are indicated. The practical importance of research on verbal mediation is that it suggests some of the processes by which instructional techniques might inculcate and train cognitive skills that facilitate learning and problem solving. (49 ref.)—*Author abstract*.

9059. Roche, Dermot. (New Ulster U., Coleraine, Ireland) **On the concurrent validity of the Goodenough-Harris Draw-A-Person Test.** *Papers in Psychology*, 1970(Apr), Vol. 4(1/2), 5-7.—The Goodenough-Harris Draw-A-Person Test and the Bender-Gestalt were administered to 113 7-9 yr. old 3rd graders (60 girls, 53 boys). Statistical analysis using Spearman's rank-order correlation techniques indicated a concurrent validity coefficient of .40 ($p < .001$). This result is of the order found in other concurrent validity studies of the test and found to indicate that the Goodenough-Harris shows reasonable concurrent and discriminant validity. The reasonable concurrent and discriminant validity. The latter concept asserts that a valid test should not only measure what it is supposed to measure, but also that it should not measure anything else. (17 ref.)—S. L. Warren.

9060. Thumin, Fred J. (U. Missouri, St. Louis) **The Mental Dexterity Test: A study of reliability and validity.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 163-166.—Ascertains the reliability and concurrent validity of a new omnibus mental ability test which has considerably more ceiling than most group intel-

ligence tests, and which is proposed for use either as a speed or power device, once the appropriate norms are established. When administered to 184 college students under untimed conditions, the Mental Dexterity Test was found to have a split-half reliability coefficient of .84 and a Kuder-Richardson 20 reliability coefficient of .85. Regarding validity, the test correlated significantly with grades assigned in the classes which participated in the study (.26) and also with cumulative GPA based on all courses taken at the university (.40).—*Journal abstract*.

9061. Thyssen, Sven. **Om muligheden for at konstruere diagnostiske intelligensprøver.** [Diagnostic tests of intelligence.] *Skolepsykologi*, 1970, Vol. 7(5), 350-358.—Presents a psychological outline as a basis for construction of diagnostic intelligence tests. Key concepts are motives, goals, and methods, with intellectual functions defined as arrays of ways to reach a goal. Intellectual aspects of behavior then must be described by exploring the personal world and ascertaining substantive relations.—*English summary*.

9062. Wessler, Richard L. (Parsons Coll.) **Estimating IQ: Expertise or examiner effect?** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 268.—Studied examiner (E) estimates of IQ by having 16 graduate students estimate the IQs they thought they would obtain from their Ss. Each examiner gave at least 5 WAIS or WISC tests and no more than 10 others for a total of 15 tests as part of an individual testing course. Data were analyzed separately for the 12 Es who gave the WAIS and the 4 who gave the WISC. Es tended to overestimate IQs and length of acquaintance with Ss was negatively correlated with accuracy of estimate. The need for a more extensive investigation of E differences in the administration and scoring of psychometric instruments is indicated.—P. Hertzberg.

9063. Williams, Robert L. (Washington 1) **Abuses and misuses in testing black children.** *Counseling Psychologist*, 1971, Vol. 2(3), 62-73.—Concerned with whether lower scores obtained by blacks are attributable to heredity or biased intelligence tests, the validity of ability tests as accurate measures of black intelligence is questioned. Tests have resulted in labeling black children falsely, leading to "dehumanization and Black intellectual genocide." The meaning of intelligence is found too diverse and poorly understood, and the definition of intelligence rests on problem solution and response to various questions. Tests can shape teaching in schools, for occasionally the test itself is taught. Accordingly, in order to improve the educational system, 1 strategy is to alter the tests' content, and to employ items relevant to the black experience. Black educational models for black children should be the task of black professionals. Although some individuals, e.g., Bennett, argue for the intellectual inferiority of blacks, the courts overrule their allegations. (22 ref.)—W. S. Sahakian.

CREATIVITY

9064. Bhan, Rajnath. (Kurukshetra U., India) **Social factors in creative potentiality.** *Manas*, 1970(May), Vol. 17(1), 21-27. High- and low-creative potential groups were formed by administering the Rorschach test to 66 graduate students. These 2 extreme groups were then interviewed to obtain data on social variables. None of the social factors were found to be significantly related to creative potential.—C. Mehrotra.

9065. Bloomberg, Morton. (Western Connecticut State Coll.) **Creativity as related to field independ-**

ence and mobility. *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 3-12.—Mobility (shift in developmental level) was assessed to clarify previous results on the relationship between field independence and creativity. Ss were 60 paid volunteer male undergraduates. A slim majority of creative Ss were field dependent. No significant effect of field independence or mobility or interaction effect was found for creativity, but mobility had a significant effect in an analysis of verbal intelligence. These findings were used as a basis for reexamining the roles of vertical and horizontal mobility. (30 ref.)—*Author abstract*

9066 Calvi, Gabriele. (Catholic U. of the Sacred Heart, Milan, Italy) **La natura e i limiti della creatività nevrotica.** [Nature and limits of neurotic creativity.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 685-702.—Kubie's theory of neurotic distortions on the creative process was applied to the case of an Italian painter A. Rotondi, who became progressively disorganized in his work. (25 ref.)—*L. I. Abate*

9067 Calvi, Gabriele. (Catholic U. of the Sacred Heart, Milan, Italy) **L'ideazione di un test (TAU) per la misura del potenziale mentale.** [Rationale for a test (TAU) for the measurement of mental potential.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 703-721.—Presents a self-administered test of creative potential assessing logical-formal and imaginative components. (14 ref.)—*L. I. Abate*

9068 Csikszentmihalyi, M. & Getzel, J. W. (U. Chicago) **Discovery-oriented behavior and the originality of creative products: A study with artists.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 47-52.—Examined the significance of the "problem-formulation" stage of creative activity. 31 advanced art students were observed in a quasi-naturalistic setting of an art school while carrying out an assignment to produce a still-life drawing. Observations of "discovery-oriented" behavior were recorded for each S from the organization of the objects until drawing completion. The finished art work was independently evaluated by an expert panel on 3 dimensions: (a) overall value, (b) originality, and (c) craftsmanship. A positive relationship was found between discovery-oriented behavior at the problem-formulation stage and the originality, but not the craftsmanship, of the creative product. Results affirm the theoretical and empirical importance of the problem-formulation stage of the creative process and suggest a method for observing and analyzing behavior at this stage. (22 ref.)—*Journal abstract*

9069 Hlavsa, Jaroslav. (Research Inst. for Administration & Automatization, Prague, Czechoslovakia) **Psychologické prostředky pro rozvoj kreativity.** [Psychological methods of creativity development.] *Psychologie v Ekonomické Praxi*, 1969, No. 2, 57-66.—Describes methods which stimulate various kinds of creativity and which represent purposeful cultivation of creative activity. The description is presented as instruction, and is psychologically explained and placed within the context of other psychological knowledge. Among the cultivation methods described are (a) management and economic games, (b) day dreaming, (c) new attitude creation, (d) drugs, and (e) hypnosis. Facilitation methods considered are (a) heuristic methods, (b) self-questioning, (c) problem analysis, and (d) "brainstorming." Applications of the various methods to fields of human work are discussed. (Russian & German summaries)—*English summary*

9070 Hlavsa, Jaroslav. (Research Inst. for Administration & Automatization, Prague, Czechoslovakia) **Určování a měření tvůrčích schopností.** [Identification and measurement of creative abilities.] *Psychologie v Ekonomické Praxi*, 1969, No. 3, 124-132.—Considers creativity as indispensable for success in many areas of human activity, e.g., technology, science, art, diplomacy, politics, industry, science, education, and management. Experimental and diagnostic methods to facilitate study of the creative structure process and the degree of development of creative abilities are reviewed. General directions for the selection of suitable means for creativity evaluations are presented. (Russian & German summaries) (15 ref.)—*English summary*

9071 Khatena, Joe. (Marshall U.) **Repeated presentation of stimuli and production of original responses.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 9-14.—An analysis of the responses of 50 junior and senior men and women in undergraduate educational psychology classes using alternate forms. Onomatopoeia and Images as tests of originality and of 27 graduate students in a seminar on creative behavior using Form I of Sounds and Images and Form II of Onomatopoeia and Images shows increasing originality with each repetition of the stimuli. The break away from perceptual set for the production of original responses seems to be effective in both instances and the results support the present mode of presentation of Onomatopoeia and Images and Sounds and Images. Results also support the idea that original thought requires considerable effort. (10 ref.)—*Journal abstract*

9072 Kvasčev, Radivoj. **Konformistička i nonkonformistička ličnost i stvaralaštvo.** [Relationship between the conformist and nonconformist personality and Creativity.] *Psichologija*, 1969-1970(Oct), Vol. 3(4), 45-61.—Presents theoretical considerations on conformity and nonconformity, their social implications, and the psychological mechanisms through which they are manifested. An analysis of the different methods of conformity measurement as a characteristic of the personality is also included. A wider research project is described which deals with different factors of creative thinking and with the possibilities of training in the field of creative thinking. Some preliminary results are reported. (Russian summary)—*English summary*

PERSONALITY MEASUREMENT

9073 Bernhardtson, Clemens S. & Fisher, Ronald J. (U. Saskatchewan, Saskatoon, Canada) **The relationship between personal desirability and endorsement with a forced-choice technique.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 63-73.—Reliability differences were found between the personal desirability ratings given by individual Ss to the 2 statements comprising the EPPS items. Ss were 82 undergraduates. Also the statement which the S had rated as the more desirable member of the pair tended to be endorsed. Measures of personal desirability based on all the items on each EPPS scale were found for each EPPS scale for each S. I consisted of the sum of difference scores obtained by subtracting the rating of the nonkeyed statement from the rating of the keyed statement. The other consisted of the number of items with the keyed statement rated more desirable than the nonkeyed statement. Both of these measures were positively related

to scores obtained on the scales. (16 ref.)—*Journal abstract.*

9074. Dayries, John L. & Grimm, Ronald L. (U. Montana) **Personality traits of women athletes as measured by the Edwards Personality Preference Schedule. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 229-230.**—Administered the EPPS to 21 women intercollegiate athletes and compared scores with those of a normative group of 749 college women. Results indicate that the women athletes were significantly different on 2 of the 15 variables measured by the EPPS, i.e., they scored significantly lower ($p = .05$) on order than the normative group and significantly higher ($p = .05$) on intracception.—*Journal abstract.*

9075. Eisenman, Russell & Huber, Herman. (Temple U.) **Creativity, insolence, and attractiveness of female experimenters. *Perceptual & Motor Skills*, 1970(Apr), Vol. 30(2), 515-520.**—In a study with 73 male and 70 female undergraduates, correlations were run between scores for (a) insolence and creativity, and (b) insolence and adventurousness. 2 different conditions were employed: an attractive female served as E, or E was a female chosen for her unattractiveness. The Insolence Scale and the Personal Opinion Survey were combined into 1 86-item test called the Personnel Test Battery and administered to the Ss. Significant correlations were obtained for both a and b among female Ss, but males showed a significant correlation between creativity and insolence only in the condition in which E was an attractive female. Females were significantly less insolent than males. Results have implications for creativity research and for the issue of artifacts in experimental research. (19 ref.)—*Journal abstract.*

9076. Howarth, Edgar & Browne, James A. (U. Alberta, Edmonton, Canada) **Investigation of personality factors in a Canadian context: I. Marker structure in personality questionnaire items. *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 161-173.**—Constructed a 100-item personality questionnaire by adapting 67 marker items from S. B. Sells, R. G. Demaree, and D. P. Will and 10 from Eysenck in order to see whether restructured items would reappear as factors in item factor analysis. The questionnaire was administered to 329 undergraduates and the data factor analyzed by principal axis and rotated by varimax. The following factors were identified: emotional stability, sociability, conscience, shyness, relaxed composure, impulsiveness, individual tolerance, considerateness, group tolerance, physical prowess, energy, trust vs. suspicion, group affiliation, rathymia, and paranoid sensitivity. The attempted replication was reasonably clear-cut, showing 44 out of 77 markers in an appropriate position and suitably marked by salients greater than .30. The implication is that certain widely used personality questionnaires, not based on item analysis of the most stringent kind but on prior item groupings, should be carefully reevaluated. Comparisons are drawn between the factors obtained in independent item-factoring and it is concluded that the method holds considerable promise for the replicable measurement of personality structure. (French summary) (15 ref.)—*Journal abstract.*

9077. Mikesell, Richard H. & Calhoun, Lawrence G. (U. Georgia) **Response set on the Zung Self-Rating Depression Scale. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 22.**—Assessed the effect of the order of items on total scores on the Zung Self-Rating Depression Scale (SDS), using 60 female high school

seniors, randomly assigned to 1 of 2 groups. Group I was administered the standard form of the SDS and Group II a form in which the 20 items were arranged in random order. No significant order effects were found. Since total scores did not appear to be influenced by the standard clustering of items according to symptom categories, the SDS appeared to be useful and reliable.—P. Hertzberg.

9078. Stanton, H. E. (Flinders U., School of Social Sciences, Bedford Park, South Australia) **The Taylor scale: A measure of chronic anxiety or of emotional reactivity? *Australian Journal of Psychology*, 1971(Apr), Vol. 23(1), 69-72.**—Administered the MA scale to 132 male and 108 female undergraduates and assigned them to high, moderate, and low anxiety groups on the basis of their scores. Members of each group were then randomly tested under stress or nonstress experimental conditions. Under both conditions Ss learned the order in which 14 colored geometric forms were presented to them. 5 trials were given. Results support the hypothesis that the MA scale is a measure of emotional reactivity, and not a measure of chronic anxiety as is often supposed.—*Journal abstract.*

Inventories

Projective Techniques

9079. Beck, Michael & Bart, Leonard. (St. John's U., Jamaica, N.Y.) **Inter-rater and test-retest reliability of a proportionality measure for the D-A-P. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 89-90.**—Describes satisfactory test-retest (.81) and interjudge (.91) reliabilities obtained on a measure of proportionality for male figure drawings. The Draw-A-Person Test was administered to 20 male and female undergraduates. Results suggest that, over a 2-mo period, the proportional accuracy of male human figure drawings for the above sample is quite stable and that 2 judges working independently can reliably score male figure drawings.—*Journal abstract.*

9080. Cull, John G. & Hardy, Richard F. (Virginia Commonwealth U.) **Concurrent validation information on the Machover Draw-A-Person Test. *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 211-215.**—Attempted to determine if it was possible to identify specific personality characteristics as indicated by a recognized personality inventory through the use of the Draw-A-Person Test. Ss were 69 male and 33 female school teachers. Results indicate that definite personality characteristics are identifiable through the use of the Machover Draw-A-Person Test. Results also indicate that certain priorities, procedures, and methods of response do significantly affect interpretive results. Since in all questions posed by the researchers were answered in the affirmative, it appears that this research substantially supports the contention that the Machover Draw-A-Person Test is an instrument of high concurrent validity.—*Author abstract.*

9081. Faidherbe, D., Choisel, G., & Bléder, J. **Le test de la main. [The Hand Test] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 582-589.**—Faced with the proliferation of projective tests there is a special value attached to those which are simple and easily administered that can be rapidly scored and interpreted. The Hand Test meets these requirements. Like the

Canada) **Psychological aspects of a sex chromatin abnormality.** *Canadian Psychologist*, 1971(Apr), Vol. 12(2), 270-281.—Compared 147 male special security patients with no demonstrated chromosome abnormality, and no evidence of brain damage or psychosis, with 2 groups of genetically abnormal male patients ($n = 32$) evincing an XXY or XYY chromosome pattern. All groups received a full-scale WAIS and an Eysenck Personality Inventory. XXY Ss were significantly lower in verbal and performance ability than Ss in the other 2 groups. They were also more defensive in answering a personality questionnaire, partly a function of their lower intelligence. Both genetically abnormal groups contained a higher proportion of Ss with significantly depressed verbal abilities than the control group, though the trend was similar for all 3 groups. Approximately 1% of both genetically abnormal groups had committed some form of sex crime. It is suggested that this might indicate a specific genetic-based lag in mental aspects of sexual maturation in addition to the already demonstrated general social instability. (French abstract) (24 ref.)—*Journal abstract*.

9097. McNutt, Thomas H. (U. Alabama) **Dependency and responsiveness to social reinforcement.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5135.

9098. Pethő, B. (U. Budapest, Neuropsychiatric Clinic, Hungary) **Von der Anwendung der Testmethoden in der Psychiatrie, mit besonderer Rücksicht auf den Aufbau der Diagnose und auf die Ausbildung der Holopsychiatrie.** [The application of test methods in psychiatry, with particular consideration of diagnosis and the development of holopsychiatry.] *Psychiatria Clinica*, 1971, Vol. 4(2), 100-123. Discusses the confusion in present-day psychiatry and test psychology, and proposes that the introduction of test methods into psychiatry offers the opportunity for clarification through an organically-oriented approach. This means that the basis must be at the level of sensorimotor signs, functions, and performances which can be ascertained by neurological methods. One must exploit those aspects of tests which offer a broader spectrum than the normal psychiatric examination. It is suggested that this approach be called the "holopsychiatric approach." The holopsychiatric approach must be nosocentric and anthropocentric at the same time (i.e., it must be oriented towards a comprehension of the illness at the somatic, as well as the psychic, cultural, and individual levels). (39 ref.)—*English summary*.

9099. Redlich, F. C. (Ed.) (Yale U., Medical School) **Social psychiatry: Proceedings of the Association for Research in Nervous and Mental Disease, December 1 and 2, 1967, New York, N.Y.** Baltimore, Md.: Williams & Wilkins, 1969. xiii, 354 p. \$21.

9100. Remschmidt, H. (Philipps U., Psychiatric Clinic for Children & Youth, Marburg/Lahn, W. Germany) **Redundanz und Regression: Informationstheoretische Gesichtspunkte zum Verständnis psychopathologischer Phänomene.** [Redundancy and regression: Aspects of an information theory concerning the understanding of psychopathological phenomena.] *Psychiatria Clinica*, 1971, Vol. 4(2), 65-81.—Presents a model of development based on the information theory. The model of development is based on 3 parallel steps: (a) dismantling of fixed redundant behavior patterns, (b) dismantling of less fixed behavior patterns, and (c) secondary reduction

in the degree of choice of behavior. This information-theoretical model of development is seen to permit the accommodation of various levels of organization of behavior, mathematical presentation, and classification of psychopathological phenomena as redundant behavior patterns. Illustrative examples are provided. (39 ref.)—*English summary*.

9101. Rotter, Julian B. (U. Connecticut, Clinical Psychology Training Program) **Clinical psychology.** (2nd ed.) Englewood Cliffs, N.J.: Prentice-Hall, 1971. x, 117 p. \$6.50(cloth), \$2.75(paper).

9102. Sarró, Ramón. **Psiquiatria oriental-occidental.** [Eastern-Western psychiatry.] *Revista de Psiquiatria, Psicología Médica*, 1970(Apr), Vol. 9(6), 367-382.—After discussing some of the philosophers and theosophists of the 19th century who have concerned themselves with the wisdom of the East, the views of Fromm, Jung, and J. H. Schultz are considered. Fromm's analogies between psychoanalysis and Zen Buddhism are considered to be inappropriate, the author siding more with Jung and Schultz. The views of psychosis held by both Freud and Jung are considered deficient because in their private practice these psychiatrists lost their contact with the world of the schizophrenic. The classic view of psychiatry of psychotic delusions is not shared: (a) the delusions do not reflect distorted judgment, the patient's judgments are adequate to the new reality that he is facing; (b) the contents of the delusions are not just extensions of his normal life experiences, they are exceptions; and (c) while the primary delusion is pathological in nature, it is not automatic but a process of creative activity. The biographical emphasis on the interpretation of delusions in classical psychiatry is underplayed in favor of an analysis of mythological themes in delusions. These deal with universal topics, such as the End of the World and the World Savior, but are unlike the archetypes since they do not represent racial memories but are actual beliefs.—*L. Zisne*.

9103. Selderman, Arthur S. (Fairleigh Dickinson U.) **Motor planning and developmental apraxia.** *Journal of the American Optometric Association*, 1970(Oct), Vol. 41(10), 846-857.—Presents a discussion of developmental apraxia, which is characterized by a deficiency in the ability to motor plan. A review of this type of perceptual-motor dysfunction is presented along with its associated syndrome. The basic principle of treatment is the enhancement of tactile and kinesthetic discrimination through control of sensory input followed by the demands of a purposeful skilled motor task. Several case studies are included to illustrate the theoretical discussion. (27 ref.)—*Journal abstract*.

9104. Sinha, T. C. **On repression.** *Samiksha*, 1969, Vol. 23(2), 60-64.—Unlike Freud, Bose traces the mechanism of repression in the field of opposite wishes of the patient. For every wish there is an opposite wish—I being of the active type and the other of the passive type. For the theory of the opposite wish Bose posits a new concept of theoretical ego which is different from the ego postulated by Freud. This hypothetical entity maintains the continuity of mental experience during all time. A wish is a product of experience gained by the ego, and it has no existence of its own other than in a relationship with or as a function of the ego.—*C. Mehrotra*.

9105. Spurlock, Jeanne, et al. (Meharry Medical Coll.) **The private practice of child psychiatry by members of the American Academy of Child Psy-**

chiatry. *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 53-64.—The 1966 Workshop on Private Practice evoked an interest in attaining specific facts on private practice of child psychiatry. The Committee devised a questionnaire sent to 263 members which dealt with direct child patient practice, and salaried positions. Direct child patient practice was divided into 2 categories: (a) direct patient care, and (b) consultation. Regarding salaried positions, 4 areas were investigated: (a) administration, (b) teaching and supervision, (c) direct patient care, and (d) research. Findings indicate that a substantial part of most private practice time is used for treating adult patients. This time increases with the increasing age of the therapist. In addition, findings regarding referrals, time of session, consultation, and teaching are discussed as well as an awareness of several new types of practices of child psychiatry.—H. Reiter.

9106. Stone, Valerie. (Marlborough Day Hosp., London, England) **A plea for therapeutic models.** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 35-36.—Contends that therapeutic models are needed to match the pathological models. If these are developed empirically and scientifically it is felt that analysis of therapeutic efforts will be facilitated and a science of therapy will emerge which should be somatic as well as psychic.—V. S. Sexton.

9107. Wilkins, Marsha A. (U. Texas) **Comparisons of attitudes toward childrearing of parents of certain exceptional and normal children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5894.

PERSONNEL

9108. Anzieu, Didier. **Le psychodrame analytique collectif et la formation clinique des étudiants en psychologie.** [Group analytic psychodrama in the clinical training of psychology students.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(13-16), 908-914.—Discusses the application of limited psychodrama, 4-6 sessions with options to renew not more than twice, on a wholly voluntary basis as a psychotherapeutic training experience for advanced clinical psychology students.—R. E. Smith.

9109. Bachrach, Henry; Mintz, Jim, & Laborsky, Lester. (U. Pennsylvania) **On rating empathy and other psychotherapy variables: An experience with the effects of training.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 445.—Compared 3 methods of assessing the psychotherapist's empathy: (a) methods of assessing the psychotherapist's empathy: (a) the Accurate Empathy Scale, (b) the Conjective Empathy Scale, and (c) the Raskin Empathy Scale. 5 moderately to very experienced judges rated 10 4-min segments of a tape-recorded psychotherapy session during pre- and posttraining phases. The mean reliability of the 3 scales increased significantly, and intercorrelations were nearly perfect when corrected for unreliability.—S. Knapp.

9110. Bandler, Bernard. (National Inst. of Mental Health, Div. of Manpower & Training, Chevy Chase, Md.) **Current trends in psychiatric education.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 585-590.—Describes some of the new directions now being taken in the training of psychiatrists and points out the problems they present to thorough education. Training in community psychiatry is focused on and 4 models of mental health care and their relation to

residency programs are presented. The need for psychiatrists to continue their own learning in order to enhance the effectiveness of training programs is also stressed.—*Journal abstract.*

9111. Brocher, Tobias. (20 Myliusstr., Frankfurt am Main, W. Germany) **Aktuelle Probleme der psychoanalytischen Ausbildung in den USA.** [Actual problems of psychoanalytic training in the USA.] *Psyche, Stuttgart*, 1970(Aug), Vol. 24(8), 611-637.—Reviews the development of the institutionalization of psychoanalytic training including theoretical seminars, didactic training analysis, and control analysis. Commonalities and differences are noted regarding the corresponding conditions in the United States, England, and West Germany. It is suggested that analysts in all 3 countries, concentrate on the psychoanalytic didactic relationship and frequently overlook group dynamic processes and organizational problems which are of utmost importance for the efficacy of training programs. *Journal summary.*

9112. Burnand, G. (High Wycombe Coll. of Technology & Art, England) **A study of the concept of change at work for senior hospital staff, via the semantic differential technique.** *Social Science & Medicine*, 1970(Apr), Vol. 3(4), 627-637. Studied the emotional interrelationships between different sorts of change encountered at work among 16 30-55 yr old senior hospital staff members, by means of a modified semantic differential technique. It was hypothesized that there are 2 emotional structures underlying the attitude to change. 2 factors were extracted which could be consistently labeled the "adventure" and "insecurity" factors. The adventure factor was characterized by the freedom to (a) meet different people, (b) change the method of working, (c) use a variety of equipment, and (d) look at things at different distances. The concept most reliably linked to this factor was "holiday," and included both high evaluation and activity. The "insecurity" factor was most frequently characterized by change in instructions given, method or level of pay, and, less reliably, change of management. This factor was reliably "tense" and particularly unrelated to the more relaxed leisure pursuits of TV and dancing. It is concluded that the most disturbing aspects of change may vary with the work situation, the position in the hierarchy, and with personality and past experience (16 ref.).—*Journal abstract.*

9113. Duckworth, Edwin. (U. Missouri) **Counseling psychology supervisors and interns: An analysis of their higher-order personality dimensions, their performed job-tasks, and preferred job-tasks.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5122.

9114. Eshleman, Robert F. (Franklin & Marshall Coll.) **Value profiles, value-role-taking, and health.** *Social Science & Medicine*, 1970(Jul), Vol. 4(1), 113-130.—Views the value profiles of cultural systems and persons as empirical systems. A value profile instrument, *A Study of Choices*, is described which measures the internalization of roles and values for the self and significant others in role-value-taking. The profiles of 179 individuals who scored high in conformity and 74 85 who scored low in conformity are compared and discussed. It is concluded that the consistencies and inconsistencies of value profiles, and the role value-taking ability or inability of interactive members of cultural systems, have implications for (a) human motivation and health; (b) selection and training of

health professionals, (c) the development of a supportive centered therapy, and (d) social therapy, social change, and the ecology of health in the world community. (French, Spanish & German summaries) (28 pp.) *Journal of Journal*

9115 Felker, Sally A. (Kent State U.) **The relationship between communication and discrimination skills and selected factors of personality, intellect, and experience in counselor trainees.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5122-5123.

9116 Freeman, Stephen W. (Tennessee) **Affective and cognitive changes in teacher trainees of the emotionally disturbed as a result of field experience with hospitalized adolescent psychiatric patients.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5246.

9117 Harrison, Saul L., McDermott, John F., Schragar, Jules, & Showerman, Earl R. (U. Michigan) **Children's Psychiatric Hosp.: Social status and child psychiatric practice. The influence of the clinician's socioeconomic origin.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 652-658. Investigated the influences of class background on the diagnoses, clinical perceptions, prognosis, and recommendations for treatment of 2 groups of child psychiatrists: those who were born into the upper middle class and those whose childhood was spent in the lower class or lower middle class. 360 psychiatric evaluations were performed by the former, and 228 by the latter. The differences found point up the need for clinical training to draw the psychiatrist's attention to understanding the role his social background may play in his interaction with his patients. *Journal abstracts*

9118 Heising, G. & Beckmann, D. (U. Giessen) **Psychosomatische Clinic W. (Germany) Gegenübertragungsreaktionen bei Diagnose- und Indikationsstellung.** [Countertransference reactions in diagnosis and indications disposition.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 2-8. Investigated countertransference reactions and indication criteria for several psychotherapeutic and group-analysis procedures in the outpatient ward of a psychosomatic clinic in Giessen, West Germany. Various countertransference stereotypes could be demonstrated with the therapists; these were statistically correlated with personality characteristics and the analytical level of training of the therapists. They influenced the indication as well as the actual selection of the patient for psychotherapeutic procedure. It is suggested that a control of these subjective factors can be the 1st step toward withdrawal of individual stereotyped biases. Institutionally dependent attitudes which arise against entire patient groups (e.g., insured or private patients) are discussed. *English summary*

9119 Hungerman, J. Michael. (Kent State U.) **The relationship of sensitivity to others to certain selected personality characteristics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5128.

9120 Lickorish, John R. & Sims, C. A. (Ipswich & East Suffolk Hosp., England) **How much can a clinical psychologist do?** *Bulletin of the British Psychological Society*, 1971(Jan), Vol. 24(82), 27-30. Discusses the limits to the amount of work that a clinical psychologist can reasonably undertake. It further attempts to estimate the number of psychologists that would be required to meet the needs of the patient population, as well as those

required on the basis of present staffing ratios.—J. S. Sexton

9121 Miller, Thomas V. (Michigan State U.) **The effect of self and in vivo desensitization on counselor trainee anxiety and performance.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5772-5773.

9122 Polley, George W., McAllister, Loring W., Olson, Ted W., & Wilson, Karen P. (Southwestern Minn. Health Center, Laverne Minn.) **Mental health training for county welfare social work personnel. An exercise in education and community organization.** *Minnesota Mental Health Journal*, 1971(Mar), Vol. 16(1), 25-31. Outlines the background, need for, and implementation of a training program for a group of county welfare workers representing 10 counties in southwestern Minnesota. The program, which evolved from a community effort by 2 community mental health centers, is described in terms of its philosophy, content, and results. Implications for extended training of welfare and other social service personnel are denied. *Journal abstracts*

9123 Rothman, Leslie K. (Indiana U.) **Toward a theoretical conceptualization of the Whitehorn-Betz A-B scale.** *Journal of Consulting & Clinical Psychology*, 1971(Jan), Vol. 39(1), 442. Administered the Whitehorn-Betz A-B scale, the Sundland and Barker Therapy Orientation Questionnaire, and a biographical information scale to 30 male doctoral level counselors. Results of analyses indicate that (a) the therapists' orientation was independent of his A-B disposition and (b) A therapists were socially dependent conforming, while B therapists were socially independent nonconforming. It is suggested that the results support a complementary hypothesis in which "the counselor able to handle the interpersonal and intrapersonal skills the client needs."—S. Knapp

9124 Shapiro, Theodore & Frosch, William A. (New York U. Medical School) **Faculty response to student confrontation.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 599-605. A psychiatric faculty was confronted with the need for change by 130 discontented 1st-yr medical students. A description of the events and some of the factors involved in the faculty response to the student demands is presented. There were a number of irrational and emotional factors influencing faculty attitudes; these variously reinforced prior tendencies in favor of or against change. Recognition of these irrational tendencies is essential if polarization is to be prevented and cooperation and problem solving are to be promoted. *Journal abstracts*

9125 Sherr, Rose L. (U. Kansas) **Dogmatism as a factor in preprofessionals' evaluations of persons with physical disabilities.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6164.

9126 Smail, D. J. **Values in clinical psychology.** *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 313-315. A rapid process of change is seen as taking place in clinical psychology in Britain. This change threatens radically to alter the kinds of situation in which future clinicians will find themselves working, and which is resulting in a shift in the fundamental scientific philosophy which has until recently supported the discipline. The failure to recognize the difference between objectivism in measurement and objectivism in manipulation is central to the change which threatens to affect the clinical psychologist's role.—V. S. Sexton

9127. Zenz, H. (Justus Liebig U., Psychosomatic Clinic, Giessen, W. Germany) **Gruppenprozesse in einer Stationspersonalkonferenz.** [Group processes in a hospital ward personnel conference.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Nov), Vol. 20(6), 236-246.—Reports results of an interaction process analysis of a hospital conference for ward attendants. The purpose of the conference was to foster independence, on the part of attendants, dealing with neurotic patients. Responses were computed during the 6-hr conference using a slightly modified Bales interaction process analysis. Matrices of transition probabilities from physicians to ward personnel were computed, and a flow chart of the group process was formulated. Results demonstrate the constancy of voting (decision) behavior on the part of physicians and oscillating behavior on the part of ward attendant personnel. (English summary)—B. A. Stanton.

PSYCHOTHERAPY & ANALYSIS

9128. ———. **Toward therapeutic care: A guide for those who work with the mentally ill.** *GAP Report*, 1970(Mar), Vol. 7(77), 126 p.

9129. Banerji, Saradindu. **Psychoanalytic therapy, theory and morality.** *Samiksa*, 1969, Vol. 23(2), 73-80.—Instead of inducing the S to immorality, psychoanalysis helps him to renounce his impulses by bringing them to consciousness. Self-knowledge is the goal of spiritual life. This goal cannot be achieved if looking into the instinctive aspect of the self is considered immoral. Although analysis is against repression it does not allow unlimited gratification. Unlike a normative science, psychoanalysis is concerned with the facts as they are and not what they ought to be. The psychoanalyst does not take the role of a moral mentor. Psychoanalysis can serve the cause of morality in many ways.—C. Mehrotra.

9130. Baranger, Madeleine. (3044 Ramón Castilla, Buenos Aires, Argentina) **Introducción al grupo B: Teoría e institución psicoanalítica: La formación psicoanalítica.** [Introduction to Group B: Psychoanalytic institution and theory: Psychoanalytic training.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 211-219.—Discusses the values and goals of psychoanalysis as an institution, noting a dissociation between formal rules and statutes and those which are adhered to in reality. This lack of sincerity is attributed to 3 reasons: (a) the influence of the social image of psychoanalysis and the social status of the psychoanalyst; (b) the structure and functioning of the institution not only with regard to its organization as a whole, but its distinct parts, its hierarchical structure, and promotion system; and (c) the difficulties inherent in the analytic process. In the last case, it is suggested that the analyst should be particularly alert during countertransference reactions to remain an instrument of interpretation and avoid introjecting his own feelings and judgments. Commentaries by N. Scornik and F. Elman de Schutt follow.—P. Hertzberg.

9131. Baranger, Willy. (3044 Ramón Castilla, Buenos Aires, Argentina) **Introducción al grupo D: Teoría psicoanalítica e ideología: Interacción mutua.** [Introduction to Group D: Psychoanalytic theory and ideology: Mutual interaction.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 227-234.—Considers (a) the ambiguity in regarding psychoanalysis as a science or

ideology; (b) to what extent psychoanalysis originated and developed according to its own laws; (c) to what point it reflects the sociocultural conditions of its environment; and (d) the multiplicity of psychoanalytic theories and their "fan-like" development. Warnings against the dangers of success are discussed, i.e., psychoanalysis becoming an "establishment" institution. Commentaries by J. R. Paz and J. P. Schust follow.—P. Hertzberg.

9132. Bergen, Bernard J. & Rosenberg, Stanley D. (Dartmouth U., Medical School) **The new neo-Freudians: Psychoanalytic dimensions of social change.** *Psychiatry*, Washington, D.C., 1971(Feb), Vol. 34(1), 19-37.—Discusses contemporary criticisms of society as meaningless, and delineates an emergent theory of culture more in tune with radical perspectives. The theory is based on the works of H. Marcuse, P. Rieff, and N. O. Brown—the new neo-Freudians who interpret contemporary crises as a bankruptcy of society's collective symbols. It is asserted that "play" which is erotic, dionysian, and narcissistic—is the counterpoint of culture which protects the ego boundaries through social controls. And while play can make man lonely and vulnerable, it can also give him the freedom to love himself and others more fully.—E. M. Upchurch.

9133. Bowers, Margaretta K., et al. (Adelphi U.) **Therapy of multiple personality.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Apr), Vol. 19(2), 57-65.—In multiple personality, conflicting portions of the original personality have become 2 or more, largely disparate and autonomous personalities. Being a portion, each may be called a subpersonality. Of each 2 subpersonalities, at least 1 has some amnesia for the other. The therapist must be especially competent, particularly if he uses any hypnosis, deep analysis, or strong suggestion. He must avoid whatever may separate the subpersonalities further, and help the subpersonalities to unite in common understanding, interests, memories, and living as a complete person. ECS is contraindicated. Useful methods may include group therapy, especially when the other members, as witnesses, can help each subpersonality to remember each other subpersonality's behavior, feelings, and thoughts and to merge to become whole. (Spanish & German summaries)—*Journal abstract*.

9134. Breggin, Peter R. (Washington School of Psychiatry, D.C.) **Psychotherapy as applied ethics.** *Psychiatry*, Washington, D.C., 1971(1cb), Vol. 34(1), 59-74.—Analyzes Freudian psychotherapy as an ethical system with a basic rule that "the patient ought to say everything that occurs to him, and the therapist ought not to take advantage of this candor." It is stated that the distinction between thoughts (such as I want to kill my father) and actions are a "basic ethical distinction." The ethical bases of theories of Alexander, Erikson, and Szasz are examined. The basic goal of psychotherapy is seen as autonomy which "refers to the internal life of the individual—to his capacity to think for himself and to remain the absolute ethical and moral judge of his own thoughts and conduct." Also discussed are 3 basic ethical issues in therapy: love, suicide, and termination.—E. M. Upchurch.

9135. Collomb, H. & de Preneuf, Chantal. **N'doep et psychodrame.** [N'doep and psychodrama.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(13-16), 745-749. Presents an analysis, based on analogy, of the relationship between psychodrama and the African therapeutic

- technique of n'doep practiced by the Lebou and Wolof peoples of Senegal.—R. J. Smith.
9136. Davis, William L. (U. Missouri) A therapy content analysis scale. *Dissertation Abstracts International*, 1971(Apr), Vol. 11(10), No. 5119.
9137. Engelhard, Herman M. Un lien conceptuel entre la psychanalyse et le psychodrame. [A conceptual bond between psychoanalysis and psychodrama.] *Bulletin de Psychologie*, 1969/1970, Vol. 23(13-16): 889-894.—Presents a detailed descriptive and explanatory outline of an attempt to formulate a relationship between psychoanalysis and psychodrama in terms of concepts and the doctor-patient functional relationship fundamental to both.—R. J. Smith.
9138. Graffagnino, Paul N., Bucknam, Frank G., Orgun, Ibrahim N., & Levy, Robert M. (Inst. of Learning Children's Clinic, Conn.) Psychotherapy for latency-age children in an inner city therapeutic school. *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5): 626-634.—Examines the role of a traditional treatment approach—psychodynamically oriented child psychotherapy—in an innovative special school program designed to help previously unreachable early latency children from core city problem families. Findings based on 14 children, suggest the possibility that it might indeed be a disservice to these children not to offer them a chance at the psychotherapeutic approach at the same time that they receive special schooling and environmental intervention.—*Journal abstract*.
9139. Haronian, Frank. The ethical relevance of a psychotherapeutic technique. *Journal of Religion & Health*, 1967(Apr), Vol. 6(2), 1-7.—Discusses H. Leuner's guided affective imagery (feeding) psychotherapeutic technique. "To the extent that Leuner's feeding technique appears to be therapeutically effective, we have new evidence for the validity of the belief that each man's personal destiny is interrelated with the welfare of his fellow-men. This, in turn, suggests that to love our enemies and not resist evil is not a depressingly unattainable principle, but is of demonstrable practical value for achieving the integration of our personalities."—S. Knapp.
9140. Heine, Ralph W. (U. Michigan) *Psychotherapy*. Englewood Cliffs, N.J.: Prentice-Hall, 1971. x, 170 p.
9141. Hilles, Linda. (Mt. Zion Hosp., San Francisco, Calif.) The clinical management of the nonpaying patient: A case study. *Bulletin of the Menninger Clinic*, 1971(Mar), Vol. 35(2), 98-112.—Discusses the psychotherapy of a patient who did not pay her bills, focusing on the psychodynamics of her nonpayments. *J. Z. Elias*.
9142. Hobson, Robert F. (U. London, Inst. of Psychiatry, England) Imagination and amplification in psychotherapy. *Journal of Analytical Psychology*, 1971(Jan), Vol. 16(1), 79-105.—Jung's concepts of "fantasy and imagination, with reference to 'amplification' and their use in psychotherapeutic practice, are interpreted. A tentative attempt was made to relate Jung's use of amplification to a testable model of psychotherapy as a process of creative problem solving in a dialogue between 2 or more persons. It is suggested that to oppose positivist and romantic attitudes is to make a false dichotomy. (52 ref.)—P. Federman.
9143. Jacobson, Rike A. (Columbia U.) *Personality correlates of choice of therapist*. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5626.
9144. Langer, Marie. (3786 Juncal, Buenos Aires, Argentina) Introducción al grupo C: Teoría psicoanalítica y sociedad: Criterio de salud y criterio de realidad. [Introduction to Group C: Psychoanalytic theory and society. Health and reality criteria.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 23(2): 221-236.—Questions the validity of applying psychoanalytic theories formulated in a different historical and geographic setting to current problems. In particular, Bychowski is criticized for analyzing prominent patients whose experiences were not relevant to an analyst's generation and tradition. The importance of analysts recognizing and accepting social change is stressed. A commentary by L. Chiozza follows.—*Hertzen*.
9145. Lederer, Wolfgang. (U. California Medical School, San Francisco) Some moral dilemmas encountered in psychotherapy. *Psychiatry*, Washington, D.C., 1971(Jan), Vol. 34(1), 75-85.—Suggests a "therapist's moral concern" in which patients are encouraged to consider their actions in light of their impact on the standards which they in turn also expect to be held to of diverse opinion? Presents a historical review of moral evaluations have been made by author within the therapeutic setting. *E. M. Upchurch*.
9146. Lee, S. G., & Herbert, Martin. (Eds.) *Freud and psychology: Selected readings*. Baltimore, Md.: Penguin Books, 1970. 304 p. \$1.75 (paper).
9147. Lerner, Marcelo. (Braid Inst., Buenos Aires, Argentina) Un caso grave de dispareunia vaginalismo neurótico. [A serious case of dyspareunia and vaginismus.] *Acta Psiquiátrica y Psicológica de América Latina*, 1971(Feb), Vol. 17(1), 19-32.—A 35-yr-old woman, suffering from severe dyspareunia and vaginismus which prevented her from having normal sexual intercourse with her husband over a 5-yr period, was treated within the framework of Rogers' client-centered psychotherapy. The treatment lasted 7 months in biweekly sessions and a further 3-wk period with 1 session/wk only. The patient became aware of the fact that her sexual problem was closely related to the conflicts she had with her mother. Later in therapy the patient overcame a phobia to water. Further evidence which attests to the success of the treatment is the fact that the patient conceived and after a difficult delivery had a normal baby.—*English summary*.
9148. May, Philip R. (U. California, Neuropsychiatric Inst., Los Angeles) For better or for worse? Psychotherapy and variance change: A critical review of the literature. *Journal of Nervous & Mental Disease*, 1971(Mar), Vol. 152(3), 184-192.—It has been suggested that psychotherapy makes some persons better and some worse, and that this might explain why investigators have failed to demonstrate overall improvement by comparison with a control group. Other studies have inferred that this variance in psychotherapy outcome is related to therapist levels of empathy, warmth, and genuineness. A critical survey of the evidence, the experimental studies cited in support are reviewed separately. The review indicates that, with the exception of 1 study of which the findings were equivocal, the conclusion that psychotherapy may induce a mixture of improvement and deterioration rests upon a flimsy and poorly controlled or weakly documented base. Although it is important to realize that psychotherapy, like any other treatment, may have adverse effects, there is no convincing evidence.

that, in situations where psychotherapy is on the average ineffective, there is greater outcome variation than in a control group. (46 ref.)—*Journal abstract.*

9149. Mintz, Ronald S. (U. California, Center for the Health Sciences, Los Angeles) **Basic considerations in the psychotherapy of the depressed suicidal patient.** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 56-73.—Discusses a number of frequently occurring motivations for suicide. Detection and assessment of suicide danger is discussed, as are a number of important precautionary steps which the therapist should take. A short overview of various procedures to be undertaken during therapy is presented, including suggestions for pharmacotherapy. (52 ref.)—*W. Vernon.*

9150. Mom, Jorge. (1938 Juncal, Buenos Aires, Argentina) **Introducción al grupo E: Teoría psicoanalítica y forma de vida.** [Introduction to Group E: Psychoanalytic theory and life style.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 238-248.—Discusses the discrepancies between theory and reality in psychoanalysis, noting problems on both the institutional and personal levels. Modern psychoanalysis is criticized for distorting the original theories and perpetuating a system of contradictions. Comments by B. López and E. Pavlovsky follow.—*P. Hertzberg.*

9151. Morgenthaler, Fritz. (41 Utoquai, Zurich, Switzerland) **Introducción a la mesa redonda sobre trastornos de la identidad masculina y femenina tal como se observan en la práctica psicoanalítica.** [Introduction to the round table on masculine and feminine identity disturbances that are observed in psychoanalytic practice.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 249-260.—Discusses the psychodynamics of sexual identity disturbances in homosexuals, stressing the importance of transference reactions as indicators of previous sexual identity states from which future developments may be evaluated. Homosexuality is considered to be a developmental problem in which the patients experience all types of sexual differentiation in a regressive manner: superiority vs. inferiority, strength vs. weakness, and omnipotence vs. helplessness. The therapist's role in guiding the homosexual to his correct sexual identity without damaging his self-esteem is elaborated. A commentary by M. Langer follows. (45 ref.)—*P. Hertzberg.*

9152. Rolla, Edgardo H. (2698 Avenida del Libertador, Capital Federal, Argentina) **La interpretación en el psicoanálisis de psicóticos.** [Interpretation in the psychoanalysis of psychotics.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 261-270.—Proposes that psychoanalysis of psychotics should include both verbal and nonverbal interpretations, the former being complemented by kinetic models which lead to denotative and connotative bases for communications. The importance of nonverbal gestures and actions in psychotics is stressed, noting that patients with ideational disturbances have minimal contact with reality and perceive themselves within a schema of object relations. Treatment experience with an 18-yr-old male is cited. (English & French summaries) (19 ref.)—*P. Hertzberg.*

9153. Rosenthal, Alan J. & Levine, Saul V. (Stanford U., Medical School, Palo Alto, Calif.) **Brief psychotherapy with children: A preliminary report.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 646-651.—Presents some of the results of a pilot study to test the efficacy of brief psychotherapy with 33 children with various disorders and to compare its usefulness with

traditional, long-term psychotherapy with a control group of 35 children. More than 1/2 the experimental group were successfully treated and maintained their improvement over the 1-yr follow-up period. Criteria for the selection of Ss and techniques for treatment that may improve the rate of success achieved with brief psychotherapy are discussed. (21 ref.)—*Journal abstract.*

9154. Samorajczyk, John. (Prince George's County Health Dept., Bureau of Mental Health, Hyattsville, Md.) **The psychotherapist as a meaningful parental figure with alienated adolescents.** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 110-116.—Discusses therapeutic management of alienated youth in a hospital setting. A combination of therapeutic models was used in a "responsibility training" effort. Lack of individual identification was suggested as a basic problem, and the therapist functioned as a parent figure who increased the patient's autonomy. *W. Vernon.*

9155. Schütze, G. (U. Tübingen, Div. of Adolescent Psychiatry & Neurology, W. Germany) **Therapeutische Erfahrungen bei Pubertätsmagersuchtigen.** [Therapeutic experiences with anorexia nervosa in puberty.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 14-20.—Presents initial results of treatment of 9 female, adolescent patients with anorexia nervosa utilizing in- and outpatient psychotherapy. The mean age of patients was 12.9 yr. Inpatient treatment duration was an average of 51 days, while outpatient treatment duration averaged from 1-14 mo. Positive results were achieved with both forms of treatment. 8 patients evidenced a complete recovery, and 1 patient suffered a relapse. Family constellation patterns of these patients are discussed in relation to progression of treatment and relapse rate. (English summary)—*B. A. Stanton.*

9156. Stone, Alan A. (Harvard Medical School, Boston, Mass.) **Suicide precipitated by psychotherapy: A clinical contribution.** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 18-26.—Many therapists unwittingly contribute to the probability of serious suicide attempts in suicide-prone patients. Case material illustrates 3 patterns: (a) A few therapists succeed in "externalizing the superego" by mirroring the patient's self-revilings, leading to hopelessness, agitation, and suicide. (b) Some therapists "interrupt autistic defenses." Without their previous wish-fulfilling fantasies the patient confronts an unbearable and depressing reality. (c) The therapist develops a "symbiotic transference" of an extremely primitive nature, which is then broken off. This is the most frequent pattern. Awareness of these patterns of "malignant intervention" is urged.—*W. Vernon.*

9157. Torda, Clara. (101 W 12 St., New York, N.Y.) **An effective therapeutic method for the LSD user.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 79-88.—Reports observations obtained during the 1st 6 mo of a psychoanalytically oriented psychotherapeutic procedure, capable of shortening and easing the initial phase of psychotherapy of LSD users. Observations were of 50 16-29 yr. old Ss from a wide variety of ethnic, cultural, religious, and financial backgrounds. The procedure consisted of combined individual and group therapy, adding the LSD users to open mixed groups of abstinent patients. This procedure enabled the LSD users to participate in psychoanalysis, using the classical procedure, within less than 6 mo. Specific character trends and the underlying psychodynamic processes are

also suggested. These processes appear to be specific for the LSD user and differ from those of the heroin addict and the chronic alcoholic (23 ref.)—*Journal abstract*

9158 van Ameringen, Suzanne F. (Boston, Psychoanalytic Inst. Mass.) **The psychoanalysis of a young adolescent girl.** *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 23-32. A case study following the patient's analysis gives rise to the study of: (a) the psychological issues salient for successful intellectual perfection and achievement and (b) the vicissitudes of her psychosexual development during her adolescent years. The case attempts to show: (a) how the rise of an unfavorable self-image can occur in a girl whose history did not reveal major disturbances and whose parents provided her with an above average favorable milieu; (b) the girl's ability to obtain masochistic and narcissistic gratification from her underachievement from adhering to a prepubertal stance; and (c) how a traumatic experience in her preschool years became a source of guilt and a blockage to "knowing" and "growing up."—*Journal abstract*

9159 van Kiliac, J. (U. Louvain, Brussels, Belgium) **Une thérapie des rôles figés. L'apport de G. Kelly.** [A therapy of set roles. The contribution of G. Kelly.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 793-798. Presents a distillation of the work of George Kelly who is not well known in French-speaking countries, covering core constructs, role constructs, and the exercise of playing the role of a totally different person for long periods of time. It is emphasized that the task of therapy is creation not repair (22 ref.)—*R. E. Smith*

9160 Well, Pierre G. (U. Belo Horizonte, Brazil) **Psychodrame et psychoanalyse.** [Psychodrama and psychoanalysis.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 726-735. Presents a detailed description of similarities and differences, origins, language, and viewpoints of psychodrama and psychoanalysis. The possible integrations, modifications, and the challenge for the future in perfecting these psychotherapeutic methods are discussed (26 ref.)—*R. E. Smith*

9161 Zac, Joel. (1476 Anchorena, Buenos Aires, Argentina) **Consideraciones sobre el acting out y aspectos técnicos de su tratamiento.** [Considerations on acting out and technical aspects of its treatment.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 307-364. Discusses the analyst's role and acting-out situations, noting that a precarious balance exists between the neurotic and psychotic parts of a patient's personality in which the latter is kept in balance by inoculatory acting out on the analyst or the setting. The analytic week is regarded as playing a central role in determining characteristics of the weekend, which, in turn, influences the analytic week. The interacting relationship between week and weekend has special significance for the Monday session which serves to reestablish the projective identification which the patient manifests with regard to the analyst. Case material and different types of acting out to disturb the analytic setting are described. Interpretation and some countertransference problems are discussed. The distortion of the setting in certain cases and the possible abuse by the analyst of the transference relationship is discussed. (English & French summaries) (25 ref.)—*P. Hertzberg*

Therapeutic Process

9162. Barrucand, Dominique. **Catharsis et psy-**

chodrame. [Catharsis and psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 736-738.—Presents a critical assessment of the concept of catharsis from Aristotle and Freud through Breuer, Freud, and Moreno. The process of catharsis in psychodrama is followed both theoretically and descriptively.—*R. E. Smith*

9163. Berzans, Juris L., Barnes, Daniel F., Cohen, Daniel I., A. Ross, Wesley F. (Kentucky) **Reappraisal of the A-B therapist "type" distinction in terms of the Personality Research Form.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 360-369. A revised personality dimensions involved in the personality type distinction which has proved controversial in patient compatibility in several clinical and research studies. The A-B scale scores of 221 patients and 100 normals were related to the 22 variables of the Personality Research Form. Multiple discriminant analysis and factor analyses strongly support the hypothesis that A-B status is explicable in personality terms. So-called A-type Ss (predicted to be compatible with neurotic patients) were characterized by emotional regression, social ineptness, and a restricted socialization. B-type Ss (presumably compatible with neurotic patients) appeared socially ascendant and "open" to life experiences. Results were supported by a cross-validation study of 50 professional Ss. As a prior research, the variables differentiating A-B status appeared to have a prominent "masculinity-femininity" component (30 ref.)—*Journal abstract*

9164. Cesari, Fidias R. (2829 Santa Fe, Buenos Aires, Argentina) **Introducción al grupo A: Teoría y técnica psicoanalítica. Contratransferencia: Interpretación transferencial y contratransferencial.** [Introduction to Group A. Psychoanalytic theory and technique. Countertransference. Transference and countertransference interpretation.] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 201-210. Discusses the development of countertransference in the analytic setting within the context of the transference process. Definitions of countertransference by H. Racker and Freud are presented. The countertransference experience of Freud with his 6-yr-old patient Dora is described. It is noted that contradictions arise between practice and theory in regard to countertransference. 2 commentaries on countertransference by C. Sluzki and J. C. Marotta are included.—*P. Hertzberg*

9165. Gale, Jay. (U. Tennessee) **The effects of expectation and suggestion upon symptom substitution.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5621

9166. Irwin, Tom J. (U. Missouri) **An investigation of the expression of empathy of A and B therapists in a quasi-therapeutic encounter.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5128-5129

9167. Lavenaire, Michel & Picard, Françoise. (U. Nancy, Medical School, France) **Transfert en psychothérapie de groupe et psychodrame.** [Transference in group psychotherapy and psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 715-725.—Presents a resume of transference from Freud to Lacan and of definitions by Laplanche and Pontalis out of which arise the similar points of view of group psychotherapy and the psychoanalysis. Moreno's views of transference, the "dilution" of transference, group cohesiveness, and the actions of the therapist are discussed. (44 ref.)—*R. E. Smith*

9168. Mendes Leal, Rita. (Lisbonne U., Portugal) **Revécu, réexpérience, "tele" et transfert.** [Reliving, reexperiencing, "tele" and transference.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 927-930.—Considers the question of transference, both Freudian and Morenoian, in terms of the constructs underlying each system. The various uses of the concept arise out of the need to understand what memory is in the dynamics of psychological functioning. The concepts of "tele" and transference do not reduce to a common factor but each serves to describe processes which propose, by different ways, to attain totalization of psychic operations, i.e., equilibrium of the personality in relation to the self and others.—R. E. Smith.

9169. Prager, Richard A. (Columbia U.) **The relationship of certain client characteristics to therapist-offered conditions and therapeutic outcome.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5634-5635.

9170. Voutsinas, Dimitri. **A propos de la catharsis.** [About catharsis.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 998-999.—Presents a historical and philosophical review of catharsis. Through catharsis in its many forms man is raised to a higher moral religious sphere, feels joyous, and is reconciled with the virtuous ethic.—R. E. Smith.

Group Therapy

9171. Ancelin-Schutzenberger, Anne. (U. Nice, France) **Introduction au(x) psychodrame(s).** [An introduction to psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 713-714.—Serves as an introduction to and an evaluation of articles on psychodrama. The collection intends to show, by the bits chosen for publication, just where psychodrama stands currently as a focal point for a wide variety of viewpoints and activities.—R. E. Smith.

9172. Ancelin-Schutzenberger, Anne. **Présentation du psychodrame.** [Presentation of psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 969-993.—The purpose of devoting an entire issue to the subject of psychodrama is to present it "in such a way as to make the philosophy and techniques comprehensible to the reader and avoid the numerous misunderstandings and impassioned reactions that the technique sometimes unleashes because of lack of understanding." (9 p. ref.)—R. E. Smith.

9173. Ardooin, Jacques. **Reflexions sur le psychodrame en tant qu'expérience cruciale.** [Reflections on psychodrama as a crucial experience.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 740-744.—Psychodrama is the science "that seeks truth" through dramatic methods, a crucial place of privileged encounter of the real and the imaginary at the intersection of time and space. It is a method of exploration of the whatever underlies the functional illegality of the pleasure principle as opposed by the reality principle. As part of this picture, psychodrama is a means of exploring the truth.—R. E. Smith.

9174. Basquin, Michel; Dubuisson, Paulette; Lajeunesse, Bertrand, & Testemale-Monod, Genevieve. **Réflexions sur le couple thérapeutique en psychodrame.** [Reflections on the therapeutic couple in psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 775-778.—Presents the methods whereby

pairs of psychotherapists utilize spontaneous dramatization with individuals and in limited groups. R. E. Smith.

9175. Battegay, R. (U. Basel. Psychiatric Polyclinic, Switzerland) **Klinische Gruppenpsychotherapie in ihrer analytischen und verhaltenstherapeutischen Potenz.** [The potential analytical and behavioral therapy of clinical group psychotherapy.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(5-6), 281-294. Reports personal experiences based on 15 yr. experience with the use of group psychotherapy at the Basel University Psychiatric Hospital. Group psychotherapy was conducted with both large and small diagnostically-integrated groups. 5 stages in group psychotherapy (explorative contact, regression, catharsis, insight, and change) are described in relation to their accomplishment in a collective situation. The group-centered psychiatric hospital is advocated as a means of enabling patients to experience the demands of society without exposure to the restlessness of the "outside world." The group process itself encourages insight, personality development, assumption of social roles, and adaptation through corrective learning. (English summary) (25 ref.)—B. A. Stanton.

9176. Blatner, Howard. **Commentaires sur quelques réserves ordinairement faites concernant le psychodrame: Aspects théoriques du psychodrame, données générales: La place du psychodrame dans l'arsenal psychothérapeutique: L'utilisation du contact corporel comme complément au psychodrame: Quelques indications et réserves.** [Comments upon some reservations concerning the achievements of psychodrama: Theoretical aspects of psychodrama, general data: The place of psychodrama in the psychotherapeutic arsenal: Utilization of bodily contact to complement psychodrama: Some indications and cautions.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 957-968. Discusses uses and abuses of "immediate intimacy" or the "fusion tendency." An evaluation of body contact spontaneously arising in psychodrama is presented.—R. E. Smith.

9177. Bonabesse, Maurice. (Hôpital Psychiatrique de St. Alban, Lozère, France) **L'utilisation du psychodrame dans le traitement des alcooliques.** [The utilization of psychodrama in the treatment of [The utilization of psychodrama in the treatment of] alcoholics.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 834-838. Many forms of psychotherapy are not suitable for the treatment of alcoholics. Group therapies, particularly psychodrama, are most successful because isolation and verbiage are reduced, transference is not manipulatable, and reality is present in the here and now. R. E. Smith.

9178. Chatel, Marie M. **Les groupes de rencontre.** [Encounter groups.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 994-997. Encounter groups, as opposed to training groups, are sociotherapeutic. Despite the separateness of individuals and the refusal of any group identity a group culture is identifiable. Training groups became encounter groups in response to the conjoint importance of psychology and social change in the United States. R. E. Smith.

9179. Cuvellier, Ferdinand & Mattheeuws, Annie. **Le psychodrame de l'alcoolique.** [Psychodrama for the alcoholic.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 829-833. Discusses psychodrama when used as a tool in the multidisciplinary treatment of alcoholics. Selection of patients, psychodrama treatment process,

and dynamics of patients treated are described.—R. E. Smith

9180 Fontaine, Pierre J. L. *Le psychodrame chez les adolescents handicapés en institution* [Psychodrama with institutionalized adolescents] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 923-926. Psychodrama was used with wholly and partially institutionalized adolescents all of whom were verbally handicapped on a mental and physical basis. The mentally handicapped group showed greater spontaneity, freer conception, and easier group interaction, etc. The motor problem group revealed intense affect around parental rejection. Handled individually a child could be given meaning of his situation and expression of affect via a psychodramatist double that he had not previously been able to achieve by himself.—R. E. Smith

9181 Gounod, Solange. *Le jeu de rôle ou l'irruption des possibles* [Role playing and the possibilities of irruption.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 158-159. Discusses role playing in sensitivity groups and human relations training. Examples of individual distressing experiences arising out of role playing are cited. It is suggested that the use of role playing is a promising means of investigating the personalities involved in group therapy if the therapist is certain of his capacity to deal with possible unanticipated emotional outbursts.—R. E. Smith

9182 Kestenberg, J. & Deubert, S. *Approche psychanalytique pour la compréhension de la dynamique des groupes thérapeutiques* [Psychoanalytic approach to the understanding of the dynamics of therapeutic groups] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 802-815. Presents an account of the establishment of drama psychoanalysis groups utilizing part verbalization and part dramatization and with male and female analysts as therapists the technique is effective with certain psychotic patients. Case demonstrations are included. (25 ref.)—R. E. Smith

9183 Lebovici, S., Diatkine, R., & Kestenberg, E. *Bilan de dix ans de pratique psychodramatique chez l'enfant et l'adolescent*. [A ledger of ten years practice of psychodrama with children and adolescents.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 839-888. Psychodrama as a means of expression with supporting clinical excerpts is viewed as understandable in all of its aspects if the therapist makes use of theories of psychoanalytic technique. Transference, resolution of transference neurosis, transference interaction, resistance, countertransference, and regression are all discussed as they relate to psychodrama. General techniques of psychodrama, indications for its use, and the results and conclusions of 10 yr experience with the techniques are included. (34 ref.)—R. E. Smith

9184 Lema, Michel. *Réflexions sur le psychodrame triadique avec enfants et adolescents dans le cadre d'un centre médico-psycho-pédagogique*. [Reflections on triadic psychodrama with children and adolescents in a medico-psycho-pedagogical treatment center.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 784-792. Presents informative observations from 5 yr experience in a treatment center setting with the objective not of establishing a hierarchy of different treatments but of refining and seeking to make more precise the indications and perhaps some contraindications of each.—R. E. Smith

9185 Lemoine, Gennie. *L'imaginaire, le*

symbolique et le réel confrontés à l'expérience psychodramatique. [The imagined, the symbolic, and the real confronted in the psychodrama experience.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 827-831. Discusses the necessary limits, dynamic use of imaginary, symbolic, and real facets in the psychodrama experience.—R. E. Smith

9186 Lemming, Paul. *L'oedipe et ses repères en psychodrame*. [Oedipus and its referents in psychodrama] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 884-887. Discusses psychodrama as here-and-now enactment of familial role, treated as projection of the past. Dynamic, diagnostic, and case material included and handled from the psychoanalytic frame of reference.—R. E. Smith

9187 Mathé, André. *Psychothérapie de groupe de délinquant*. [Group psychotherapy with delinquents.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 827-831. Briefly describes methods used in the administration of group therapy to an undefined population of 25-35 yr old prison inmates in France. Attendance at group therapy was voluntary. Voluntary Ss were seen to be attracted to participation in group psychotherapy through curiosity and a need to participate in voluntary activity. The duration of therapy ranged from 6 mo to 1 yr. Results were evaluated on the basis of subjective criteria and overt behavior. The value of the use of group psychotherapy in penal institutions is stressed as seen to promote resocialization and reduced feelings of alienation.—B. A. Stanton

9188 Menchenbaum, Donald H., Gilmore, J., Barnard, & Fedoravskis, A. L. (U. Waterloo, Ontario, Canada). *Group insight versus group desensitization in treating speech anxiety*. *Journal of Consulting & Clinical Psychology*, 1971 (Jun), Vol. 36(3), 410-42.

Compared 3 forms of group treatment for their relative therapeutic effectiveness in reducing speech anxiety: (a) desensitization, (b) insight, and (c) combined desensitization and insight. 53 18-26 yr. old volunteers were assigned to 9 groups including a discussion group (attention placebo) and a waiting list control group. Ss filled out several self-report measures (The Confidence of Speaking, Social Avoidance and Distress, and Fear of Negative Evaluation scales) and a speech anxiety questionnaire. Results indicate that the insight group was as effective as the desensitization group in significantly reducing speech anxiety over control group levels as assessed by behavioral, cognitive, and self-report measures given immediately after posttreatment and at a 3-mo follow-up. The desensitization group treatment appeared to be significantly more effective than insight treatment with Ss for whom speech anxiety was confined to formal speech situations, conversely, insight group treatment appeared to be significantly more effective with Ss who suffer anxiety in many varied social situations. (42 ref.)—*Journal abstract*.

9189 Mendes Leal, Rita. *Le transfert analytique dans l'analyse de groupe*. [Analytic transference in group analysis] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 760-764. Discusses the analytic conceptual structure of transference and the differences occasioned by mirror feedback, multiple levels, free association, etc. in groups.—R. E. Smith

9190 Mintz, Elizabeth E. (41 5th Ave., New York, N.Y.) *Therapy techniques and encounter techniques: Comparison and rationale*. *American Journal*

of *Psychotherapy*, 1971(Jan), Vol. 25(1), 104-109.—Encounter techniques are seen as having valuable symbolic meanings which can be lost upon group leaders who have little awareness of their psychodynamics. It is suggested that encounter techniques would be most useful when combined with conventional group or individual therapy.—*W. Vernon.*

9191. Moreno, Zerka T. "Psychodrame de nourrissons" dans une consultation infantile. ["Psychodrama of infants" in a baby consultation.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(13-16), 826-828. —Describes a psychodrama session in which 10 mothers of 4-6 wk. old babies, with the infants on their laps, participated in therapeutic counseling with the auxiliary ego in the role of "baby."—*R. E. Smith.*

9192. Myers, Donald G. (Lehigh U.) A comparison of the effects of group puppet therapy and group activity with mentally retarded children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5234.

9193. Nodiot, Simone. Quelques réflexions à propos du psychodrame. [Some thoughts concerning psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 771 774. —Presents reflections drawn from classical Morenian psychodrama. The inclination of psychodramatists to undergo psychoanalysis is characterized as a fad but it is conceded that they may find the theory that permits them to understand and control the real requisite is considered to be voluntary seeking and participating in the group activities and directions of the therapist's efforts.—*R. E. Smith.*

9194. Ossorio, Abel G. & Fine, Leon. Le psychodrame dans un hôpital psychiatrique. [Psychodrama in a psychiatric hospital.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13 16), 934-939.—Reports on the psychodrama in day-long sessions for 73 long-term female patients. Psychodrama is seen as perhaps the most promising of all group techniques for reestablishing communication in those patients who have regressed to a level in which interaction is minimal.—*R. E. Smith.*

9195. Pagès, Max. Les langages du sentiment. [The languages of the feelings.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 779-783.—Attempted to clarify levels of communication: the language of action, symbol, rational exploration, emotion, and sentiment or immediacy on the basis of distance from immediate experiences. Periods of transition of levels show as uneasiness in the group, and dialogue can occur without a break in continuity only on relevant levels by a response from another with an action evoked because that other person recognizes the evoking action and its significance to the one who evokes it. Dialogue is favored when an authentic personal response can be made. Further, dialogue is broken if a therapist insists on a response to a situation in the particular language of his own school of thought.—*R. E. Smith.*

9196. Rocheblave-Spenlé, Anne M. Rôle et psychodrame. [Role and psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 816-819.—Discusses and describes the concept of role and its relationship to psychodrama.—*R. E. Smith.*

9197. Rojas-Bermudez, Jaime G. L'objet intermédiaire: Contribution à l'utilisation de marionnettes en psychodrame. [The intermediate object: The contribution of the use of marionettes in psychodrama.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 940-943.—Recognizable, identifiable, real, concrete

objects—in this case puppets—may function as intermediaries in permitting communication between therapist and patient during psychodrama sessions. An intermediary permits preservation of necessary distance, and diminishes anxiety arising from human intrusion or assumption of roles.—*R. E. Smith.*

9198. Royer de García Reinoso, Gilbarte. (2320 Charcas, Buenos Aires, Argentina) Violencia y agresión o bien violencia y represión? [Violence and aggression or, better, violence and repression?] *Revista de Psicoanálisis*, 1970(Apr), Vol. 27(2), 271 305. Discusses the theoretical and technical aspects of violence and aggression. Theoretically, adaptation, reality, and the qualitative aspects (i.e., concepts of sickness and health which form the bases of psychoanalytic theory) are discussed. On the technical level, material from group therapy sessions is analyzed. The metaphor is regarded as a symbolic form in which psychological reality covers concrete reality; other models of aggression are described. The question of isolation or reintegration of the violent individual into society is considered. *P. Hertzberg.*

9199. Schindler, W. (5G, Portman Mansions, London, England) Betrachtungen zur Technik der analytischen Gruppenpsychotherapie. [Observations concerning techniques of analytic group psychotherapy.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 27 35. Enumerates the various schools and techniques of analytical group psychotherapy. Group psychotherapy based on the family pattern is described. Patients perform multilateral transferences from the original family to the group members (e.g., the father leader, the sibling members, and the whole group as a "mother") Bion's basic assumptions of dependency, flight and fight, and sexual pairing are discussed. Techniques suggested by H. Iznel, D. Whiteaker, Lieberman, and R. Battegay are reviewed. (15 ref.)—*English summary.*

9200. Tarrah, Gilbert. (1, Montreal, Quebec, Canada) Happenings et psychodrames. [Happenings and psychodramas.] *Bulletin de Psychologie*, 1969 1970, Vol. 23(13 16), 915 922. Formulates the hypothesis that common elements may exist in psychodramas and happenings. Differentiations and similarities linking drama, new language, sight-sound-scene and aim and end point of psychodramas and happenings are considered.—*R. E. Smith.*

9201. Yablonsky, Lewis & Ennels, James M. (St Elizabeth's Hosp., Washington, D.C.) Théorie et pratique de psychodrame. [Theory and practice of psychodrama.] *Bulletin de Psychologie*, 1969 1970 Vol. 23(13 16), 765 770. The 5 essentials of psychodrama are the group, the protagonist, the director or psychodramatist, the auxiliary egos, and the system of methods and techniques. Described and illustrated are the functions, purposes, and therapeutic objectives.—*R. E. Smith.*

Behavior & Conditioning Therapy

9202. Berner, P., Grünberger, J., & Sluga, W. (U. Vienna, Psychiatric & Neurological Clinic, Austria) Der Videorecorder als therapeutischer Behelf: Eine verhaltenstherapeutische Technik bei Strafgefangenen. [The videocorder as a therapeutic aid: A behavior therapy technique for criminals.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 21-27. Describes a new device, the videocorder,

to be used as a therapeutic tool which enables behavior data to be stored and fed back as new information. Acoustic replay of group psychotherapeutic discussions for criminals is seen to expedite the reinforcement of positive social interactions. From a behavior therapy standpoint, the video recorder is seen as an instrument for behavior modification through coding and conditioning of control and defense mechanisms. Methods of employing the video recorder in group therapy are discussed. (English summary) —B. A. Smeaton.

9203 Costello, C. G. (U. Calgary, Alberta, Canada). **Conditioned avoidance responses and phobias: A reply to Wolpe and to Powell and Lumia.** *Psychological Review*, 1971(Jul), Vol. 78(3), 348-351. Replies to articles by J. Wolpe and by A. Powell and A. Lumia (see PA Vol. 46 June 58). It is maintained that these critics have not concerned themselves directly with the argument that conditioned avoidance responses do not provide a plausible experimental paradigm of phobias. Instead, they argue in favor of classically conditioned emotional responses and punitive behavior and learned helplessness as paradigms of phobia acquisition and maintenance. These arguments are not considered to add in further validation of the original proposal. (34 ref.) —Journal abstract.

9204 Fennell, H. J. (U. London, Inst. of Psychiatry, England). **Behavior therapy as a scientific discipline.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 39(3), 314-319. Discusses arguments purporting to show that behavior therapy is an inherently limited, partial approach to mental disorder in human beings. It is argued that (a) the oversimplified, partial nature of present theories is the inevitable price for attempting to approach this field scientifically rather than in a literary, humanistic fashion; (b) this approach cannot be judged by philosophical a priori arguments, but only in terms of its own aims and successes or failures; and (c) available data gives tentative support to the general direction of thought and approach of the behavior therapist. Obvious limitations to scientific theories are outlined. It is concluded that whatever the weaknesses of the approach under consideration, it presents the only hope for a proper understanding of mental dysfunction and effective treatment. (22 ref.) —Journal abstract.

9205 Fix, Alan J. (State U. New York, Buffalo). **The use of the relationship between skin conductance and subjective fear in predicting outcome in systematic desensitization and an expectancy-based therapy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5619-5620.

9206 Hersen, Michael. (Fairfield Hills Hosp., Newtown, Conn.) **Resistance to direction in behavior therapy: Some comments.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 121-127. —The existence of resistance to direction in behavior therapy is established as a potent factor influencing the outcome of the treatment irrespective of the mode of behavior modification being used. Strategies for dealing with instances of resistance to direction displayed in the various paradigms of behavior therapy are reviewed. Examining the clinical data from a traditional psychotherapeutic framework, possible motivating factors for manifestation of resistance in the behavioral context are considered. The implications of the survey are outlined. (19 ref.) —Author abstract.

9207 Kraft, T. (Claybury Hosp., Woodford Bridge, England). **Systematic desensitization using emo-**

tional imagery only. *Perceptual & Motor Skills*, 1971(Jun), Vol. 30(1), 293-294. —Describes a 19-year-old female patient successfully treated by systematic desensitization in which all imagery was on an emotional plane and who was unable to produce any visual imagery. It is argued that the importance of the focus in the desensitization procedure is on the emotional and subsequent elimination of emotional imagery and other forms of imagery, though desensitization may possibly not be essential to occur. —Journal abstract.

9208 Kravner, Leonard. (State U. New York, Stony Brook). **Behavior therapy.** *Annual Review of Psychology*, 1971, Vol. 22, 483-532. Presents an overview of behavior therapy in its historic context and through presentation of diverse elements of research and conceptualization, relating this field from other approaches. Behavior therapy is conceptualized as the application of behavior principles derived from the experimental laboratory to modifying deviant human behavior, as the use of the usage of specific techniques, usually based on learning principles, within the context of a real-life situation. A review of the literature indicates that the present status of the field is comparable to that of most other fields of psychology. A philosophy of publications, many inadequate research designs, and self-controlled sophisticated studies are criticized. Application to relevant human problems is discussed as to its efficacy in changing behavior, need for caution, and the need for ethical concerns as to its social and value implications. (37 ref.) —Journal summary.

9209 Litvak, Stuart B. (Arizona State U.). **The contribution of non-specific variables to outcome of systematic desensitization therapy.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5629.

9210 Matos, Robert L. (U. Kansas, Bureau of Interval Research). **Some relevant dimensions of interval recording.** *Academic Therapy*, 1971(Spr), Vol. 6(3), 235-244. Briefly discusses dimensions of interval recording procedures for contingency management in the natural environment. Anecdotal recording of S behavior under varying conditions is seen as often facilitating the selection of appropriate behavioral units for formal observation. Nature, rate, number and complexity and interest in temporal patterns of behavior influence the selection of continuous and interval recording. Guidelines for observation period duration, sampling behavior, selecting the number of behavioral categories, and determining interval duration are suggested. The relationship of stability criteria to base-line variability, and the reliability of behavioral measures are discussed. Examples of simple interval and coded multiple interval categories are presented. —C. J. Walther.

9211 Nordquist, Vey M. (U. Tennessee). **Physiological, cognitive and motor assessments of systematic desensitization.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5632.

9212 Portes, Alejandro. (U. Illinois). **Behavior therapy and critical speculation.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 320-324. —Considers critical analysis, when departing from concrete problems and generating testable propositions, as a legitimate aspect of scientific development. Examination of the limitations of behavioristic theory in its passage to therapeutic practice and the nonexploited supplementary mechanisms inherent in the latter gen-

erates several such propositions. 4 of these are presented. Arguments justifying circular definitions of reinforcement and extrapolating from social reinforcement studies in animals to human processes are critically examined. (77 ref.)—*Journal abstract.*

9213. **Portes, Alejandro.** (U. Illinois) **On the emergence of behavior therapy in modern society.** *Journal of Consulting & Clinical Psychology*, 1970(Jun), Vol. 36(3), 303-313.—Considers the emergence of behavior therapy in our times as both an indicator and a consequence of major cultural trends. Behaviorism, when applied to complex human disorders, is an inherently limited, partial approach. Thus, use of behaviorism by behavior therapists in such cases is mainly analogical. The growth of behavior therapy is not explainable by its intrinsic merits alone; hence, an explanation must be found in its broader cultural setting. Rationalism as the dominant trend in modern culture has rendered that culture particularly receptive to the behavioristic image of man. The sociology of knowledge perspective is employed here to discuss the relative status of behavior therapy, reactions against it, and the unacknowledged transformations of behaviorism in its passage from theory to practice. (36 ref.)—*Journal abstract.*

9214. **Powell, Arnold & Lumia, Augustus R.** (Columbus Coll.) **Avoidance conditioning and behavior therapies: A reply to Costello.** *Psychological Review*, 1971(Jul), Vol. 78(4), 344-347.—Critiques the conclusion of C. G. Costello (see PA, Vol. 44:12732) that avoidance responses are adaptive and phobias unadaptive. It is argued that behaviors cannot be functionally distinguished on the basis of adaptiveness, since adaptiveness refers to a relationship between a given response and particular environmental events. Given Costello's definition of adaptiveness, it can be shown that avoidance behaviors are unadaptive under a variety of conditions. The analysis of avoidance conditioning by R. Herrnstein (see PA, Vol. 43:6644) does not eliminate fear reduction as a sufficient condition for avoidance. Although theoretical interpretations of avoidance conditioning must take Herrnstein's analysis into account, this does not necessarily have any implications about the similarity between avoidance responses and phobias.—*Journal abstract.*

9215. **Rappaport, Herbert.** (State U. New York, Buffalo) **The modification of avoidance behavior: Expectancy, autonomic reactivity, and verbal report.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5635.

9216. **Ross, Steven M.** (U. Utah) **The role of duration and number of exposures of hierarchy items in a systematic desensitization analog.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5638-5639.

9217. **Spain, John L.** (U. Tennessee) **An evaluation of demand characteristics with "normal" snake phobic subjects.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5642-5643.

9218. **Yen, Sherman.** (Greater Baltimore Medical Center, Md.) **Operant therapy for excessive checking.** *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 194-197.—Evaluated a specific therapeutic approach to the treatment of excessive checking things behavior (obsessive compulsive disorder). S was an 18-yr-old high school graduate who had failed to respond to traditional therapy. The strategy was to integrate inconvenient consequences as a part of S's

self-control behavior and to delay the occurrence of the deviant behavior. When to increase the intensity of inconvenient consequences to produce a facilitation of the weakening process is discussed. A follow-up study indicates that the present approach is clinically effective. (French summary)—*Journal abstract.*

Special & Adjunctive Therapy

9219. **Boenheim, Curt.** (Columbus State Hosp., O.) **The position of art therapy within contemporary psychotherapy.** *American Journal of Art Therapy*, 1970(Apr), Vol. 9(3), 107-114. Modern developments in the larger field of dynamic psychotherapy have opened up new opportunities for art therapy. Art therapy will soon be able to stand both as a method of treatment and as a profession on an equal footing with any of the nonmedical specialties operating in the broad field of psychotherapy. Art therapists need to develop alternative modes of practice which will be sensitive to varying conditions under which they work. Art therapists need to identify their own unique contributions and should not imitate outdated psychiatric models. *H. J. McWhinnie*

9220. **Bour, Pierre.** **Objet Intermédiaire et psychodrame.** [Intermediate object and psychodrama.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 742-750.—Takes the position that in all situations of affective block between 2 persons, the use of an intermediate object may serve as a bridge. These objects represent in concrete form some symbolic value to which the person or patient may relate, e.g., the elements of earth, air, fire, and water may take the form of a lump of clay, colored balloons, a candle flame, and a basin of water. To be effective the specific concretizing object mediating between 2 persons must be chosen simultaneously by them both in the wish to draw closer and despite the irrational affective distance which separates them. This reciprocal choice is made, at the outset, in silence. This object is then revealed to others in the group. The shared object becomes the common object that may help to tunnel through the seeming mountains of uncrossable obstacles to communication (e.g., schizophrenic mutism) and bring about the beginning of affective exchange.—*H. E. King.*

9221. **Dengrove, Edward.** **The mechanotherapy of sexual disorders.** *Journal of Sex Research*, 1971(Feb), Vol. 7(1), 1-12. Discusses the uses of the artificial penis, a constricting device, the vibrator, and the Kegel perineometer in the treatment of impotence and frigidity. These devices are used not only as therapeutic instruments but to increase satisfaction with the sexual act for those who are not securing it. *I. B. Jaffe*

9222. **Gruenewald, Doris.** (Michael Reese Hosp., Chicago, Ill.) **Transference and countertransference in hypnosis.** *International Journal of Clinical & Experimental Hypnosis*, 1971(Apr), Vol. 19(2), 71-82. Presents spontaneous transference manifestations in experimental Ss during assessment of hypnotizability and in Ss in the beginning stages of hypnototherapy in the context of their management and utilization. 7 case histories are described. Countertransference issues are examined. (Spanish & German summaries) (17 ref.)—*Journal abstract.*

9223. **McClaskey, Harris C.** (U. Washington) **Bibliotherapy with emotionally disturbed patients: An experimental study.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5205-5206.

9224. Simon, Rita M. The significance of pictorial styles in art therapy. *American Journal of Art Therapy*, 1970(Jul), Vol. 9(4), 159-176. Offers an approach to art therapy which uses pictorial content and style as a means of personality assessment. Pictorial analysis and therapy. Pictorial content is discussed and 4 basic types of pictorial style are illustrated. It was hypothesized that pictorial style provides a reliable mirror of a person's habitual attitudes toward life. Perception and understanding of style are essential for the art therapist. The hypothesis was tested by having 10 art students in which the favorable outcome of treatment followed by the assumption that a particular painting reached to the heart of the patient's problem. This recognition and the art therapist's ability to bring the pictures' meaning into focus for the patient depended on both on her knowledge of familiarity with the characteristics of various pictorial qualities and the complex interplay of manifest content, latent content, and artistic style. *H. J. McWhinnie*
9225. Smith, Heather. An essay validating Dr. Stafford Clark's statement that occupational therapy "is an active method of treatment with profound psychological justification." *Australian Occupational Therapy Journal*, 1970(Oct), Vol. 17(4), 29-31. Considers that the treatment offered by the occupational therapist to patients in a psychiatric hospital is a dynamic process, where activities and the relationships evolved through these activities, allow the patient to uncover and express basic needs, drives and feelings and the means of gratifying these either direct or symbolically are then provided by the therapist. Various activity programs are described for patients suffering with obsessional neurosis, schizophrenia, psychosis, depression, and alcoholism. (24 ref.) *S. Anapp*
9226. Starker, Steven. (Marion Prince Clinic for Hypnotherapy, New York, N.Y.) An application of the hypnotic serial fantasy technique. *International Journal of Clinical & Experimental Hypnosis*, 1971(Apr), Vol. 19(2), 66-70. Applied the hypnotic technique of serial fantasy to the problem of resistance to treatment. When an adult female S became resistive, she was asked to relate serial fantasies while under hypnosis and then, in the waking state, to free-associate to them. The material elicited contained striking symbolic representations of the resistance, quickly enabling the S to appreciate the degree and manner in which she resisted, as well as why she needed to do so. This method is suggested as a useful hypnotherapeutic device for dealing with resistance. (Spanish & German summaries.) *Journal abstract*
9227. Taplin, Julian R. (Olympic Center for Mental Health & Mental Retardation, Bismerton, Wash.) Crisis theory: Critique and reformulation. *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 13-23. Critiques the building of a "crisis theory" by using pure homeostatic notions or psychoanalytic constructs. A review of crisis observations and their implications indicates that a cognitive perspective can serve as a theoretical framework. It is argued that several worthwhile possibilities follow from the use of a cognitive perspective: (a) approach to research definitions about crisis; (b) an approach to conceiving of crisis intervention; (c) a series of new ways in manpower; and (d) a broad approach to crisis prevention. A philosophy of science note supporting the looser perspective (vs. tighter theory) is offered. (53 ref.) *Journal abstract*
9228. Vogler, Roger E., Lunde, Stanley E., & Mack, Patrick L. (State Hosp.) Electrical aversive conditioning with chronic alcoholics: Follow-up and suggestions for research. *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 450-459. Reports a follow-up of a study by R. Vogler, S. Lunde, & C. Johnson and P. Martin (see PA, Vol. 44, 1459) on drinking behavior in chronic alcoholics 1 yr. after release from a hospital. Ss had been subjected to response-contingent electrical shock, random shock, sham or no shock, and 3 treatments. Ss were studied at 2, 4, 6, 8, 10, and 12 days to 1st rehospitalization, 12 months after rehospitalization, and (c) number of days in hospital. Conditioned Ss did not differ significantly from the random shock group, although the latter group means on all 3 criteria were better than the former. Conditioned and random shock groups were significantly more improved than the other groups. Results indicate that conditioning produced lasting effects and suggest that non-response-contingent shock may be as effective as response-contingent shock in controlling drinking. *S. Anapp*
9229. Wolff, D. L. (U. Queensland, Brisbane, Australia) Occupational therapy: An aid in the diagnosis and treatment of environmentally retarded children. *Australian Occupational Therapy Journal*, 1970(Oct), Vol. 17(4), 19-26. Discusses the finding that children who spend a great part of their early years in institutions or who suffer inadequate mothering or subsequent emotional and environmental deprivation often show retarded development. Although a number of these children are diagnosed as mentally retarded, the author considered that the term "environmental" retardation may be more suitable since it denotes the possibility of reversal of the process. Environmental retardation may be diagnosed by observation in occupational therapy development assessment using Gesell's methods, and through analysis of histories revealing inappropriate characteristics. 2 case histories are presented of a 2-year-old boy and a 2-year-old girl. The diagnosis and treatment used to overcome developmental lags are described. *—Journal summary*

Drug Therapy

9230. Bastié, Y. Indications du sulpiride dans l'alcoolisme. [Indications for sulpiride in alcoholism.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 23(405-406). The chemical nature of sulpiride (dogmatil, 405-406). The chemical nature of sulpiride (an antidepressant both neuroleptic and thymoanaleptic (an antidepressant without sedative action)) suggested its use with some of the complex interminglings of the problems of character, mood and behavior often found in alcoholism. Sulpiride was prescribed systematically for a large sample of alcoholics whenever a psychotropic agent was deemed necessary. Illustrative examples are given of alcoholism with depression, alcoholism with aggression, and other alcoholism with opposition to disintoxication, and other forms. The acute problems of chronic alcoholism (e.g., delirium) are better managed by the classic association of haloperidol-equanil. The special interest of sulpiride is its effectiveness with those Ss emerging from acute episodes who remain apathetic, aboulie, and depressed. This drug acts rapidly, an advantage for brief hospitalizations. Tolerance is good and there is no secondary somnolence. The psychotropic effect is complex, acting on depression, opposition to treatment, and the conduct

disorders. In addition to its current use for acute and chronic psychoses, depressions, and serious behavior disorders, sulpiride may be employed to advantage against the ordinary psychological problems accompanying chronic alcoholism.—*H. E. King.*

9231. Bastié, Y. **Suppression des crises d'épilepsie du sevrage par le dékapike dans les cures de désintoxication éthylique.** [Suppression of the epileptic crises of withdrawal by dekapine in cures of ethyl disintoxication.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 400-404. Epilepsy on withdrawal is a relatively frequent complication at the beginning of ethyl disintoxication, after occurring in Ss without a history of convulsions. It differs from the prodromal attacks of delirium tremens and the epilepsy symptomatic of alcoholic mental deterioration. Withdrawal epilepsy is reversible and unaccompanied by electrical perturbations and does not indicate that the S is truly epileptic. It does not continue if abstinence is maintained. The mechanism is a lowering of the convulsive threshold, a cerebral hyperexcitability secondary to the abrupt removal of alcohol which has exerted a sedative effect. Typically, a grand mal seizure occurs within 48 hr. Dekapine given as soon as possible on hospitalization and continued for 1 wk. was effective against this risk. The drug was well tolerated and caused no secondary effects among 545 cases observed. Treatment produced virtual disappearance of withdrawal seizures, a notable improvement over the 2.5% expectancy rate for such populations.—*H. E. King.*

9232. Bauer, G. & Nowak, H. (University Psychiatric-Neurological Clinic, Innsbruck, Austria) **Doxepin, ein neues Antidepressivum: Wirkungsvergleich mit Amitriptylin.** [Doxepin, a new antidepressant: Comparison of activity with amitriptyline.] *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1642-1646.—Compared the chemically and pharmacologically similar substances doxepin and amitriptyline in a double-blind trial with 20 patients. Clinical and statistical analyses showed great similarity between the substances. Remissions were effected in $\frac{1}{2}$ of the Ss. Antidepressive and sedative effects were equally strong. Chronic depressions were not influenced as well by doxepin as acute ones. The side effects of doxepin are a result of its anticholinergic property and of no special damage to the S. Changes of the serum transaminases and the alkaline phosphatase during treatment should be noted. (24 ref.)—*English summary.*

9233. Biéder, J. (Bailleul Psychiatric Hosp., France) **Implications des médicaments-retard.** [Implications of delayed medication.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 424-427.—Delayed-action medications have been used in endocrinology, in treating alcoholism, and for the application of neuroleptic agents. Their use entails several forms of subtle risk: the introjected substances, acting independently of the patient's will, furnishes ready material for paranoid thinking; therapeutic failures may not be observed properly, and responsibility is often shifted from "the patient who would not take his treatment" to "the physician who gave the wrong treatment." Perhaps the best use of the method is just prior to leaving the hospital, as a demonstration of control of the illness. It will not guarantee the patient's adherence to a prescribed regimen, but it will permit deviations from the ideal medication program to be taken at the least risk.—*H. E. King.*

9234. Carrère, J. (Villejuif, Psychiatric Hosp., Paris, France) **Action restructurante du sureptil dans les composantes anxio-dépressives d'états involutifs.** [The restructuring action of sureptil on anxiety-depressive components of involuntal states.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 409-419. The powerful and long-acting vasodilatory effects of sureptil were tested on a group of 53-85 yr. old psychiatric patients, without regard to original diagnosis. Psychological status was evaluated by the Overall and Gorham Brief Psychiatric Rating Scale applied before treatment and again 3 and 6 wk. after the 1st evaluation. A psychological test battery (derived from extracts of the Wechsler-Bellvue Intelligence Scale, Binet-Simon batteries, Kohs' Block-Design Test, Benton Visual Retention Test, and the Bender Gestalt) was applied before and at the end of the therapeutic trial. The clinical effects, on the whole, indicate sureptil to be active and useful against motor slowness, anxiety, conceptual disorientation, tension, and affective blunting. The beneficial action is at times paradoxical, with improvement sometimes following transient worsening or the reverse. Sureptil has a polyvalent action favorably affecting the anxiety and depressive components, and the behaviors that result from them, among chronic older psychiatric patients. —*H. E. King.*

9235. Delay, J., Lemprière, T., & Féline, A. **Essais du pirodixilate en thérapeutique psychiatrique.** [Trials of pirodixilate in therapeutic psychiatry.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 606-613.—Pirodixilate acts as a regulator of cellular respiration. Because its mechanism is exclusively biochemical, affecting the use and consumption of oxygen rather than producing any circulatory changes, it has been found useful as a protective treatment in neurosurgery, e.g., in the management of posttraumatic comas or cerebrovascular accidents. An experimental application of the drug to 35 psychiatric patients is reported. Ss were organic patients, chronic psychotics, and a small group of neurotics. $\frac{1}{2}$ the organic Ss were unaffected. $\frac{1}{2}$ showed moderate improvement in ability to concentrate and in memory function, and $\frac{1}{4}$ showed a good therapeutic result, i.e., improved concentration, memory, and intellectual functioning. Virtually all of the psychotic patients had prior treatment with neuroleptic drugs which were effective, but lingering problems of attention, intellectual integration, and a poverty of interest had prevented their return to full social roles. Most of these patients were improved ($\frac{1}{4}$ was unaffected) by beneficial influences on initiative, contact with others, distractibility, and intellectual and memory integration. Used conjointly with psychotropics, pirodixilate provides a useful approach to certain residual psychotic states. The effect on neurotic patients was inconclusive but seemed generally favorable and benign. —*H. E. King.*

9236. Fischbach, R. (Salzburg State Nerve Clinic, Neurological Div., Austria) **Der Einfluss der Thymoleptica auf die Säureproduktion des Magens.** [The influence of thymoleptic drugs on the acid production of the stomach.] *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1640-1642. During therapy with thymoleptic drugs in 38 depressive patients, acid production and stomach secretion were studied. A growing loss of acidity involving both "free" and "total" acid was noted. It was accompanied by decreased absorption of drugs of the imipramine series, which could be compensated by acid substitution. (15 ref.) —*English summary.*

9237. **Gorceix, A. & Jacquemin, C.** *Intérêt du pyrovalérone dans le traitement ambulatoire des états de fatigue.* [The interest of pyrovalerone for the ambulatory treatment of fatigue states.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 624-632. The reduction of fatigue states has long been a hope in psychiatry and general medicine, but the use of stimulants such as amphetamines has proved both delicate and dangerous. Metals and substances have generally failed to show the least evidence of effective action. The therapeutic search for an effective treatment of exhaustion continues, however, just as the target symptoms of agitation were finally reached by the neuroleptics and depression yielded to thymomimetic agents. Pyrovalerone (L. J. 424) was applied to 15 patients, too heterogeneous in kind to allow a strict statistical data analysis. The responses of individual illustrative cases are described, which are varied in nature and often mixed with a possible response to other simultaneous medication. The usefulness of the present exploratory study lies more in a demonstration that the treatment can be most effective with certain patients, and that the drug is well-tolerated without producing troublesome secondary effects. To influence fatigue, which the authors regard as a limited form of clouded consciousness, a neuroleptic agent is needed to assure full awareness without excess mobilization of tension or the revival of anxiety. Pyrovalerone is held to be an interesting step along this therapeutic way.—*H. E. King*

9238. **Ham, Roberto, et al.** *Fray Bernardino Alvarez Psychiatric Hosp. Mexico D.F. La propericiazina en el tratamiento de trastornos de conducta infantil.* [Propericiazine in the treatment of disturbed infantile behavior.] *Revista de la Clínica de la Conducta*, 1969(1 feb), Vol. 2(4), 28-32. Investigated the therapeutic effects of propericiazine (a piperidine phenothiazine) in children with behavior disturbances. Data confirm findings from France: the effect on child behavior disturbances was superior to that found with other neuroleptics. The tolerance rate was high, even though the dose in some cases was 3 times that used in Europe. The drug was administered in drops, in doses of 5-15 mg 3 times/day. Children with behavior disturbances due to brain damage improved more than is usual with other phenothiazines. Drowsiness was a frequent side effect, but only occurred with the 1st doses. Results, including etiology, age, and symptoms, are presented in chart form (French summary)—*English summary*

9239. **Handlarz, Mario C.** (U. Buenos Aires, Medical School, Argentina) *Nuestra experiencia con el uso de la litoridazina en el tratamiento de los estados depresivos.* [Our experience with thioridazine in depressive states.] *Acta Psiquiátrica y Psicológica de América Latina*, 1971(1 feb), Vol. 17(1), 39-45. Describes the use of thioridazine with 49 depressive patients who had not responded to other treatment procedures, including electroshock therapy. The drug was effective in the control of hallucinations, anxiety, and emotional tension; there was also improvement in judgment and comprehension, and a decrement in hostility.—*J. A. Colotta*

9240. **Léger, J. M., Garoux, R., & Drucker, H.** (U. Limoges, Hosp. Center, France) *Remarques sur l'utilisation de la clomipramine (anafanil) dans certaines psychoses délirantes aiguës (sans élément dépressif net).* [Remarks on the use of

clomipramine (anafanil) in acute delusional psychosis (without depressive element).] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 777-784.—Reports the use of clomipramine with delusional psychosis and acute delusional psychosis admitted to a psychiatric service because of an acute episode. A dosage of 100-150 mg was given 3 times a day, sometimes accompanied by a neuroleptic. The results were found for 12 of 15 patients. The best responses were obtained among those presenting clinical pictures of strong inhibition and passivity (catatonia, difficulty with contact). Among those when present, was unpleasant excitement, which seemed to change to a form more sensitive to treatment by neuroleptic or electroshock treatment. The drug also had a favorable action on improvement of the delusions of persecution. While the delusional action was rapid, only a matter of days to weeks, the delusions was much slower, requiring several weeks. The mode of action is discussed in an effort to understand these positive clinical findings.—*M. E. King*

9241. **Maggi, C., Murri, M., & Sacchetti, G.** (Pisa Inst. of Clinical Psychiatry, Italy) *Evaluation of the effectiveness of temazepam on the insomnia of patients with neurosis and endogenous depression.* *Archivum Psychiatricum*, 1969(Oct), Vol. 19(10), 161-162.—Describes the clinical and polygraphic changes induced in the sleep pattern of 8 Ss with endogenous depression or catatonia by a new derivative of benzodiazepine, i.e., 7-chloro-1,3-dihydro-1-methyl-5H-2,4,6-triazepin-2-one (temazepam). This drug proved useful in the treatment of initial and middle insomnia and in improving the subjective assessment of sleep defined by the Ss as "restful" and "refreshing." It is suggested that these changes of sleep approach reflect an increase of REM stage duration. (German summary)—*Journal summary*

9242. **Nates Rodriguez, Daniel.** (Children's Hosp. of Mexico, Mexico, D.F.) *Las psicodrogas en pediatría.* [Psychotropic drugs in pediatrics.] *Revista de la Clínica de la Conducta*, 1969(1 feb), Vol. 2(4), 5-21.—Relates experiences in the treatment of children with psychotropic drugs. The nerve structures whose functioning is responsible for conduct changes are described. Biochemical aspects for consideration when psychotropic drugs are used are noted. Psychotropic drugs are classified and evaluated for their use in child psychiatry. Doses and toxicity are discussed. The following groups of drugs are considered: (a) sedatives, (b) major tranquilizers, (c) minor tranquilizers, (d) antidepressants (MAO inhibitors), (e) stimulants, and (f) various metabolites. (French summary)—*English summary*

9243. **Ostapitzeff, G. & Ostapitzeff-Lavoine, M.** *propos du syndrome neuroleptique.* [On the neuroleptic syndrome.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 614-617.—Ever since the neuroleptic drugs became a part of the panoply of psychiatric treatments their secondary effects have been known. The extrapyramidal phenomena produced have become, in fact, one of the identifying criteria for neuroleptic activity. This paper describes 4 patients who interpreted the secondary drug effects on their bodies as part of their personal psychological experience. The trembling of limbs or difficulty with chewing or salivation became a part of the patient's delusional

system; e.g., a trembling leg was said to be moved by "the little beasts within." The secondary symptoms become integrated with the rest of the personality and may also be invested with a private significance bearing on their relation to their physician. The latter should recognize that a kind of message may be directed toward him and not reject it by neurologizing it. — *H. E. King.*

9244. Porot, M., Couadau, A., Plenat, M., & De Mori, Y. Essais cliniques du thiothixène, neuroleptique désinhibiteur. [Clinical trials of thiothixene, neuroleptic disinhibitor.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 618-623.—Reports the use of thiothixene (navane) with 20 patients selected for obsessional neurosis or schizophrenic inertia, 2 psychopathological states resistant to most forms of psychiatric treatment. Clinical response, typically rapid, varied from $\frac{1}{3}$ excellent and $\frac{1}{3}$ good to $\frac{1}{3}$ ineffective. Patient groups were similar in age and sex. Best reactions were found with problems of most recent origin and results were particularly favorable for hebephrenic and catatonic states. Simple schizophrenic and heboidophrenic patients in which a certain level of activity is maintained were not favorably indicated for thiothixene therapy. As the problems of most patients treated were long-standing and had been subject to prior treatment without beneficial result, thiothixene appears to be a neuroleptic disinhibitor of special value for those atonic, apraxic schizophrenias heretofore condemned to inactivity and distressing passivity.—H. E. King.

9245. Rickels, Karl, et al. (U. Pennsylvania) **Drug, doctor warmth, and clinic setting in the symptomatic response to minor tranquilizers.** *Psychopharmacologia*, 1971, Vol. 20(2), 128-152.—Conducted a collaborative double-blind clinical trial, concerned with the importance of the "doctor variable" for drug treatment outcome, with 485 anxious neurotic outpatients receiving either chlordiazepoxide, meprobamate, or placebo. 3 clinics participated, and the doctor variable selected for presentation was "doctor warmth." Data on the 169 Ss completing the 4-wk study were analyzed using a factorial analysis of covariance procedure. Results indicate that (a) several main drug effects, present only at 2 wk., indicated chlordiazepoxide to produce significantly more improvement than meprobamate or placebo; (b) several main warmth effects, present only at 4 wk., showed that Ss who initially rated their physicians as "warm" improved significantly more than Ss rating their physicians as "nonwarm"; and (c) several significant Drug \times Clinic interaction effects at 4 wk. indicated that although hardly any drug differences were seen in 2 clinics, at the 3rd clinic, Ss strongly favored chlordiazepoxide. Drug and warmth effects were particularly marked in initially sicker Ss, and warmth appeared especially important in the improvement of initially sicker placebo Ss. (26 ref.)—*Journal abstract.*

9246. van Praag, H. M., Schut, T., Bosma, E., & van den Bergh, R. (State U., Psychiatric Clinic, Groningen, Netherlands) **A comparative study of the therapeutic effects of some 4-chlorinated amphetamine derivatives in depressive patients.** *Psychopharmacologia*, 1971, Vol. 20(1), 66-76.—The compounds 4-chloro-N-methylamphetamine (CMA) and 4-chloroamphetamine (4-CA) are probably depletors of 5-hydroxytryptamine (5-HT). This has been demonstrated as plausible in human Ss also. In rat brains, the 5-HT depleting potency of 4-CA exceeds that of CMA. In depressive patients, moreover, CMA behaves as an antidepressant. In view of

these findings the following hypotheses were tested in a study with 29 depressive patients: (a) If there is any correlation between the 5-HT depleting potency of CMA and 4-CA and their antidepressant potency, then the therapeutic potency of 4-CA must be expected to exceed that of CMA. And (b) in view of the hypothesis of A. Carlsson and associates, that the motor activating effect of antidepressants is of largely noradrenergic determination, and their mood-improving effect largely serotonergic, the effect of CMA and 4-CA on mood can be expected to be small, and their effect on mood more or less selective. No unequivocal confirmation of these hypotheses was found. The possible causes of this failure are discussed. (30 ref.)—*Journal abstract.*

9247. Velasco Fernández, Rafael, et al. (Clinic of Behavior, Mexico, D.F.) Estudio piloto con RO 5-4556 en los trastornos de conducta de los niños en edad escolar. [Pilot study with Ro 5-4556 in the disturbed behavior of school age children.] *Revista de la Clínica de la Conducta*, 1969(Feb). Vol 2(4), 22-27. Investigated the use of a new psychotropic drug, Ro 5-4556 (nobrium) in a clinic. 36 school age children with different types of behavior disturbances were treated for an average of 3 mo. with doses ranging from 10-40 mg/day (1-15 mg/kg). The drug proved to have scarcely any toxic effects and was highly effective in the treatment of (a) sleep problems, (b) enuresis, (c) anxiety, and (d) hyperactivity. (French summary)—English summary.

HOSPITAL CARE & INSTITUTIONALIZATION

9248. Ancona, Leonardo; Cagliardi Guidi, Rosanna, & Strolago, Emilia. (Catholic U. of the Sacred Heart, Milan, Italy) **La dinamica del campo sociale post-edipico nella strutturazione dell'identità personale.** [Dynamics of the post-oedipal social field in the structuring of personal identity.] *Contributi dell'Istituto di Psicologia*, 1970, Vol. 30, 46-69. Psychosexual development of institutionalized boys was profoundly different from that of their controls. The former showed a rather archaic, primitive, and depressive level characterized by guilt feelings, sense of abandonment, narcissistic orientation, and a prevalently feminine identification. Institutionalization reduced productive discharge, decreasing achievement motivation and increasing fear of failure. (23 ref.) *I. L'Abate*

9249. Azoubel Neto, David & Roberto Borges. Ideo. (Inst. Ribeirão Preto, São Paulo, Brazil) **Organização e funcionamento de um hospital diurno em uma clínica particular.** [Organization and operation of a day hospital in a private clinic.] *Acta Psiquiátrica e Psicológica de América Latina*, 1971(1 feb). Vol. 17(1), 33-38. Describes a day hospital for psychiatric patients in a private clinic, stressing the functions of the staff members, the techniques employed, and the philosophy of treatment. Group psychotherapy and occupational therapy are the central points in the program. Reports on the 1st yr. of operations of the day hospital and provides statistical and epidemiological data on the patients admitted.—English summary.

9250. Bièder, J. (Baillieu Psychiatric Hosp., France)
La fonction cloacale des hôpitaux psychiatriques.
[The cloacal function of psychiatric hospitals.] *Annales
Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 419-424.
—Sociological analyses of the psychiatric hospital have
at times compared its role to that of the concentration

camp. Here, their function is seen differently, since the concentration camp has for its goal the elimination of its inmates while the psychiatric hospital has an absolute obligation to keep the interned alive. Its worst scandals are either suicide or escape. The principal reason for this unfortunate role or duty is not so much to eliminate the unwanted from society as to remove the un-understood, untreatable, or troublesome patient from the general hospital. It is used as the cloaca of the medical body. The "psychiatric alibi" is all too often invoked because a patient is agitated, or provokes a nurse, or because a lack of funds places him on an irreversible course toward the psychiatric facility. 2 possible remedies are suggested. (a) For the short-term, a mandatory delay within a general hospital before a psychiatric transfer is assured. (b) For the long-term, an extension of the critical examination of all clinical and life circumstances affecting the patient into the medical-administrative practices of the general hospital itself.—*H. E. King.*

9251. **Bosch, Gregor.** (U. Frankfurt/Main, Neuro-clinic, W. Germany) *Zur Frage des Abbaus von Zwangseinweisungen.* [On the question of reducing compulsory admissions.] *Nervenarzt*, 1971(Feb), Vol. 42(2), 65-74.—Argues that compulsory or involuntary admission of psychiatric patients for treatment has undesirable consequences and can be significantly reduced when the clinic provides the proper sort of therapeutic milieu. Much supporting statistical data are presented which were obtained from the records of the clinic established by the author at the Department of Social Psychiatry of the University of Frankfurt's Nervous Disease Clinic. Voluntary vs. involuntary admissions are compared for various diagnostic categories, for 1st vs. 2nd admissions, as a function of the duration of illness, etc. It is concluded that the concept of compulsory admission does not have to be accepted as intrinsically necessary. (31 ref.)—*E. R. Wist.*

9252. **Hagberg, Katherine L.** *Social casework and group work methods in a children's hospital.* *Children*, 1969(Sep), Vol. 16(5), 192-197.—Describes a combination of social work methods in a voluntary hospital for chronically ill children up to 19 yr. of age. Methods used with teen-agers are elaborated, including setting up a teen-age council for government and planning activities, group activities and group play sessions used with younger children, and the setting up of parents' groups.—*D. T. Lekarzyk.*

9253. **Hazemann, R. H.** *Gigantisme hospitalier.* [Hospital gigantism.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 321-342.—The tendency of modern cities and industries toward gigantism brings anonymity and impersonality and the ruin of human contact in the indifference of bureaucracy. Illnesses of the spirit, reflected in the neuroses and by psychosomatic complaints, express the resultant suffering by both the individual and collective organisms. Hospitals themselves have become too large, a practice usually justified on a cost basis. Beyond a certain optimum of beds this is not borne out, however, and offers no excuse for the damage done to humanity by gigantism. The proper size for a hospital is a function of many factors (the region served, the division by specialty, etc.), always including the psychological needs of both the patients and the hospital personnel concerned. It is recommended that general hospitals not exceed 400 beds and that university hospital centers include no more than 600-800 beds. The psychiatric hospital should be limited to 250-300 beds.

Preferred sizes for other speciality hospitals are mentioned as is a distribution plan for affiliated institutions.—*King.*

9254. **Kriauciunas, Romualdas.** (Kankakee Hosp., Ill.) *Age and sex differences in reasons for psychiatric hospitalization.* *Gerontologist*, 1969, Vol. 9(3, Pt. 1), 221-222.—The results of a retrospective study, based on 387 Ss, suggest that destructive behavior as a stated reason for psychiatric hospitalization is more frequent for men and for young adults regardless of age. Furthermore, admission due to management of physical illness seems to become more frequent with increasing age.—*Journal summary.*

9255. **Lawson, Robert B., et al.** (U. Vermont) *Token economy program in a maximum security correctional hospital.* *Journal of Nervous & Mental Disease*, 1971(Mar), Vol. 152(3), 199-205.—Reports on an attempt to implement a token economy program in a correctional hospital. 41 low functioning male patients were studied regardless of diagnostic record or criminal offense. Patients selected were indifferent, apathetic, dependent, and institutionalized. Results indicate that behaviorally inactive patients engaged in reinforcement activities in order to gain access to a variety of reinforcers. Token economy programs can be an effective treatment method in a maximum security correctional hospital.—*Journal abstract.*

9256. **Martin, A., et al.** *L'esthéticienne à l'hôpital psychiatrique.* [The esthetician in the psychiatric hospital.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 427-432.—The role of the esthetician, one who assists or counsels in the techniques of personal grooming and care, is deemed of importance as a link in the contact of the psychiatric patient with the social world and with significant others in her personal life. 2 aspects of today's care programs bring to the traditional need to the fore: the short hospital stay with its continuous visiting privileges, and some of the effects of psychotropic drug treatment programs which may call for special counteractive efforts (to deal with skin discolorations of thickenings, and the like). Patients appreciate the entry of these "representatives of the outside world" within the hospital and the aid thus given to assure a resumption of their social lives at discharge. They represent a tangible evidence of the humanization of the hospital with an orientation toward the doors of the world outside.—*H. E. King.*

9257. **Morton, W. Duke; Lantz, Alma, & Halpern, Joseph.** (3520 W. Oxford Ave., Denver, Co.) *Readmissions: Methodology and meaning.* *Journal of the Fort Logan Mental Health Center*, 1970(Spring), Vol. 6(1), 1-22.—Presents various methods of calculating readmissions to a psychiatric hospital based on a study of 2,198 patients. Methods considered include (a) ratio of readmissions to total admissions, (b) ratio of readmissions to subsequent readmissions of the same patients, and (c) cumulative percentages of readmissions. Methodological difficulties are described. The relationship between readmission rates and time in hospital, hospital environment, length of hospitalization, and time in the community, and personality characteristics to readmission rates are discussed. It is concluded that the various methods of calculating and describing readmission rates determine the extent to which such figures can (a) answer a given question, and (b) gauge the effectiveness of a hospital treatment program.—*Knapp.*

9258. **Rosen, Bernard; Klein, Donald F., & Ghitelman,**

neurological origin of Freud's dream theory. *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 59-74.—The impression is conveyed both in Freud's early and later writings that his dream theory arose in a strictly empirical and inductive manner from clinical observation of his patients. More recent endeavors, based on Freud's extensive correspondence with Fleiss, reveal that 4 yr before publication of *The Interpretation of Dreams*—Freud had attempted to construct a model of the psychic apparatus in strictly neurological terms. In particular, the dream theory seems to have been a logical and appropriate extension of neurological principles learned by Freud during his tenure as a neuro-physiologist. —C. M. Frank.

9266. Mattoon, Mary A. (U. Minnesota). **The theory of dream interpretation according to C. G. Jung: An exposition and analysis.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5205.

9267. Monserrat Valle, Leopoldo. **El mecanismo psicológico de identificación.** [The psychological identification mechanism.] *Revista de Psicología y Psicología Médica*, 1970(Apr), Vol. 9(6), 380-409.—Reviews the views of a large number of psychoanalytic authors, such as Fenchel, Ferenczi, Freud, Klein, Pearson, and others concerning the mechanism of identification, its relationship to other ego-defense mechanisms, types of identification, the dynamics of identification, the Oedipus conflict, the ego, the superego, and other related psychoanalytic concepts. (36 ref.) —L. Zúñiga.

9268. Paulsen, Lola. (20 Hyde Park Square, London, England). **Dreams and fantasies of falling.** *Journal of Analytical Psychology*, 1971(Jan), Vol. 16(1), 1-17.—3 aspects of dreams and fantasies of falling are stressed and supported by clinical material. The significance of dreams of falling was isolated within the general context of anxiety states, forebodings, and panics. Transference was highlighted. The nature of the fall is discussed as a true symbol, in light of other studies and personal experiences with patients. (16 ref.) —P. Feldman.

9269. Ravbin, James B. (U. Colorado Medical School, Denver). **The curse: A study in family communication.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 617-625.—Discusses the curse or sinister prophecy, from the viewpoint of its role in family communications. Illustrations are presented from 4 families. The creation and maintenance of a curse as part of a larger family mythology involves individual problems in identification and magical thinking, as well as family problems of homeostasis and the transmission of irrationality. Therapy of individuals and families caught up in a mythological system is an arduous task, as there is much resistance to change what is often seen as one's inevitable fate. (71 ref.) —*Journal abstract.*

9270. Rycroft, Charles. (50 Wimpole St., London, England). **El simbolismo y su relación con los procesos primario y secundario.** [Symbolism and its relation to primary and secondary processes.] *Revista de Psicología*, 1970(Apr), Vol. 27(2), 365-392.—Examines the relationship between symbolic processes and ego function, noting Freud's initial ideas on differences between primary and secondary processes, with particular reference to Winnicott and Milner on illusion. Reasons which imply that limiting symbolism to the use of symbols in the primary process is incompatible with Freudian theory on the nature and development of ego

are discussed. A theory on symbolism is presented on basis that symbolism constitutes a general meaning process. —P. Hollberg.

9271. Sharpe, Ella F. **Problemas psicológicos revelados en el lenguaje: Un examen de la metáfora.** [Psychological problems revealed in language: A study of the metaphor.] *Revista de Psicología*, 1970(Apr), Vol. 27(2), 393-401.—Discusses the metaphor as a verbal phenomenon in which sensory experience and thought are fused on a verbal level. The general circumstances in which the evolution of the metaphor is illustrated by clinical material. The metaphor is shown to evolve in conjunction with a central affective process with emotions originally found in bodily discharges finding substitute channels and matrices. The influence of pregenital stages is believed to result in fixation on instinctual tension. —Hollberg.

PSYCHODIAGNOSIS

9272. Adams, Jerry. (William S. Hall Psychiatric Ins. Center, N.C.). **Defensiveness on the MMPI as a function of the warmth of test introduction.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 444.—Hypothesized that a warmer introduction to the MMPI would reduce defensiveness as measured by the K and F-K scales and permit the revelation of more psychiatric symptoms. Over a 7-mo period the MMPI with either a warm or cold introduction was administered to a total of 61 mothers and 47 fathers of children being evaluated in a child psychiatric clinic. The K scores were significantly higher and the F-K scores significantly lower for the cold-form group. Mothers who received the warm form scored higher on the F scale, while fathers did not differ across forms. It is concluded that, while an increase in honesty resulted from the manipulation of the forms, there was little evidence to indicate that there was also an increase in the acknowledgment of psychiatric problems. It is suggested that high K and low F-K scores, rather than indicating the covering up of symptoms, are an assertion of psychological health. —S. Knapp.

9273. Adis Castro, Gonzalo. (U. Costa Rica, Med. School, San José). **Salud mental, investigación y contexto socio-cultural.** [Mental health, research and socio-cultural context.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 181-189.—Research in the mental health field should take into account the socio-cultural context in which the investigations are carried out. The emphasis here is appropriate since very often one is confronted with a contradictory situation: on the 1 hand, there is acceptance of the fact that the individual must be viewed within his own socio-cultural context; and, conversely, research in this field indicates that the individual has been evaluated without taking into consideration the socio-cultural expectations of his own environment. Several examples are given to show the importance of studying and understanding the socio-cultural context in which epidemiological research in mental health is to be carried out. (16 ref.) —J. A. Colotta.

9274. Adis Castro, Gonzalo & Araya Quesada, Mario. (Chapui Psychiatric Hosp., San José, Costa Rica). **Mini-Mult: Una forma abreviada del inventario multi-fásico de la personalidad de Minnesota, MMPI.**

[Mini-Mult: A short form of the Minnesota Multiphasic Personality Inventory, MMPI.] *Acta Psiquiátrica y Psicológica de América Latina*, 1971(Feb), Vol. 17(1), 12-18.—A short form of the MMPI, Kincannon's Mini-Mult, was evaluated in a retrospective study. 40 MMPI protocols were randomly selected from the archives of a Costa Rican psychiatric hospital and the responses to the Mini-Mult questions were extracted from them. Local regression equations were employed to estimate the scores in the original MMPI scales: it was found that the error introduced by the short form tends to be relatively small. It is concluded that the Mini-Mult can be employed instead of the original form of the MMPI when there are time limitations or the educational level of patients is low.—*English summary.*

9275. Adís Castro, Gonzalo; Hernández Ureña, R., Viquez Carvajal, C., & Alvarenga Bianco, F. (U. Costa Rica, Medical School, San José) *Investigación epidemiológica en América latina: Prevalencia de problemas de salud mental en Costa Rica*. [Epidemiological research in Latin America: Prevalence of mental health problems in Costa Rica.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No.2, 89-114.—Psychiatric epidemiology in Costa Rica was evaluated by means of a questionnaire in a direct interview with a sample of 750 Ss: 650 were from a rural setting, and 100 were from an urban setting. The overall percentage of prevalence of psychiatric disorders (prevalence of urban and rural samples, respectively, are in parentheses) was: psychosis, 2.9 (6 and 2.5); personality disorders, 10.1 (13 and 9.7); psychoneurosis, 38.7 (28 and 40.2); psychophysical reactions, 28.1 (27 and 28.3); epilepsy, 2.2 (2 and 2.2); and alcoholism, 14.9 (24.4 and 13.2). The limitations of the study, including the small size of the samples, are indicated. (20 ref.)—V. A. Colotta.

9276. Bemporad, Jules R., Pfeiffer, Carl M., & Bloom, Wallace. (New York Medical Coll., Flower & 5th Ave. Hosp.) *Twelve months' experience with the GAP classification of childhood disorders*. *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 658-664.—Describes an assessment of the value of the new Group for the Advancement of Psychiatry (GAP) classification of childhood disorders, which took place after this system had been in use for 1 yr., during which time 310 children were seen. The GAP classification is compared with the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) I and DSM II. While overall satisfaction with the GAP classification is expressed it is believed that certain changes are warranted. These changes are outlined.—*Journal abstract.*

9277. Bouchariat, J., et al. (U. Grenoble, Hosp. Center, France) *Le test du pays de la peur et du pays de la joie*. [The test of the "land of fear" and "land of joy."] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 589-605.—Describes a new projective test for children. It provides a view of defense mechanisms used to control anxiety created by a conflictual situation. The responses of 323 school-age children to instruction to draw "the land of fear" are counted and classified with reference to the representation of anxiety and the defense against it. Typical themes, e.g., aggression, insecurity, abandonment, and death, are described for different age and sex subgroups. Drawings of "the land of joy" elicit themes of action, interiors (houses, gardens), and renewal, e.g., holidays or the cycles of nature. Symbolic content is also identified and counted,

e.g., evil objects or cosmic symbols. The responses of 72 unstable children are analyzed, for cases of affect disorder, psychosomatic problem, neurosis, schizophrenia, and organic disorder. The abnormal children showed insecurity in the way their lands of joy were easily transformed into fear, unbalance in their treatment of real and imaginary elements, etc. Test responses relate more closely to the TAT than the Rorschach. The "fear-and-joy" test centers on elements scattered throughout other projective techniques making possible a more rapid and direct approach to the child's problem.—H. E. King.

9278. Cabildo Arellano, Hector M. (Dept. of Public Health, Mexico City, Mexico) *Investigación epidemiológica en América latina: Estado actual de la investigación epidemiológica en América latina*. [Epidemiological research in Latin America: Current status of epidemiological research in Latin America.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 126-139. Since the beginning of the century, the following epidemiological studies have been carried out in Mexico: 4 studies on homicide, 2 on suicide, 3 on juvenile delinquency, and 3 on mental disorders. The results of the last 3 studies showed that the overall percentage of prevalence of mental disorders in the population was 32.9. The percentage of prevalence of specific mental disorders was: psychosis, 1.01, senile psychosis, .31; alcoholism, .70; epilepsy, .30; mental deficiency, 1.22; neurotic reactions, 13.45; mild emotional disorders in children, 13.23; and severe emotional disorders in children, 3.05 (29 ref.)—V. A. Colotta.

9279. Calvi, Gabriele. (Catholic U. of the Sacred Heart, Milan, Italy) *Lo sviluppo di nuove direzioni esplorative nella ricerca e nella pratica psicodiagnostica*. [Development of new explorative directions in psychodiagnostic research and practice.] *Contributi dell'Istituto di Psicologia*, 1970(Vol. 30) 722-725. A rating scale for level of confidence in answering items by an S helps the examiner evaluate this dimension and increases the S's motivation, humanizing the test situation, and reducing the chances of errors. The role of response sets is also discussed.—L. F. Abate.

9280. Clum, George A., & Holberg, Anne L. (U. Virginia, Medical School) *Prognostic indexes in a military psychiatric population*. *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 436-440. Used biographical variables, available at the time of admission to a Navy psychiatric service, to predict the posthospital adjustment of 827 male patients (Navy and Marine Corps personnel) to military life. Predictor variables were combined, using a multiple regression technique and a simple item-analyzed scale. The latter proved to be slightly, but not significantly, more efficient than the multiple-regression procedure as judged from cross-validity correlations. Variables which were reliable prognostic indicators included (a) occupational specialty, (b) number of children, (c) wife's attitude, (d) solitariness of work, (e) length of service, (f) diagnosis, and (g) recognition for inservice achievements. While improvement in base-rate prediction was not possible, an increase in effectiveness rate for ex-psychiatric patients could be effected by selecting a high prognosis score as a requirement for returning a patient to duty.—*Journal abstract.*

9281. León, Carlos A., Climent, Carlos E., Estrada, Harold, & Jaramillo, Ramón. (U. del Valle Medical School, Cali, Colombia) *Investigación epidemiológica*

en América latina: Evaluación de instrumentos para el estudio de la prevalencia de trastornos mentales. Ensayo metodológico en una población semi-rural. [Epidemiological research in Latin America. An evaluation of the instruments available for the study of the prevalence of mental disorders: A methodological sample of a semi-rural population.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 64-88. To evaluate the screen ability of prevalence instruments in epidemiological surveys an abridged version of the Health Opinion Survey (HOS) and checklist of psychiatric symptoms were given to a probabilistic sample of adult inhabitants of a semirural town in Colombia. The results were validated by psychiatric examination of a stratified random subsample of respondents. It was found that HOS does not discriminate between sick persons and the general population; the checklist of symptoms was found useful in identifying mentally ill persons in a population, but was unable to indicate their type (15 ref.)—V. A. Colotla.

9282. Listiak, Richard L. & Stone, LeRoy A. (U. Nebraska, Medical School, Omaha) **Psychophysical approach to clinical judgment of low T scores on the MMPI.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 447. Presented randomly and individually T scores on the MMPI, ranging from 30-110, to 14 PhD clinicians in Minnesota and 18 clinicians in Kansas for evaluation of pathology. Ss showed low agreement on 2 scales (Pa and Ma) and were significantly different on 7 out of the 10 scales. Minnesota judges tended to regard low scores as representing less pathology and to view pathology in a linear manner. Limitations of the study are noted. S. Knapp.

9283. Marconi, Juan. (U. Chile, Medical School, Santiago) **Esbozo de modelos de valor epidemiológico para la investigación y la acción en América latina.** [Outline of epidemiological models for research and action in Latin America.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 161-179.—Mental health programs in Latin America are conceived on an Occidental-ethnocentric model, ignoring the cultures of the majority of the population. A cultural relativistic model is proposed disclosing the cultural barrier between European culture at the university level and mestizo-popular and aboriginal cultures, mental health being a problem activity approached by cultures on both sides of the barrier. 3 cultural models of medicine in Chile are described: European, popular, and Mapuche, emphasizing the need for a cultural relativistic approach to them.—V. A. Colotla.

9284. Marconi, Juan & Muñoz, Leonardo. (U. Chile, Medical School, Santiago) **Investigación epidemiológica en América latina: Visión general de la investigación epidemiológica en salud mental en Chile.** [Epidemiological research in Latin America: Epidemiological research on mental health in Chile.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 115-125.—Epidemiological research on mental health in Chile has been aimed at evaluating the prevalence of alcoholism and other mental disorders. Prevalence studies of types of drinkers indicate that for Chile adult alcoholics number 5% and child alcoholics, 1.6%. Epidemiological studies on the prevalence of other mental illnesses have been carried out in Greater Santiago (1958), in 3 social strata of the northern area of Santiago (1965-1966), and again in Greater Santiago (1967-1968). Alcoholism, neurosis, and

epilepsy increase in the lower socioeconomic strata. B. Greater Santiago studies show a raw prevalence estimate of around 18% mental disorders in the general population, neurosis and alcoholism being the most prevalent disorders. (18 ref.)—V. A. Colotla.

9285. Mariátegui, Javier. (Cayetano Heredia Peruvian U. Lima) **Investigación epidemiológica en América latina: Estudios de epidemiología psiquiátrica en el Perú.** [Epidemiological research in Latin America: Studies of psychiatric epidemiology in Peru.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 140-160. An epidemiological study was conducted in the District of Lince, in Lima, Peru, to evaluate the prevalence of psychiatric disorders. Questionnaires and interviews were employed with a sample composed of 4% of the families in the district. Prevalence of mental disorders was 18.7% of the sample; differences were found between the 2 social strata (middle and low) studied. The rate of prevalence found in this study is contrasted with the 42.6% prevalence found in Iquitos, Mendocita, in 1958. This discrepancy is discussed in terms of the social disorganization prevalent in the Iquitos zone. (25 ref.)—V. A. Colotla.

9286. Misyuk, N. S., Lepeshinskii, N. A., & Mastyluk, A. S. **Elementy avtomatizatsii diagnosticheskogo protsessa v nevropatologii.** [The elements of automatization of the diagnostic process in neuropathology.] Minsk, USSR: Belarus', 1970, 192 p. Recommends which diseases it is wise to detect with the aid of the electronic computer, with special attention directed to the algorithms which are utilized for diagnosing diseases of the human nervous system. Describes and illustrates 1 of the logico-probabilistic algorithms, proposed and tested by the authors for diagnosis of brain tumors. Diagnostic tables are supplied which facilitate the differential diagnosis of acute impairment of cerebral circulation. The possibilities of prognosis for acute disturbances of cerebral circulation are considered along with the development of new forms of primary medical documentation. (5 p. ref.)—J. London.

9287. Muñoz, Leonardo. (U. Chile, Medical School, Santiago) **El método epidemiológico: Algunos aspectos prácticos de su aplicación en psiquiatría.** [The epidemiological method: Some practical aspects of its application in psychiatry.] *Acta Psiquiátrica y Psicológica de América Latina Monograph*, 1970, No. 2, 13-42. Epidemiology is based on observation. The variables studied were: (a) the period of time the observed events lasted; (b) the place and circumstances in which these events occurred; and (c) the personal characteristics of the people involved, i.e., sex, occupation, education, etc. Epidemiology today, as applied to psychiatry, tends towards direct prevalence studies to determine the number of cases in a specific period. These studies can be either transversal or longitudinal, and frequency or rates most used in the epidemiology of chronic illnesses are the prevalence and incidence rates.—V. A. Colotla.

9288. Phillips, Leslie & Draguns, Juris G. (Boston Coll.) **Classification of the behavior disorders.** *Annual Review of Psychology*, 1971, Vol. 22, 44-482.—Reviews literature published between January 1966 and December 1969, stressing the polarities, tensions, and ambiguities in the area of classification of behavior disorders. Points discussed include (a) global objections to the system and model of diagnosis; (b) defense of traditional classificatory models; (c) proposals

these 2 diagnostic groups. A random sample of 58 (18 schizophrenes and 16 brain-damaged Ss) were selected for additional testing. The correlation between performance in the experiment and WAIS scores and also performance on 6 tests from the Reitan-Halstead Battery for diagnosing brain injury are reported. *Journal abstract.*

BEHAVIOR DISORDER

9297. Ferdon, Nona M. (U. Hawaii) **Chromosomal abnormalities and antisocial behavior.** *Journal of Genetic Psychology*, 1970(Jan), Vol. 118(2), 281-292.

Reviews relevant research in the area of superfluous or absent sex-determinant chromosomes in man and the relationship between such abnormalities and antisocial behavior. The possibility that psychological factors such as "intervening variables" may play an important role in explaining such correlations is suggested. (11 ref.)—*Author abstract.*

9298. Terr, Lenore C. (Case Western Reserve U. Medical School) **A family study of child abuse.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 665-671.—Evaluated 10 battered children and their families over a 6-yr period. It was found that important factors leading to abuse were fantasies of the abuser about the child, exaggerated dominant-submissive patterns in the marriage, and contributions of the child to the battering. Suggestions for using a family approach in treating battered children are offered. (15 ref.)—*Journal abstract.*

Drug Addiction

9299. Ball, J. R. **The drug addictions.** *Australian Occupational Therapy Journal*, 1970(Jul), Vol. 17(3), 15-23.—Defines various terms used to describe drug addiction: physical dependence, tolerance, and habituation. Statistics on the number of drug addicts are presented. The psychology and background of the potential and actual drug addict are discussed and a composite picture of a young, female drug addict is presented. A number of drugs are listed with brief descriptions of the effects and withdrawal symptoms. Drugs covered include (a) opiates, (b) marijuana, (c) amphetamines, (d) barbiturates, (e) paraldehyde, (f) bromides, and (g) diazepam. S. Knapp.

9300. Slobetz, F. W. (Morris J. Bernstein Inst., Beth Israel Medical Center, New York, N.Y.) **The role of occupational therapy in heroin detoxification.** *American Journal of Occupational Therapy*, 1970(Jul), Vol. 24(5), 340-342.—Describes the role of occupational therapy within the drug-addiction service in an institutional setting. Within this program nonverbal ego-building therapeutic procedures appear to be effective in providing evaluation and in the treatment of the patient's attitudinal patterns with particular regard to the "productive-work" experience. The effectiveness of occupational therapy in drug addiction that is being treated as a psychiatric problem is discussed.—M. A. Seidenfeld.

Alcoholism

9301. Bateson, Gregory. **The cybernetics of "self":**

A theory of alcoholism. *Psychiatry, Washington, D.C.*, 1971(Feb), Vol. 34(1), 1-18.—Evaluates alcoholism in terms of a systems theory of the self. It is stated: "(1) the metapsychology must come out of cybernetics and systems theory, involving a new understanding of mind and human relationship, and power, (2) that the alcoholic is operating, when sober, in terms of an epistemology which is conventional to the development of the self, but which is not acceptable to systems theory, (3) that surrender to alcoholic intoxication provides a partial and subjective short cut to a more correct state of mind, and (4) that the theology of Alcoholics Anonymous coincides closely with an epistemology of cybernetics." Discusses limitations and implications of the theory. F. M. Upchurch.

9302. Devine, Diane K. (Cambridge State Hosp., O.) **A preliminary investigation of paintings by alcoholic men.** *Canadian Journal of Art Therapy*, 1970(Apr), Vol. 9(3), 115-122.—Reports the results of a study of 10 paintings painted by 80 male alcoholic patients. The paintings were selected to test the hypothesis that the art of alcoholics is characterized by a style. The study was a pilot study and found that the artistic style of the work tended to be rigid and similar. Results are discussed in terms of needed refinements in methodology and the need to develop descriptive rating scales. Also the need for several kinds of control groups is noted.—H. J. M. Wessing.

9303. Hallen, O., Neundörfer, B., & von Rad, M. (U. Heidelberg, Neurological Clinic, W. Germany) **Neurologische Erkrankungen bei chronischem Alkoholismus.** [Neurological illness in chronic alcoholism.] *Neurologie*, 1971(Feb), Vol. 42(2), 57-65.—Describes a variety of neurological symptoms observable in alcoholic patients including seizures, delirium tremens, EMG disorders, nystagmus, locomotor ataxias, and metabolic changes affecting nervous system functioning. A discussion of various therapies is included as well as a considerable review of the literature. (92 ref.)—E. R. Wist.

9304. Kish, George B. (Veterans Administration Hosp., Ft. Meade, S.D.) **Cognitive innovation and stimulus-seeking: A study of the correlates of the Obscure Figures Test.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 95-101.—Conducted a series of 4 studies examining a variety of correlates of the Obscure Figures Test (OFT). Using 102 male hospitalized alcoholics as Ss, the OFT was found to be positively related to education, intelligence, numerical aptitude, manual and finger dexterity, sensation-seeking, scientific and computational interests, and to the K. Ma. and Es scales of the MMPI. Negative relationships were found with Social Introversion and Welsh's R scale of the MMPI. Results are felt to support an analysis of "cognitive innovation" in terms of capacity to innovate and interest in simulational variety.—*Journal abstract.*

Suicide

9305. Frederick, Calvin J. & Resnik, H. L. (National Inst. of Mental Health, Chevy Chase, Md.) **How suicidal behaviors are learned.** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 37-55.—Different forms of suicidal behavior are subjected to stimulus-response analysis as well as contrasting viewpoints

Behavior therapies are described and illustrated, and the point is strongly made that suicide behavior is not a unitary disorder. (44 ref.)—*W. Vernon.*

9306. Glaser, Kurt. (U. Maryland, Medical School, Baltimore) **Suicidal children—management.** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 27-36.—The child's comprehension of death is that of a reversible event. Thus, the threat of suicide implies that the child can live on and enjoy the parents' changed attitude. Serious suicidal threats by children are often provoked by seemingly trivial causes, but they must be appreciated as significant for the child at his intellectual and maturational level of reasoning. While completed suicides in children are rare, suicidal statements and threats are not, and they may be indications of emotional disturbance. (15 ref.)—*W. Vernon.*

9307. Hood, Ralph W. (South Dakota State U.) **Effect of foreknowledge of sex and manner of death in the assessment from suicide notes of intent to die.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 73-80.—Investigated the differential assessment of intent to kill oneself perceived in previously written suicide notes as a function of foreknowledge of the note writer's sex and nature of death. Foreknowledge that the note writer later died from natural causes resulted in a greater assessment of intent to die than foreknowledge that the person later committed suicide. There was an interaction between foreknowledge of sex and nature of death: suicide notes previously written by females were perceived as indicating a greater intent to die if it was known that the women later died a natural death than if it was known the women later committed suicide. These results are consistent with cultural expectation concerning general differences in male-female behavior and were considered as providing support for the risk of retrospective distortion involved in the study of suicide after the fact as well as indicating that stability in suicide statistics need not imply legitimate knowledge concerning the suicidal behavior the statistics are supposed to represent. (30 ref.)—*Journal summary.*

Crime

9308. Bennett, Lawrence A. (Dept. of Corrections, Research Div., Sacramento, Calif.) **Test taking "insight" of prison inmates and subsequent parole adjustment.** *Correctional Psychologist*, 1970(Jul), Vol. 4(1), 27-34.—To provide a measure of insight into normal psychological functioning, 32 prison inmates were tested within 2 wk. of release on parole and were instructed to "fake-good" in such a way as to produce normal CPI and MMPI profiles. Cases were ranked on a "normal-abnormal" continuum and compared to parole officers' ratings of adjustment 6 mo. after release and to parole outcome at the end of 2 yr. About $\frac{1}{3}$ of the group was able to achieve relatively normal profiles. For those cases where comparison with intake testing was possible, $\frac{1}{4}$ evidenced a shift toward more normal profiles. Insight as measured in this study and normal profiles was unrelated to parole adjustment. It was noted that despite the instructions to "fake-good," most of the Ss responded in terms of their own best evaluation of themselves, suggesting that prerelease testing can be used as a reliable indicator of view-of-self which can be related to subsequent parole adjustment. (19 ref.)—*R. V. Hamilton.*

9309. Cohen, John. (U. Manchester, England) **Un-**

certainty and risk-taking in crime. *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 293-296.—Discusses and analyzes the problems of uncertainty and risk-taking in relation to crime. Cited is a twofold difficulty in the application of the theory of uncertainty and risk to the domain of crime, i.e., devising suitable experimental situations, and securing suitable control groups. Ingenuity, resourcefulness, and serious study are needed.—*V. S. Sexton.*

9310. Cunningham, Cyril. (Portsmouth Polytechnic, England) **Korean war studies in forensic psychology.** *Bulletin of the British Psychological Society*, 1970(Oct), Vol. 23(81), 309-311.—The Korean war studies are seen as of doubtful value to forensic science outside the area in which they were applied. These studies did contribute some useful material to penology, clinical psychology, and the understanding of the human thought processes. It is stated that much can be learned from the Chinese use of group dynamics, though doubtless at the risk of being accused of advocating "brainwashing." Penology can profit from the lessons these Korean studies afford concerning the control of the social structure of prisoner groups and the need for extensive segregation facilities within every prison.—*V. S. Sexton.*

9311. Kodman, Frank & Hopkins, Robert W. (Murray State U.) **Correlates of ego-strength in a sample of Kentucky prison inmates.** *Correctional Psychologist*, 1970(Jul), Vol. 4(1), 20-26.—2 samples of 30 prison inmates each were selected from 350 males on the basis of their scores on the Barron Ego-Strength scale. The high-ego-strength group was characterized by an absence of neurotic anxiety, mildly rebellious and nonconforming, socially outgoing without close personal ties, a strong emphasis on masculinity, good ego strength, a normal amount of defensiveness, and a tendency toward abstract interests; the low-ego-strength group was characterized by poor self-concept, poor ego-strength, moderate depression and pessimism, more than average number of somatic concerns, rigidity and compulsiveness, eccentricity and withdrawal, unusual personal experience, high activity level, shyness, a dissatisfaction with interpersonal relationships and a high potential for rebelliousness and nonconformity—all determined from the MMPI. The high-ego-strength group also showed a higher IQ educational level and drew more normal or healthier human figures. There should be a positive correlation between high ego strength and low degree of psychopathology and prognosis for social rehabilitation.—*R. V. Hamilton.*

9312. Kodman, Frank & Hopkins, Robert W. (Murray State U.) **MMPI profile characteristics of Kentucky prison inmates.** *Correctional Psychologist*, 1970(Jul), Vol. 4(1), 7-11.—"A nomothetic analysis of 320 Kentucky prison inmates shows a mean MMPI profile with major peaks at subscales 4 and 9 (psychopathic deviate and hypomania).... Interpretation of the mean profile shows the average inmate to be overactive irritable, shows the average inmate to be overactive irritable, talkative, and stubborn-hostile with a moderate psychopathic flavor. There is an absence of neurotic anxiety, a few somatic concerns, sensitivity to others' opinions, a dissatisfaction with interpersonal relationships and a tendency toward abstract interests."—*R. V. Hamilton.*

9313. Rice, Ronald G. (Florida) **A scale for measuring attitude changes among inmates of local jails and among correctional workers.** *Deviant Behavior Abstracts International*, 1971(May), Vol. 3(11-A), 6162

9314. White, William C. (Florida State U.) **Selective**

modeling in youthful offenders with high and low O-H (overcontrolled-hostility) personality types. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5648.

Juvenile Delinquency

9315 Breskin, Stephen & Burchill, Philip G. (New York State Psychiatric Inst., New York) **Nonverbal rigidity and severity of criminal offense in a group of juvenile delinquents.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 265-267.—Ss were 100 male juvenile delinquents (12-19 yr. of age). Each delinquent's criminal act was classified as a 1st or a 2nd offense, and as a crime against a person or a crime against property, or endangering public health and welfare. High-rigid delinquents tended to be 1st offenders and to commit crimes against people.

9316 Cartwright, Desmond S., Howard, Kenneth L., & Reuterman, Nicholas A. (U. Colorado) **Multivariate analysis of gang delinquency: III. Age and physique of gangs and clubs.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1), 75-90.—Compared 238 gang members and 82 club boys with reference to national norms for age, height, and weight. Possible relationships between these variables and 5 Behavior Factor Scores are examined. Gang boys were shorter than club boys at the subgroup as well as the aggregate level. It was also found that gangs differed among themselves on age, height, and weight. These differences are related to differences in behaviors. Furthermore, gangs differed sharply among themselves in regard to the within-gang connections between age, height, and weight and behavior. Group process effects are discussed. *Journal abstract*.

9317 Dill, Joel S. (Ball State U.) **An experimental comparison of single therapist and multiple therapist group counseling with incarcerated female delinquents.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5120.

9318 Erikson, Robert V. & Roberts, Alan H. (Youth Development Center, Pottsville, Pa.) **Some ego functions associated with delay of gratification in male delinquents.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 378-382.—Compared 2 groups of 20 institutionalized adolescent delinquent males, matched for age and IQ, on measures of (a) foresight and planning ability, (b) impulsiveness, (c) verbal delay of gratification, (d) internal vs. external control, and (e) adjustment ratings, using the nonverbal Porteus Maze Tests. The experimental group consisted of Ss who had chosen to live in a special cottage and attend public school even though this choice was made with the understanding that it would delay their release from the institution. The control group consisted of Ss from the remaining cottages. The 2 groups differed in the hypothesized direction on measures of impulsiveness, verbal delay of gratification, and internal vs. external control, but not on measures of foresight and planning ability or adjustment ratings. (17 ref.)—*Journal abstract*.

9319 Glueck, Sheldon & Glueck, Eleanor. (Harvard Law School) **Toward a typology of juvenile offenders: Implications for therapy and prevention.** New York, N.Y.: Grune & Stratton, 1970. xvi, 203 p.

9320 Grob, Harry E. & Van Doren, Eric E. (Illinois State Training School for Girls, Geneva) **Aggressive group work with teenage delinquent boys.** *Children*,

1969(May), Vol. 16(3), 103-108.—Describes a work program implemented at a private institution for delinquent boys which attempts to (a) provide a summer program, (b) reduce pressure on houseparents, (c) demonstrate group work principles to institutional staff, (d) offer constructive group experience for the boys (e) provide an opportunity to observe delinquents' behavior in a constructive setting, and (f) aid the community in clearing a blighted valley. It is concluded that the purposes were accomplished, along with beneficial side effects.—D. T. Lekarczyk.

9321 Henning, John J. & Lery, Russell H. (Illinois Youth Commission, Research & Development Component, Chicago) **Personality characteristics of white and Negro adolescent delinquents.** *Correctional Psychologist*, 1970(Jul), Vol. 4(1), 12-19.—The Jr.-Sr. High School Personality Questionnaire was administered to 100 Caucasians and 100 Negroes and the results were compared with the other delinquent racial groups and with a nondelinquent normative population. The large number of personality trait differences occurred between the Negro delinquents and the normative population; the Negro delinquents were less intellectually developed, more emotionally stable, less assertive, more serious, more sensitive, more self-sufficient, and more inclined to view themselves as in conformity to social demands. The Caucasian delinquents compared to the nondelinquent population were less intellectually developed, more sensitive, more doubting, and more likely to see themselves as not in conformity with social demands. The Caucasian delinquents demonstrated better development of intellectual resources, greater shyness, and a stronger feeling of being norm violators than the Negro delinquents. These differences of personality traits suggest that the goals and methods of rehabilitation appropriate for 1 racial group may be inappropriate for another.—R. V. Hamilton.

9322 Hook, Ernest B. & Kim, Dong-Soo. (Union U. Albany Medical Coll.) **Height and antisocial behavior in XY and XYY boys.** *Science*, 1971(Apr), Vol. 172(3980), 284-286.—The observed association of the XYY genotype with both large height in childhood and institutionalization for antisocial behavior suggests that large size per se in childhood might tend to establish personality patterns leading to eventual incarceration for delinquency. To investigate this question, the height distributions of 4 groups of XY boys (N = 291) in institutions for nonpsychotic, nonretarded juvenile offenders were compared with published standards and predicted gaussian distributions calculated from the mean and variance of the age-adjusted heights of each group. In none of these groups was there evidence for an increased number of large individuals. But 3 XYY Ss in the same institutions all had heights greater than the 90th percentile of XY boys of the same race.—*Journal abstract*.

9323 Kalkstrom, Dale W. (U. Florida) **A study of the perceptual organization of black and white delinquent and non-delinquent juvenile females.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5849.

9324 Martin Canivell, Joaquín. **Difficultades para conocer el volumen real de delincuencia juvenil.** [Difficulties in determining the real extent of juvenile delinquency.] *Revista del Instituto de la Juventud*, 1970(Dec), Vol. 32, 131-138.—Statisticians may compare different concepts, e. g., instances which are corrected by

parents along with instances settled in court. However, statistics are mistrusted because of hidden juvenile crime. Reasons for hiding these crimes are the following: (a) the very nature of such acts, (b) social reasons wherein the offense is not brought to court, (c) family reasons, and (d) by action of the organizations in charge of treatment and repression of juvenile delinquency. In Spain family reasons are particularly relevant in solving the problem of an accurate determination of juvenile delinquency, because Spanish families wish to keep an appearance of honor with little interference from strangers.—A. M. Farfaglia.

9325. O'Neil, Carle F. (Iowa Training School for Boys, Eldora) **Working with families of delinquent boys.** *Children*, 1969(Sep), Vol. 16(5), 198-202.—Describes a program of work with families of 12-18 yr. old delinquents. Analyses of attitudes of parents at the time of institutionalization of their sons are provided. The composition of staff teams (psychologist or social worker, boy's houseparent or teacher, and a representative of the home community, such as a clergyman or patrol officer) are described. Each team meets with each interested family for 2 days, conducting a total of 4 2-hr sessions. Films and tapes are made of family interactions, if the family is willing. 6 principles useful for dealing with these families are listed, as are the diagnostic and treatment goals held by the staff team. Family variables leading to delinquency are discussed.—D. T. Lekarczyk.

9326. Thelen, Mark H. & Fryrear, Jerry L. (U. Missouri) **Effect of observer and model race on the imitation of standards of self-reward.** *Developmental Psychology*, 1971(Jul), Vol. 5(1), 133-135.—Assigned 96 black and white 15-17 yr. old delinquent males to observe a black or a white model who employed liberal or stringent standards of self-reward behavior. 24 other Ss did not observe a model. Even with explicit normative information, Ss clearly imitated the self-reward standards of the model. Black and white Ss imitated the liberal white significantly more than the liberal black model, but imitated the stringent black and white models about equally. Evaluative semantic differential ratings of racial attitudes showed little relationship to the imitation of self-reward.—*Journal abstract.*

Homosexuality & Sexual Deviation

9327. Benjamin, Henry. (44 E. 67th St., New York, N.Y.) **Should surgery be performed on transsexuals?** *American Journal of Psychotherapy*, 1971(Jan), Vol. 25(1), 74-82.—Discusses various factors in the case histories of typical transsexuals which suggest for or against operative procedures. The overall presentation is essentially sympathetic to the concerns of the transsexual, but a number of specific presenting problems are offered as danger signs deserving of caution.—W. Vernon.

9328. Manosevitz, Martin. (U. Texas) **Education and MMPI Mf scores in homosexual and heterosexual males.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 395-399.—Investigated the relationship between MMPI Mf, Hsx, and education in 64 heterosexual and 49 homosexual men. Ss were obtained from a variety of sources, were generally older than college students, and averaged between 2 and 3 yr. of college education. The groups differed significantly on Mf, Hsx, and Kinsey self-ratings. MMPI scale differ-

ences were found on F, K, D, Pd, Pa, Pt, Sc, and Si. Correlations of .20 and .27 were found between education and the Mf and Hsx scores. Data indicate that Mf was a better discriminator between the homosexual and heterosexual groups than Hsx, and was less contaminated by educational bias. It is concluded that the relationship between educational level and Mf appears to be more complex than generally assumed. (23 ref.)—*Journal abstract.*

9329. Money, John & Block, David. (Johns Hopkins U., Medical School) **Speech, sexuality and the temporal lobe: An analysis of spontaneous speech of thirteen male transsexuals.** *Journal of Sex Research*, 1971(Feb), Vol. 7(1), 35-41.—Analyzed and compared spontaneous speech samples of 13 male transsexuals with those obtained from normal male and female groups and other patients. The major findings indicate that transsexuals talk more than other persons both normal and abnormal and evaluate less. The low frequency of evaluative statements was suggestive of either a poorly developed superego or great dissociative facility in changing the premise on which it operates. The possible role of the temporal lobe in the regulation of speech and sexuality was considered.—E. B. Jaffa.

9330. Talayero Uriarte, Jose A. **Aspectos teóricos de la homosexualidad y presentación de un caso.** [Theoretical aspects of homosexuality and the presentation of one case.] *Revista de la Clínica de la Conducta*, 1969(Feb), Vol. 2(4), 46-60.—Presents a revision of theory based on different concepts of homosexuality. The homosexual is considered to be an individual with a neurotic-compulsive character who has failed in the task of identifying himself with his own sex. The points of view of Sadger, Kinsey, Freud, and Adler are discussed with particular attention to female homosexuality. The clinical, psychiatric history of a 14-yr-old homosexual girl is presented, followed by commentary clarifying dynamic and organic implications of the case. (French summary)—*English summary.*

MENTAL DISORDER

9331. Adler, Peter T. (Homestead Community Mental Health Center, Munhall, Pa.) **Ethnic and socioeconomic status differences in human figure drawings.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 344-354.—Evaluated the human figures drawn by 216 psychiatric patients for differences associated with ethnic group, socioeconomic status, and sex. It was hypothesized that differences in performance, particularly differences reflecting a lower level of cognitive maturity, would be associated with the socio-cultural background variables, and that these differences might well be such as to be misinterpreted as psychopathologically deviant behavior. Results generally support the hypothesis. Socioeconomic background differences were of greater importance than ethnic group differences in determining differences in cognitive membership in determining differences were associated with maturity. Drawing size and placement were associated with ethnic group status, and drawing integration was related to ethnic and social class background as well as to sex. (23 ref.)—*Journal abstract.*

9332. Bouchariat, J., Maitre, A., & Wolf, R. (Grenoble, Hospital Center, France) **Rôle des fixations orales précoces dans la psychopathologie de l'anorexie mentale.** [Role of early oral fixations in the psychopathology of anorexia nervosa.] *Annales Médico-*

Psychologiques, 1970(Nov), Vol. 2(4), 577-582.—The authors, having found by chance that a young girl with anorexia nervosa had also shown an anorexia at 14 mo. of age, systematically searched the early histories of 10 subsequent patients with a similar problem. In 7 of the 10 cases problems with eating behavior were found in earliest infancy, more exactly within the 1st yr. of life. The dossiers of 23 other adolescent anorexics, for whom no special inquiry had been made, revealed only 2 such early cases. The value of special search, by interviews with the patient's family, is therefore evident. It was among the very dependent adolescents, overprotected by their families, that the crisis of consciousness of their evolving femininity divided most sharply between their early oral fixations and developmental urges to reach a more mature state. Along with the repression of guilty wishes linked to evolving sexuality, the patient represses at the same time all that has been experienced as pleasure, and especially the overinvested pleasure of eating. A curious paradox wherein oral fixations based on the anguish of not having enough to eat eventually determines anorexic (non-eating) behavior.—H. F. Kung.

9333 Cabildo Arellano, Hector M. **Panorama epidemiológico de los desórdenes psiquiátricos en la República Mexicana.** [Epidemiologic overview of the psychiatric disorders in the Republic of Mexico.] *Revista Mexicana de Psicología*, 1970(Nov), Vol. 4(4), 169-184. Considers a long list of deviations under the heading of psychiatric disorders. Among the deviations cited are alcoholism, drug addiction, homicide, suicide, psychosis, neurosis, mental retardation, juvenile delinquency, and criminality in general. A review of the most salient epidemiologically oriented studies conducted in Mexico since the turn of the century is presented. The author analyzes each of the studies cited and advances his own conclusions.—E. Alba.

9334 Cericos, Daniel. (Jose Penna, Municipal Hosp., Buenos Aires, Argentina) **La personalidad psicopática como enfermedad mental crónica.** [Psychopathic personality as a chronic mental illness.] *Revista de Psiquiatría y Psicología Médica*, 1970(Apr), Vol. 9(6), 383-389. Discusses and criticizes K. Schneider's theoretical concepts concerning psychopathic personality. It is suggested that the concept should be used only as a result of the application of the clinical method and of the study of the individual's social behavior. A distinction should be made between psychopathic personalities that are merely abnormal and those that are clearly pathological. Both types are defined as those abnormal personalities that are characterized by a typical and structured syndrome of psychological traits that develop chronically and translate themselves into a series of habitual abnormal behaviors. The qualitative difference between the 2 types is stressed. The genuine psychopathic personality is a chronic mental illness, characterized by stereotyped rigidity and irreversibility of traits and behaviors. These behaviors are not under the psychopath's voluntary and conscious control. This makes for his more or less permanent inability to integrate himself stably into any type of social group, especially any work group.—L. Zusne.

9335 Cooke, Gerald & Robey, Ames. (Wayne State U.) **The MMPI: A case study in dissimulation.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 355-359. Presents a case study in which a 45-yr-old male patient referred by the criminal court received 4 MMPIs over a period of 10 mo. and attempted to present

himself as mentally healthy though suffering from a mental disorder. This positive malingering is examined in terms of (a) the findings of previous studies on malingering, (b) the patient's clinically observed dynamics, and (c) the difference between external instructions to dissimulate and internal motivation to do so.—Journal abstract.

9336 de Boucaud, D., Bourgeois, M., & Favard-Garrigues, B. (Abadie Center, Bordeaux, France, Le délire d'espionnage, maladie professionnelle? [The delusion of espionage, professional illness?] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 767-770. Presents a case of spying delusions found among the employees of agencies closely connected with national defense matters (atomic explosives, etc.) who are realistically subject to special security measures and policies of secrecy. The biography of each patient supplements the usual clinical history in an effort to discover whether this symptom clustering is a mere coincidence or the result of a work role which provides a pathogenic atmosphere likely to influence fragile personalities. Constant surveillance and specific questioning about their activities or attitudes became easily commingled with the confused thinking of these patients and provided a ready-made explanation for their emotional disturbances. It seems likely also that a certain predisposition was present that influenced the choice of occupation or at least of employer. The need to screen the prospective employees of security-sensitive agencies for psychopathological tendencies is emphasized.—H. E. King.

9337 Draguns, Juris G., et al. (Pennsylvania State U.) **Symptomatology of hospitalized psychiatric patients in Japan and in the United States: A study of cultural differences.** *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 3-16. Compared symptomatology of American and Japanese psychiatric patients who were matched for age, education, occupational level, marital status, and diagnosis. Symptom expression was examined in terms of sphere (thought, affect, somatization, and action) and orientation (turning against self, against others, avoidance of others). Symptoms of Americans were more numerous, complex, and specific than those of Japanese patients, who have more diffuse symptoms. Other differences were noted, and the data were viewed as suggesting "that a degree of continuity obtains between the adaptive and pathological features prevalent within a cultural milieu." (82 ref.)—R. Denz.

9338 Grisso, J. Thomas. (Ashland Coll.) **The action-thought dimension, social competence, and defense effectiveness.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 448.—Assigned 60 male psychiatric patients to 4 groups matched for diagnosis and length of hospitalization. The 4 groups represented thought and action symptom groupings and high and low social competence (SC). Ss' responses to the Rorschach were scored for defense demand (DD) and defense effectiveness (DE). Better DE was associated with thought symptom Ss at the high SC level than with symptom Ss at the lower SC level. Other differences were not significant. Results "suggest that greater maturity may require a thought-oriented behavior style to successfully serve adaptation, while a thought-oriented behavior style may not only be unnecessary, but perhaps detrimental to the adaptive success of individuals of less maturity."—S. Knapp.

9339 Honigfeld, Gilbert & Turner, Stuart. (Hillside

awakening. Distortions of the sensorial schema of mental patients, based on perturbations of their biologic substructure and unregulated by the function of a critical consciousness, may underlie what in a more evolved form is called dissociative thinking.—H. E. King.

9345. Myers, Jerome K., Lindenthal, Jacob J., & Pepper, Max P. (Yale U.) **Life events and psychiatric impairment.** *Journal of Nervous & Mental Disease*, 1971(Mar), Vol. 152(3), 149-157.—938 adults were Ss in this field survey to assess the relationship between psychiatric impairment and life events. Impairment was judged by the extent and severity of symptomatology. 18% of the S population was judged to be severely impaired, 47% fell into a middle range, and 35% showed low psychiatric impairment. High correlations were found between the number and severity of life crises and the extent of psychiatric impairment. (19 ref.)—R. Denis.

9346. Peel, William C. (Memphis State U.) **The effectiveness of social reinforcers and social punishers with primary psychopaths, secondary psychopaths and normals.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5633.

9347. Rosen, Ira J. (U. Iowa) **The effects of praise or blame on the discrimination performance of psychopathic and nonpsychopathic boys.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5638.

9348. Rotenberg, Mordechai & Diamond, Bernard L. (U. California, Berkeley) **The biblical conception of psychopathy: The law of the stubborn and rebellious son.** *Journal of the History of the Behavioral Sciences*, 1971(Jan), Vol. 7(1), 29-38. Descriptions derived from legal interpretations and commentaries related to the biblical concept of the "stubborn and rebellious son" and the psychiatric concept of the sociopath (e.g., Pinel's maniaque sans délire, the moral insanity of Pritchard, and the present-day category of character disorder, psychopath or antisocial personality) appear to be basically the same. As with modern law, Talmudic prescribed procedure did not exempt the stubborn son from criminal responsibility.—C. M. Franks.

9349. Shagass, Charles; Overton, Donald A., Bartolucci, Giampiero, & Straumanis, John J. (Temple U. Medical Center) **Effect of attention modification by television viewing on somatosensory evoked responses and recovery functions.** *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 53-62.—Recovery functions of somatosensory evoked responses have consistently provided measures discriminating between psychiatric patients and nonpatients. An attempt was made to obtain data bearing on the possibility that patient-nonpatient differences may be attributable to group differences in state of attention. Somatosensory recovery functions involving 5 interstimulus intervals, were measured under rest and TV conditions in 18 Ss. The integrated amplitude of the concurrent EEG was also measured. Results indicate that although EEG amplitude was significantly reduced during TV viewing, there were no consistent changes in evoked response or recovery function measurements. Also, evoked response variations were not correlated with changes in EEG amplitude. The findings make it less probable that previously found patient-control differences in somatosensory recovery functions resulted from differences in general state of attentiveness. (18 ref.)—Journal abstract.

9350. Steele, Richard F. (U. Southern California) **An examination of positive and negative reinforcement**

in classical and operant conditioning paradigms with the primary psychopath. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5641.

Neurosis & Emotional Disorder

9351. Diekmann, Hans. (Inst. of Ps., Berlin, W. Germany) **The favourite fairy tale of childhood.** *Journal of Analytical Psychology*, 1971, Vol. 16(1), 18-30.—The main fairy tale archetype is when fundamental neurotic patterns are established and the 1st neurotic symptoms appear. A strong connection between these fairy tale symptoms of the later neurosis, the structure of personality, and the patterns of behavior. The fairy tales were investigated in 50 patients. The fairy tales are among the earliest cultural products of the human individuals, typical images of the human condition assimilated and the structure of the psyche filled out with forms and pictures. Therefore, the fairy tale can be used as a diagnostic tool for the structure of the neurotic archetypal fixation. The main therapeutic value of bringing these material to the conscious and working them through at an early stage. (26 ref.)—Journal summary.

9352. Emrick, Chad D. (Teachers Coll., CUNY) **Treatment of conceptual and perceptual deficits in a 9-yr-old black S with emotional problems.** *Academic Therapy*, 1971(Spr), Vol. 6(1), 1-4. Stealing was seen at a university psychiatric hospital 9 times a wk. for 6 mo. Treatment, after a baseline was established, was primarily upon perceptual and conceptual deficits. Posttest data from the WISC and the TAT (p < .01) gains on Similarities and Picture Arrangement subtests and a significant (p < .05) gain on the TAT IQ. The hypothesis that gain in at least one area of functioning improved S's impulse life was supported. C. J. Walther.

9353. Enacheanu, Constantin (U. Medicine, Bucharest, Romania) **Névrose et art psychopathologique.** *Annales de psychiatrie et de psychopathologie*, 1970(Dec), Vol. 2(5), 697-714.—Drawing is a pathological analysis and clinical data. The individual, providing a useful tool for the pathological analysis and clinical data. The abnormal productions are set forth in a way close to normal logic, and it is believed that the dynamic of the neurosis must be seen in this sort of message is sent in a direct and indirect way. Spoiled drawings, compensatory drawings, and states, symbolic representations, and drawings offer interpretable cues to the patient's inner world. Illustrative drawings accompanied by a verbal description of how such drawings reveal mental processes. The work of creation is valuable in itself, and it is to try to synthesize his unconscious as a basis for ideas and cognitive symbols. The present study is to assist the psychopathological analysis of the problems and as a basis for the treatment of the patient with his psychotherapist.—H. E. King.

9354. Forrest, Morris S. (Florida State U.) **A learning approach to depression: Automatic behavior reduction via self-punitive behavior**

Praxis der Psychotherapie, 1969(Oct), Vol. 14(5), 205-208. Discusses the effects of early childhood trauma on the development of neuroses in adults. An attempt is made to delineate the role of psychoanalysis in the treatment of adult neuroses which are traceable to the traumatic experiences incurred during early psychosexual development. The origin of traumatic experiences is seen to be a disturbance in the primary familial group.—B. A. Stanton

9367. Wolpe, Joseph. (Temple U. Medical School) The behavioristic conception of neurosis: A reply to two critics. *Psychological Review*, 1971(Jul), Vol. 78(4), 341-343.—Presents answers to the criticisms of the behavioristic view of neurosis by C. G. Costello (see PA, Vol. 44, 12732) and B. Weitzman (see PA, Vol. 41, 11954). Costello's criticisms are considered to deal primarily with learning mechanisms and to stem from the erroneous belief that behaviorists regard neurosis as an instance of motor avoidance conditioning. Weitzman's arguments concern the reasons why clinicians reject behavior therapy and center on a defense of psychotherapeutic principles and an attack on analogy making from the laboratory to the clinic. It is observed that some of the criticisms arise from failure to note the centrality of autonomic responses (23 ref.) *Journal abstract*

Psychosis

9368. Abrams, Naomi & Pergament, Eugene. (Michael Reese Hosp. & Medical Center, Chicago, Ill.) Childhood psychosis combined with XYY abnormalities. *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 1-16.—Presents the clinical evaluation of a young male child with childhood psychosis combined with an XYY abnormality. The diagnostic material follows the child from 22-31 mo. of age. Also presented is a brief view of the current literature mentioning patients with XYY. Questions regarding the diagnostic and etiologic problems raised by a child with these symptoms and consideration of certain hypotheses are explored.—*Author abstract*

9369. Clodfelder, D. Leon & Craddick, Ray A. (Southern Illinois U.) Variance in size of drawing in a psychotic population. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 110.—Tests the hypothesis that the variance in size of drawings in a psychotic population would be greater than that obtained for a normal sample by comparing Draw-A-Person (DAP) test drawings from 69 male psychotics to the DAPs for R. A. Craddick's (see PA, Vol. 39:2632) sample of 86 males. Results suggest that psychotics are more varied in their degree of control as shown in the DAP than are normals, as was suggested by Craddick. Psychotics' drawings appeared to be more overcontrolled than those of Craddick's Ss who simulated psychosis. Although data seemed to support Craddick's hypothesis, it is suggested that an assessment should be made between over- and undercontrolled Ss and the size of their drawings.—P. Hertzberg

9370. Hoedemaker, Frederick S. (U. Washington, Medical School) Psychotic episodes and postpsychotic depression in young adults. *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 606-610.—While the depression that follows a psychotic episode in a late adolescent may be very painful to the patient, the therapist should view it as a good prognostic sign the patient recognizes his psychic "bankruptcy" and is

willing to do some needed therapeutic work. An intensive psychotherapeutic involvement at this critical time may prevent a later intractable psychosis. Case reports of a 19-yr-old and a 22-yr-old male are presented.—*Author abstract*

9371. Mass, J. W., Dekirmenjian, H., & Fawcett, J. (Ill. State Psychiatric Inst., Chicago) Catecholamine metabolism, depression and stress. *Nature*, 1971(Apr), Vol. 230(5292), 330-331.—Reports results of a pilot study undertaken to ascertain urinary concentrations of 3-methoxy-4-hydroxyphenylglycol (MHPG), a major metabolite of brain norepinephrine in 6 severely depressed Ss. Controls Ss were 49-62 yr. old males with no depressive symptoms, and controls were 3 physically healthy young males. Experimental Ss were infused with 3-hydroxy-norepinephrine continuously for a 48-hr period. Controls were maintained on diets free of chocolate, coffee, tea, cola, oranges, bananas, and cheese. Endogenous catecholamine metabolite assays were obtained prior to, during, and 48 hr. following infusion. Data were obtained from all Ss. Results demonstrate that prior to the infusion, MHPG concentrations were lower in depressed Ss, whereas concentrations of metanephrine, normetanephrine, and 3-methoxy-4-hydroxy mandelic acid were similar to those found in controls. During the 2nd day of infusions, all metabolite concentrations increased in the Ss. On subsequent assays, however, results demonstrate that depressed Ss formed normal amounts of MHPG. It is concluded that MHPG concentrations in depressed Ss prior to infusions are the result of enzyme cofactor capabilities and changes in the capacity to form MHPG outside of the brain. (20 ref.)—B. A. Stanton

9372. Misra, Pushpa. A case of obsession. *Samiksha*, 1969, Vol. 23(2), 49-59.—Describes the case of a 25-yr-old married female who showed definite indications of psychosis and had 2 complete breakdowns. It was interpreted that (a) the S had a strong guilt sense arising out of the conflict between her strong Oedipal and incest wishes and moral standards, (b) she had strong infantile and narcissistic attitudes, and (c) there was a lack of emotions in her free associations regarding her obsessive thoughts. During analysis an attempt was made to remove the S's strong guilt sense and anxiety to give relief to her, and to obtain more data. Her jealousy, sense of insecurity, and dissatisfaction in married life are also discussed. Some improvement was noticed in S's behavior but she discontinued the treatment.—C. Mehrotra

9373. Scharfetter, C. (U. Zürich, Psychiatric Clinic, Switzerland) On the hereditary aspects of symbiotic psychoses: A contribution towards the understanding of the schizophrenia-like psychoses. *Psychiatria Clinica*, 1970, Vol. 3(3), 145-152.—Points out similarities between schizophrenia and the symbiotic psychoses that originate in the intimate association of a primary psychotic (the inducer) with an originally sane partner (the induced) (folie à deux, induced insanity, psychosis of association). A special type of psychoreactive development becomes apparent in the genesis of these psychoses. In a genetic investigation, based on data from the literature and observations, an approximately equal high morbidity rate for schizophrenia was found in the families of the induced Ss who were nonconsanguineous with their inducers, as compared to those who were blood relations. The morbidity is within the probability level of schizophrenia found among the relatives of

schizophrenics, demonstrating that the inherited disposition is an important factor in the development of this type of mental illness. (16 ref.)—*Journal summary.*

9374. Schiffter, Roland. (Free U., Berlin, W. Germany) Zur Problematik schizophrenieähnlicher Psychosen bei Hypophysenerkrankungen. [The problematics of psychoses similar to pituitary diseases.] *Psychiatria Clinica*, 1971, Vol. 4(2), 82-99.—Presents a case history of a patient having a pituitary adenoma with acromegaly and a recurring schizophrenia-like psychosis. Conclusions were drawn following analysis of the case. Pituitary illness may be accompanied by schizophrenic paranoid-hallucinatory psychoses, while typical signs of "symptomatic psychoses" are absent. It is probable that a causal connection exists between such psychoses and endocrine disorders (in the patient studied, symptoms exacerbated in a constant 4-wk rhythm which can be interpreted as endocrine periodicity). An attempt was made to interpret endocrinologically-precipitated psychoses in light of the relationship between the endocrine system and the brain, and to fit them into the conceptual framework of K. Conrad. It is concluded that a sharp division between endogenous and exogenous psychoses cannot be justified. (47 ref.)—*English summary.*

Schizophrenia

9375. **Begelman, D. A. (Yale U.) Misnaming, metaphors, the medical model, and some muddles.** *Psychiatry, Washington, D.C.*, 1971(Feb), Vol. 34(1), 38-58.—Discusses the medical model and the "myth of mental illness" as conceptualized by Szasz, and examines it as a complex question of determination of responsibility. It is suggested that labeling a person as schizophrenic does not cause schizophrenia and asks "if a massive exchange of the labels 'misconduct' or 'problem in living' for 'mentally ill' were effected, would it matter much? Is it what you call a person that counts, or, rather, that you call him anything at all?" Also discussed is the dispute about whether biochemistry or therapy is the answer to the problem of schizophrenia, e.g., "if a particular form of therapy works, the biogeneticist may inquire into why it works, devising explanations based on organic concepts. He cannot insist that his theory of organic dysfunction implies that behavior therapy, for example, cannot work."—*E. M. Uprichard.*

9376. Cull, John. (Virginia Commonwealth U.) **Conformity behavior in schizophrenics.** *Journal of Social Psychology*, 1971 (Jun), Vol. 84 (1), 45-49.—Current literature indicates that schizophrenic Ss will exhibit less conformitive behavior than will normal Ss. In order to test this hypothesis, 32 hospitalized schizophrenic patients were individually introduced to a conformity-invoking environment similar to that used by Asch. The behavior produced was compared with the behavior of a controlled group introduced to the same situation. The hypothesis that schizophrenic Ss would exhibit less conformity behavior was strongly disproven.—*Author abstract.*

9377. Davis, William E., Dizzone, Michael F., & DeWolfe, Alan S. (Veterans Administration Hosp. Downey, Ill.) Relationships among WAIS subtest scores, patient's premorbid history, and institutionalization. *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 400-403.—Divided 40 schizophrenic patients equally among 4 groups on the

basis of premorbid history and length of time hospitalized. The WAIS IQ for poor premorbid tended to be higher than for good premorbid, but good premorbid demonstrated significantly higher motor performance (WAIS Digit Symbol and Block Design). There appeared to be a relationship between lower verbal abstractive and decision-making abilities (WAIS Comprehension and Similarities) and length of institutionalization. Results are interpreted as suggesting that, for schizophrenics at least, performance on certain types of intelligence test tasks may be lower for patients who have undergone prolonged institutionalization. (19 ref.)—*Journal abstract.*

9378. Graves, Gwen D., Kahans, D., & McGrath, Patricia. (Research Inst. of Mental Health, Parkville, Victoria, Australia) Age as a factor in group work with chronic schizophrenics. *Australian Occupational Therapy Journal*, 1970(Jul), Vol. 17(3), 8-14. Conducted an intensive 3-mo rehabilitation program aimed at the resocialization and occupational rehabilitation of 38 chronic schizophrenics and 1 manic-depressive, aged 18-65 yr. Ss were assigned to 4 groups: 2 of mixed ages, and 2 of uniform age groups above and below 39 yr. Ss were rated on the Venables scale of "activity-withdrawal" for schizophrenics and the MFS Rehabilitation Rating Scale covering general observations and responses to work and people. Assessments of progress were made after 6 wk. and 3 mo. in the program. All groups showed significant improvement on the withdrawal scale. Between group comparisons yielded no significant differences. Ss in groups composed entirely of Ss below 35 yr. of age showed more improvement than those in groups which contained older Ss. S. Snapp, Alfred R. & Norbert, Nancyann

9379. Heilbrun, Alfred B. & Norbert, Nancyann. (Emory U.) Sensitivity to maternal censure in paranoid and nonparanoid schizophrenics. *Journal of Nervous & Mental Disease*, 1971(Jan), Vol 152(1), 45-49. It was hypothesized that paranoid schizophrenics would be more sensitive to maternal censure than nonparanoid schizophrenics. Sensitivity in this instance was measured by disruption of a cognitive task accompanied by a tape recording of a mother censuring her son. Results support the original hypothesis. A developmental approach to the differential handling of aversive stimuli was suggested as a fruitful direction for future research. (15 ref.) R Denis

9380. Kelly, Freda S., Farina, Amerigo, & Mosher, Donald L. (U. Connecticut) Ability of schizophrenic women to create a favorable or unfavorable impression on an interviewer. *Journal of Consulting & Clinical Psychology*, 1971 (Jun), Vol 36(3) 404-409.

—Developed an Interpersonal Interview Situation (in part, a modification of the Minimal Social Behavior Scale devised by A. Farina, D. Arenberg, and S. Guskun) to study experimentally the ability of 56 female schizophrenic inpatients to create a favorable or an unfavorable impression on an interviewer. Instructions to create a favorable or an unfavorable impression yielded a highly significant difference between the groups ($p < .001$). Ss whose histories included more sustained interpersonal contacts tended ($p = .17$) to be more adept at creating both favorable and unfavorable impressions at will than Ss whose premorbid histories had included less interpersonal involvement. The significantly larger variance ($p < .05$) of Ss with good premorbid histories in the unlikable condition appeared to reflect differential resolutions of the conflict between gaining 1's approval

at the cost of the favorable regard of the interviewer. (15 ref.)—*Journal abstract*

9381. Kemp, David E. & Stephens, Joseph H. (Sacramento County Mental Health Services, Calif.) **Which AB scale? A comparative analysis of several versions.** *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 23-30.—AB scales are comprised of items intended to differentiate therapists who are successful with schizophrenic patients from therapists who are not. Both the developmental history of, and the empirical evidence surrounding, the 9 different AB scales currently extant are reviewed. 3 scales—the original Whitehorn-Betz 23-item scale, the Schiffman et al., revision of the Whitehorn-Betz original scale, and the Campbell et al., version—are felt to be psychometrically and empirically superior. It is suggested that all 3 scales be used in future research until more data are available from which to determine the possible superiority of 1 of the scales.—*R. Denis*

9382. Kupfstein, Joan H. & Neale, John M. (Georgia State U.) **Size estimation in schizophrenic and nonschizophrenic subjects.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 430-435.

—Studied size estimation in 120 male acute and chronic schizophrenic and nonschizophrenic psychiatric patients. No significant group differences were found in the size estimation levels, or when the groups were subdivided on the basis of both premorbid adjustment and paranoid status. All Ss increased their size estimation levels over the 3 trial blocks. The thematic content of the stimuli produced a significant effect in the chronic schizophrenic group, with the nonthreatening scenes being overestimated relative to the threatening scenes. Some methodological problems common to size estimation studies are noted, and the growing inconsistency in the size estimation literature is hypothesized to be due to these problems. (23 ref.)—*Journal abstract*

9383. Lachenmeyer, Charles W. (Franklin Delano Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **A note on two theoretical problems with the family process research on the etiology of schizophrenia.** *Journal of Genetic Psychology*, 1971(Mar), Vol. 118(1), 149-150.—There are 2, basic theoretical problems with the family process research on schizophrenia: (a) Certain terms are used as primitive terms when they do not satisfy the necessary conditions for these terms. (b) Propositions of the highest generality are mistakenly taken to be equivalent to testable theorems, and accordingly, relationships between observation-based primitive terms are too vaguely stated at the theorem level to permit complete testability.—*Author abstract*

9384. Ludwig, Arnold M., Marx, Arnold J., & Hill, Philip A. (U. Kentucky, Medical School) **Chronic schizophrenics as behavioral engineers.** *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 31-44.—Describes an experimental program in which operant conditioning methods were used to train less regressed chronic schizophrenic patients as behavioral therapists for more regressed chronic schizophrenic patients. Both "guardian" patients and "charge" patients were found to show improvement. Although the program was successful, some limitations to the operant conditioning paradigm were noted. —*R. Denis*

9385. Petrović, Oto. **Kvalitativna i kvantitativna analiza procesa mišljenja shizofrenih bolesnika.** [A qualitative and quantitative analysis of the process of thinking in schizophrenic patients.] *Psihologija*, 1969-

1970(Oct), Vol. 3(1), 75-84.—Administered the graphic and verbal forms of a polyprofile test, used the method of the theta method, and measured and recorded the test required to solve the tasks. A scale for the evaluation of test behavior was also utilized. 50 schizophrenic patients and 50 normals selected on the basis of the equivalent pairs method, were Ss. A quantitative and qualitative analysis of the experimental material was performed. It shows that schizophrenics, in comparison with normals, are significantly less successful in solving problems which require the inductive formation of concepts and change in observation of a given phenomenon. A number of factors probably contribute to the fact that schizophrenics are less successful, i.e., partial approach to problem solving, frequent shifts to attention, probable difficulties in visual perception, difficulties in understanding and use of words, insufficient perseverance, and lack of critical thinking. (Russian summary. (44 ref.)—*English summary*

9386. Rastatter, Mary M. (U. Virginia) **Auditory testing of schizophrenics.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5693.

9387. Ricketts, James L. (U. Colorado) **A systematic approach to the identification of schizogenic family interaction.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5637-5638.

9388. Rudner, Ilana H. (Yeshiva U.) **Study of sequential adaptation to inkblot stimuli.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5658.

9389. Scott, R. D., Ashworth, P. L., & Casson, P. D. (Naphbury Hosp., St. Albans, England) **Violation of parental role structure and outcome in schizophrenia: A scored analysis of features in the patient-parent relationship.** *Social Science & Medicine*, 1970(Jul), Vol. 4(1), 41-64. Utilized an interpersonal perception test to define factors which distinguish schizophrenics from parental homes who become community-centered from those who become hospital-centered. Factors derived from the patient-parent relationship distinguished over 90% of the 34 cases studied. Method of analysis indicates that all parents saw themselves as "well" and expected to be seen by the patients as "well." Community-centered patients confirmed their parents' identity and expectations by seeing them as "well," whereas hospital-centered patients saw their parents as "ill." A 2nd method of analysis defined a parental role image, which was confirmed by the community-centered but not by the hospital-centered patients. (French, Spanish, & German summaries.—*Journal abstract*

9390. Sinha, T. C., et al. **Symposium on prognosis of schizophrenia.** *Samuksha*, 1969, Vol. 23(3), 81-130.—In the main paper D. N. Nandi traces the history of our knowledge about schizophrenia and its treatment. 2 of the discussants, Bhaskaran and Davis, are skeptical about Nandi's idea of using a preventive approach. L. P. Varma discusses important indicators and causes of relapse. A. K. Deb considers premature discontinuation of drugs as 1 of the frequent reasons for relapse. Several discussants comment on the importance of cooperation among family doctors. B. K. Bose draws attention to the ancient Sanskrit literature which has a rich reservoir of interesting information. H. Ghosal emphasizes the need for investigating more intensely the psychopathology of psychosis. T. C. Sinha indicates that Indian drugs and methods have their own contribution in treatment of mental patients. (55 ref.)—*C. Mehrotra*

9391. Smith, Ronald G. (U. Illinois, Urbana-Champaign) **Functions of intense stimulation in the reduction of schizophrenic performance deficit.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5642.

9392. Stabeanu, James R., Creveling, Cyrus R., & Daly, John. (U. Connecticut, Medical School, Hartford) **The "pink spot," 3,4-dimethoxyphenylethylamine, common tea, and schizophrenia.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 611-616.—Several studies of schizophrenic and normal patients suggested a plant food dietary source for urinary 3,4-dimethoxyphenylethylamine (3,4-DMPEA). The study of 3 non-schizophrenics found this urinary amine (positively identified by mass spectrometry) present during free diet plus tea ingestion and not present during controlled diet except when tea was being ingested. It is concluded that urinary 3,4-DMPEA has an exogenous plant source and that its presence is not primarily related to schizophrenia. (25 ref.)—*Journal abstract.*

9393. Taylor, Jerome. (U. Pittsburgh, Clinical Psychology Center) **The effects of reinforcement upon skin conductance levels in process and reactive schizophrenics and in normals.** *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 50-52.—Previous research has shown that positive verbal reinforcement drives skin conductance toward a range which has been defined as optimal for learning. This study was concerned with whether process and reactive schizophrenics and normals differ in the degree to which reinforcement mediates change in skin conductance toward this range. It was found that reinforcement mediates such change for reactive schizophrenics and normals, more so than for process schizophrenics.—*Journal abstract.*

Schizophrenia Treatment

9394. Cancro, Robert. (Ed.) (U. Illinois) **Schizophrenic reactions: Critique of the concept, hospital treatment, and current research: Proceedings of the Menninger Foundation Conference on the Schizophrenic Syndrome.** New York, N.Y.: Brunner/Mazel, 1970. x, 293 p. \$10.—Contains written versions of 19 oral presentations and provides an overview of current research and treatment in the schizophrenic syndrome.

9395. Clancy, Helen. (U. Queensland, Brisbane, Australia) **A group family holiday: An innovation in the therapeutic management of the autistic child.** *The Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Nov), Vol. 17(3), 149-162.—Describes 3 "family holiday workshop" projects which are thought to be unique. In each instance the participants were 11 families, each having an autistic child, a professional consultant, and voluntary helpers. It would seem from follow-up investigations that the family holiday workshop served the purpose for which it was originally designed: (a) to bring together families of autistic children in an effort to dispel the feeling of isolation and futility in coping with the problem of their bewildering handicapped child; (b) to meet those needs which cannot appropriately be handled in a clinic—such as providing a holiday for all members of the family; and (c) to make available advice and assistance about their child's needs and practical ways of management. The project is evaluated in the light of its relevance in the overall management of any handicapped child.—*Journal summary.*

9396. Davis, Jack A. (Lackland Air Force Base, San Antonio, Tex.) **Outpatient group therapy with schizophrenic patients.** *Social Casework*, 1971(Mar), Vol. 52(3), 172-178.—An open-ended group operated for 23 mo. with 16 wives of air force personnel. The majority were diagnosed as schizophrenic. Goals were to prevent rehospitalization, meet some dependency needs, and improve social functioning. Rationale for group treatment of outpatient schizophrenics is presented.—*M. W. Linn.*

9397. Weingaertner, Arthur H. (1554 Woodruff Ave., Westwood Village, Calif.) **Self-administered aversive stimulation with hallucinating hospitalized schizophrenics.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 422-429. Randomly assigned 45 hospitalized hallucinating veterans to 3 groups. Ss in the self-shock group carried a box on the belt which gave shock upon pressing a plunger, while Ss in the placebo group carried a box which gave no shock. The no-treatment group received only the pre- and post-evaluations which were given all Ss. Measures included the Brief Psychiatric Rating Scale and an abbreviated form of the Inpatient Multidimensional Psychiatric Scale. All groups showed significant decreases in hallucinating over a 2-wk period. No significant differences between groups were found. It is concluded that expectation was the primary agent of change, and conscious cognitive factors seemed central to the improvement. (20 ref.)—*Journal abstract.*

PSYCHOSOMATIC DISORDER

9398. Cain, J. & Bruere-Dawson, N. **Le vécu du psychosomatien comme paramètre du champ psychosomatique.** [The experience of the psychosomatician as parameter in the psychosomatic field.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 785-786.—While the experimental method finds its limits in the subjectivity of the investigator, certain analysts have oversimplified the psychosomatic relationship by reducing it to an application of analytic concepts to organic disease. The true field of psychosomatics might better address itself to a study in depth of the experience of the psychosomatician faced with his patient. In this way, factors germane to both the patient and to the realities of the life situation of the patient might be placed in better perspective.—*H. E. King.*

9399. Nordland, Eva. (L. Oslo, Inst. for Educational Research, Norway) **Conflict state and abnormal EEG: A study of boys with behavior disturbances and abnormal EEG.** *Scandinavian Journal of Educational Research*, 1969, No. 4, 199-221.—Considered whether abnormal EEG expresses somatic reactions to psychological situations, e.g., too intense experiencing of conflict, stress, or trauma. 64 pupils of 2 Norwegian special schools for maladjusted boys were examined as to history of development, diseases and injuries, parents' situation, practices of upbringing, etc. Ss' attitudes and behavior were tested with tests of experience of anxiety, conflict and contentment, as well as intellectual and school performance. Their attitudes were assessed by their teachers in special school and by their schoolmates by means of various sociometric tests, e.g., the Silent Reading Ability Test, and the Consciousness of Conflict and Contented Conditions Test. Ss with normal and abnormal EEG were compared with each other. Analysis of the EEGs was made without

knowledge of the results of the psychological assessments and tests, and vice versa. Results show that boys with abnormal EEGs have backgrounds of more conflict and insecurity. Six who were abnormal EEG cases had no history of more physical impairments, e.g. convulsions, than the normal EEG cases. Boys who experience less pressure in special schools tend to change into normal EEG cases while boys who experience more pressure tend to change into abnormal EEG cases.—*Journal abstract*

9400 Zenz, H. (Justus Liebig U. Psychosomatische Klinik, Giessen, W. Germany) **Empirische Befunde über die Giessener Fassung einer Beschwerdenliste.** [Empirical findings concerning the Giessen form of a complaint list.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1971(Jan), Vol. 21(1), 8-13.—Reports results of a complaint checklist administered to 242 randomly selected patients at the Giessen psychosomatic clinic. A factor analysis of items exposed a structure containing 6 factors which are presented (means and standard deviations included). Suggestions are provided for the clinical interpretation of the profile of complaints. It is argued that a 5-step rating scale be used rather than the alternative choice (yes/no) in answering items. The 5 suggested multiple choice responses to be offered to patients are never, scarcely, rather, considerable, and severe. *English summary*

CASE HISTORY

9401 Alliez, J., Blanc, Fr., Nossy, Y., & Milfred, M. **B. Drépanocytose et troubles mentaux: A propos d'une observation de sicktémie avec brèves épisodes d'allure névrotique.** [Drépanocytémie and mental disturbances. A case history of sickle-cell anemia with brief episodes of neurotic behavior.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 786.—Reports the case of a young Martinique woman who experienced nervous crises of neurotic form with verbal and motor excitation, on 3 occasions, each marked by an abrupt termination. Following the appearance of mental upset, an S-hemoglobin was discovered by electrophoresis, the same drepanocytosis being then also found in the father. The varied mental states encountered in sickle-cell anemia are summarized, but an exact interpretation is difficult in the absence of extensive statistics.—*H. E. King*

9402 Alliez, J., et al. **Délire de préjudice à évolution prolongée: Amyotrophie de Charcot-Marie avec corrélation non constante de troubles mentaux dans la fratrie: Présentation de malade.** [Delusion of jealousy of prolonged development. Amyotrophy of Charcot-Marie with a variable correlation of mental troubles among siblings. A patient presentation.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 785.—A single case followed in a neurological clinic over 45 yr. presented first as a seizure problem, then as a Charcot-Marie atrophy, and more recently as a paranoid-delusional state marked enough to require internment. The father was also the victim of neuromuscular troubles. A sister was amyotrophic ending in a fatal dementia. 2 brothers were also victims of the Charcot-Marie illness; 1 being impaired and indifferent, the other normal. The only brother uninjured from the motor point of view presents a clinical picture of egocentricity and associability. It is noted that the separation of mental and neural symptomatology at times seen distributed

among members of the same family appears to be following a recessive mode.—*H. E. King*

Brazelton, T. Berry; Young, Grace G., & Bullowa, Margaret. (Harvard Medical School, Boston) **Inception and resolution of early developmental pathology: A case history.** *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 1-15.—Reports on the development of a child who appeared adequate but who had slumped rapidly toward a state of age—a trend which was reversed by changes in emotional climate. The child was studied in observation and documentation on normal language beginning at birth. Case material came from (a) the obstetrical and the mother's pregnancy, done chiefly by the hospital staff, (b) a child development team consisting of a pediatrician and a developmental psychologist, aided by an audiovisual technician, and a vocal documentation team consisting of an observer, a psychologist, and an audiovisual technician.—*H. Reiss*

9404 Dormoy, O., & Aizenberg, D. (U. Paul Sabatier Toulouse, France) **Encéphalopathie familiale avec oligophronie et indifférence congénitale à la douleur et syndrome de Laurence-Moon-Bardet-Biedl.** [Familial encephalopathy with oligophrenia, congenital indifference to pain and the syndrome of Laurence-Moon-Bardet-Biedl.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 545-564.—Reports the case of a single patient and her immediate family, analyzed in detail and presented as an example of the complex way in which neurological, behavioral, and biochemical factors can be interwoven and interactive to produce a symptom picture. An 8-yr-old girl was hospitalized for mental backwardness, a tendency toward fractures and skin lesions, dental agenesis, insensitivity to pain, and startling automatization and autoaggression. Chemical, enzymatic, and cytological analyses were not definitive but suggest a biochemical (metabolic) error transmitted by a chromosome that is normal in appearance but defective in function. A diagnosis of congenital indifference to pain, probably dating from the 1st months of life, contains the most probable common denominator of the syndrome.—*H. E. King*

9405 Hill, T. M., & Saito, B. (U. Missouri, Medical School, St. Louis) **Digital computer-analyzed resting and sleep EEGs (sleep prints) after hemispherectomy in man.** *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 457-461.—Studied the resting and sleep EEGs of a 22-yr-old male patient with a left hemispherectomy, using digital computer pattern analysis and sleep print methods. The significantly more frequent occurrence of certain bioelectrical potentials in the operated side, and particularly the fluctuation of these differences in these potentials between the 2 sides during different phases of sleep, ruled out the hypothesis that this activity was exclusively spread from the unoperated hemisphere and suggested the existence of indigenous bioelectrical phenomena in the operated side. A greater amount of slow potentials, alpha waves, and over 40 cps superimposed fast activity was seen in the operated side, while indicating that 16-26 cps waves, K complexes, parietal humps, vertex sharp waves, and spindle activity occurred mainly in the unoperated side. The all-night sleep profiles of both hemispheres exhibited almost identical patterns, although the operated side revealed more slow wave spindle sleep. (French summary) (9 ref.) *Journal summary*

9406 Kane, Francis J. (Memorial Hosp., Chapel Hill,

either enlarged or changed without enlargement in the presence of high-status Ss whose jobs remained the same, and vice versa. Job enlargement was found generally to be of no greater influence than job change without enlargement so far as Ss' job satisfaction and tension were concerned. Low-status Ss tended to be favorably affected by job manipulation but responded unfavorably when their jobs were not manipulated. These opposing directions are attributed to a double Hawthorne effect. It is concluded that the effect of job enlargement in an organizational context involves a more complex combination of factors than has been previously considered. The utility of the S population for field studies of worker behavior is discussed. (16 ref.) *Journal abstract.*

9414. Searls, Donald J., Wilson, Lowell T., & Miskimins, R. W. (Colorado State U.) **Development of a measure of unemployment among restored psychiatric patients.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 223-225.—Examined the tenability of supplementing subjective clinical information concerning a patient's employability with more objective data for formulating specific placement procedures. Analysis revealed that 15 behavioral items differentiated placed successes, placed failures, and nonplaced patients on initial and replication studies of 87 and 129 psychiatric patients. Results indicate that the final items comprise an effective instrument for distinguishing the mentally restored individual who will experience failure in employment.—*Journal abstract.*

COUNSELING & GUIDANCE

9415. Abramovitz, Arnold & Abramovitz, Carole M. (U. Cape Town, South Africa) **Existential counseling: Values and integration.** *Counseling Psychologist*, 1971, Vol. 2(3), 44-47.—This response finds C. G. Kemp's (see PA, Vol. 46:Issue 5) article to be sound and comprehensive. It is concluded that adjustment is not the sole end of psychological counseling, hence, it must be concerned with other considerations such as values. The worlds of Eigenwelt, Mitwelt, and Umwelt are discussed and schematically presented as Binswanger's 3 modalities of being-in-the-world. In addition, Erikson's developmental schema of childhood growth has been used to establish that "existential therapy is often the treatment of choice in 'pathologies of will.'" —W. S. Sahakian.

9416. Ackland, Vergie L. (Arizona State U.) **A comparison of two group counseling models in facilitating verbal interaction among delinquent girls.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5752.

9417. Arbuckle, Dugald S. (Boston U.) **Reaction to Kemp.** *Counseling Psychologist*, 1971, Vol. 2(3), 32-36.—Presenting his reactions to C. G. Kemp's (see PA, Vol. 46:Issue 5) article, the author feels that one cannot write about the subject nor did Kemp reflect the feelings of an existential being. While the philosopher discusses existentialism, the existential counselor "lives and exists and experiences with the being." Kemp purported to offer a rational explanation of the nonrational, mystical, and "not-to-be-known" elements of existentialism; moreover, he attempted to convert existential faith into respectable scientific fact. Not only has Kemp ignored the contributions of behavioral scientists, his program for educating existential counselors has the appearance of being merely a "rehash." The type of counselor

avored by the author is one stressing "the experience of the student counselor," one including "the reflection by one 'who could experience deeply' with himself with others." —W. S. Sahakian.

9418. Beck, Carlton E. (U. Wisconsin, Milwaukee) **Existential counseling: Some observations.** *Counseling Psychologist*, 1971, Vol. 2(3), 48-50.—In evaluation of C. G. Kemp's (see PA, Vol. 46:Issue 5) article, reservations are expressed regarding the value of existential counseling. Kemp's views are compared with Herbert Spencer's. It is concluded that counseling is better than the counselor, "according to the counselor must be cognizant of his own expectations, and motives. It is possible that the existentialist counselor is the one who does not need to be involved in counseling." —W. S. Sahakian.

9419. Bost, David L. (Lamar State Coll. of Education) **Changes in altruistic orientations and their preferences of beginning counselors.** *Journal of Counseling Education & Supervision*, 1970(Win), Vol. 9(2), 121.—Discusses the possibility that the counselor can alter his behavior in some way as a result of counseling relationships. A study with 252 new counselor graduates entering their 1st professional experience, is described. Ss' altruistic-manipulative orientations were determined by the General Orientation subscale of the Altruistic Interpersonal Orientation Scale, administered at graduation and after a 1-yr interval. It was found that Ss tended to become more altruistic in their interpersonal orientations during their 1st yr. in the field. At the same time, Ss not only selected a counseling theory which was considerably more directive than they believed their teachers would support, but they became more direct in theory preference during their initial yr. of experience.—*Journal summary.*

9420. Brammer, Lawrence M. (U. Washington) **Existential views: Counseling supplement or substitute?** *Counseling Psychologist*, 1971, Vol. 2(3), 41.—Attempts to highlight C. G. Kemp's (see PA, Vol. 46:Issue 5) suggestions for existential counseling. The author also presents some contributions of his own related to "the American experience." Regarding the latter, existentialism is seen as a "breath of fresh air" for Americans who react to materialism, reductionism, rationalism, and empiricism. Kemp's article neglects current (especially American) writers on existentialism. Peculiar and vague terminology is the prime obstacle rendering existential ideas meaningful to counselors and students. Existential counseling provides personal and human dignity, meaning, purpose, and a focal point for man's subjective experience as an "important defining reality." —W. S. Sahakian.

9421. Carkhuff, Robert R., Friel, Ted, & Kratochvil, Dan. (American International Coll.) **The differential effects of sequence of training in counselor-responsive and counselor-initiated conditions.** *Journal of Counseling Education & Supervision*, 1970(Win), Vol. 9(2), 106-109.—In counterbalanced order 11 beginning trainees were trained by 2 doctoral-level trainers on 2 dimensions as follows: Group A: (a) counselor-responsive dimensions, and (b) counselor-initiated dimensions. Group B: (a) counselor-initiated dimensions, and (b) counselor-responsive dimensions. Pre-, mid-, and post-testing indicate that both programs were effective in demonstrating changes in communication and counseling of both counselor-responsive and counselor-initiated dimensions. The counselor-responsive-con-

counselor-initiated sequence effected the greatest changes in the counselor-responsive dimensions in the briefest period of time while not being significantly different from the level of functioning of the counselor-initiated-counselor-responsive group on the counselor-initiated dimensions.—*Journal abstract.*

9422. Colley, Charles S. (U. Alabama) **An examination of five major movements in counseling theory in terms of how representative theorists view the nature of man.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5118-5119.

9423. Combs, Charles. (Southern Illinois U., Edwardsville) **The treatise on "Existential counseling" by C. G. Kemp.** *Counseling Psychologist*, 1971, Vol. 2(3), 42-44.—This response to C. G. Kemp's (see PA, Vol. 46:Issue 5) article expresses pleasure with Kemp's articulation of the nature of existential counseling, noting its special value for students and the gap it fills in current material available to counselors and counselors-in-training. Stressed here are 3 basic forces in psychological and counseling theories corresponding to 3 modes of existence or of man as a being-in-the-world: (a) Umwelt, man seen as a reactive organism or as the object of former conditioning; (b) Mitwelt, man as a reactive being in depth comparable to the Freudian view of man; and (c) Eigenwelt or man viewed as a "being-in-the-process-of-becoming," i.e., the region holding the interest of the existential, phenomenological, humanistic, or self-psychologists.—*W. S. Sahakian.*

9424. Friesen, DeLoss D. (State U. New York, Rehabilitation Counseling Program, Albany) **Confidentiality and the pastoral counselor.** *Pastoral Psychology*, 1971(Jan), Vol. 22(10), 48-53. Discusses 4 levels of confidentiality: absolute, professional, non-restricted, and that which is almost absent. These levels are related to various ministries.—*O. Strunk.*

9425. Gold, Robert D. (Arizona State U.) **Alteration of the self concept and attitudes toward others using group behavior modification techniques.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5125.

9426. Jourard, Sidney M. (U. Florida) **On Kemp's article, "Existential counseling."** *Counseling Psychologist*, 1971, Vol. 2(3), 41. Expresses a favorable impression of C. G. Kemp's (see PA, Vol. 46 Issue 5) article, but has serious reservations about its extended length, its need to have been written in the first place, and since other capable authors have successfully and effectively made presentations of the same subject matter, and Kemp's injustice to American existentialist counselors and psychotherapists such as Rogers and Coombs.—*W. S. Sahakian.*

9427. Kaplan, Alex H. (Psychoanalytic Foundation, St. Louis, Mo.) **Review of "Existential counseling" by Dr. Kemp.** *Counseling Psychologist*, 1971, Vol. 2(3), 50-53.—Reviewing C. G. Kemp's (see PA, Vol. 46 Issue 5) article from a psychoanalyst's viewpoint, the need was found "for greater understanding of the self-awareness of one's existence," a principle also shared by psychoanalysts as a treatment goal. However, Kemp's contention that existential tenets are the major elements of the psychotherapeutic process is disputed. The pessimism of existentialism is denigrated, and objections to psychoanalytic concepts refuted, especially by citing views of psychoanalysts critical of existentialism. The claim is made that Kemp failed to demonstrate the clinical effectiveness of existential counseling or that "under-

standing of one's existence and the knowledge of one's self-awareness are the essential ingredients of the therapeutic process" (15 ref.)—*W. S. Sahakian.*

9428. Leveton, Miriam I. (U. Massachusetts) **Investigation of a modeling conditioning paradigm applied to a social learning program to facilitate social interaction in chronic psychiatric patients.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5132.

9429. McCubbin, Hamilton J. (U. Wisconsin) **The assessment of child care worker behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6169.

9430. McHugh, Margaret A. (U. Oregon) **An epistemological inquiry into conceptual confusion in counseling.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5608.

9431. McMulla, Risa E. (Florida State U.) **Differential effects of the manipulation of counselor attitudes and counselor suggestions on client self-experiencing.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5631.

9432. Reddy, W. Brendan. (U. Cincinnati [Counseling Service]) **Sensitivity training as an integral phase of counselor education.** *Communist Education & Supervision*, 1970(Win), Vol. 9(2), 110-115.—Conducted a 4-day T group conjointly with 5 male counselor education staff members and 6 practicum students. The Staff-Student Opinion Questionnaire was administered to all participants. At the end of the T group, significant gains were made on the Barrett-Lennard Relationship Inventory, a measure of R. Rogers' concept of a helping relationship. 3 mo later clients of the group members rated them on the same measure. A number of significant correlations were found. A group questionnaire anecdotally supported the findings.—*Journal abstract.*

9433. Sandman, Lea. (Metropolitan State Hosp., Norwalk, Calif.) **Two opposing models for a self-fulfilling prophecy.** *Counseling Psychologist*, 1971, Vol. 2(3), 82-87. Examined 2 conflicting models for a self-fulfilling prophecy, i.e., the pathologic model, the illness model, and the one emphasizing the strengths, assets, and capacity of the patient to be a "preferable client." Of the 2, the latter model preferred by the author, his findings are that some counseling psychologists should refrain from education, be positive working models, and avoid the pathological, medical disease model. The author's positive model is based on a humanistic and humanistic philosophy. Furthermore, positive "models also appear to be more conducive to the realization of operable self-fulfilling prophecies."—*W. S. Sahakian.*

9434. Schauer, John R. (U. Wisconsin) **Personal change groups and counseling.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6177.

9435. Steinberg, Ira S. (Columbia U.) **An existential reaction to existential counseling.** *Counseling Psychologist*, 1971, Vol. 2(3), 45.—Existentialism is viewed as a "confusion and obscurantism" which have hindered the "existential counseling." More than 20 reasons for exercise in obscurantism, excessive counseling, and us "in the end with a confession." It is stressed that sufficient evidence has been adduced to substantiate the indictment.—*W. S. Sahakian.*

9436. Tyler, Leona E. (U. Oregon) **Existentialism in**

scoring mazes and coding, Phwaki Blocks for tactual identification, etc. Emergence of unconventional techniques was particularly furthered by good supervision.—*M. J. Stanford.*

9447. Rivenes, Richard S. & Cordellos, Harry C. (California State Coll., Hayward) **Kinesthetic performance by blind and sighted.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 76.—Studied the relative performance of 10 blind and 10 blindfolded-sighted Ss on a kinesthetic task involving space perception. Ss were given orientation trials, 3 pretraining trials without knowledge of results, 14 practice trials with knowledge of results, and 3 posttraining trials with knowledge of results. Results support J. H. Bottrill's findings that blind Ss do not develop a special ability to perform kinesthetic tasks.—*P. Hertzberg.*

9448. Wilson, Edouard L. (New York Assn. for the Blind, Psychology, & Counseling Services, N.Y.) **The use of psychological tests in diagnosing the vocational potential of visually handicapped persons who enter supportive and unskilled occupations.** *New Outlook for the Blind*, 1971(Mar), Vol. 65(3), 79-88.—Demonstrates on 2 examples the preferred use of individual focused programs against test-focused attention, and discusses techniques applied in diagnosing vocational potential of the visually handicapped who enter supportive and unskilled occupations. Intelligence tests, tests of spatial, mechanical, and motor abilities, cancellation tests, and personality tests are mentioned. Among these latter ones the TAT with an example of a story and its analysis, and projective drawing tests are singled out. It is concluded that "the potentialities of blind clients cannot, and should not, be predicated solely upon statistically reliable aptitude tests." The individual and his resistance to change have to be considered. Clients' stereotyped thinking about jobs available to blind people have to be modified; their irrational feelings concerning blindness and their tendency towards dependency have to be coped with.—*M. J. Stanford.*

Deafness & Hearing Disorder

9449. Baller, Warren R. & Giangreco, C. Joseph. (United States International U., San Diego, Calif.) **Correction of nocturnal enuresis in deaf children.** *Volta Review*, 1970(Dec), Vol. 72(9), 545-549.—A device was produced which shone a bright light into the face of a child at the onset of enuresis. 21 students of the Iowa School for the Deaf were treated with this device, and achieved dryness within 30 nights (with the exception of a single boy, who required 3 treatment periods). In addition, 19 other persistent enuretics in the school, not treated during the study, also achieved dryness by the time the treated patients did, suggesting a "vicarious sharing in the experience of victory" among the children at the school. There was no evidence of "undesirable side effects" of the correction procedure, but rather indications of heightened behavior development.—*W. A. Hass.*

9450. Cole, Nell. **Hear the wind blow.** *Volta Review*, 1971(Jan), Vol. 73(1), 36-41.—The author relates the problems of bringing up a hearing-impaired child who is also black and who was a frail infant. Only the persistence and the insistence for the best education possible for her son have made it possible for him to overcome the odds.—*Journal abstract.*

9451. Hill, Arlene. (Southwest School for the Deaf,

Lawndale, Calif.) **Some guidelines for sex education of the deaf child.** *Volta Review*, 1971(Feb), Vol. 73(2), 120-125.—1 step parents can take is to be familiar with stages of development of sexual feeling in children. An outline of these from infancy to age 6 is provided. Parents can also provide the child with a vocabulary for communication about sex, as well as providing early, and in a nonlanguage context, the more difficult concepts the child will need later to understand reproduction. Parents should remember that their actions in a loving home environment can serve as a constant, positive form of sex education.—*W. A. Hass.*

9452. Holbrook, Anthony & Crawford, Gladys H. (Florida State U.) **Modifications of vocal frequency and intensity in the speech of the deaf.** *Volta Review*, 1970(Nov), Vol. 72(8), 492-497.—During a 7-wk period, vocal frequency of adult deaf Ss was modified from abnormal to normal levels by means of an automatic voice controlling system and by application of reinforcement principles. Following the experiment, an evaluation of the vocal change produced during the brief training period indicated that the conditioning of this speech parameter was maintained over a 3-mo period.—*Journal abstract.*

9453. Odom, Richard D., Coon, Robert C., & Guzman, Richard D. (Vanderbilt U.) **Detection of an invariant among irrelevant dimensions of different salience value.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 203-206.—Assigned 38 11- and 12-yr-old deaf children for whom color was relatively more salient than form to tasks of invariance detection. The invariant of liquid amount was successfully detected by Ss in the condition that varied color but not in ones that varied form or color plus form.—*Journal abstract.*

9454. Siirala, U. & Gelhar, K. (Helsinki U., Otolaryngological Hosp., Finland) **Further studies on the relationship between Menière, psychosomatic constitution and stress.** *Acta Oto-Laryngologica*, 1970(Aug), Vol. 70(2), 142-147. Describes a study of 1970(Aug), Vol. 70(2), 142-147. Describes a study of patients with Menière's disease, carried out in 2 phases with 133 Ss treated from 1957-1966 and 33 Ss treated 1 yr. later. Data from the earlier series are from case records and follow-up inquiry. Results indicate that Menière patients subjected to careful psychic and somatic analysis were found to have a predisposing psychosomatic constitution which, under chronic or acute stress, led to somatic manifestations—in this particular case, in the ear. Chronic stress impaired prognosis (German summary)—*Journal abstract.*

9455. Suzuki, T. & Origuchi, K. (Shinshu U., Faculty of Medicine, Matsumoto, Japan) **Averaged evoked response audiometry (ERA) in young children during sleep.** *Acta Oto-Laryngologica*, 1969, Suppl. 252, 19-28. Compared thresholds of averaged evoked response to auditory stimulation for sleeping young children with thresholds obtained from conditioned orientation reflex (COR) audiometry. Data from 42 normally hearing children (4 mo to 4 yr) and 92 hard-of-hearing children (1.5 yr.) were available for comparison. The evoked response was recorded using tone bursts of 500, 1000, 2000, and 4000 Hz. They had a 25-msec rise and fall time and a 100-msec duration and were delivered every 5 sec. Approximately 30 responses were averaged during a test run. The test was administered in Sleep Stages 3 and 4 of the classification of W. Dement and L. Kleitman. COR audiometry was made according to the original method of T. Suzuki and Y.

Ogbe. For normal Ss the mean difference between both thresholds was 30.8 db. COR threshold more sensitive and 2% of measurements of hearing lay between 0-20 db. For slightly or moderately impaired Ss, the mean difference decreased to 6.8 db. COR threshold more sensitive. For severely impaired Ss the mean difference was only 4.3 db, showed response more sensitive. Significantly smaller difference between evoked response threshold and COR threshold was proved statistically in favor of hearing Ss than in normal Ss. (German summary) (19 ref.)—*Journal abstracts*.

9456 Vakne, Francis J. (State U. New York, Buffalo) The study of the self-concept and anxiety as it relates to the marginal status in the moderately impaired hearing population. *Dissertation Abstracts International*, 1971(Mar), Vol. 11(9-B), 764t.

9457 Vaskl, Smiljka. Neki aspekti prirode rečnika u jedne grupe dece sa oštećenim sluhom. [Some aspects of the nature of the vocabulary of a group of children with damaged hearing.] *Problemi*, 1969, 19(1-2), Vol. 3(1), 85-94. Analyzed the vocabulary structure obtained by a test of adjectives opposites among 60 hearing damaged children. The test consisted of 4 items for the adjectives white, good, great, and free it was necessary to write down their opposites. Analysis of results and a comparison of data with similar data show the following: (a) acceptance of the meaning of the adjectives tested primarily on the meaning as learned from direct personal and everyday experience, and (b) acceptance of the meaning of the words and the order of various levels of meaning was the same for both a hearing population and Ss. Differences were observed in the rate of acceptance and the range of the accepted various meanings, but not in the nature of the acceptance of acceptance. Types of errors were the same for both populations. Differences occurred in the frequency of occurrence and in the age at which they occurred, i.e., the percentage of incorrect answers in the deaf group at 13 yr. of age was 10 times larger than with Ss with normal hearing up to 10 yr. of age. Deaf children accepted better the meaning of concrete adjectives. The way of acceptance of the meaning of adjectives and their opposites ranges from the omission of answers over syntagmatic and parasyntagmatic usage through the real meaning of the opposites. All the answers found in the deaf group, unrelated to the articulation and morphological errors, were also observed in the group with good hearing. According to the cluster analysis, Ss can be sorted into 4 categories: (a) Ss giving the words their true vocabulary meaning, (b) Ss making opposites in a formal way, insufficiently differentiated in the sense of meaning, (c) Ss giving the given words too uncommon, specific meanings, and (d) Ss responding erroneously in semantics, articulation, and in the morphological and syntactical sense (Russian summary) (33 ref.)—*English summary*.

SPEECH DISORDER

9458. Crabb, Lawrence J. (U. Illinois, Urbana-Champaign) The effects of stress versus punishment on disfluency. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5618.

9459 Halpera, Werner L., Hammond, Judith, & Cohen, Rhonda. (Rochester Mental Health Center, Children & Youth Div., N.Y.) A therapeutic approach to speech phobia: Elective mutism reexamined.

Journal of the American Academy of Child Psychiatry, 1971(Jan), Vol. 10(1), 94-107.—Discusses the manifestations of elective mutism. The mutism can be associated with (a) a predisposing hypersensitivity to instinctual drives, (b) a traumatic event experienced during the critical periods of language development, (c) an adverse environment, (d) a psychological fixation, and (e) a neurologic symptom compromise. Elective mutism is a psychological response which attempts to protect a poor self-image. The effects of behavioral modification techniques are discussed in relation to speech phobia. The speech phobic patient defines the ways he refuses to engage himself with others. Examples of this are found in the case studies of speech phobias. (34 ref.)—*H. Reiser*.

9460 Mehrhof, Edward G. & Rousey, Clyde L. (Topeka State Hosp., Children's Service, Kan.) Speech difficulties symptomatic of destructive behavior toward self or others. *Journal of Nervous & Mental Disease*, 1971(Jan), Vol. 152(1), 63-67.—This study was derived from Rousey and Moriarty's suggestion that "difficulty in articulation of certain sounds is related to specific aspects of psychological behavior." It was hypothesized that individuals manifesting destructive behavior would also demonstrate distortion of the vowel *i* and the substitution of the *w* for *r* or *i* sounds. Results support that hypothesis.—*R. Denis*.

9461 Peirce, Henry B. (Boston U., School of Education) Operant conditioning: Its efficacy in affecting the verbal behavior of young children with severe language disability. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5692-5693.

9462 Weston, Alan J. & Rousey, Clyde L. (Office of Education, Washington, D.C.) Voice confrontation in individuals with normal and defective speech patterns. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30, 187-190.—Used 3 groups of 20 undergraduates each to study the effect of listening to one's own voice. 1 group of 10 male and 10 female Ss without speech defects heard themselves and responded by marking equivalent forms of a semantic differential inventory. The 2nd group, characterized by speech or voice defects, followed the same procedure. A 3rd group, without speech problems, marked the semantic differential inventory without hearing themselves. Analysis of covariance indicates that Ss with speech defects show a greater reaction to hearing themselves than do Ss without speech defects. Also, women with and without speech defects show a significantly greater semantic differential reaction to hearing their own voices than the controls.—*Journal abstracts*.

NEUROLOGICAL DISORDER

9463 Fainberg, S. Trudnye deti i podkhod k nim. [Difficult children and the approach to them.] *Dashkol'noe Vospitanie*, 1970(Oct), Vol. 43(10), 70-75.—Presents an argument in behalf of the "training of inhibition" in the neuropathic child, since his behavioral difficulties are due primarily to an "organic brain defect (underdevelopment of the process of cortical inhibition)." Suitably directed training in combination with drug and psychotherapeutic treatment is held gradually to (a) bring about a reinforcement of the inhibitory process in the cerebral cortex, and (b) prevent the further development of conflicts.—*J. D. London*.

9464. Farrell, Donald F., Starr, Arnold, & Freeman, John M. (Johns Hopkins U., Medical School) The effect

of body temperature on the "periodic complexes" of subacute sclerosing leucoencephalitis (SSLE). *Electroencephalography & Clinical Neurophysiology*, 1971(May), Vol. 30(5), 415-421.—Studied the effects of body temperature changes in 4 patients with documented subacute sclerosing leucoencephalitis (SSLE). Elevated temperatures were studied during spontaneous febrile illness, after administration of typhoid vaccine, or after use of a surgical heating blanket. A surgical cooling blanket was used to induce subnormal temperatures. The "periodic complex" associated with SSLE was highly responsive to alterations in body temperature. At an elevation in body temperature, the complexes progressively decreased in frequency and amplitude and were eventually abolished. A lowering of the body temperature had the opposite effect. Studies of the visual evoked response and hypothermic and gastrocnemius-soleus reflex at varying temperatures suggest that the changes in the periodic complexes were mediated by alterations in synaptic activity. (French summary) (25 ref.)—*Journal summary*.

9465. Miller, Edgar. (U. Hull, England) On the nature of the memory disorder in presenile dementia. *Neuropsychologia*, 1971(Mar), Vol. 9(1), 75-81.—Reports that clinical descriptions of presenile dementia suggest that, in addition to the general intellectual decline, the main behavioral characteristic is a memory disorder in which recently acquired information fails to reach long-term storage. It was hypothesized that this memory disorder could be due to an abnormally rapid loss of material from short-term storage and/or a difficulty in transfer between the short- and long-term storage systems. 2 experiments with a total of 26 Ss with presenile dementia and 26 matched controls used the free recall of lists of words. Results suggest that both the hypothesized factors operate to produce the overall memory disorder in demented patients. Results are discussed in terms of recent work on coding of verbal information in memory. (French & German summaries)—*Journal abstract*.

9466. Samuels, Ina; Butters, Nelson, & Goodglass, Harold. (Veterans Administration Hosp., Boston, Mass.) Visual memory deficits following cortical and limbic lesions: Effect of field of presentation. *Physiology & Behavior*, 1971(Apr), Vol. 6(4), 447-452.—Compared the visual and auditory memory deficits of 7 male patients with cortical damage in the right parietal region, 11 male with Korsakoff patients, and 9 male non-brain-alcoholic Korsakoff patients, and 9 male non-brain-damaged controls on tasks involving the retention of consonant trigrams. When the letters were presented visually, field of presentation was a critical variable: in comparison to normals, the right parietal's memory deficit was limited to letters presented in the left visual field while the Korsakoff patients evidenced a deficit in all sectors of the field. Results from the auditory task suggest that the visual data cannot be reduced to the general serial order effect but rather are related to the visual nature of the stimuli. (16 ref.)—*Journal abstract*.

9467. Scheller, Marianne. (U. Würzburg, Neuroclinie, W. Germany) Auf welcher leistungs-Störung beruht die Rechtschreib-Lesseschwäche? [On the disturbance of which capacity are reading and writing disorders based?] *Nervenarzt*, 1971(Feb), Vol. 42(2), 97-100.—Describes results of experiments with 11 patients with reading and writing disorders which support the contention that their inability to correctly repeat spoken sentences or sequences of letters or numbers is due to a

disturbance in their ability to comprehend acoustical forms—an input disorder—rather than an output disorder. Optical-spatial disorders often observed in such patients are regarded as not playing any causal role. (19 ref.)—E. R. Wist.

9468. Warrington, Elizabeth K. & Weiskrantz, L. (National Hosp., London, England) Organisational aspects of memory in amnesic patients. *Neuropsychologia*, 1971(Mar), Vol. 9(1), 67-73. Conducted 4 experiments with a total of 6 amnesic and 8 control patients with extracerebral neurological disease in which certain aspects of organizational processes were examined. No qualitative differences in performance were found to imply altered organization of either perceptual or mnemonic information in the amnesic group. The effectiveness of "cued" recall in the amnesic group was demonstrated. Results are related to an interpretation of the amnesic syndrome in terms of disinhibition. (French & German summaries)—*Journal abstract*.

Brain Damage

9469. Carter, John L. & Miller, Phillips K. (U. Houston, Clinical Education Lab.) Creative art for minimally brain-injured children. *Academic Therapy*, 1971(Spring), Vol. 6(3), 245-252. Attempted to gain subjective and objective data pertaining to the idea that group creative art activities improve motivation and perceptual-motor coordination. 8 children with a CA range from 7.2-9.9 and an IQ range from 68-108, met for 2 hr. daily for 5 wk. Treatment consisted of engaging Ss in a variety of creative tasks involving visual, tactual, and kinesthetic modes of expression, and expression and communication of feelings, thoughts, and experiences. Pre- and posttest data were obtained using the Marianne Frostig Developmental Test of Visual Perception. Posttest gains were significant for each S on each subtest. Gains are considered to indicate that creative art activities are 1 way of enhancing visual-perceptual abilities. —C. J. Walther

9470. de Obaldia, Mario & Best, Gary A. (Penny Lane, Sepulveda, Calif.) Music therapy in the treatment of brain-damaged children. *Academic Therapy*, 1971(Spring), Vol. 6(3), 263-269. 10 brain-damaged children (CAs 10-14) were involved in the treatment program. The program consisted of a group singing and rhythm activity, and S involvement with specific instruments. Pre- and posttreatment descriptions of each S are reported. Music therapy is seen as a decisive intervention technique for use with several categories of brain damage which should be given in conjunction with an academic program. —C. J. Walther

9471. Diaz, Angel M. (U. Houston) Effects of visual and auditory distraction on paired-associate learning of brain-injured and non brain-injured children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5231

9472. Fontenot, Donald J. & Benton, Arthur L. (U. Iowa) Tactile perception of direction in relation to hemispheric locus of lesion. *Neuropsychologia*, 1971(Mar), Vol. 9(1), 83-88.—Compared the performance of 40 patients with lesions of the right or the left hemisphere on a task involving the perception of the direction of tactile stimulation applied to the palms of the hands with each other and with those of 20 patients without cerebral disease. Results confirm earlier findings of bilateral impairment in this function in a noteworthy

proportion of Ss with right hemisphere lesions. Ss with left hemisphere lesions showed significant impairment only in the right hand. Within the left hemisphere group, aphasic and nonaphasic Ss did not differ with respect to level or pattern of performance. Results support the conclusion that the right hemisphere plays a distinctively important role in mediating spatial perception in the tactile as well as in the visual and auditory modalities (French & German summaries). *Journal abstract*

9473 Gardner, Riley W. (Menninger Foundation, Topeka, Kan.) **Evolution and brain injury: The impact of deprivation on cognitive-affective structures.** *Bulletin of the Menninger Clinic*, 1971(Mar), Vol. 35(2), 113-124. Discusses maladaptive problems including failures in the cognitive-affective areas. "A refinement of Darwinian theory is employed to explain the effects of brain injury and other forms of 'true deprivation' on the formation of cognitive-affective structures in the human being."—J. Z. Elias.

9474 Goul, William R. & Brown, Marvin. (E. Waterloo, Ontario, Canada) **Effects of age and intelligence on Trail Making Test performance and validity.** *Perceptual & Motor Skills*, 1970(July), Vol. 30(1), 319-326. The literature contains evidence that age and intelligence affect Trail Making Test (TMT) performance and probably its validity as a screening device for organicity. This study systematically explored the nature of these effects. The TMT and WAIS were administered to 93 20-32 yr old brain-damaged Ss and 100 controls. Results show that (a) TMT performance decreases with age as does TMT validity; (b) TMT performance increases with intelligence; and (c) R. Reitan's cutoff point misclassifies the controls; the misclassification rate increasing markedly with age. Results clearly indicate the need for local age-corrected norms. *Journal abstract*

9475 Kaspar, Joseph C., et al. (Children's Memorial Hosp., Chicago, Ill.) **A study of the relationship between neurological evidence of brain damage in children and activity and distractibility.** *Journal of Consulting & Clinical Psychology*, 1971(Jun), Vol. 36(3), 329-337. Compared a group of 24 boys and 12 girls, 5.8 yr. of age, with neurological evidence of brain damage (selected with IQs above 75 on the Peabody Picture Vocabulary Test) to a control group (matched for sex) on a series of measures of activity and distractibility. It was found that (a) although the average IQs of both groups were within the normal range control Ss were significantly more intelligent; (b) in a structured situation, brain-damaged Ss were more active; (c) in 3 of 4 distractibility tasks more brain-injured Ss than control Ss were distractible; and (d) in the free situation, sex and damage interacted. Correlational analysis of the group indicates that a strong set of interrelationships existed between variables in the experimental group. Central to these relationships was the input modality through which the stimuli was transmitted. Data are interpreted as indicating that brain injury affects the child's capacity to control his immediate exchanges with his environment in terms of activity level and attention. (16 ref.)—*Journal abstract*

9476 Schilling, F. (U. Marburg, Clinic for Child & Adolescent Psychiatry, W. Germany) **Zur Aussagefähigkeit des Oseretsky Tests bei normalen und hirngeschädigten Kindern.** [On the informative value of the Oseretsky Tests for normal and brain damaged children.] *Acta Paedopsychiatrica*, 1970(Sep), Vol. 37(9)

100-244. The Oseretsky modification of the Bender-Gestalt Test is used to brain-damaged and healthy children. The objectivity and reliability of the test is discussed. On the basis of the analysis, the contents of the problems to 6 months of age must be rejected. Interpretations of problems are discussed. Motor components, as stated by Oseretsky, must not be demonstrated. A factor analysis of the test contents may lead to useful results. The procedure selects brain-damaged children from the so-called motor components have no separate significance. The procedure will establish a general basis of motor development. Time and material are dependent on the information furnished. (21 ref.)—*Journal abstract*

9477 Veil, C., et al. (Eliot Research Center, Paris, France) **Brain, psychologique, socio-professionnel, psychopathologique et physio-pathologique a un an de distance de l'intoxication oxycarbonee aigue.** *Psychological, socio-professional, psychopathological and physio-pathological balance sheet one year following acute carbon monoxide intoxication.* *Annales de Psychiatrie*, 1970(Oct), Vol. 23(343-348), 800-808. Victims of acute intoxication by carbon monoxide were examined 1 yr later and their records compared with a matched control group of 20 Ss. The carbon monoxide victims generally carried identifiable sequelae of a serious and varied nature; often unknown to the person or benign and in other instances seriously impairing work. These aftereffects, the most characteristic of which were attested by EEG abnormalities (few normal tracings with many anomalies present, particularly slowed or irritative anomalies) and by defects in visual retention (lower scores on the Benton Visual Retention Test), are often associated but do not appear to constitute a strictly individualized syndrome. (93 ref.)—H. E. King

9478 Wikler, Abraham; Dixon, Joan F., & Parker, Joseph B. (Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.) **Brain function in problem children and controls: Psychometric, neurological, and electroencephalographic comparisons.** *American Journal of Psychiatry*, 1970(Nov), Vol. 127(5), 634-645. Psychometric, neurological, and EEG studies were made of 24 children with scholastic-behavioral problems but no classical evidence of neurological disease and of 24 matched controls. Differences between the 2 groups were significant in all 3 measures, giving evidence of brain dysfunction in the groups with scholastic-behavioral problems. 2 subgroups—hyperactive and nonhyperactive—each with characteristics suggesting a different syndrome, are described. (24 ref.)—*Journal abstract*

9479 Wyke, Maria. (National Hosp., London, England) **The effects of brain lesions on the performance of bilateral arm movements.** *Neuropsychologia*, 1971(Mar), Vol. 9(1), 33-42. Studied the effects of brain lesions on the performance of bilaterally synchronous tapping movements of manipulative skill. 40 patients with verified left- and right-sided hemisphere lesions and 20 normal persons served as Ss. Results show that left-sided cortical lesions produce significant impairment in the rapidity of repetitive movements with both arms, whereas right-sided lesions produce impairment of movement in the contralateral arm only. There was significant impairment in precision arm

movements for both arms in the presence of right- and left-sided cortical lesions. Unilateral and bilateral tapping movements, performed by normal Ss with the 2 arms together, were significantly slower than the same movements performed by either arm alone. In the patient group there was no significant difference between the rapidity of bilateral arm movements and that of the same movements performed by the left arm alone. Results indicate that the performance of patients with cortical lesions involving intrahemispheric extensions shows comparatively less reduction in respect of the rapidity of bilateral arm movements than does that of patients without such intrahemispheric involvement. (French & German summaries) (16 ref.)—*Journal abstract*.

Epilepsy

MENTAL RETARDATION

9480. Benevento, Joan A. (Catholic U. of America) **A comparison of auditory and visual perception in exogenous and endogenous mentally retarded adolescents.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5228-5229.

9481. Chatagnon, P. A. **Le retard de l'organisation et du développement des fonctions mentales chez l'être humain: I. Retard mental et capacité sociale.** [Retardation of the organization and development of mental functions in the human: I. Mental retardation and social capacity.] *Annales Médico-Psychologiques*, 1970(Nov), Vol. 2(4), 497-544.—The degree to which mental capacity affects social capacity is subject to great variation. The extreme mental defects are easily recognized but more benign forms are difficult to differentiate from the normal and are far more numerous. Social incapacity cannot be easily expressed in terms of MA, yet the regular linkages found between low MA, yet the regular linkages found between low intelligence and the social problems of poverty, crime, illness, and delinquency underline its causal nature. The complexity of modern life has made the teaching of skills needed for self-sufficiency that much more difficult and has increased the challenge posed by mental defect for society. Much attention has been directed to early detection and special education, within the last 20 yr., as it is now recognized that most of the problem is biological or social, rather than pathological in nature. This study presents a modest sample of 20 children or adolescents, chosen at random, in considerable detail with the intent to provide guidelines for the handling of the many from reflections arising from an intensive study of a few. Specific recommendations are offered for the management of the problem in France.—H. E. King.

9482. Cleland, Charles C., Altman, Reuben, & Swartz, Jon D. (U. Texas, Coll. of Education) **Dominance-submission in profoundly retarded male subjects under conditions of strong motivation.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 185-191.—As a function of their gross intellectual impairment and prolonged institutionalization, the profoundly mentally retarded constitute a population "doubly-shielded" from culturally determined behavior patterns. This clinical group, thus, appears uniquely appropriate for ethological investigation. This paper reports results of a simulated aggressive approach toward 26 profoundly mentally retarded adult males. The technique was demonstrated as capable of eliciting a consistent behavior repertoire from these typically unresponsive, lethargic, nonverbal

Ss. Analysis of Ss' responses provided tentative support for the ethological as opposed to the incongruity-dissonance hypothesis of motivated behavior. The significance of this procedure, as an arousal methodology without pain, and 2 unexpected findings, the evocation of speed in a "mute" S and a disproportionate degree of left-handedness are discussed. The results afford modest support for an instinctive inhibition of aggression in man—an intraspecies means of communication. (20 ref.)—*Author abstract*.

9483. Cox, Alice M. (Indiana State U.) **Le retard du développement et de l'organisation des fonctions mentales chez l'être humain: II. Les fondements familiaux du retard mental: Revue choisie de la littérature mondiale.** [Retardation of the organization and development of mental functions in the human: II. Family backgrounds of the mentally retarded: A selected review of the world literature.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 649-695. Reviews the literature pertaining to the psychological impact of the birth of a retarded child on the immediate family. The shock, distress, and guilt felt by parents affects not only their attitudes and behavior, but inevitably influences the retardate as well by the psychological climate in which he will develop. Feelings of confusion, guilt, insecurity, denial, or protectiveness are found at all social and intellectual levels. The situation is rarely accepted immediately and is often better assimilated to family hopes and standards among the less intelligent and less educated. Overprotective attitudes develop easily out of the practical need to give special care and parental conflict over having produced such a child. Reactions of resignation and overcompensation are the most prevalent. The attitudes of siblings are important, too, and although they often follow the parental model they will be affected by the relative age and developmental stage of each. Slight retardation can be more difficult to understand and adjust to than is more obvious handicap. (114 ref.)—H. E. King.

9484. Hagen, John W. & Huntsman, Nancy J. (U. Michigan) **Selective attention in mental retardates.** *Developmental Psychology*, 1971(Jul), Vol. 8(1), 151-160. In Study I, 47 normal and 61 retarded non-institutionalized Ss at the same 4 MA levels were compared. In Study II, 21 institutionalized retarded Ss at 2 MA levels were tested. The stimuli consisted of 6 cards with a central and an incidental picture on each and 12 trials were presented. All Ss were tested on recall of both the central and incidental pictures, measures of memory span, verbal labeling ability, and IQ. In Study I, selective attention improved with MA and retardates performed as well as normals of equivalent MA. Selective attention performance was independent of memory span scores. Facility in providing verbal labels was positively related to central recall performance. In Study II, the institutionalized retardates were less able to attend selectively to the central stimuli than either the retardates or normal Ss of Study I. Findings are discussed in terms of attention deficit theory and the effects of retardation on selective attention performance.—*Journal abstract*.

9485. Jolliff, James L. (Ohio State U.) **The enhancement of self ratings by institutionalized educable mentally retarded.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5627.

9486. Kugel, Robert B. (U. Nebraska Medical School) **Combating retardation in infants with Down's syndrome.** *Children*, 1970(Sep), Vol. 17(5),

- 188-192. Reports on an 18-month pilot study of the development of 7-4-11 and children diagnosed as having Down's syndrome. To determine procedures for helping such children to achieve greater developmental progress, the experiment provided 3 programs, respectively generally lacking in an institutional setting: a home-like atmosphere, a staff of substitute mothers for each child, and continuous stimulation and physical strengthening experiences for each child. Group measurements of progress were taken. There was no control group, but the progress made by 6 of the 14 children was greater than would normally be expected of children in the condition they were in at entry. Data indicate that retarded children will develop better if provided with age-appropriate stimulation.—*D. T. Lehar, Ark.*
9487. Pustel, G., Sternlicht, M., & DeRosier, M. (Willowbrook State School, Staten Island, N.Y.) Tree drawings of institutionalized retardates: Seasonal and color effects. *Journal of Genetic Psychology*, 1971(Jun), Vol. 118(2), 217-222. Studied chromatic and achromatic tree drawings obtained from 240 institutionalized mental retardates over the 4 seasons (60 Ss for each season, dichotomized as to age, sex, and IQ), in relation to seasonal influences and the effect of annual quality of colors. Both the color effect hypothesis and seasonal influences proved to be significant, thereby lending reservations to psychodynamic interpretations of projective drawings.—*Author abstract.*
9488. Richards, B. W., Rundle, A. L., Zarembka, J., & Stewart, A. (St Lawrence's Hosp., Caterham, Surrey, England) Ring chromosome 18 in a mentally retarded boy. *Journal of Mental Deficiency Research*, 1970(Jun), Vol. 14(2), 174-186. Mental retardation, reduced head size, micrognathia, oblique palpebral fissures, and club feet were reported in a case study of a 14-yr old boy with a ring 18 chromosome. A number of other symptoms sometimes mentioned, such as congenital heart disease, congenital dislocation of the hip, dermatoglyphic anomalies, and abnormal EEG were not found. The karyotypes of both parents and both normal siblings were found to be normal. The example of a ring 18 chromosome described here is remarkable for the stability of the ring. (20 ref.)—*R. F. Hamilton.*
9489. Taguchi, K., Goodman, W. S., & Brummitt, W. M. (U. Toronto, Ontario, Canada) Evoked response audiometry in mentally retarded children. *Acta Oto-Laryngologica*, 1970(Sep), Vol. 70(3), 190-196. Recorded the auditory evoked responses of 200 1-17 yr. old mentally retarded children, using an averaging computer. As a preliminary step, several anesthetics were examined for effectiveness with these Ss. The combined use of chloral hydrate and chloromethohexital was shown to be most suitable, while sodium response was lower in older Ss, no difference in threshold was found among 3 different IQ classes. It is noteworthy that in 5-10 yr. old Ss there was a significant difference in peak latencies among 3 IQ classes, but that after 10 yr. of age the difference was not significant. In comparing Ss differences also affect peak latencies. Some of the mongoloid Ss showed huge responses (German summary) (18 ref.)—*Journal abstract.*
- Learning & Motor Ability**
9490. Altman, Reuben. (U. Texas) The effect of social deprivation on the performance of trainable mentally retarded children. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5833.
9491. Budoff, M. (Research Inst for Educational Psychology, U. Mass.) Learning potential: Assessing ability to reason in the educable mentally retarded. *Journal of Abnormal Psychology*, 1970(Sep), Vol. 73(2), 151-157. Educable mental retardation is largely a developmental condition having a low IQ at the start of school or following school placement. The majority of those diagnosed educable mentally retarded attain an independent social and economic adjustment. A learning potential assessment procedure was devised to avoid the circularity of IQ school performance. The experience of these children was not prepared them for the demands of the middle-class school. To minimize the negative effects of differences in past experiences, students are taught procedures related to solution of the nonverbal reasoning problems following a pretest trial. Some educable mental retardates perform design tests well prior to training (high scores) but perform poorly on the pretest but improve competence following training (gainers), and some perform poorly on the pretest and do not improve following training (non-gainers). A variety of data suggest that the 1st 2 categories perform more like CA than do the 3rd category retarded; the 3rd group, like mental retardates.—*G. Rubin-Rabson.*
9492. Jurgens, Grace. The effect of motor development lessons on trainable mentally retarded children. *Research in Education & Related Disciplines*, 1970(Jun), Vol. 5(1), 62-77. Ss were 22 trainable mentally retarded children attending special classes in a public school. Motor ability was tested with 10 items from the Lincoln-Oseretsky Motor Development Scale. The experimental group (N=11) participated in 3-4 sessions daily devoted to motor skills similar to the 10 pretest items. The means for both groups were identical prior to training—10 points out of a possible 84. After 6 wk, all Ss were retested. A 1-tailed t test was done using posttest scores. The experimental group scored significantly higher than the control group ($p < .01$). Males seemed to benefit more from motor training than did females. (17 ref.)—*C. B. Tatham.*
9493. Kershner, Keith M., & Dusewicz, Russell A. (Pennsylvania Dept. of Education, Harrisburg) K.D.K.-Oseretsky Tests of Motor Development. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 202.—Discusses the K.D.K.-Oseretsky Tests of Motor Development which were developed on a sample of 30 mentally retarded children, measuring the following areas of motor development: (a) general static coordination, (b) general dynamic coordination, (c) dynamic manual coordination, (d) simultaneous voluntary movement, and (e) speed. The tests are based on the original Oseretsky Test of Motor Development, but greatly reduce the time required for administration by employing group techniques and by specifying individual task dependencies.—*P. Hertzberg.*
9494. Sternlicht, M., Bialer, I., & Deutsch, M. R. (Willowbrook State School, Staten Island, N.Y.) Influence of external incentives on motor performance of institutionalized retardates. *Journal of Mental Deficiency Research*, 1970(Jun), Vol. 14(2), 149-154.—To investigate the effects of various externally imposed incentives on a simple manipulative task, 6 groups of Ss (15 males, 15 females in each, CA, 12-20 yr.; IQ, 50-69)

completed 2 successive trials on the Minnesota Rate of Manipulation Test under interpolated conditions of (a) no incentive, (b) praise, (c) censure, (d) aspiration, (e) praise-aspiration, and (f) censure-aspiration. Base-free estimates of S's "true" gains were used for a factorial analysis of variance. Results indicate that the condition of censure dominated other incentives even when combined with the condition of aspiration. No sex differences were determined. Implications are discussed concerning the differential value of positive or negative verbal incentives and failure as motivation with retardates.—R. V. Hamilton.

9495. Wesner, Chester E. (Temple U.) **The effects of induced arousal on paired-associate learning in mongoloids and normals.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5863.

Training & Vocational Rehabilitation

9496. Henchy, Veronica. **The use of token reinforcement as a means of improving the self-help skills of a group of trainable retarded children.** *Graduate Research in Education & Related Disciplines*, 1970(Spring), Vol. 5(2), 124-136.—The task was learning to tie a shoelace. A prosthetic training device constructed by E was used. 12 8.4-11.3 yr. old Ss were selected from special classes in a day elementary school, and were matched on the basis of IQ, age, sex, etc. 6 experimental Ss received M & M candies for each successful attempt. Training periods were 15 min. for each of 15 days. Training consisted of 3 phases: imitation, elimination of imitation and introduction of verbal instruction, and independent tying without assistance. The difference in mean number of days to reach the 2nd phase was not significant ($p > .05$). There was no difference in mean number of days to reach the last phase ($p > .05$).—C. B. Tatham.

PHYSICAL ILLNESS

9497. Biéder, J., Choisel, G., & Choisel-Hodique, D. **Le cancer en milieu psychiatrique.** [Cancer in the psychiatric milieu.] *Annales Médico-Psychologiques*, 1970(Dec), Vol. 2(5), 750-758.—Summarizes the literature on the relation between cancer and mental disease and adds data on the prevalence of cancer in selected and mental patient populations. Early writers held that cancer was rare among mental patients, but detection methods were poor and the investigators often preoccupied with brain or neural cancer alone. Reported here are the results of surveys made of female psychiatric patients for signs of cancer of the breast or uterus. The frequency differs little from the base rate of the general population. Exact comparisons are difficult owing to methodological problems, e.g., the difference in morbidity and mortality rates, the relation of both diseases to age, etc. The census of specific cancer cases found among the records examined of over 3,000 women on a psychiatric service was 56, a number greater than expected for the general population. The data are not held to be firm and usable, but it is believed that the study permits a proper statement of the premorbid which must include considerations of the development of personality, an exact timetable for the development of each condition and a review of the influence of

medication and other forms of treatment applied.—H. E. King.

9498. Boots, Doloris D. (Hawaii State Hosp., Hospital Improvement Project, Honolulu) **Helping the cancer patient: The minister and the social worker.** *Pastoral Psychology*, 1971(Jan), Vol. 22(210), 35-40. Many times both the minister and social worker attempt to assist the same patients and the same families. This is a time when communication and cooperation between clergy and social service can be most beneficial. Cases are presented to illustrate cooperation between clergy and social worker, especially in the instance of cancer patients.—O. Strunk.

9499. Cassee, E. Th. (Netherlands Inst. for Preventive Medical, Leiden) **Deviant illness behaviour: Patients of mesmerists.** *Social Science & Medicine*, 1970(Jan), Vol. 3(3), 389-396.—Reports results of a survey of patients in the Netherlands who go to see nonrecognized healers. Data were based on information from patient registration cards filled out by healers who followed the magnetotherapy theories of F. A. Mesmer (1733-1815). A sample of 290 cases was analyzed. Results show that patients of nonrecognized healers (a) are more frequently women, middle-aged, and live in small communities; and (b) have afflictions which are mostly chronic and compose a limited number of diagnostic categories. On the average, treatment consists of 25 visits and is usually ended by the patient. It is suggested that nonrecognized healers (a) have a different function from recognized medical men (patients go to see them for diseases which they consider cannot be cured by scientific medicine), and (b) allow more freedom to the patient than the physician.—P. McMillan.

9500. de Luchina, Noemi E., & Cervi, Elsa. **Experiencia interdisciplinaria en niños con problemas respiratorios en un marco institucional.** [Interdisciplinary experience with children with respiratory diseases in an institution.] *Acta Psiquiátrica y Psicológica de América Latina*, 1971(Feb), Vol. 17(1), 46-50.—In a respiratory rehabilitation center, pediatric department outpatients were referred to the psychology department because of the recurrent character of their respiratory illnesses. Psychodiagnosis showed dependency, insecurities, phobic attitudes, hyperkinesis, and irritability in the children and ritualistic or obsessive and contradictory behaviors in their mothers. A program was undertaken to modify the children's and the mothers' attitude to the illnesses, as a joint effort of pediatrics, occupational therapy, and psychology.—V. A. Colotta.

9501. Fuschfeld, Robert D. (Veterans Administration Center, Wadsworth Hosp., Los Angeles, Calif.) **Analysis of electromyographic signals by measurement of wave duration.** *Electroencephalography & Clinical Neurophysiology*, 1971(Apr), Vol. 30(4), 337-344. Analyzed EMG motor unit interference patterns in 22 normal Ss and 20 Ss with muscle disease. The rate of 0 crossing and the related mean wave duration were independent of the force of muscle contraction. The 0 crossing rate was increased and the wave duration decreased in muscle diseased Ss. It is suggested that the measurement of wave duration, directly or by 0 crossing rate, is a possible diagnostic technique in the EMG examination for detecting myopathic disintegration of motor unit discharges (French summary) (16 ref.)—*Journal summary*.

9502. George, Robert W. (Larkio Coll.) **Cancer and other disorders related to certain perceptual tests.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 155

161—The rate of reversal possibly experienced in observing hysterical epilepsy and in hysterical psychosis are shown to be similar at a statistically significant level among 11 cancer patients, 11 patients with dermatological disorders, 11 dermatological patients and 19 controls with miscellaneous disorders; also between 11 matched pairs of schizophrenics with and without cancer. Results are discussed in terms of the part played by the integrative systems of the organism both in relationship to the test results and the disorders experienced.—*Journal abstract*

9503 Thomas, Lloyd J. (U. Southern California) **The effect of anxiety and frustration on muscular tension related to the temporomandibular joint syndrome.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5644-5645.

9504 Toker, Eugene (Albert Einstein Coll. of Medicine, Yeshiva U.) **Psychiatric aspects of cardiac surgery in a child.** *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 156-166.—Some cases from the literature are revealed in reference to the importance of the heart to people throughout the ages as expressed through mythology and folklore. Literature on psychiatric aspects of heart surgery is reviewed. The case of a Puerto Rican girl suffering from latent schizophrenia is discussed in relation to the child's attitude towards surgery. Psychological examinations, the description of 5 psychotherapy sessions with the child, a commentary on 9 of the child's House-Tree-Person drawings, and a discussion of the case are included. The case revealed is an example of the cooperation between heart surgeon, psychiatrist, nursing personnel, and social worker, and reveals a satisfactory outcome in helping to correct some of the child's distortions by dealing with the child directly and honestly. (17 ref.)—*H. Rutter*

9505 Vartapetov, B. A. & Demchenko, A. S. **Predstatel'naya zheleza i vozrastnye narusheniya polovol'noy deyatelnosti.** [The prostate gland and age-specific disturbances of sexual activity.] *Kiev, USSR, Zhurnal*, 1970, 220 p.—*I. D. London*

9506 Vogel, William; Braverman, Donald M., & Klaiher, Edward L. (Worcester State Hosp., Mass.) **EEG responses in regularly menstruating women and in amenorrheic women treated with ovarian hormones.** *Science*, 1971(Apr), Vol. 172(3981), 388-391.—Describes 2 studies with 20 normal 18-21 yr. old regularly menstruating women and 6-24-29 yr. old women being treated hormonally for secondary amenorrhea. Results indicate that EEG driving responses to photic stimulation varied with the menstrual cycle and with manipulations of ovarian hormones thought to control the menstrual cycle. Estrogens reduced driving responses to photic stimulation, and estrogen plus progesterone enhanced these responses. The EEG changes may reflect the effects of gonadal steroid hormones upon central adrenergic processes. (19 ref.)—*Journal abstract*

9507 Weiss, Barry W. (State U. New York Buffalo) **Obesity, race and the process-reactive model.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5646-5647.

9508 Wright, Edwin T., Kyle, N. L., & Gunter, Ralph. **Personality test configurations in acne vulgaris.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 191-201.—52 18-22 yr. old college girls were clinically divided into groups according to the severity of their acne. Ss were then given a battery of tests, of which the MMPI was found to be the most sensitive. Ss then applied a 3-step

process of self-examination once daily to their faces and the same battery of psychological tests was given subsequent to 3 and 6 mo. of treatment. It was found that MMPI scores of Ss who reached minimal fairly high level of improvement between acne and nonacne Ss, and between mild and severe acne sample groups. In the mild-acne group, the therapeutic effects of skin treatment were reflected in relevant scale score changes: severe acne Ss became more defensive and somewhat conventional in their test responses.—*Journal abstract*

9509 Wright, Edwin L., Martin, Rose, Flynn, Catherine, & Gunter, Ralph. (Veterans Administration Center, Los Angeles, Calif.) **Some psychological effects of cosmetics.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 12-14.—Described a preposition to determine the possible effects of cosmetics on self-concept in a group of 42 college girls with various degrees of facial blemishes which could not be improved by regular use of hygiene. The MMPI was given to all Ss who then received weekly instruction in the use of cosmetics by a qualified instructor. After 3-mo. use of these cosmetics, the MMPI was again applied. The Depression (D) scale and the Psychasthenia (Pt) scale were selected as sensitive indicators of self-perception, comparison of pre- and posttreatment scores indicated improvement on both scales (D scale, $p = .001$; Pt scale, $p = .02$) as a function of the cosmetic.—*Journal abstract*

COMMUNITY SERVICES

9510 Gatell, Dale C. (Childrens Hosp., Los Angeles, Calif.) **A hotline telephone service for young people in crisis.** *Children*, 1969(Sep), Vol. 16(5), 177-180.

—Discusses problems adolescents have with existing community services. A hotline service was set up at a children's hospital to serve adolescents and young adults up to age 25. The hotline deals with problems and makes referrals. Orientation and training of service workers, largely graduate students, is described. Data are given on ages of callers and most common problems. It is suggested that comprehensive walk-in centers providing community services are needed for adolescents.—*D. T. Lehmann*

9511 Grey, David F. (United States International U. San Diego, Calif.) **A study of terminators and remainders in treatment at a community mental health day center.** *Dissertation Abstracts International*, 1971(May), Vol. 31(9-B), 5622-5623.

9512 Hansell, Norris & Hart, Donald W. (Northwestern U., Medical School) **Local service growth: The Illinois Zone Plan.** *American Journal of Psychiatry*, 1971(Nov), Vol. 127(5), 686-690.—Describes an aspect of the Illinois Zone Plan, which is dependent upon and substantial increases in local, noninstitutional, and private mental health services to achieve reductions in the use of institutional care under state auspices. Apparent headway has been made using a close linkage between state granting policy, new mental health laws, and consultation with newly established county-level mental health planning authorities.—*Journal abstract*

9513 Hitchcock, Janice E. (U. California, School of Nursing, San Francisco) **Community mental health nursing: An innovative use of the nurse's evolving role.** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 3-12.—Describes 1 process by which a nurse effectively and usefully established a role for herself in

an antipoverty program. Following a description of the agency and details of the process, implications for nursing are discussed. Many issues are raised for community mental health nursing to consider. The implication is that if they are truly to be participants in community mental health, nurses must begin to see themselves in new roles and prepare to move in new directions using untried methods.—*Journal abstract.*

9514. Krebs, Richard. (Sinai Hosp., Baltimore, Md.) **Using attendance as a means of evaluating community mental health programs.** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 72-77.—Attendance can be used as a way of studying and evaluating a community mental health program. Examples of research or program evaluation utilizing attendance as the basic measure of success or failure are discussed as applied to determining: (a) the effectiveness of a community worker in the follow-up care of psychiatric patients; (b) the relationship between payment of fees and the motivation of therapy; and (c) the effectiveness of a program designed to move a group of patients from the outpatient department therapies (and out of their patient status) into the community.—*Journal abstract.*

9515. Leininger, Madeleine. (U. Washington. School of Nursing) **Some anthropological issues related to community mental health programs in the United States.** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 50-61.—Presents some major anthropological issues related to community mental health programs and centers in the United States. Reasons why a truly community-centered approach has not been fully developed and implemented in many centers is discussed. The importance of understanding cultural and social forces affecting a patient's illness and the need to incorporate these data into existing mental health programs is emphasized. Information is based upon experience with several community mental health programs and should be useful to designers and evaluators of future mental health progress.—*Journal abstract.*

9516. McQueeney, David M. (U. Missouri) **A Q-study of the perceived role of Missouri regional diagnostic clinics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5207.

9517. Sheldon, Alan. (Harvard Medical School, Boston, Mass.) **On consulting to new, changing, or innovative organizations.** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 62-71.—Reports the experiences of a community mental health team engaged in consulting to a Job Corps camp. The characteristics of the camp are described and salient aspects of its evolution delineated, particularly the issues of growth, change, and phase. The problems of consulting with a general and particular facets touched upon. The need for critical self-examination in consultants is emphasized.—*Journal abstract.*

9518. Strunk, Peter & Renschmidt, Helmut. (U. Marburg, Clinic for Child Psychiatry, W. Germany) **Aufgaben und Struktur kinderpsychiatrischer Kliniken.** [The task and structure of psychiatric clinics for children.] *Nervenarzt*, 1971(Feb), Vol. 42(2), 74-79.—Presents a detailed description of a new psychiatric clinic for the diagnosis and treatment of children and adolescents founded at the University of Marburg. Data are presented on the sorts of patients dealt with including age, psychiatric diagnosis, and treatment duration. A description of the procedures involved in neurological,

psychiatric, and psychological diagnosis is provided. The organizational structure of the clinic and its rationale is also elaborated including provisions for research. Finally, the physical structure and layout of the clinic is thoroughly detailed. This information is considered to be particularly useful to those who are planning new clinic facilities.—*E. R. Wist.*

9519. Vosburg, Robert L. (Darmouth Coll., Medical School) **Disaster alert and the community mental health center.** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 24-28.—Hospitals must be prepared for disasters of indeterminate magnitude in order to fulfill their community function. The protocol for organization of services should be brief, explicit, and define who is in charge of duty assignments. Psychiatrists are uniquely prepared to handle telephone calls from distraught relatives. It is shown that psychiatric staff members of the community mental health center are uniquely prepared to function in the coordinated work of a medical disaster team. *Journal abstract.*

9520. Warren, Roland L. (Brandeis U.) **Mental health planning and model cities: "Hamlet" or "Hellzapoppin."** *Community Mental Health Journal*, 1971(Mar), Vol. 7(1), 39-49. Discusses crucial issues arising from the growth of a community mental health center movement. These are particularly evident when mental health agencies confront complex, rapidly moving planning situations in the inner city. The Model Cities program provides an important challenge, and the response of mental health agencies raises questions concerning both their will and the ability to enter the mainstream of community issues. *Journal abstract.*

9521. Windt, Arnold & Fikany, Estelle. (3520 W. Oxford Ave., Denver, Colo.) **Follow-up of children not admitted to the Fort Logan Mental Health Center.** *Journal of the Fort Logan Mental Health Center*, 1970(Spring), Vol. 6(1), 23-29. Outlines the admission practices of the children's division of a mental health center. To ascertain the effectiveness of these procedures, a follow-up survey was conducted to determine the adjustment of 92 children who had not been admitted to the facility. 50 Ss had not been clinically evaluated by the staff, and 42 had been. 31 families from each group followed through with referrals to other agencies and reported 77 and 89% favorable outcomes. 13 families reported spontaneous improvement. For those 22 Ss where results were unsatisfactory, various factors were noted: (a) minimal interest on the part of the family, (b) inadequate use of correctional agencies as treatment settings, (c) service or communication gaps, and (d) family incomes too high for agency services and too low for private care. It is concluded that the large proportion of improvements among those referred to other agencies indicates the validity of the admissions program. The use of a volunteer group to follow up uncooperative families is suggested.—*S. Knapp.*

GERIATRICS

9522. Lauter, H. (U. Göttingen, Psychiatric Clinic & Polyclinic, W. Germany) **Über Spätfarmen der Alzheimerschen Krankheit und ihre Beziehung zur senilen Demenz.** [Concerning late forms of Alzheimer's disease and its relation to senile dementia.] *Psychiatria Clinica*, 1970, Vol. 3(3), 169-189. Reports 52 cases of Alzheimer's disease with onset after age 70. The morphological differentiation from senile dementia

could be made—despite the high age at onset—on the basis of severity of cortical atrophy and of the great density of the histological changes. The clinical picture was similar to that of a control group of 40 female patients with senile dementia who were under observation or undergoing inpatient treatment and the majority of whom showed focal symptoms in the form of aphasic apractic, or agnostic disturbances. However, the late Alzheimer cases were in some respects clearly different from the classical forms of that illness as they are found during adulthood and the praesensium. Particularly remarkable is the fact that the clinical localizing tendency becomes weaker with increasing age. Alzheimer's disease and senile dementia are not 2 different disease entities, but are merely special types within the framework of a phase-specific pathomorphosis to which the identical disease process in different life periods is subjected. Such a unitary nosological theory is not only in accord with the identical morphological findings, the genetic findings are also entirely in line with this concept. (54 ref.)—*English summary*

9523 Zeman, Frederic D. (Jewish Home & Hosp. for Aged, Medical Services, New York, N.Y.) **Neuropsychiatric symptoms of somatic disorders in the aged.** *Gerontologist*, 1969(Fall), Vol. 9(3, Pt. 1), 219-220. These notes serve to emphasize the intimate relationship in the aged, of neuropsychiatric symptoms and their somatic disorders. They call to the attention of the geriatric physician the necessity for careful observation of details that can be easily overlooked due to (a) stereotyped thinking, (b) haste in history taking, and (c) too little awareness of the value of roentgen and other diagnostic techniques. To be constantly emphasized is the practical importance of attention to symptomatic disorders and overdosage with drugs, even those commonly regarded as "harmless."—*J. Linnick*

EDUCATIONAL PSYCHOLOGY

9524. Boyce, Virgil M. (North Carolina State U.) **The effect of adult basic education on selected non-cognitive attributes.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5192.

9525. Curry, William L. (U. Georgia) **The effects of classroom structure on achievement and attitudes of freedom oriented and control oriented students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5839-5840.

9526. Davitz, Joel R. & Ball, Samuel. (Eds.) (Teachers Coll., Columbia U.) **Psychology of the educational process.** New York, N.Y.: McGraw-Hill, 1970. xii, 643 p. \$9.95.—Presents papers by faculty of the Psychology Department at Teachers College, Columbia University, attempting to "distill from the science and profession of psychology" some theoretical or practical contribution to the educational process. Topics covered include (a) learning, language, and cognition; (b) social psychology and personality; (c) education and the world of work; and (d) research and evaluation.

9527. Franklin, George D. (Texas A & M U.) **A longitudinal analysis of changes in course of study by college students.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5124-5125.

9528. Gitter, A. George & Peterson, Robert R. (Boston U.) **Toward a social indicator of education: A pilot study.** *CRC Report, Boston U.*, 1970(Sep), No. 44, 119

p. 12.—Describes methods of constructing 2 types of factor analysis indicators—factor scores and basic variables—indicates their application in aggregating test scores, education data. Procedures for computing state and national indicators for both a base year and an adjacent one, are described. State and national indicators of education for 1960 are computed. (38 ref.)—*Journal abstract*

9529. Kupiec, Margaret C. (U. Pittsburgh) **The effect of drugs on students' learning: A review of objective and subjective test performance as influenced by centrally acting drugs in kindergarten-college and institutional subjects, 1937-1968.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5203-5204.

9530. Laing, Alice F. (University Coll., Swansea, Wales) **The construction of an infant school amenities index.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 94-95.—Describes the application of the Infant School Amenities Index to 55 infant schools situated in (a) urban middle-class areas, (b) urban settled working class areas, (c) urban deprived areas, (d) English-speaking rural areas, and (e) Welsh-speaking rural areas. The index allowed an interschool comparison of physical educational settings. Wide discrepancies in the possession of the specified amenities were found, the greatest number of adverse pointers pertaining to school surrounds (industrial noise and pollution) and conditions (student teacher ratio).—*P. Hertzberg*

9531. McGrail, Richard F. (Boston Coll.) **The relationships between the organizational climate of schools and the personality characteristics of teachers: A Puerto Rican sample.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5185-5086.

9532. Munroe, Robert L. & Munroe, Ruth H. (Pitzer Coll.) **Overrepresentation of first borns in East African secondary schools.** *Journal of Social Psychology*, 1971(Jun), Vol. 84(1), 151-152.—331 students from 6 highly competitive East African secondary schools were interviewed. Analysis indicated that 1st borns appeared almost twice as frequently as expected. Among females, despite general 1st-born preponderance, 2nd borns appeared even more frequently. Analysis of further birth-order data from a relatively unselective secondary school revealed no overrepresentation of 1st borns.—*Author abstract*

9533. Reekie, Elzgrace. (U. Washington) **Personality factors and biographical characteristics associated with criterion behaviors of success in professional nursing.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5212.

9534. Weintraub, Samuel; Robinson, Helen M., Smith, Helen K., & Plessas, Gus P. (Indiana U., School of Education) **Summary of investigations relating to reading, July 1, 1969 to June 30, 1970.** *Reading Research Quarterly*, 1971(Win), Vol. 6(2), 135-319.—Summarizes 341 reports of research in the field of reading published between July 1, 1969 and June 30, 1970. The studies are grouped into 6 major categories. Category 1 lists by title and author 63 summaries on specific topics. Category 2 abstracts research on teacher preparation and practice. Category 3, the sociology of reading, includes investigation in such areas as adult reading, interests and habits, content analysis, and the use of mass media by the public. Category 4, the physiology and psychology of reading, contains 19 subsections that cover such diverse topics as readability

and legibility, auditory perception, and oral reading. Category 5, the teaching of reading, is also subdivided into sections all dealing with various aspects of reading instruction. Incorporated in Category 6 are research reports on the reading of atypical learners. (French & Spanish abstracts)—*Journal abstract.*

9535. Wilhelm, Rowena. (U. Michigan, Reading Improvement Service) **Power of immediate positive feedback.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 337-338. -Relates success experiences of a 29-yr-old nonreader, i.e., one who scores below Grade 1 on standardized reading tests. The success experiences are attributed to the techniques of immediate positive feedback and the reinforcement for successive approximations, demonstrating to S that he can read.—*Journal abstract.*

abstract.
9536. Zapan, G. (U. Bucharest, Romania) **Weights of preferential events in psychology and pedagogy.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(2), 109-117.—Criticizes the practice of evaluating the effects of curriculum and other educational changes by criterion measures that treat individual items as equally weighted and that assess program effectiveness by pupils' percent correct answers. Suggested remedies lie in classifying preferential events by stages and in sequence for each subject matter and in computing the weights of preferential events. Statistical techniques are presented including Zipf's law, an application of Onicescu's principle based on a multi-dimensional spatial representation of the system to be assessed, and a modification of Nocilau's law applicable to instances where the probable frequencies of occurrence of the preferential events in the developmental stages of the system are known. A computational example is given and practical applications are indicated.—C. Mayo.

9537. Goyen, Judith D. & Lyle, J. G. (Macquarie U., School of Education, North Ryde, New South Wales, Australia) **Effect of incentives upon retarded and normal readers on a visual-associate learning task.** *Journal of Experimental Child Psychology*, 1971(Apr). Vol. 11(2). 274-280.—Administered a visual-visual paired associate learning task to 28 retarded and 28 normal readers aged 6-7 yr. There were 2 treatments, incentive and nonincentive, and $\frac{1}{2}$ the Ss from each group were tested under each treatment. It was found that (a) incentives had an incremental effect upon learning, (b) incentives were equally effective for both retarded and normal readers, and (c) the performance of the 2 groups did not differ significantly. Findings are related to a previous study by J. Goyen and J. Lyle (see PA, Vol. 42:7780) which found no incentive effects. —*Journal abstract.*

9538. Goyen, Judith D. & Lyle, J. G. (Macquarie U., School of Education, North Ryde, New South Wales, Australia) **Effect of incentives and age on the visual recognition of retarded readers.** *Journal of Experimental Child Psychology*, 1971(Apr), Vol. 11(2), 266-273.—Administered a tachistoscopic form recognition task to 24 retarded and 24 normal readers. Each group was subdivided into younger and older age levels. $\frac{1}{2}$ the Ss from each group were tested under incentive and nonincentive treatments. It was found that differences between groups and ages were mainly a function of the relatively poor performance of the younger experimental Ss, supporting the developmental lag hypothesis. Incentives produced no discernible effect upon

the performance of any of the groups. Data were also analyzed for latency of response, practice effects, and reversal errors, none of which was related to reading retardation. (13 ref.) *Journal abstract*

ATTITUDE & ADJUSTMENT

9539. Black, Richard W. (U. South Dakota) A comparative study of the differences in self-concept and other variables between students choosing terminal and degree programs. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5755-5756. (U. S. Georgia) The effect of

9540. Briggs, George W. (U Georgia) The effect of implied discrepancy in perception of peer regard on the self-esteem level of fifth- and sixth-grade students. *Dissertation Abstracts International*, 1971(May). Vol. 31(11-A), 5838.

9541. **Briskin, Alan S.** (U. Wisconsin) **A model of behavioral patterning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5756

9542. Cowell, M. D. & Entwistle, N. J. (U. Lancaster, England) The relationship between personality, study attitudes and academic performance in a technical college. *British Journal of Educational Psychology*, 1971(1 Feb). Vol. 41(1), 85-90. Tested 117 students taking Ordinary National Certificate courses using the Eysenck Personality Inventory and the Brown-Holtzman Survey of Study Habits and Attitudes (SSHA). The relationships between the subscores on these scales and examination performance at the end of the 1st or 2nd yr. of study were investigated. Stable introverts were found to have the best study attitudes, though their examination results were not significantly better than those of the extroverts. All the subscales of the SSHA were significantly related to academic performance, but they showed contrasting patterns of relationships with the personality dimensions. *Journal abstract.*

9543. Daily, Frances M. (Kent State U.) A study of female teachers' verbal behavior and peer-group structure among classes of fifth-grade children. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5840. [Dissertation, Kent State U., Kent, Ohio, 1970. 114 pp. 24 refs.]

9544 Ewing, Dorleia B. (California Berkeley) The relationship between anomie, dogmatism, and selected personal-social factors among apocial adolescent boys. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10), 5197-5128.

1971 (Apr). Vol. 31:10 AL 5197-5198
9545 Frerichs, Allen H. (Northern Illinois U.)
**Relationship of elementary school absence to psy-
chosomatic ailments.** *Journal of School Health*
1969:1 (Feb). Vol. 39(2). 92-94. Selected 2 groups of No
from a sample of 200 6th grade children from 2
of elementary schools in a Midwestern urban area of
200,000. 28 Ss formed the high absence group with at
least 3 days absence each of the 3 previous semesters. 29
Ss formed the low absence group with the best attend-
ance record for the 3 previous semesters. The mean
scores of the IQ and the Iowa Test of Educational
Development scores for the 2 groups were nearly
identical. The scale used was part of the Psychosomatic
Symptom Scale, based on a list of psychosomatic
symptoms used to test army personnel. Results indicate a
clear relationship between having 4 or more positive
symptoms and having a high absence rate scattered over
3 semesters. A composite picture of a youth having
psychosomatic symptoms would be a boy with a high

absentee rate above average (12) but below average school achievement and productivity than a below average. A fourth approach is suggested for helping these children.

9546. Garvin, Eunice (North Texas State U.) The relationship of violence to the ability, achievement, and adjustment of sixth grade children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5206.

9547. Gaston, Joseph A. (Michigan State U.) A comparison of the personality characteristics of Northern and Midwestern urban Afro-American freshmen, Southern town and rural Afro-American freshmen, and Southern Afro-American college student personnel staff. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5843.

9548. Hedgebreth, James E. (Michigan State U.) The relationship of self and academic attitudes and academic achievement of Negro and white students to school racial composition. An exploratory study. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5846.

9549. Hendrickson, Grant H. (U. Washington) The development of an instrument to measure student morale as defined by third force psychology. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5203.

9550. Hodges, Jimmy R. (Texas Tech U.) Goal-setting behavior and self concepts of elementary Mexican American children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5127.

9551. Johnson, Relda J. (Michigan State U.) An exploration of relationships between and among empathy, trust and ego stage development in the adult learner. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5745-5749.

9552. Keil, Wolfgang & Keil-Specht, Helke. (U. Munster Inst. of Psychology, W. Germany) Leistungsmotivation und Erziehungsstil: Eine Familienuntersuchung. [Achievement motivation and educational styles. An investigation of families.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(4), 241-256. Examined the relationship between the achievement motives, including hope for success and fear of failure, in 100 girls and 93 boys (ages 7-13) and child-rearing attitudes and parental need for achievement. Different scales adapted for Germans were used (a short form of the Parental Attitude Research Instrument, an independence and mastery scale, and Hermann's strictness-support scale). Results show that the achievement motive can be predicted for girls by the strength of need for achievement which is found for their mothers ($r = .31$). For boys the need for achievement can be predicted by a construct of 2nd-order factors: characteristics of the "socialization climate" in the family ($r = .48$). (21 ref.)—English summary.

9553. Kenchakian, Simon V. (U. Massachusetts) A comparison of responses to the original and the oppositely stated items of the Learning Atmosphere Attitude Scale. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5130.

9554. Kline, P. & Gale, A. (U. Exeter, England) Extraversion, neuroticism and performance in a psychology examination. *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 90-94. Administered the Fysenck Personality Inventory (Form A) to 455 students taking the human development examination at

Exeter. Correlations between extraversion and neuroticism and examination performance were both for year groups as a whole and for special groups. No stable pattern of correlation emerged, thus casting doubt on the contention that the mildly neurotic introvert succeeds best at a university. There was no evidence of curvilinearity of regression suggested by some recent studies.—*Journal abstract.*

9555. McKenna, Robin J. (U. California, Berkeley) Affective responses to synthesis and non-synthesis social studies tasks. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5206.

9556. Meyer, Mary A. (U. California, Berkeley) Variableness of interpersonal perception. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5207.

9557. Milliken, Mary E. (North Carolina State U.) Some dimensions of student satisfaction and dissatisfaction. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5208.

9558. Much, Kathleen R. (U. California, Center for Research & Development in Higher Education, Berkeley) The potential activist and his perception of the university. *Journal of Applied Behavioral Science*, 1971(Jan), Vol. 7(1), 3-13. Starting with an attitude survey of 1,429 freshmen entering 3 University of California campuses on the issue of support for opposition to, or neutral feelings concerning the Free Speech Movement (FSM) at Berkeley, 55% of the respondents were labeled as "potential activist" and most present and ideal university educators were recorded, in contrast to 20% of those opposed to the FSM and neutral (18%). Variables examined include political beliefs, attitudes and educational goals and values. Using personality scales from the Omnibus Personality Inventory, pro-FSM Ss were found to resemble the participants in the movement, and implications of the potential activist profile for university policy-making are suggested.—*Journal abstract.*

9559. Nelson, Gary L. (U. Minnesota) An investigation of selected correlates of self-concept in children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5210.

9560. Purkey, William W. (U. Florida) Self concept and school achievement. Englewood Cliffs, N.J.: Prentice-Hall, 1970. vii, 86 p. \$1.95(paper).

9561. Singh, R. N. & Krishna, K. P. (Gaya Coll., Magadh U., India) Some factors underlying student unrest. *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 92-95. Explored the relative importance of reasons of student unrest. The sample consisted of 300 Ss, equally represented by students, teachers, and guardians. A 20-item checklist (in Hindi) was administered to students in small groups and individually to parents and teachers with the instruction to mark the 5 most important items. Results showed that the item "improper political interference in educational institutions" was the most important factor underlying unrest. The next few in order of emphasis were: dearth of able teachers, faults in education and examination system, low morale, and unemployment. A correlational analysis showed that the perception of the various factors by the 3 groups were more or less alike.—K. C. Panda.

9562. Waterman, Alan S. & Waterman, Caroline K. (Hartwick Coll.) A longitudinal study of changes in ego identity status during the freshman year at college. *Developmental Psychology*, 1971(Jul), Vol. 5(1), 16-17. Interviewed 92 male freshman undergraduates

ates to assess (a) occupational goals and ideological beliefs, (b) preoccurring crises in these areas, and (c) degree of commitment. Ss also completed 2 scales assessing antecedent factors in changes of status associated with family ties and cultural sophistication. A positive developmental shift was observed for changes in identity status in the area of occupation, while a retrogressive shift was found with regard to ideology. In addition, the hypotheses concerning psychological differences between Ss who changed their identity status and those that did not were supported. These differences involved personality characteristics which predated any of the observed changes in status.—*Journal abstract.*

9563. White, Helen M. (U. California, Berkeley) **An investigation of some characteristics of high and low self-actualization and their relationship to alienation from self and society.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5142.

9564. Wiggins, Richard G. (U. Georgia) **Parent-teenager perceptions related to academic aspirations.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5864.

TESTING

9565. Allen, Betty J. (U. Maryland) **The relationship between drawings by sixth grade children and intelligence, academic achievement, and social and emotional adjustment.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5189-5190.

9566. Belsky, Michael. (U. Southern California) **Capillary pulse pressure as a means of discriminating flaws and involvement between cognitive and affective test questions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5836.

9567. Bora, K. P. (U. Gauhati, India) **A verbal group test of general mental ability in Assamese.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2).—Reports on the construction and standardization of a verbal group test of general mental ability (in Assamese) for use at the secondary schools. The test consisted of 100 items selected out of a pool of 220 items on the basis of item analysis. The 6 subtests were: Opposites, Analysis, Arithmetical Reasoning, Number Series, Verbal Reasoning, and Classification. Multiple-choice-type items were constructed for all subtests with the exception of the Number Series for which a recall format was used. Grade norms (VII and X) have been reported for boys and girls separately and for the combined group ($N = 3,235$). Reliability and validity coefficients are also reported.—K. C. Panda.

9568. Bruni, Piero. **L'indice ω^2 per la stima del potere predittivo di differenze significative.** [The ω^2 index for the estimation of the predictive power of significant differences.] *Bollettino di Psicologia Applicata*, 1968, No. 85-87, 109-124.—Employed the index to integrate 2 of the most widely used tests of significance with the possibility of quantifying the incidence of the independent variables or to estimate the degree of dependence implied in the significant result. 341 students of junior high school and of commercial school were given tests of verbal comprehension. The total score of these tests represents the data on which the ω^2 index is exemplified. The ω^2 index is used in the course of analysis of the differences between pupils of different types of schools and of different socioeconomic backgrounds. It is concluded that the ω^2 index has led to the

attribution of a measure which is not the same as the numerous significant differences. On the basis of the criteria of the individual provisions, such differences allow for a reduction in the error of expectation (2.5% being the maximum of the total variance).—A. M. Farfaglia.

9569. Chawla, Tilak R. (Selection Centre, Kolhapur, India) **Cultural factors and Kahn Intelligence Test.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 77-79.—Examined the culture-free characteristics of the Kahn Intelligence Tests (KIT). The KIT was administered to 154 public schoolchildren in India: 82 boys and 72 girls. Analysis of data using analysis of variance showed that groups of Ss coming from different subcultures, i.e., rural vs. urban, socioeconomic levels, language groups, and sex, did not differ significantly in their IQ scores. The findings suggest that scores on the KIT are not influenced by cultural ecology. K. C. Panda.

9570. Eichelberger, R. Tony. (Southern Illinois U.) **Practice effects of repeated IQ testing and the relationship between IQ change scores and selected individual characteristics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5196.

9571. Ellsworth, Randolph A. (George Peabody Coll. for Teachers) **Validation of two projective instruments for assessment of children's self-concept.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5196.

9572. Fein, Sophia R. (New York U.) **Conceptual tempo and abstract reasoning in college students: A study of the effects of individual differences in speed and confidence of judgment on abstract reasoning performance of college females.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5840-5841.

9573. Forheltz, John E. (Southern Illinois U.) **An investigation of test anxiety as measured by the TASC in content areas ranked difficult and easy with fourth and sixth grade students.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5124.

9574. Guest, Kristin E. (U. Wisconsin) **Relationships among the Illinois Test of Psycholinguistic Abilities, receptive and expressive language tasks, intelligence, and achievement.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5845.

9575. Huck, Schuyler W. (Northwestern U.) **Item difficulty level and sequence effects in multiple-choice achievement tests.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5201.

9576. Kaufman, Alan S. (Columbia U.) **Comparison of tests built from Piaget's and Gesell's tasks: An analysis of their psychometric properties and psychological meaning.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5605.

9577. Lewis, John R. (U. Oklahoma) **The effects of facilitating and debilitating anxiety on memory.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5852.

9578. Martin, Roy P. (U. Texas) **The development of anxiety in persons anticipating a highly stressful event.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5854-5855.

9579. McNamara, D. (U. Lancaster, England) **The wheel: An alternative instrument for collecting semantic-type data.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 99-101.—Semantic-

type data are usually collected by using a rating scale. The Lancaster Wheel is an alternative instrument which appears to have certain advantages over the conventional method, particularly when a large number of semantic-type scales are involved. *Journal abstract.*

9580. Means, Robert S. & Means, Gladys H. (Oklahoma State U.) Achievement as a function of the presence of prior information concerning aptitude. *Journal of Educational Psychology*, 1971(Jun), Vol. 62(1), 185-187. Total of 2 subjects, divided into 2 sections of an achievement test, each section of 13 items. Subjects administered an aptitude test that had been used previously to help predict achievement on the course. Ss were then ordered by post-GPA and assigned to a low and high GPA group. Ss within each group were randomly assigned to 1 of 2 treatments. Ss were told that they had high aptitude for the course, the Ss were told that their test scores revealed little aptitude for the course, and the Ss were given no information regarding their aptitude. A 2 x 2 analysis of variance design was employed to analyze performance on the 1st test, the 2nd achievement test. No significant differences were found from treatment, but significant differences were found favoring the high over the low GPA Ss. A significant interaction effect showed high GPA Ss performing better with negative information, whereas low GPA Ss performed better with positive information. *Journal abstract.*

9581. Nichols, John R. & Abell, Andrew I. (Pennsylvania State U.) Tests without typing: Flexible multiple-choice reproduction. *Perceptual & Motor Skills*, 1971(Feb), Vol. 31(1), 182. Describes a system for constructing classroom tests by directly selecting objective test questions from a test-item file and repeating them through the use of a photocopy machine. *P. Hershberg.*

9582. O'Connor, Edward P. (California, Los Angeles) Extending classical test theory to the measurement of change. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5210.

9583. Sandy, Claude A. (U. Virginia) The effects of material reward, sex, race, and socioeconomic strata on the Pintner-Cunningham Primary Test scores of kindergarten students. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5213.

9584. Terrell, Cecil R. (U. Alabama) An analysis of classroom objectives derived from cognitive levels of learning as inferred from selected teacher-made tests. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5048.

9585. Van Camp, Sarah S. (U. Massachusetts) An Auditory and Visual Discrimination Test for kindergarten and first grade children: A new approach. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5080-5081.

9586. Williams, Donald L. (U. Texas) The directed imagination method for the psychological assessment of adolescents. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5864-5865.

SPECIAL EDUCATION

9587. Banerjee, Bimalendu. Education of gifted and slow learning children. *Sanskrit*, 1969, Vol. 23(2), 65-72. Discusses the characteristics and problems of exceptional children, and describes the various approaches used in the educational programs for these

children. Study of unconscious is considered essential for teachers of problem children. *C. Menzies.*

9588. Barretta, Norma P. (U. Southern California) Approach teaching of educationally handicapped students in the Torrance Unified School District. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5836.

9589. Bolton, Shirley L. (Georgia) A study of perceptual growth when using contrasted strategies in teaching art to rural deprived children. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5836.

9590. Fine, Martin J. (U. Kansas) Considerations in educating children with cerebral dysfunction. *Journal of Learning Disabilities*, 1970(Mar), Vol. 3(3), 142. Considers the current state of educating children with cerebral dysfunction as a poorly defined and poorly understood commodity, because of the use of unvalidated procedures and the expectation of great gains. The following constructs are discussed: (a) an educational attitude stressing the tentative nature of assessment and the need for systematic explanation of behavior and consequent modification of behavior; (b) the need for more effective than an attitude of certainty; (c) the motivational-attitudinal system of the child and how he sees himself and his remedial experience needs to be understood if the teacher can better aid in the remedial process if he understands the educational complexities involved and his own values do not conflict with program objectives; and (d) there are ways of structuring the learning environment to match the child's inner psychological state that are within the capabilities of most teachers. *ref.) -Journal abstract.*

9591. Isaacs, Ann F. (National Assn. for Gifted Children, Cincinnati, O.) Are gifted children handicapped or exceptional? Some educators will call them any name if a dollar sign can be attached. *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 153. In an attempt to attract money for programs educators have linked the concept of "giftedness" in children to a type of disability. Thereby those with exceptional talents are grouped with the retarded and handicapped as the only means of meriting special attention. The idea of giftedness must be restored to its original meaning and should be important enough in its own right to be worthy of our funding. *-S. Krappner.*

9592. Knowles, B. A. Behaviour modification and special education. *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Nov), Vol. 17(3), 170-177. Presents an overview of the literature on the current status of behavior modification applications in special education. A historical statement of the roots of behavior modification is presented along with a discussion of principles, trends, and applications. Koenig's 10 uses of behavior modification in regular and special classes are outlined. It is concluded that the future will see refinements in efficiency and application in education generally. *ref.) -C. A. Newcomer.*

9593. Leve, Robert M., Graffagnino, Paul N., & Avallone, Sara A. (Inst. of Living, Children's Clinic, Hartford, Conn.) An attempt to combine clinical and educational responses: A report on the first year's experience of a therapeutic school. *Journal of the American Academy of Child Psychiatry*, 1971(Jan), Vol. 10(1), 108-123. Attention is focused on the experimental program whereby special classes of a public

school were brought into a clinic to form an experimental school, in order to discover new patterns of service to the students. Both psychological and environmental problems were confronted. In class, teachers elicited more normal behavior as well as manifested advances in learning. Since home and neighborhood environments remained the same, no new solutions to the problems of working with inner-city parents were found. Both teachers and clinicians see the need for a representative of the protective services section of the welfare department. It is concluded that an understanding of the children, and an initiation of responsibility for them, will help the most.—H. Reiter.

9594. Velasco Fernández, Rafael. (Clinic of Behavior, Mexico, D.F.) **Los trastornos psíquicos del escolar mexicano.** [Psychic disturbances in the Mexican school.] *Revista de la Clínica de la Conducta*, 1969(Feb), Vol. 2(4), 61-67. Considers that there are neither foolproof statistics nor psychiatric research which adequately describe the more common behavior problems in Mexico. A revision of L. Kanner's old classification is suggested which is based on the origin of the disturbances from (a) school environment, (b) personality makeup, and (c) biological constitution. The shortcomings of Mexican schools and teachers are described as contributing to disturbances arising from the school environment. The most frequent psychopathological manifestations of students referred to a clinic of behavior are, in order of incidence, (a) learning difficulties, (b) hyperkinesis, (c) lack of attention, (d) aggressiveness, (e) emotional instability, (f) anxiety, (g) inhibition, (h) detachment from the group, (i) inability to stand frustrations, (j) neurotic character, and (k) psychotic tendencies. The high incidence is noted of behavior disturbances, generally considered organic, and the diagnosis of minimal brain damage. The training of school psychiatrists in Mexico is considered. (French summary)—*English summary.*

Gifted

9595. Hutson, Thomas & Osen, Deborah. (California State Coll., Fullerton) **A multi-media approach to gifted in a high school group psychology-counseling seminar.** *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 186-190. 4th-12th graders participated in a Saturday morning seminar designed to develop intellectual freedom through critical thinking along self-determined guidelines. By working within the group process and utilizing closed circuit TV the pupils were able to view themselves and were provided with more honest feedback of their own behavior. These methods were felt to increase the student's knowledge of himself and provide more open confrontation among people.—S. Krippner.

9596. Isaacs, Ann F. (National Assn. for Gifted Children, Cincinnati, O.) **Athletic prowess and giftedness: III. A former world champion archer tells how she did it.** *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 154-158.—A review of the accomplishments of Debby Clark as a world archery champion focuses attention on the present drawbacks in determining an individual's potential by the present criteria of achievement tests and course grades. Although Debby never demonstrated any outstanding abilities in the school milieu until she began her career in nursing, she feels her persistence, positive approach to challenges, and ceaseless practice brought her to her present eminent standing.—S. Krippner.

9597. Krippner, Stanley & Blickenstaff, Ralph. (Wagner Coll.) **The development of self-concept as part of an arts workshop for the gifted.** *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 163-166. This study was based on the premise that societal pressures toward the stereotyped role choices determined by gender hinder creative potential. 27 8.1-14.9 yr. old boys and 13 8.1-13.6 yr. old girls were tested for corresponding levels of emotional stability, visual-motor skills, neurological organization, and mental ability. Ss were then interviewed to categorize vocational interests as either "scientific" or "artistic." Only 3 out of the 27 males showed an interest in the artistic realm while only 2 out of 13 females expressed scientific preferences. Ss then participated in a workshop designed to loosen conditioned ways of perceiving the world by means of multisensory experiences and introspective tasks. Post-workshop interviews suggested that the rigidity of role definitions was weakened; a number of artistic and scientific activities ensued which demonstrated this effect.—S. Krippner.

9598. White, M. Judson. (U. South Alabama) **The case for specifically designed education for the gifted.** *Gifted Child Quarterly*, 1970(Fal), Vol. 14(3), 159-162.—Outlines a program for developing and utilizing special talents of exceptional individuals. Phase 1 is concerned with identifying the gifted. Not only should one concentrate on the giftedness magnitude quotient, which accounts for varying degrees of ability, but provisions for a talent reclamation stage should be included to salvage those who withdraw from educational programs. Phase 2 deals with educating the gifted and should offer diverse programs for different abilities. Phase 3 insures that society makes use of these creative individuals and places them in the leadership roles they merit.—S. Krippner.

Remedial Education

9599. Anderson, Robert P. (Texas Technological U.) **A neuropsychogenic perspective on remediation of learning disabilities.** *Journal of Learning Disabilities*, 1970(Mar), Vol. 3(3), 143-148. Considers a perspective on learning disabilities which takes into account both neurologic and psychogenic factors. A specific program is described to illustrate how a curriculum may be based on the neuropsychogenic model. The program provides the child with training for language-perceptual deficits and concurrent psychotherapeutic experiences to help him cope with negative, self-defeating attitudes. (20 ref.)—*Journal abstract.*

9600. Cohen, William J. **Thought organization of the learning disabled adolescent: Some implications for the classroom.** *Discreet Schools Forum*, 1969, Vol. 5(1). Focuses "on the premise that when the adolescent's defenses against academic learning are breached he continues to have severe learning disabilities that do not disappear spontaneously but must be remediated by the educator, in the classroom setting, using an expanded awareness of how adolescents think." (16 ref.)—S. Knapp.

9601. Fairchild, Miles R. (U. South Dakota) **Case studies concerning the effects of intensive, short-term remediation of psycholinguistic abilities.** *Dissertation Abstracts International*, 1971(May), Vol. 31(1-A), 5885-5886.

9602 Parlo, Anthony P., Lohr, Jeffrey M., & Serran, C. G. (U. Wisconsin, Milwaukee) Reinforcement and educationally disadvantaged boys: An exploratory study. *Journal of Experimental Psychology*, 1971(May), Vol. 62(3), 243-252. Evaluated the reinforcement value of visual reading discrimination. The task was presented to a group of 11 educationally disadvantaged boys in a noisy recreation room of an inner city boys club. Extrinsically imposed reinforcement contingencies were not employed and boys were free to not participate. A total of 1080 games were played. All Ss participated from 1-21 times, averaging 24 responses/game. The average number of responses did not diminish with repeated participation and a median of 40% of those Ss in the room during each session participated. Findings are related to typical behavior modification orientations used in special education programs. (20 ref.) *Journal abstract*

9603 Melke, Stewart & Kilpatrick, Doreen L. (U. Calgary, Alberta, Canada) Changes in perceptual, motor and reading test scores in a remedial reading group. *Canadian Psychologist*, 1971(Apr), Vol. 16(7), 253-269. Compared 2 matched groups each composed of 9 children with reading problems on a number of perceptual, motor, and reading tests. 1 group was exposed to a special remedial program, and on retest showed significant gains in reading and in perceptual and motor areas. No similar improvement was detected in the control group denied the remedial treatment. Not all perceptual tests showed a parallel improvement with reading and the implications of this finding are discussed. (French abstract) (32 ref.) *Journal abstract*

9604 Rozin, Paul, Puritsky, Susan, & Sotsky, Raina. (U. Pennsylvania) American children with reading problems can easily learn to read English represented by Chinese characters. *Science*, 1971(Mar), Vol. 171(3971), 1264-1267. Describes a study in which with 25-35 yr of tutoring, 8 2nd grade inner city schoolchildren with clear reading disability were taught to read English material written as 30 different Chinese characters. This accomplishment eliminates certain general interpretations of e.g. dyslexia as a visual-auditory memory deficit. The success of this program can be attributed to the novelty of the Chinese orthography and to the fact that Chinese characters map orthography to the level of words rather than of phonemes. It is proposed that much reading disability can be accounted for in terms of the highly abstract nature of the phoneme (the critical unit of speech in alphabetic systems) and that an intermediate unit e.g. the syllable might well be used to introduce reading. (15 ref.) *Journal abstract*

Sensory & Physical Handicaps

9605 Bell, Janice W. (Mystic Oral School, Conn.) Visual language. *Volta Review*, 1971(Mar), Vol. 73(3), 157-160. Each student in a class for the deaf and hard-of-hearing was assigned a word as a subject for a picture montage. Using the word as a theme, S cut out and assembled pictures from magazines pertaining to and describing that word. Producing such montages can serve as a means of helping the child conceptualize the language he needs to express his ideas, and of conveying an experience of the richness of language. Examples of student montages are given. —W. A. Hass

9606 Christopher, Dean A. (Ohio State U.) The

auditory perception of shaped verbal stimuli in young deaf adults. *Dissertation Abstracts International*, 1971(May), Vol. 11(10-A), 5553

9607 Dillard, Philip H. (Indiana U.) Visual discrimination training with deaf children. *Dissertation Abstracts International*, 1971(May), Vol. 11(10-A), 5554

9608 Hendry, Bonita C. (U. Alabama) The effects of gross motor movements on the perceptual-motor development on primary age multiply handicapped children. *Dissertation Abstracts International*, 1971(Apr), Vol. 11(9-A), 5232

9609 Katsikis, Bill. (State University Col. New York, Binghamton) Intellectual functioning of deaf children. *Perceptual & Motor Skills*, 1970(Feb), Vol. 30, 49-53. A multiple regression equation [$Y = 9.4 + .03(X_1) + .03(X_2) + .03(X_3)$] was developed, where Y is the mean IQ of deaf 1st-6th grade children from E.P. Torrance's Thinking Creatively With Pictures Form A, and X_1 , X_2 , and X_3 are the variables of creativity, originality, and elaboration as measured by the variables of the Leiter International Performance Scale score as the criterion variable. —Journal abstract

9610 Kurzbaul, Ina W. (Utah School for the Blind, Ogden) Personality adjustment for the blind child in the classroom. *New Outlook for the Blind*, 1970(May), Vol. 54(5), 129-134. Teachers working with handicapped children have a greater responsibility to help them become integrated individuals than those having pupils with no impairment because the process for attaining the personality is more difficult. Blind children are deprived of a range and variety of experiences, mastery, and control of environment and of self related to it to which is added a poor self-image and anxiety of the environment that easily arouses fear and anxiety. An educational program favorable for personality development and social integration of blind children has to stress teacher qualities, particularly their motivation, understanding and devotion, the emotional and physical setting and specific teaching techniques such as abundance of individual attention, teacher-pupil planning, paper-oriented assignments, and proper use of evaluation. —M. J. Sanford

9611 Lav, Bernard. (U. Texas) The effects of environmental conditions on blind and sighted children as measured by structured sound situations. *Dissertation Abstracts International*, 1971(May), Vol. 11(11-A), 5851

9612 Levine, Edna S. (New York U.) Mental assessment of the deaf child. *Volta Review*, 1971(Feb), Vol. 73(2), 80-105. Reviews fundamental features of testing in general, and focuses on the problems of psychological deaf children. A fundamental purpose of psychological testing is the determination of mental level, although the nature of intelligence is by no means settled. The author has been able to find 11 tests specifically standardized on the deaf, of which 9 are intelligence tests. Basic points of test construction, test content, test administration, scoring, recording, and reporting are touched on. Nonlanguage performance test scales standardized on deaf children are listed, along with a chronological listing of selected evaluative studies of mental tests used with the deaf. (3 p. ref.) —W. A. Hass

9613 Nolan, Carson Y., & Bott, Joan E. (American Printing House for the Blind, Louisville, Ky.) Relationships between visual acuity and reading medium for blind children: 1969. *New Outlook for the Blind*, 1970(May), Vol. 54(5), 135-138

1971(Mar), Vol. 65(3), 90-96.—An every 3-yr review of the relationships between visual acuity, reading medium, grade level, and type of educational program for legally blind children made on data of 1966 has been reported in various studies. The present study based on data gathered as of January 1969 is a replication of the previous publications. Data reveal an increase of legally blind students registered with the American Printing House of 1,505; the greatest proportionate change in the multiple handicapped residential program with 29% increase of enrollment; a 2% student enrollment loss at residential schools (which are characterized by a population of relatively low visual acuity), a continuous general trend towards increased use of residual vision, etc. Technical improvement in the reporting system is noted. 7 tables indicate the various relationships.—*M. J. Stanford.*

9614. Northcott, Winifred N. **An experimental summer school: Impetus for successful integration.** *Volta Review*, 1970(Nov), Vol. 72(8), 498-507.—Regular classroom teachers need to gain competence and confidence in teaching hearing-impaired children in their classes. The Minneapolis Public School System initiated a workshop and summer school program to meet this need. The 1-wk workshop gave the 16 participating teachers new insights into the process of encouraging and motivating hearing-impaired children; the subsequent 5-wk summer school provided the opportunity for practical experience and application of techniques considered in the workshop. $\frac{1}{2}$ of the 120 summer school students were hearing impaired; $\frac{1}{2}$ had normal hearing. The staff of 38 included both general classroom teachers and special education teachers, as well as teacher aids. Team teaching was utilized throughout. A specific example of class activity is reported, in addition to some of the reactions of the teachers.—*W. A. Hass.*

9615. Parker, Ann L. (Pilot School for Blind Children, Washington, D.C.) **Reinforcement: One teacher's experiences and experiments with multiply handicapped blind children.** *New Outlook for the Blind*, 1971(Mar), Vol. 65(3), 97-99.—On the basis of personal experiences, it is maintained "that the creative use of reinforcement is a teaching tool of immense value in overcoming difficult learning problems." Overstressing of methods leads to forgetting the child, but careful planning of reinforcement around the child and the situation eliminates this danger, which is demonstrated in 3 examples. 1 blind, severely emotionally disturbed child could not be conditioned by oral, visual, or auditory reinforcement but responded to tactile stimulation (back-rubbing). A 9-yr-old blind child with manifestations of aphasia was not completely toilet trained. Playing with the venetian blind in the bathroom proved to be effective reinforcement. An emotionally disturbed, functionally retarded, 15-yr-old blind girl exhibited compulsively rude, negative, and destructive behavior. On a trip to circus she fell in love with clowns and asked to be called "Miss Clown" after a good performance on a task. This designation was used as helpful reinforcer.—*M. J. Stanford.*

9616. Parmenter, Trevor R. (Hassall State School for Mildly Intellectually Handicapped, New South Wales, Australia) **Self concept development of the partially seeing.** *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Nov), Vol. 17(3), 178-185.—Self-concept inventories were administered to 30 adolescent partially seeing Ss who were

educated in a unit attached to a normal high school, and to a similar sample of normal stream pupils matched for age, sex, and IQ. Results indicate that there are no significant differences in self-concept development between the 2 groups. It is suggested that the opportunities afforded for academic success, together with the feelings of achievement which accrue from an integration program help to develop an adequate self-concept in the partially seeing. (17 ref.)—*Journal summary.*

9617. Pfau, Glenn S. (National Education Assn., Washington, D.C.) **Reinforcement and learning: Some considerations with programmed instruction and the deaf child.** *Volta Review*, 1970(Oct), Vol. 72(7), 408-412.—Attempted to determine the influence of different types of immediate reinforcement upon programmed learning by severely hearing-impaired adolescent deaf students. The experimental group included 208 11-16 yr. old Ss from 3 schools for the deaf. The task of each S was to learn 10 different unfamiliar animals by means of a program of instruction under varying conditions of immediate feedback. Results indicate that the type of immediate reinforcement had little effect upon errors either within, or at the termination of, the program. The findings and implications are discussed as related to classroom instruction.—*Journal abstract.*

9618. Prescott, Robin. (St. Christopher's Hosp for Children, Philadelphia, Pa.) **Acoustic puzzles: Auditory training games.** *Volta Review*, 1971(Jan), Vol. 73(1), 51-53.—Describes equipment for presenting sounds to children in a teaching-machine format. The child presses a button beside the picture which he thinks corresponds to the presented sound. If he is right, a lamp lights up. Some of the sounds are vocal, and some nonvocal. The equipment has been used by hearing-impaired children. *W. A. Hass.*

9619. Rooney, Alice G., et al. (Public School 47, New York, N.Y.) **A public school program for multiply handicapped deaf children as told to Beverly Jablons.** *Volta Review*, 1970(Dec), Vol. 72(9), 552-559. A program was developed for multiply handicapped deaf children who could neither function nor gain educational advancement in regular classes of a school for the deaf. It was tried out on a group of 30 8-11 yr. old Ss. 2 regular teachers were supplemented by 2 teachers specializing in the education of the deaf, 2 educational assistants, a secretary, and a social worker. To prepare a basis for education, the program initially devoted itself to motor and perceptual work. Ss came to be divided into 2 groups on the basis of rate of progress. Illustrative features of the curriculum are given. Examples of successes attained by students in the program give those who have participated in it confidence in its value. *W. A. Hass.*

Mental Retardation & Learning Disorder

9620. Clark, Margaret M. (1 Strathclyde Glasgow, Scotland) **Symposium on reading disability: III. Severe reading difficulty: A community study.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 14-18.—Studied children born between April 1 and August 31, 1959, in a Scottish community in order to assess the extent of severe reading difficulty in children of average intelligence. The 3-part investigation included (a) 1544 Ss in 70 schools, (b) 138 boys and 92 girls from the original sample who had a reading quotient of 85 or less on the Schonell Graded Word Test, and (c) 106 boys and 59 girls from the original sample who had no

independent reading skill and at least 1 IQ on the WISC of 80 or above. Follow-up studies on these Ss groups indicate that (a) severe reading difficulty in children of average intelligence was not a problem of the magnitude it was considered to be, (b) this difficulty becomes more intense with the passage of time, and (c) certain variables associated with reading difficulties cannot be considered causes.—P. Hertzberg

9621. Dombrowski, Walter. (U. California, Berkeley) Learning set for categorization as a differentiating characteristic for the placement and instruction of mentally retarded students. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5896.

9622. Flax, Nathan. (585 Stewart Ave., Garden City, N.Y.) The contribution of visual problems to learning disability. *Journal of the American Optometric Association*, 1970(Oct), Vol. 41(10), 841-845.—Asserts that the control and integrative functions of the visual system influence learning more than the refractive state of the eye. Oculomotor control, intersensory integration, eye-hand coordination, visual directional orientation, facility, binocular function, and accommodation all contribute to learning disability. The ways in which each influence learning disability are discussed.—*Journal abstract*

9623. Goldberg, Herman K. & Arnett, William. (Johns Hopkins Hosp., Baltimore, Md.) Ocular motility in learning disabilities. *Journal of Learning Disabilities*, 1970(Mar), Vol. 3(3), 160-162.—Examined the technique of improving ocular motility to assist children with learning disabilities. The eye movements of 25 dyslexic children and a number of controls were examined with an electromyograph while reading materials above and below their frustration levels. Incoordinate eye movements were found in Ss with reading problems, but results do not support the theory that learning difficulties were due to lack of binocular coordination. It is concluded that the degree of comprehension produced the type of ocular movement, rather than the ocular motility producing the degree of comprehension.—*Journal abstract*

9624. Gotts, Ernest A. (U. Texas) Grapheme-phoneme correspondence learning in children with reading disabilities. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5886.

9625. Hunter, Ian & Lister, Caroline. (U. Keele, England) How children understand quantity. *Science Journal*, 1970(Dec), Vol. 6(12), 35-39.—Educationally subnormal children are slow to appreciate concepts which appear obvious to adults and to normal children. In threading his way through a complex of performances, there are many points, not just one, at which the child can go astray. Each child comes to conceptual problems with his own unique repertoire of accomplishments, expectations, and apprehensions. Finally, the child is dependent on the visual properties of the display at the moment. Investigations conducted using Piagetian techniques show that with intensive and personalized teaching, the concepts can be learned, and may help educationally subnormal children to lead a more normal life.—S. R. Diamond

9626. Hutton, Wilbur O. (U. Oregon) The performance of educable mentally retarded children on a three-trial paired-associate learning task as a function of conceptual instructions and chronological age. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5233.

9627. Ingram, T. S. (U. Edinburgh, Scotland) Sym-

posium on reading disability: II. Specific learning difficulties in childhood: A medical point of view. *British Journal of Educational Psychology*, 1971(Feb), 41(1), 6-13.—Discusses prevalence and causes of reading and spelling difficulties. Analyses of the sociopsychological and the psychophysiological sources of reading disability, as well as the clinical classification, and case of specific dyslexia is not a disease, but "a syndrome which results from a number of different factors which are usually found in combinations." It is suggested that therapy should be based on an investigation of pre-learning difficulties on an individual level. (45 ref.)—Hertzberg

9628. Jackson, Nigel. (Aberdeen Coll. of Education, Scotland) Educable mental handicap and delinquency. *Educational Research*, 1970(Feb), Vol. 3(2), 128-134.—In a sample population of 232 mentally handicapped ex-pupils drawn from special schools in classes in a Scottish city and county, 29.8% of the boys and none of the girls had delinquent records. There was a marginal though not significant tendency for the delinquent youths to be more intelligent than the nondelinquent youths. A significant relationship was found between delinquency and (a) an absence of physical defect, (b) family neglect, (c) abnormal family structure, and (d) occupational instability. Those youths committing their 1st offense after leaving school were found to be significantly more intelligent than those whose 1st offense was committed while of school age. A relationship was found between post-school 1st offense, occupational instability, and high measured intelligence.—*Journal summary*

9629. Jacoby, Helen B. (U. Virginia) A comparison of mongoloid and non-mongoloid trainable retarded children on tasks of intentional and incidental learning. *Dissertation Abstracts International*, 1971, Apr., Vol. 31(10-A), 5233.

9630. Johnson, K. E. (Cromehurst Special School, New South Wales, Australia) Increasing the capacity to learn. *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Nov), Vol. 17(3), 163-169.—Attempts to translate through cases the qualitative/quantitative positions of training techniques into specific terms. Case 1 describes a 15 yr. old with a deficiency in the visuomotor channel; Case 2 considers a 10 yr. old with quantitative deficiencies which were able to be changed positively to permit formal learning. The position is taken to indicate that traditional barriers to the development and education of the mentally handicapped will give way to assessment and development programs to enhance the level of competence.—C. A. Newcomer

9631. McLeod, John. (U. Saskatchewan, Saskatoon, Canada) Research into learning disability. *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Nov), Vol. 17(3), 131-143.—Describes 4 reasons for the relatively low scientific standard of research in reading disability and learning failure. The absence of adequate theoretical formulations underlies the reasons presented. An interdisciplinary inquiry combined with education is advocated to improve research. Emphasis is given to the redeployment of services to the teacher. A survey of the literature indicates an increased attention to auditory perception skills as necessary for reading competence. Early identification of learning disability is briefly noted. (43 ref.)—C. A. Newcomer

9632. Miles, T. R. (University Coll., Bangor, Wales) **Symposium on reading disability: I. More on dyslexia.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 1-5.—Presents a debate on the classificatory justification for the term dyslexia. It is argued that dyslexia is a nosological concept, not just a nosographic one. Dyslexia is considered to entail the existence of certain characteristic behaviors (reading and spelling difficulties) which are constitutional in origin.—P. Hertzberg.
9633. Millman, Howard L. (Children's Village, Dobbs Ferry, N.Y.) **Minimal brain dysfunction in children: Evaluation and treatment.** *Journal of Learning Disabilities*, 1970(Feb), Vol. 3(2), 89-99.—Discusses the behavioral, psychological, and educational effects of minimal brain dysfunction with reference to the published literature. The need is outlined for the application of available knowledge leading to adequate evaluation and treatment. Methods of educating the staff, obtaining a case history, and performing psychological testing are discussed. When a central evaluation is not possible, the suggested diagnostic procedures are for pediatric neurological, developmental optometric, and speech and hearing evaluations. Specific recommendations that arise from the complete evaluation are discussed, with the necessity of reporting the results to the parents in a sensitive, meaningful manner. Recommendations include (a) special education, (b) medication, (c) developmental optometric training, (d) counseling or psychotherapy, (e) parent participation in associations, (f) recreational programs, and (g) parent counseling groups. (56 ref.)—*Journal abstract*.
9634. Mordock, John B. & Selvaggio, Vito J. **The childcare worker and sensory training.** *Devereux Schools Forum*, 1969, Vol. 5(1)—Discusses methods and techniques of sensory training in the home and in the visualized techniques for specific cases for use by the childcare worker. Emphasized is the fact "that education is not confined to the classroom [and that the] childcare worker as a member of the multidisciplinary team must not forget her educative function."—S. Knapp.
9635. Naidoo, Sandhya. **Symposium on reading disability: IV. Specific developmental dyslexia.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 19-22.—Discusses work conducted at the Word and the Blind Centre for Dyslexic Children in London and the constitutional basis for specific reading difficulties associated with developmental anomalies and delays inherent in specific dyslexia. 4 hypotheses involving genetics, cerebral dominance, isolated developmental delays, and organic brain dysfunction in relation to specific dyslexia are considered. It is suggested that "specific dyslexia and its alternative terms, are similarly useful to distinguish children whose specific reading disability is associated with developmental delays, minor neurological dysfunctions or isolated maturational lags which are indicative of inherent developmental anomaly." (32 ref.)—P. Hertzberg.
9636. Norn, M. S., Rindziunski, Eva, & Skydsgaard, H. **Ophthalmologic and orthoptic examinations of dyslexics.** *Skoletpsykologi*, 1970, Vol. 7(6), 333-349. Ss studied 117 dyslexic children, constituting the total number of pupils from a school with specific remedial reading classes, and a comparable control series of 117 pupils from a normal school. The examinations performed showed that dyslexia is not due to refractive errors.
- impaired visual acuity, or orthoptic disorders. A doubtful preponderance was noticed of mild hypermetropia, slight astigmatism, and latent strabismus to near vision. Orthoptic treatment was indicated in 4% of these cases. There was a preponderance of crossed eye-hand dominance. It is concluded that word-blind children should be subjected to particular careful ophthalmological examination to prevent possibly existing visual anomalies from accentuating the true reading difficulties. No causal relation exists between specific dyslexia and visual defects in their widest sense. (16 ref.)—*Journal summary*.
9637. Oaks, Merrill M. (U. Maryland) **An evaluation of the effectiveness of a developmental sequence for teaching an industrial education psychomotor task to young severely mentally retarded students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5889-5890.
9638. Rappaport, Sheldon R. & McNary, Shirley R. (Pathway School, Norristown, Pa.) **Teacher effectiveness for children with learning disorders.** *Journal of Learning Disabilities*, 1970(Feb), Vol. 3(2), 75-83. Considers that the teacher of children with learning disorders requires personality characteristics, training, and function different from the authoritarian stereotype to be effective in rehabilitating such children. The selection of teachers, university and inservice training, the role and organization of the team, and teacher supervision are discussed. Suggestions are presented for changing the roles of available nurses, psychologists, reading, speech, and physical education specialists. It is concluded that optimal success with these children will require a change in concepts on the part of university and public school administrators. *Journal abstract*.
9639. Rice, Donald B. (Indiana U., Medical Center, Indianapolis) **Learning disabilities: An investigation in two parts.** *Journal of Learning Disabilities*, 1970(Mar), Vol. 3(3), 149-155.—Presents data gathered over a 2 yr period from 190 6-16 yr. old children in a dyslexia clinic. The diagnostic procedure included (a) school history, (b) ophthalmologic examination, (c) psychoeducational evaluation, (d) pediatric neurology examination and (e) case conference. 6 categories of learning disabilities and case conference. 6 categories of learning disabilities were 1 category where no significant disability was found were distinguished and are described. It was found that (a) the ratio of males to females was 5 to 1, (b) mean WISC Verbal and Performance IQs were not significantly different, (c) only 8 cases showed reading disability alone, (d) 43% had no significant academic deficit, (e) 28% showed significant emotional difficulty, (f) 20% were dyslexic, (g) there were significant deficits in visual-motor integration and auditory perception and (h) there was a low incidence of uncorrected visual problems. The importance of a multidisciplinary approach to the treatment of children with learning disabilities is stressed.—S. Knapp.
9640. Rosner, Jerome. (U. Pittsburgh Learning Research & Development Center) **Screening for perceptual dysfunction.** *Journal of the American Optometric Association*, 1970(Oct), Vol. 41(10), 858-866. Discusses the obligation of every optometrist to screen for perceptual dysfunction in those cases where a learning disability exists. In addition, given positive indications of perceptual dysfunction, more extensive services or referral to an appropriate resource should be provided. Easily administered perceptual tests which may serve as an elementary screening instrument are presented (Word Repetition, Auditory Repetition, Cessell

Developmental Factors and Rogers Drawings Test. Scoring criteria and further references are offered. An attempt is made to locate references to these tests and other more traditional aptitude measures. References are listed. *Journal abstracts.*

9641. Silverman, Mitchell. (U. South Florida) Developmental trends in the vocational interests of special education and normal students. *Journal of Vocational Behavior*, 1971(Jan), Vol. 11(2), 1-17. —

Attempted to analyze the development of vocational interests in special education and normal students. 47 normal and 47 retarded Ss ranging in age from 2-18 yr. were tested on a personal measure of vocational interest. Significant age and group differences were noted on a number of occupational clusters derived on the basis of Ss' response to the measure. Group differences were interpreted in terms of differential early experience between retardates and normals. Significant developmental trends were analyzed in terms of general to specific response trends, developmental lag, and the differential educational experiences of the 2 groups. *Author abstract.*

9642. Taylor, Z. Ann & Sherrill, Claudine. (Hastop Coll.) The development of a core curriculum in health and safety education for trainable mentally retarded children. *Journal of School Health*, 1971(Apr), Vol. 34(2), 183-188. —

Tested the following 4 hypotheses: (1) Through participation in a core curriculum in health and safety education, trainable mentally retarded children can make progress toward self-realization, (2) toward human relationships, (3) in the attainment of economic efficiency, and (4) in the assumption of civic responsibility. 9 retarded 10-14 yr. olds were studied for a 10-wk period. 3 original rating scales with a 5-point range were developed rating the Ss on knowledge and understanding, attitude and appreciation, and specific practices relating to the general objectives of education. Through participation in the core curriculum Ss made some observable progress toward the attainment of economic usefulness. The most dramatic change occurred in relation to self-realization. Ss began to see themselves as capable of accomplishment and thereby became more responsible.

9643. Thrapp, Robert W. (U. Arizona) The improvement of cognitive functioning in the trainable mentally retarded through visual-motor tutoring. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5892.

9644. Wambold, Clark L. (U. Kansas) Retention of verbal mediation set in paired-associate learning of educable mentally retarded children. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5893.

9645. Wetter, Jack. (U. California, Los Angeles) The relation of parent attitude to learning disorder. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5893.

Emotional Disorder

9646. Huessy, Hans R. & Gendron, Richard M. (U. Vermont) Prevalence of the so-called hyperkinetic syndrome in public school children of Vermont. *Acta Paedopsychiatrica*, 1971(Sep), Vol. 37(9-10), 243-248. — 501 7-yr-old children, when rated for hyperkinesis cases by 3, but were joined by new recruits, some of

whom had previously shown no signs. The permanency of the syndrome is questioned. A purely organic etiology would seem tenable for those developing the syndrome after successful drug therapy is probably the symptoms of short attention span, emotional reactivity and impulsiveness, not for the onset of chronic. G. Rubin-Rabson.

9647. Lehrman, Wendy. (Brooklyn Coll., City U. New York) A school guidance class for emotionally disturbed children. *Children*, 1969(Sep), Vol. 30(3), 18-21. —

Focuses on the theory that basic principles of behavior therapy as well as teaching of emotional control should be as to teaching of normal children. The classroom teacher has a broad responsibility to create a positive program for the physical, mental, social, and emotional development of each child. Makes use of the classroom as an appropriate setting for rehabilitation of the disturbed child. While the child is learning to develop and maintain constructive ties with crucial members of the society, he is also receiving help from the classroom itself. A classroom environment that offers frequent opportunities to each child to make his own decisions about the world and to develop his social skills is needed. *Journal summary.*

9648. Salzwedel, Kenneth D. (U. Wisconsin) Short-term memory in emotionally disturbed and normal children. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5892.

9649. Turner, David. (U. Minnesota) Group behavioral change through imitation learning among disturbed children. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5236-5237.

COUNSELING & GUIDANCE

9650. Aiken, James L. (U. Missouri) Group vocational counseling: An outcome study utilizing preselected groups and career information seeking behavior. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5114-5115.

9651. Ashworth, Diana J. (U. South Carolina) An investigation to determine the effectiveness of empathy training for the beginning counselor-in-training. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5115.

9652. Atkinson, Donald R. (U. Wisconsin) The effect of using selected behavior modification techniques to increase student-initiated action on counselor suggested activities. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5752-5753.

9653. Bass, Thomas A. (U. Houston) Analysis of functional and non-functional role behaviors of culturally different children participating in a group guidance program. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5115-5116.

9654. Bergland, Bruce W. (Stanford U.) Behavioral and physiological outcomes of counterconditioning and increasing classroom participation: An exploratory study. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5754-5755.

9655. Birk, Janice M. (U. Missouri) Effects of counseling supervision method and preference on empathic understanding. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5116.

9656. Brasington, Chilton R. (U. South Carolina) Comparison of the predictive validity of the SWB

- with achievement and aptitude variables for University of South Carolina freshman males. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5117.
9657. Carter, Helen L. (U. North Carolina, Chapel Hill) An investigation of two methods of short-term group counseling with white preadolescents rated low on social status by their peers. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5757.
9658. Crosby, Marian H. & Connolly, Mary G. (U. Virginia) The study of mental health and the school nurse. *Journal of School Health*, 1970(Sep), Vol. 40(7), 373-378.—Studied the mental health needs of school-age children and the resources utilized by the school nurse in a school district. The report is based on a survey of 12 nurses from an Illinois school district. The views of the school nurses are summarized with regard to mental health problems, practices, resources, and size of problems. There is a brief discussion of findings with recommendations and implications for curriculum.—G. Spitzer.
9659. Felker, Kenneth R. (Kent State U.) The effects of forced counseling upon counselor trainees. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5761-5762.
9660. Gelso, Charles J. (Ohio State U.) The effect of different methods of recording counseling interviews on various dimensions of client behavior and client-mediated counselor behavior. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5621-5622.
9661. Granoff, Mendell. (U. Texas) An analysis of meanings and consequences of self-disclosing behavior. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5844.
9662. Hanley, Dennis E. (Purdue U.) The effects of short-term counseling upon high school under-achievers' measured self-concepts, academic achievement, and vocational maturity. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5125-5126.
9663. Harris, Charles M. (Ohio State U.) The influence of individualized counseling on the scholastic self-concept of early and middle adolescents. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5126-5127.
9664. Hersam, Robert A. (Brigham Young U.) The Human Development Institute's relationship improvement program used as an adjunct to the group counseling process. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5127.
9665. Hervey, Ellen P. (U. Wisconsin) Comparison of three and six weeks of group model-reinforcement counseling for improving study habits and attitudes of junior high school students. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5765.
9666. High, Belva H. (U. South Carolina) Group counseling with underachieving tenth graders. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5127.
9667. Hopper, Allen E. (Louisiana State U., Agricultural & Mechanical Coll.) Biographical and clinical variables related to frequent vs. infrequent visits by students to a university counseling and mental health service. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5624.
9668. Johnson, Beryl R. (U. Pittsburgh) The effect of the mode of presentation upon the measurement of affective sensitivity. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5129.
9669. Kelley, Jan D. (Indiana U.) Reinforcement and the acquisition of counseling interviewing skills. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5768.
9670. Krieger, William. (U. New Mexico) The effects of an organized camping experience on self-concept change in relation to three variables: Age, sex and observable behavior change. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5131.
9671. Layton, Wilbur L., Sandeen, C. Arthur, & Baker, Ronald D. (Iowa State U.) Student development and counseling. *Annual Review of Psychology*, 1971, Vol. 22, 533-564.—Reviews the literature, stressing (a) student development including vocational behavior and development, (b) counselor training, (c) counseling research methods, (d) counseling process research, and (e) challenges to counseling. It is concluded that counseling psychologists have given most of their attention to helping students with perceived problems who sought counselors' services. If counseling psychology is to assume its "responsibility," then counselors must become more creative and active in providing experiences which will stimulate positive development of students who are not focusing on their problems, but who can be persuaded to participate in growth producing experiences. The expanding literature reporting research on student development is considered helpful to the counseling psychologist. (96 ref.) *Journal summary*.
9672. Maroun, Theodore J. (Indiana U.) Differential effects of two methods of encounter group training on the personal growth of counselor candidates. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5134.
9673. Marth, Donald R. (North Texas State U.) The effect of group counseling on visual imagery and selected personality factors for junior and senior level high school students. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5134.
9674. McClain, Alan D. (Oklahoma State U.) The effect of group counseling upon the self-concepts of disabled readers at the elementary school level. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5770.
9675. Meacham, John F. (Oklahoma State U.) Characteristics of vocationally decided and undecided college freshmen: Willingness to accept limitations and differences on the Taylor Manifest Anxiety scale. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5958-5959.
9676. Melchiskey, Stephen & Wittmer, Joe. (East Syracuse Minna High School, N.Y.) Some personality characteristics of counselor candidates accepting and rejecting sensitivity training. *Counselor Education & Supervision*, 1970(Win), Vol. 9(2), 132-135.—Investigated differences in dogmatism and need dispositions between trainees rejecting and accepting T groups experiences. Ss were 20 23-47 yr. old school counselor candidates who were participants in 2 10-member T groups meeting for 18 weekly sessions during a fall college semester. The EPPS and a modification of the Rokeach Dogmatism Scale were administered to all Ss. Results did not show a significant difference between "reject" and "accept" groups regarding dogmatism.

9697. Howe, Fredrick C. (Michigan State U.) **Teacher perceptions toward the learning ability of students from differing racial and socio-economic backgrounds.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5847.
9698. Islam, A. Serajul. (Oklahoma State U.) **An investigation of the relationships between certain personality traits and selected professional and socio-economic variables of Oklahoma student teaching personnel in vocational agriculture.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5848.
9699. Kimbrough, Brownie M. (Oklahoma State U.) **A study of attitude changes of student teachers toward discipline of elementary pupils as measured by the Minnesota Teacher Attitude Inventory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5251.
9700. Klein, Susan S. (Temple U.) **Student influence on teacher behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5203.
9701. Knapp, William M. (U. Southern Mississippi) **A study of teacher personality characteristics and rated effectiveness.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5712.
9702. Koelling, John A. (U. Oregon) **A differential study of prospective elementary school teachers at the University of Oregon: A comparison of those preferring lower and upper teaching levels.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5251-5252.
9703. Koran, Mary L., Snow, Richard E., & McDonald, Frederick J. (U. Texas) **Teacher aptitude and observational learning of a teaching skill.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 219-228. Investigated individual differences in acquiring a teaching skill from written and video-mediated modeling procedures. 121 intern teachers were given aptitude tests representing verbal and perceptual abilities (selected from the Educational Testing Service's Kit of Reference Tests for Cognitive Factors and from a series of film and audio tests) then randomly assigned to a of film and audio tests) then randomly assigned to a video-modeling, written-modeling, or no modeling treatment. Criterion performances were the frequency, variety, and quality of the modeled teaching skill used on 3 separate microteaching sessions and on 3 written measures. Analysis of variance results show that video modeling produced significantly higher performance frequencies than written modeling, with both modeling treatments significantly outperforming the control treatment. Regression analyses of Aptitude \times Treatment interactions show that Hidden Figures, Maze Tracing, Film Memory, and Sentence Reproduction scores interacted significantly with the modeling treatments.—*Journal abstract*.
9704. Kosier, Kenneth P. (U. Wisconsin) **Effects on task-oriented behavior of teacher inservice, charted and video-taped feedback, and individual consultation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5850.
9705. Krouner, Paul J. (Syracuse U.) **The relationship between teacher psychological health and acceptance of the paraprofessional.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5671.
9706. Miller, Martin T. (Bard Coll.) **Instructor attitudes toward, and their use of, student ratings of teachers.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 235-239.—Assigned 36 teaching assistants in 3 freshman courses to groups on the basis of an attitude scale measure (the Survey of Student Opinion of Teaching) regarding the value they ascribe to student ratings of teachers. Ss were then randomly assigned to 4 groups, varying in attitude and feedback from student ratings. Differences between attitude and feedback groups were examined using as criterion measures end of semester ratings and final examination scores, adjusted by analysis of covariance using midsemester ratings and examination scores as covariates. Ss in feedback or attitude groups did not differ significantly on their end-of-semester ratings. In 2 classes there were no significant differences on the final exam scores, while in the 3rd class, final examination scores were higher for those students whose teachers received feedback from the ratings.—*Journal abstract*.
9707. Passmore, Wynoka S. (North Texas State U.) **An investigation of the relationship of self-concept and selected personal characteristics of student teachers to success in student teaching.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5254-5255.
9708. Pettit, Peggy A. (U. Alabama) **An evaluation of teachers' ability to identify maladjusted children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5211.
9709. Price, Lowell W. (Stanford U.) **Organizational stress and job satisfaction of public high school teachers.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5727-5728.
9710. Quirk, Thomas J., Steen, Margaret T., & Lipe, Dewey. (Educational Testing Service, Princeton, N.J.) **Development of the Program for Learning in Accordance with Needs Teacher Observation Scale: A teacher observation scale for individualized instruction.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 188-200. Assigned 8 22-56 yr old female Os to rate the classroom techniques of 58 Program for Learning in Accordance with Needs (PLAN) teachers and 28 control teachers. As predicted, PLAN teachers using individualized instruction spent significantly more time than control teachers at all levels and at all levels combined, in diagnostic and didactic inquiry and in total individual instruction. Contrary to predictions PLAN teachers at every level spent more time than control teachers in managing learning materials but the difference was significant only when all levels were combined. The secondary level control teachers spent significantly more time than the PLAN teachers in giving positive messages within behavior modification. Also contrary to the hypotheses PLAN teachers spent significantly more time than the control teachers in managing student activities at the primary and intermediate level, and all levels combined (16 rel.).—*Journal abstract*.
9711. Tucker, Floyd C. (Syracuse U.) **A study of the relationships between: (1) Teachers' levels of self-actualization and their teaching behavioral styles, and (2) teachers' teaching behavioral styles and the gratifications they derive from interacting with their students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5239.
9712. Utz, Vernon R. (U. Oregon) **The relation of certain personality, value, and interest factors to a choice of elementary or secondary teaching levels among women at the University of Oregon.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5239.

tation Abstracts International, 1971(Apr), Vol. 31(10-A), 5140-5141.

9713 Voth, Herman G. (U. Florida) The relationship of teacher effectiveness to perception of self and teaching purposes. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5822.

9714 Wragg, Mark (Coventry Poly. Coll., U. London, England) Teaching educational psychology in India. *Educational Research*, 1969(Jun), Vol. 1(2), 126-131.

Using 5 teacher training English-speaking institutions, 219 men and 214 women taking educational psychology were surveyed. Some lecturers had no formal specialization in psychology. All courses provided a reasonably satisfactory grounding in the main topics. More need created for practical experiences and industry visits. The supply of good textbooks appeared to be inadequate. It is suggested that the Indian trend of conservatism makes difficult any reform in teacher training and the teaching of educational psychology. (29 refs.)—G. S. Rutter.

9715 Zedler, Empress Y. (Southwest Texas State U.) Better teacher-training: The solution for children's reading problems. *Journal of Learning Disabilities*, 1970(Jan), Vol. 6(2), 106-112. Considers that the goal of teachers for children with reading problems should be prevention at the kindergarten and primary levels rather than remediation at later levels. Student teachers should 1st acquire a broad eclectic background of knowledge from which they can develop frameworks for understanding: (a) children who learn normally and those who do not; (b) the nature of language; (c) the process of learning itself; and (d) the psychologies of language and learning. Out of such knowledge student-teachers should develop skills: (a) in evaluating learning abilities; (b) in regular diagnostic and therapeutic teaching; (c) in relating to and strengthening the self-concepts of children with learning problems; (d) in communication with related professions; and (e) in evaluating and participating in high-quality research. The necessity for supervision during training by professors with great competence in these areas is stressed.—S. Anapp.

SCHOOL LEARNING & ACHIEVEMENT

9716 Adams, Ernest L. (Michigan State U.) Influence of meaningfulness and familiarization training on basic sight vocabulary learning with first-graders. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5832.

9717 Amaría, Roda P., Biran, L. A., & Leith, G. O. (U. Birmingham, National Centre for Programmed Learning, Exbury, England) Individual versus cooperative learning: I. Influence of intelligence and sex. *Educational Research*, 1969(Jun), Vol. 1(2), 6-103. In a series of experiments the proposal tested was that learning could be profitably undertaken on a cooperative, i.e., nonindividual, basis. 10 and 12 yr olds worked individually, in homogeneous ability pairs and heterogeneous ability pairs. Learning tended to be best for heterogeneous pairs for higher and lower ability children, although the overall pattern of results was very complex. It is suggested that cooperative learning requires the intelligent child to spend time in organizing the concepts and operations for the less intelligent child which facilitates mastery for both. It is concluded that for programmed learning cooperative work is fully as effective as individual work and takes no longer in time.—G. S. Rutter.

9718 Amaría, Roda P. & Leith, G. O. (U. Birmingham, National Centre for Programmed Learning, Exbury, England) Individual versus cooperative learning: II. The influence of personality. *Educational Research*, 1969(Jun), Vol. 1(2), 103-119.

In Exp. I, 11 boys and 57 girls were divided by ability and sex into 4 groups: (1) worked individually, (2) worked in homogeneous ability pairs, (3) worked in heterogeneous ability pairs, and (4) worked in cooperative mixed ability pairs. In Exp. II, 11 boys and 57 girls performed better than the other groups in mixed ability pairs, bright males and low-ability females performed somewhat better than the other groups in similar ability pairs. For lower ability children, the pattern was reversed. In Exp. II, 4 boys and 12 girls were paired as follows: anxious introvert with low-ability extrovert and anxious extrovert with low-ability introvert. For boys, introverts were better than extroverts in mixed ability pairs and worse in similar ability pairs. For girls, low-ability introverts were better than low-ability extroverts in mixed ability pairs. Low-ability girls performed well in mixed ability pairs and mixed pairs in similar ability pairs. Anxiety had no effect on the difference found when introverts extroverts worked with each other.—G. S. Rutter.

9719 Atwal, Mohinder S. (U. Nebraska) The effect of written suggestions on achievement and aspirations on different anxiety levels. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5191.

9720 Bailey, David S. (U. Georgia) Differential effects of auditory information input on auditory comprehension for selected learner groups. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5834-5835.

9721 Bart, W. M. (U. Minnesota) The factor structure of formal operations. *British Journal of Educational Psychology*, 1971(Jan), Vol. 41(1), 7-14. Administered 4 Piagetian formal thought tasks, formal operational reasoning tests, and a test of verbal intelligence (the Experimental Omnibus Vocabulary Test) to 80 scholastically above-average adolescents, 16 at each of 3 age levels (13, 16, and 19 yr. of age). The formal reasoning tests provided scores indicating level of formal reasoning in each of 3 content areas—biology, history, and literature respectively. It was hypothesized that formal operational skills are unifactor, with the use of maximum likelihood factor analysis, it was determined that the 8 measures had a bifactor structure with a large general factor and a secondary factor which distinguished tasks from tests. Also formal thought was found to have a substantial verbal intelligence component as well as nonverbal intelligence components.—Journal abstract.

9722 Bart, William M. (U. Minnesota) The effect of interest on horizontal décalage at the stage of formal operations. *Journal of Psychology*, 1971(Jun), Vol. 78(2), 141-150. An interest test and 3 formal reasoning tests were administered to 90 13-, 16-, and 19-yr-old scholastically above-average students indicating S's degree of interest in biology, history, and literature, and his level of formal reasoning in the same 3 areas. From Goodman-Kruskal γ statistical procedures, it was determined that level of interest has little or no association with level of formal reasoning throughout the stage of formal operation, thus, disaffirming the hypothesis that interest has a decreasing differential cognitive effect at the stage of formal operations. An alternative hypothesis that concrete reasoning in 2

content area must precede formal reasoning in that area was presented with confirming evidence.—*Journal summary*.

9723. Beane, William E. & Lemke, Elmer A. (Stout State U.) **Group variables influencing the transfer of conceptual behavior.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 215-218.—Investigated the role of group heterogeneity and ability level in previous research which indicated that while groups can solve more problems than individuals, on subsequent individual transfer problems, the effect of group participation is lost. 64 undergraduates were stratified by ability level (using the Otis Quick-Scoring Mental Ability Test) and randomly assigned as homogeneous or heterogeneous pairs or quads to attain either 3 or 7 training concepts. Following training, each S participated individually on 3 transfer concepts. Results indicate that training low-ability Ss as homogeneous quads facilitated individual transfer performance. (16 ref.)—*Journal abstract*.

9724. Beran, Evelyn S. (U. Wisconsin) **Intersensory integration in relation to reading ability.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5191.

9725. Blanton, William E. (U. Georgia) **The interactive effects of perceptual centration and reading achievement at the first grade level.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5837.

9726. Boerger, Paul H. (U. Minnesota) **The relationship of boys' intellectual achievement behavior to parental involvement, aspirations, and accuracy of IQ estimate.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5191.

9727. Combessie, Jean C. (U. Paris, France) **Educational et valeurs de classe dans la sociologie américaine.** [Education and class values in American sociology.] *Revue Française de Sociologie*, 1969(Jan), Vol. 10(1), 12-36.—Describes the different levels at which empirical American studies use the notion of values to explain unequal school achievement of children belonging to different social classes. According to the level of aspiration expressed by parents or children, these studies establish the difference in ambition, disregarding objective, socially conditioned opportunities. A negative description of the values of lower social classes is given; which in turn, invites the conclusion, that this process is voluntary. Unequal achievement by unequal ambition is justified. Study of education in the family environment shows the school as a nonautonomous element and is logically dependent on a whole system of values. These values vary qualitatively according to social class. Studying the system of values in itself without relation to the objective characteristics of class, status, and range of experience is not justified. When all these factors are considered the voluntary explanation is excluded. The article aims at ordering these American studies as a function of the coherence and realism of the type of explanation proposed. (Spanish, German, & Russian summaries)—*English summary*.

9728. Cummings, Ruby N. (U. Alabama) **A study of the relationships between self-concepts and reading achievement at third-grade level.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5195.

9729. Dwyer, Francis M. (Pennsylvania State U., University Div. of Instructional Services) **Questions as advanced organizers in visualized instruction.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 261-264.—Attempted to measure the effectiveness with which ques-

tions function as advance organizers in complementing visualized instruction. Questions preceded each visualized page in the instructional booklets and were designed to direct S attention to relevant learning cues. Each S (N = 266 undergraduates) received a pretest, participated in his respective visualized presentation, and received 4 individual criterion measures. Analyses indicate that (a) the use of questions as advance organizers in visualized instruction is not an effective instructional technique for increasing S achievement of different types of learning objectives, and (b) different types of visuals when preceded by questions are not equally effective in facilitating S achievement.—*Journal summary*.

9730. Epps, Edgar G., Katz, Irwin; Perry, Aubrey, & Runyon, Eugene. (U. Chicago) **Effect of race of comparison referent and motives on Negro cognitive performance.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 201-208. Conducted 2 replications of a study by I. Katz, E. Epps, and I. Axelson (see PA, Vol. 39:1421) on the effect of racial variation of a peer comparison group on the cognitive performance of Negro male college students. Samples of 86 and 219 male undergraduates were drawn from 1 southern and 1 northern Negro college, both of which had higher academic standards than existed at the college used in the earlier experiment. Ss were tested, using an achievement motive questionnaire (a multiple-choice version of the French Test of Insight) and Sarason and Ganzer's Test Anxiety Scale. As predicted, Ss tested by Negro Fs at both colleges on arithmetic, scrambled words, and digit-symbol substitution tasks performed better when the comparison group was Caucasian rather than Negro. This reversed the finding of the previous study, in which only the digit-symbol task was used. Success approach and failure-avoidance motives had limited effects on task behavior, and these effects tended to be independent of the peer comparison effect.—*Journal abstract*.

9731. Felicetti, Carmen S. (Indiana U.) **The effect of integrated stimuli and prompting at various stages of training on delayed retention, of word recognition by children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5662-5663.

9732. Froven, Len A. (Indiana U.) **Mastery learning as a function of learner cognitive style, teacher diagnostic intervention and time on an independent learning task.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5842.

9733. Gaa, John P. (U. Wisconsin) **Goal-setting behavior, achievement in reading, and attitude toward reading associated with individual goal-setting conferences.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5843.

9734. Garrison, Nelson. (Duke U.) **Instructor-student compatibility: A study of the effects of personality similarity on academic performance.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5199.

9735. Heiler, Kurt. (Heidelberg Coll. of Education, Inst. of Pedagogy, W. Germany) **Psychologische Untersuchungen zur Erfassung der Schulleistungsreserven.** [Psychological investigations for the assessment of school talent reserves.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(4), 223-240.—Describes an empirical study investigating talent reserves among 4,068 secondary school students. An IBM program (automatic classification) was used to classify talent and achievement. The aptitude of 3 complete age groups (Grades 6, 7, and

8) with a total N of 288,000 in 1 different types of which could be determined. Results are given in percentages of students rated as talented and suitable for different types of high schools. By comparing the empirical with the automatically classified groups using test achievement, personality and sociographic characteristics, questionnaires or personal ratings of the teachers, it was possible to obtain information on the psychology of intelligence and important explanations of the motivational and sociocultural structure as well as data informing about the social and regional distribution of talent resources. Methodological advantages of the automatic classification model for the differentiation of talented students are discussed as well as practical consequences and educational-psychological means to activate talent reserves. (12 refs.) *English summary.*

9736. Holster, W. A. Noot over de schoolvorderingen intelligentie-discrepantie bij Hermans en Coopmans [A note about school progress and intelligence discrepancy as suggested by Hermans and Coopmans.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grenzgebieden*, 1971 (Feb), Vol. 26(2), 123-134.

Reference is made to H. J. Hermans and J. J. Coopmans' article on school preparation and intelligence. In the article it was reported between the differences in school preparation and intelligence. It is pointed out that it is absurd to calculate the difference scores between the 2 variables without first correlating the differences in standard deviations. Consequently the r between Variable X and $(X - X')$ is less than zero. —J. Ter Kuurst.

9737. Holten, Theodore T. (U. Texas) Interaction of individual abilities with the presence and position of adjunct questions in learning from prose materials. *Dissertation Abstracts International*, 1971 (May), Vol. 31(11-A), 5847.

9738. Ikeda, Miyoshi. (U. New Mexico) The relationships between the Illinois Test of Psycholinguistic Abilities, reading performance, and IQ of third-grade children. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10-A), 5210.

9739. Johnson, Clarice W. (U. South Carolina) Nonintellective factors related to college achievement and attrition. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10-A), 5129-5130.

9740. Klett, Lewis D. (Ohio State U.) An experimental study of the effect on cognitive learning when a psychomotor task is anticipated. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10-A), 5167-5168.

9741. Kueter, Roger A. (Indiana U.) Instructional strategies: The effect of personality factors on recognition learning using statements of behavioral objectives as opposed to no statements of behavioral objectives prior to instruction. *Dissertation Abstracts International*, 1971 (May), Vol. 31(11-A), 5939.

9742. Kyle, Bruce A. (U. Southern California) Auditory blending: Effects of presentation method, word frequency, word category, and number of word parts on word identification. *Dissertation Abstracts International*, 1971 (May), Vol. 31(11-A), 5850-5851.

9743. Matei, Constantin N. Raportul dintre percepție și reprezentări în cadrul procesului de învățământ. [The ratio between perception and representation within the educational process.] *Revista de Pedagogie*, 1969 (May), Vol. 18(5), 22-31. Considers representations as mental patterns which orient behavior

and attitudes and as the basis of concept production. The process of perceptual configuration and verbal configuration in computer representation were experimentally investigated under 2 aspects: (a) the ratio in 5th-grade pupils' minds between the perception of the demonstration and the verbal explanation of the teacher, and (b) the ratio in 5th-grade pupils' minds at the end of the reading stage between the perception of the written word and the understanding of its significance by reanimation in the verbal explanation of the teacher. Using batteries of typewritten and demonstrative lessons, the conclusion is drawn that the process of configuration is different for each pupil. 4 general, dominant elements are distinguished which have specific structures for representations. Implications for educational views of the process of knowledge acquisition are discussed. (Russian & French summaries).—*English summary.*

9744. McQueen, William M. (U. South Carolina) The effect of divergent teacher expectations on the performance of elementary school children on a vocabulary learning task. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10-A), 5206-5207.

9745. Means, Gladys H., Means, Robert S., Castleman, Judy N., & Elsom, Billy F. (Oklahoma State U.) Verbal participation as a function of the presence of prior information concerning aptitude. *Canadian Journal of Educational Research*, 1971 (Mar), Vol. 22(2), 58-63.—72 undergraduates were told that they were being administered an aptitude test that had been used previously to help predict achievement in the course. Ss were rank ordered by past GPA. The median break was used to form 2 groups: high and low GPA. Ss within each group were randomly assigned to 1 of 3 treatments. Treatment 1 Ss were told that from the results of the aptitude test it would appear that they had high aptitude for mastery of the concepts taught during the course. Treatment 2 Ss were told that their test scores revealed little aptitude for the course. Treatment 3 Ss were given no information regarding their aptitude. A 2×3 analysis of variance was employed to analyze student's verbal participation in a structured situation. Results indicate no significant differences from treatments, but significant differences were found favoring high GPA over low GPA. A significant interaction effect showed high GPA Ss participating more when given negative information whereas low GPA Ss participated more when given positive information.—H. J. McWhinnie.

9746. Miller, Marge M. (Ball State U.) The relationship between attitudes toward reading and achievement in reading in first grade. *Dissertation Abstracts International*, 1971 (Apr), Vol. 31(10-A), 5207-5208.

9747. Nygård, Roald. (U. Oslo, Inst. for Educational Research, Norway) Motive to approach success and motive to avoid failure in boys from different social groups. *Scandinavian Journal of Educational Research*, 1969, No. 4, 222-232. Examined differences between social groups in achievement-related motives in a sample of 255 7th and 8th grade boys. Motive to avoid failure was measured by the Test Anxiety Scale for Children, while the motive to approach success was anchored in the score on the TAT-N Achievement Test. Analysis of regression reveals a clear relationship between social background and motive to avoid failure, higher social groups being less failure motivated ($p < .005$). This

relationship seems to hold even when differences between the groups in intelligence are controlled ($p < .05$). Results of a corresponding analysis regarding the motive to approach success did not reach significance ($.05 < p < .10$). There were, however, clear trends when measures for the 2 motives were combined. Ss with a high motive to approach success and a low motive to avoid failure made up an increasing proportion, and those with a low motive to approach success and a high motive to avoid failure made up a decreasing proportion, when going from lower to higher social groups. (23 ref.)—*Journal abstract.*

9748. Peterson, Joseph M. (U. Wisconsin) **Effects of sex of experimenter and sex of subject in first and fifth grade children's paired associate learning.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5276-5277.

9749. Satterwhite, Frank H. (U. Washington) **Interaction of model and observer's cognitive styles in an observational learning paradigm.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5214.

9750. Sharma, V. P. (Ravishankar U., Raipur, India) **Efficacy of evaluation procedures in relation to pupils' scholastic attainment.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 107-109.—Attempted to estimate the relative effectiveness of 4 types of test questions, i.e., essay, short answer, objective, and mixed questions. Identical test questions were administered after teaching the situational and traditional method for equal deviation. Identical test questions were administered after teaching the situational and traditional method for equal deviation. Identical test questions were administered after teaching the situational and traditional method for equal deviation. Identical test questions were administered after teaching the situational and traditional method for equal deviation. Results analyzed by the Wilcoxon matched-pairs signed-ranks technique showed that (a) appeared to be effective was essay type, mixed form, objective, and short answer in the situational method; and (b) in the case of the traditional method, the order of effective tests for the low achievers was objective, essay, short answer, and mixed type.—K. C. Panda.

9751. Sloan, DeVillo. (Syracuse U.) **Relationships between the verbal activities of teachers and the self concept and verbal intelligence of kindergarten children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5677-5678.

9752. Smiljanić-Colanović, Vera. **Gotovost dece za polazak u školu, od čega zavisi i kako se utvrđuje.** [School readiness: On what does it depend and how is it assessed?] *Psihologija*, 1969-1970(Oct), Vol. 3(1), 63-73.—Defines readiness for learning as the child's ability to respond to instruction. This ability involves the child's physical, intellectual, social, and emotional maturity, previous experience, and motivation for learning. It is the result of a complex interaction between hereditary and environmental influences. Therefore, well-timed school instruction which corresponds to a child's physical and emotional maturity is considered important. The task of those responsible for the determination of a child's readiness for elementary instruction is considered to be a delicate and important one. Readiness of children to start attending school may be influenced in early childhood and the preschool period. The earlier the date of such influences, the better the effect. (Russian summary)—*English summary.*

9753. Smith, I. Leon. (U. Cincinnati) **IQ, creativity, and achievement: Interaction and threshold.** *Multivariate Behavioral Research*, 1971(Jan), Vol. 6(1),

51-62.—Based on Torrance's threshold concept, IQ and creativity measures were expected to be differentially related to tests of convergent and divergent achievement over varying intellectual levels. An IQ test, achievement measures derived from B. S. Bloom's *Taxonomy of Educational Objectives: Cognitive Domain*, and 3 creativity tests were administered to 141 11th graders. The data were analyzed through the use of multivariate interactive and linear regression models. Results indicate that the relationships between creativity and the 2 types of achievement are generally linear. Although intelligence is the major variable related to the convergent criteria, creativity, in addition to IQ, appeared as a necessary dimension in performance on the divergent criteria. Findings are discussed in terms of the teaching for and measurement of creativity. (23 ref.) *Journal abstract.*

9754. Stedman, Carlton H. (Indiana U.) **The effects of prior knowledge of behavioral objectives on cognitive learning outcomes using programmed materials in genetics.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5880.

9755. Sterner, Ray T. (U. Wisconsin) **Effects of social rejection and social reinforcement upon the verbal conditioning of adolescents stratified according to high and low peer social interest.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5217.

9756. Stubbs, William L. (U. North Carolina, Chapel Hill) **Equity theory and its application in the public schools in the performance of an academic task of short duration.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5861.

9757. Szelela, Walter F. (U. Georgia) **The effects of test anxiety and success-failure on mathematics performance in grade eight.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5949-5950.

9758. Waisner, Gary L. (U. Missouri) **Transfer in an industrial arts psychomotor task as a function of practice time and task complexity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5170-5171.

9759. Weinberg, Joel S. (Harvard U.) **Intermodality associative learning and its relation to reading ability.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5951-5952.

9760. Williams, John D., Harlow, Steven D., & Borgen, Jerome S. (U. North Dakota, Div. of Measurement & Statistics) **Creativity, dogmatism, and arithmetic achievement.** *Journal of Psychology*, 1971(Jul), Vol. 78(2), 217-222.—2 groups of upper elementary students were formed on the basis of their total arithmetic scores on the Iowa Tests of Basic Skills, a high and a low arithmetic achievement group. The groups were, respectively, the upper and lower thirds of a total of 483 students. 3 measures of creativity (fluency, flexibility, and originality) prepared by Guilford and a measure of dogmatism prepared by Figgert were administered to both groups. The high arithmetic achievement group scored high ($p < .001$) on the 3 measures of creativity, but there was no significant difference on dogmatism. Also, no significant correlation was found between dogmatism and any measure of creativity.—*Author abstract.*

9761. Williams, Robert T. (U. Kansas) **A study of the influence of different directions for reading on immediate and delayed recall.** *Dissertation Abstracts*

International 1971 (May), Vol. 31(11-A), 5952-5953

9762. **Wierman, John H.** (Children's Center, Salt Lake City, U.) **Cognitive style and reading ability.** *Canadian Journal of Educational Research*, 1971(Mar), Vol. 22(1), 34-39.—Explored the relationship between reading ability and cognitive style in 270 elementary school students. Reading ability, within the 4th and 5th grades, was measured by the California Reading Test-Flemontary within the 6th grade by the Reading Vocabulary and Reading Comprehension subtests of the California Achievement Test-Flemontary. Cognitive style was measured through the use of Witkin's scoring procedure for human figure drawings. The hypothesis that field-independent children are more advanced in reading ability than field-dependent children was supported. Correlational results suggested a relationship of moderate strength for both boys and girls within the 4th and 5th grades; virtually no relationship was found within the 5th grade male and female subgroups. —H. J. M. Whinnic.

9763. **Winker, Glen C.** (U. Minnesota) **The effect of teacher tempo on the reading progress of reflective and impulsive boys.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5219.

Prediction

9764. **Adkins, Jack.** (North Texas State U.) **A study of the value of selected curiosity tests for predicting academic achievement in first and second-grades.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5833.

9765. **Cherdack, Arthur N.** (U. California, Los Angeles) **The predictive validity of the Scholastic Aptitude Test for disadvantaged college students enrolled in a special education program.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5193.

9766. **Grinnell, Marilyn; Keeley, Stuart M., & Doherty, Michael E.** (Bowling Green State U.) **Bayesian predictions of faculty judgments of graduate school success.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 379-387.—15 faculty members (judges) inspected distributions of scores on 4 predictor variables of students who had been accepted into graduate school. Given only the information that a judge estimated the prior probability of achieving a PhD, $P(H)$. Judges also estimated the probabilities of the various values of 4 predictor variables given success, $P(D|H)$, and, finally, individual subjective posterior probabilities of success, given 1, 2, and 4 predictor variables. The judges' $P(H)$ and $P(D|H)$ values were used to compute, under the assumption of independence, Bayesian posterior probabilities, used as a criterion measure for the judges' predictions. In a relatively natural situation, $P(H)$ and $P(D|H)$ values built on individual differences arose in the 1 type of information condition. Conservatism was observed when multiple predictors were aggregated. —Journal abstract.

9767. **Muhich, Dolores.** (Southern Illinois U.) **Multi-variable prediction of selected measures of college success.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5209-5210.

9768. **Owen, Steven V.** (Purdue U.) **The prediction**

of academic performance in an associate degree nursing education program. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5210-5211.

9769. **Romine, Philip G.** (U. Alabama) **The combined moderating influences of personality variables on the accuracy of prediction of academic success.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5211.

9770. **Smith, William A.** (U. Missouri) **A study of the personality assessment system and its utility in the prediction of performance in a reading improvement course.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5216.

9771. **Stanley, Julian C.** (Johns Hopkins U.) **Predicting college success of the educationally disadvantaged.** *Science*, 1971(Feb), Vol. 171(3972), 640-641.—For review, e.g., those of the Scholastic Aptitude Test predict the college grades of educationally disadvantaged students as well as they do those of the advantaged. Regardless of socioeconomic level, students who are predicted to earn low grades within a particular course will tend to have academic difficulties if enrolled in it. There are justifications for admitting to a particular college some minority-group students who are marginally qualified provided they are given adequate financial aid and effective remedial courses. However if entrants are greatly underqualified academically, new curricula will be required, which may tend to segregate them from the regular student body. Also, a degree from a special curriculum may not be viewed by employers, graduate schools, and alumni as equivalent to other degrees awarded by the institution. Admitting students who are seriously underqualified academically seems likely to cause frustrations that may be difficult to resolve. Current demands by minority groups for "relevant" courses may reflect the academic difficulties many of their members encounter in present courses rather than the educational unsuitability for them of such courses. (48 ref.)—*Journal summary*.

9772. **van Nieuwen, R. F.** (U. Amsterdam, Psychological Lab., Netherlands) **Een model voor tentamens.** [A model for preliminary examinations.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Feb), Vol. 26(2), 121-132.—Presents a mathematical model based on a series of formulas, to assist in the selection of successful candidates for graduation at Dutch universities. The selection process is largely based on performance on preliminary examinations. The candidate must pass a number of such examinations but is free to choose the order of succession of the tests. If he fails, he may repeat the test any number of times. The importance of the memory factor in the performance on the preliminary examinations is reflected in the assumption that learning occurs according to the all-or-none model. Although the knowledge of the performance of a candidate in terms of the total indicate his behavior in a specific subject area, the total performance of a student must be considered in terms of calculated risks that are based on the total personality of the candidate. An outline is given of how "knowledge of the model may influence the behavior of the teacher and of the student." (English summary)—A. J. Ter Keurst.

9773. **Wiggins, Nancy & Kolen, Eileen S.** (U. Illinois) **Man versus model of man revisited: The forecasting of graduate school success.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 100-106.—Tested the hypothesis of L. Goldberg (see PA. Vol. 44:12828)

that the model of man is superior to man in clinical judgment situations other than clinical diagnosis of the MMPI. 98 psychology graduate students were asked to forecast 1st-yr graduate GPAs based on 110 profiles containing 10 cues derived from their fellow students' records. For each S, the cue values were regressed onto the Ss' judgments (the model of man). Results indicate that the models (predicted judgments) were more accurate than the Ss' own judgments when correlated with the actual criterion. The average judgments for each profile were considerably more valid than the average of the judges' individual validities. Even the average judgments were improved upon by modeling. It is recommended that the model of man substitute for man in forecasting graduate GPAs. (22 ref.)—*Journal abstract*.

9774. Zedeck, Sheldon; Cranny, C. J., Vale, Carol A., & Smith, Patricia C. (U. California, Berkeley) **Comparison of "joint moderators" in three prediction techniques.** *Journal of Applied Psychology*. 1971(Jun), Vol. 55(3), 234-240.—Examined the existence of 2 potential "joint moderator" variables (anxiety and study habits), and compared their operation according to 3 different prediction techniques: (a) subgroup analysis, (b) differential prediction of predictability, and (c) moderated regression. Results with 393 undergraduates indicate that anxiety moderated the relationship between GPA and American College Test scores using subgroup analysis and differential predictability techniques. A comparison of moderated regression with linear regression indicated that study habits operated as an independent predictor. None of the techniques identified joint moderators in this situation. Results are discussed in the light of problems and assumptions of each technique. The need for systematic identification of moderators from a large mass of data is indicated. (17 ref.)—*Journal abstract*.

Overachievement & Underachievement

9775. Glavach, Matt & Stoner, Donovan. (48 Woodlyn Lane, Bradbury, Calif.) **Breaking the failure pattern.** *Journal of Learning Disabilities*. 1970(Feb), Vol. 3(2), 103-105.—Conducted an experiment with 24 9th graders who tested 2 yr. or more below the expected grade level. It was hypothesized that these Ss would like to learn and, if presented with appealing material with a guarantee of success, would learn. 1 page exercise sheets which depended on puzzle or problem solving for interest were created and sequenced. Materials were presented to Ss at a level where initial success was guaranteed. Exercises in a level where initial success was guaranteed. Exercises were presented during the school year. Each exercise was given a certain point value, and points could be exchanged for model airplanes and ships, field trips, and the grade of A. After evaluation at the end of the year, 11 Ss were assigned to regular classrooms and were doing successful work.—S. Knapp.

CURRICULUM & PROGRAMS

9776. Anderson, Dennis L. (Michigan State U.) **Retroactive interference in prose learning as a function of similarity, degree of learning, and instructions.** *Dissertation Abstracts International*. 1971(May), Vol. 31(11-A), 5833-5834.

9777. Anderson, Roger H. (U. Minnesota) **Visual recognition memory, paired-associate learning, and reading achievement.** *Dissertation Abstracts International*. 1971(Apr), Vol. 31(10-A), 5190.

9778. Bland, Hester B. (Indiana State Board of Health, Indianapolis) **Problems related to teaching about drugs.** *Journal of School Health*. 1969(Feb), Vol. 39(2), 117-119.—Briefly discusses 7 major problems in drug education and suggests a factual and unsensational approach to the subject. The beneficial aspects of drugs should be taught and a healthy respect for their potentials instilled.—A. Farfaglia.

9779. Blixt, Sonya L. (Kent State U.) **Unimportant differential effects of instruction and practice on typing when individual differences are controlled.** *Perceptual & Motor Skills*. 1970(Feb), Vol. 30(1), 137-138.—Tested 2 groups, each with 18 high school introductory typing students, initially high and low in performance (speed and accuracy), once wk for 13 wk. It was found that once low achievers reached a similar level of achievement to the high achievers, subsequent performance measures for the groups were not significantly different. Speed of typing appeared to be the most reliable differential predictor. *Journal abstract*.

9780. Brennels, Norman C. (Miami U.) **Mood differential responses to music as reported by secondary music and nonmusic students from different socio-economic groups.** *Dissertation Abstracts International*. 1971(May), Vol. 31(11-A), 5837-5838.

9781. Brown, George I. (U. California, Santa Barbara) **Human teaching for human learning: An introduction to confluent education.** New York, N.Y.: Viking Press, 1971. xvii, 298 p. \$8.50.

9782. Crosby, John F. (Syracuse U.) **The effect of family life education on the values and attitudes of adolescents.** *Dissertation Abstracts International*. 1971(May), Vol. 31(11-A), 5839.

9783. Defrain, David M. (Oklahoma State U.) **The effects of self-concept and selected personal and educational variables upon attrition in a non-credit college reading improvement program.** *Dissertation Abstracts International*. 1971(Apr), Vol. 31(10-A), 5195.

9784. Dennison, Darwin. (Ball State U.) **Operant conditioning principles applied to health instruction.** *Journal of School Health*. 1970(Sep), Vol. 40(7), 368-370. Presents a brief summary of operant conditioning research, and a description of a program where "these operant conditioning principles were applied to a health instructional situation. The principles were operationalized into specific classroom techniques." No experimental design with control procedures was utilized, and no attempt was made to analyze the effectiveness of the techniques. The need for more controlled experiments to validate the results is stated.—G. Spitzer.

9785. Duff, Grace H. (Southern Illinois U.) **The impact of pre-school programing and parent schooling on welfare recipient first grade children.** *Dissertation Abstracts International*. 1971(Apr), Vol. 31(10-A), 5066.

9786. Emanuel, Jane M. (U. Alabama) **The intelligence, achievement, and progress scores of children who attended summer Head Start programs in 1967, 1968, and 1969.** *Dissertation Abstracts International*. 1971(Apr), Vol. 31(10-A), 5031-5032.

9787. Felker, Donald W., & Kay, Richard S. (Purdue U., School of Humanities, Social Science & Education) **Self-concept, sports interests, sports participation**

- and body type of seventh- and eighth-grade boys. *Journal of Psychology*, 1971(Jul), Vol. 78(2), 223-228. —153 7th and 8th grade boys were used to study the effects on self-concept of body type, self and father's interests in sports, and instructor ratings of sports participation. Analyses of variance revealed a significant effect upon self-concept by body type for the 7th graders. Self-interest in sports, father's interest in sports, and instructor rating of interschool sports participation showed significant effects upon the self-concept scores of the 8th graders. Increase in masculinity of interests accompanying rapid growth at puberty is a suggested explanatory hypothesis. *Author abstract*.
9788. Fletcher, Raymond L. (Texas A & M U.) **Selected personality characteristics and activity participation of male college freshmen.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5176.
9789. Forest, Jean. **Psychodrame, sociométrie et enseignement de l'architecture.** [Psychodrama, sociometry and the teaching of architecture.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(13-16), 799-815.—Reports on a multidisciplinary approach to the teaching of architecture where an effort is made to make the student a participant in the act of building. Groups of architecture students were placed in extracurricular psychodrama on a voluntary, no charge, basis. Psychodrama, human milieu exploration, test village design, and sociometry jointly appeared to have real significance in the teaching process. *R. E. Smith*.
9790. Hellmuth, Jerome. (Ed.) **Disadvantaged child: III. Compensatory education: A national debate.** New York, N.Y.: Brunner Mazel, 1970. vii, 466 p. \$12.50.
9791. Hoyman, Howard S. (U. Illinois) **Should we teach sexual ethics in our schools?** *Journal of School Health*, 1970(Sep), Vol. 40(7), 339-346.—Issues a call for teaching sexual ethics in the public schools, and reviews the major proposals now being advocated concerning sex education in the schools. Viewpoints discussed are: "exclude sex education; teach the old sex morality; teach the facts of life." There is a brief historical review of American attitudes toward sexual behavior and how they are contributory to the current controversy. Suggested principles for sex education teachers are delineated.—*G. Spitzer*.
9792. Hughes, Orval D. (U. New Mexico) **The influence of leadership in the growth of positive self-concept.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5201.
9793. Johnson, Joann M. (U. Southern California) **The relationship between work capacity and motor learning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5823-5824.
9794. Johnson, Joseph B. (U. Alabama) **A comparison of physical fitness and self-concept between junior high Negro and white male students.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5180.
9795. Jung, Steven M. (American Inst. for Research, Palo Alto, Calif.) **Evaluative uses of unconventional measurement techniques in an educational system.** *California Journal of Educational Research*, 1971(Mar), Vol. 22(2), 48-57.—Reports on results generated by an unconventional application of the testing paradigm. This application was made necessary by the nature of several goals of Project PLAN, a comprehensive system of individualized education, in the areas of student personal and social behavior, self-planning skills for occupational and personal development, etc. Attainment of such goals is very difficult to measure using standard educational procedures. The critical incident technique was used to identify important aspects of student behavior. These were felt to represent positive exemplars of these behaviors. From this basis, student self-report procedures were developed. These procedures were applied to situations which were structured according to cues obtained from the original critical incidents. Results indicate the degree to which the goals had been obtained, both in an absolute sense and in comparison with the results of more conventional educational programs.—*H. McWhinnie*.
9796. Lee, Ronald A. (U. Oklahoma) **The effects of competition on various measures of stress on male college age students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5825.
9797. Leithwood, Kenneth A. (U. Toronto, Ontario, Canada) **Complex gross motor learning and its influence on personal and social adjustment in four-year-old children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5852.
9798. McCormick, Clarence C. & Schnobrich, James N. (Developmental Achievement Center for Children & Adults, Niles, Ill.) **Longitudinal corroboration of a cross-sectional study of development of preschool children with the Arrow-Dot Test.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 269-270.—58 3-6 yr. children in a Montessori preschool were administered a series of tests at the beginning of the school yr. and were retested on the same battery 8 mo. later, at the end of the school yr. The Ss exhibited a mean gain of about 11 points on the Peabody Picture Vocabulary Test. They also exhibited a decline in Impulsivity and an increase in Superego scale scores, on the average, measured by the Arrow-Dot Test. These longitudinal results corroborate an earlier cross-sectional analysis, and, as these results follow a prediction from Freudian theory, give indication of construct validity for the test.—*Journal abstract*.
9799. McGreevy, C. Patrick. (U.S. Office of Education, Washington, D.C.) **A new design of pupil personnel service programs utilized by the U.S. Office of Education (BEPD).** *Counseling Psychology*, 1971, Vol. 2(3), 88-91.—Describes a new program designed to generate education reform through personnel training. The 2 goals of the Bureau of Educational Personnel Development are the enhancement of educational opportunities for low income families and a heightened responsiveness to the pupil by the educational system. The Pupil Personnel Services Program emphasizes trainer preparation as pupil personnel specialists for both pre- and inservice activity. The program calls for a "center-satellite" system consisting of a "university-school district(s)-community" as a coordinating-training center. The center (with its satellite schools) will have as its major responsibility the improvement of Pupil Personnel Services to a particular low income area.—*W. S. Sahakian*.
9800. McWhinnie, Harold J. (U. Maryland) **A third study of perceptual behavior in sixth grade children in relation to their behavior in art.** *California Journal of Educational Research*, 1971(Mar), Vol. 22(2), 68-73.—Measured the relationship among 4 perceptual variables that previous research had identified as relevant to human behavior in art. The perceptual variables studied were: (a) perceptual field independence, and (b) level of

differentiation in figure drawing. 90 6th graders were tested on a battery of perception and creativity tests as a part of a large study of perceptual training in art. For the purposes of this study pretest scores were used in a correlational analysis. The variables selected seemed to measure discrete areas of perceptual behavior. The findings did not replicate previous work done in this area. Results are discussed with reference to implications for the teaching of art as well as for further research into variables of the psychology of art. *Author abstract.*

9801. Miller, David K. (Florida State U.) **A comparison of the effects of individual and team sports programs on the motor ability of male college freshmen.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-A), 4527.

9802. Milne, Duane C. (Michigan State U.) **The relation between anxiety and motor performance in young children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5827.

9803. Price, Quentin L. (United States International U., San Diego, Calif.) **Influence of sex and family life education on student attitude toward traditional family ideology and sex knowledge.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6161.

9804. Radu, I. (U. Babeş-Bolyai, Cluj, Romania) **La dynamique des relations entre concepts et opérations intellectuelles chez les écoliers.** [Dynamic relations between concepts and thought processes in school children.] *Revue Roumaine des Sciences Sociales-Serie de Psychologie*, 1970, Vol. 14(2), 193-206. Concepts and cognitive operations constitute interdependent elements of learning which have different implications for programmed instruction. In teaching, concepts may be followed by generalizations or rules followed by illustrative examples. Binary programmed instruction is reported to be more effective for learning based on identification using perceptual cues while algorithmic approaches are more successful for sequential learning requiring classification. Examples of these methods applied to mathematics, natural sciences, physics and grammar instruction are given. (18 ref.) (C. M.)

9805. Shively, Joe E. (Purdue U.) **Evaluation of the effects of creativity training programs in the elementary school.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5215.

9806. Tausch, Anne M. & Langer, Inghard. (L. Hamburg, Inst. of Psychology, W. Germany) **Merkmale des Erziehungsverhaltens von Müttern und Kindergärtnerinnen und Art der Änderung durch eine Fortbildungsveranstaltung.** [Characteristics of educational behavior in mothers and kindergarten teachers and type of change after an adult education course.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(4), 269-283. Investigated the educational style of 40 mothers and 65 kindergarten teachers social workers after they had taken an adult education course of 11 and 5 hr. respectively. Their styles were observed and recorded in 2 projective conflict situations. Mothers realized a lower level of disengagement and control towards children than their own education had done. The styles of kindergarten teachers were similar to those previously obtained in earlier investigations. The main dimensions of educational behavior in conflict situations are an emotional behavior dimension (regard-encouragement-social reversibility vs. the opposite) and controlling behavior. It was possible to modify the emotional behavior dimension of the kin-

dergarten teacher group towards higher levels of regard-encouragement-social reversibility after a 5-hr. educational course (English summary). *R. J. Higgins*

9807. Turner, Robert B. (Oregon) **Aesthetic and affective responses of high school art students to projected imagery.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5484.

Teaching Methods & Teaching Aids

9808. Alderfer, Clayton P. & Lodahl, Thomas M. (Yale U.) **A quasi experiment on the use of experimental methods in the classroom.** *Journal of Applied Behavioral Science*, 1971(Feb), Vol. 7(1), 43-69. In a graduate school of business a quasi-experimental design was used to compare the changes in behavior and attitudes of 22 Ss in a training course with those of 24 Ss in a more traditional lecture course. Videotape viewing of the Ss' own behavior was employed in both courses, and the behavior and attitude changes resulting from this intervention were compared. Comparisons between the 2 courses indicated the following: Compared with the lecture course, the training group course showed more here-and-now behavior, more group dynamics, less organizational dynamics content, more movement, more perceived comfort with feelings and more perceived comfort in learning (p. 48-51). Videotape viewing resulted in changes toward more here-and-now behavior and satisfaction in both groups, and more movement and perceived transfer of learning in the training course group. (D. J.)

9809. Baesher, Richard H. **Discrimination training in the recognition of Spanish sounds.** *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1971, Vol. 7(1), 78-96. Ss were 48 high school freshmen divided into 4 Ss in a 12-hr Spanish course, a private high school Ss were matched with respect to age and sex, and a control group was given no Spanish instruction. The experimental group was given 12 hr of Spanish instruction. The given 12 hr of instruction was given in a controlled order. The control group was given a random order. The results showed that the Spanish test of sound recognition was significant. The results were administered to the Ss in a Spanish course. A significant difference was found between the Spanish course and the control group. (D. J.)

9810. Bepko, V. P. **Programmirovannoe obuchenie. Didakticheskie osnovy.** [Programmed learning. Didactic bases.] Moscow, USSR, Vysshaya Shkola, 1970, 200 pp. The book contains a systematic analysis of the theoretical bases of programmed learning, methods of programming and the use of programmed learning in the classroom. The book is intended for teachers and students of pedagogical and psychological faculties of universities and pedagogical institutes. (English summary.) (D. J.)

9811. Bepko, V. P. **Programmirovannoe obuchenie. Metodicheskie osnovy.** [Programmed learning. Methodical bases.] Moscow, USSR, Vysshaya Shkola, 1970, 200 pp. The book contains a systematic analysis of the theoretical bases of programmed learning, methods of programming and the use of programmed learning in the classroom. The book is intended for teachers and students of pedagogical and psychological faculties of universities and pedagogical institutes. (English summary.) (D. J.)

9812. Bepko, V. P. **Programmirovannoe obuchenie. Psichologicheskie osnovy.** [Programmed learning. Psychological bases.] Moscow, USSR, Vysshaya Shkola, 1970, 200 pp. The book contains a systematic analysis of the theoretical bases of programmed learning, methods of programming and the use of programmed learning in the classroom. The book is intended for teachers and students of pedagogical and psychological faculties of universities and pedagogical institutes. (English summary.) (D. J.)

pedagogical and psychological research. Included are lists of English dissertations from the period 1965-1970 and other published material in the English language. *Journal abstracts*.

9812 Chinnertz, John A. (Indiana U.) The effect of predictability on the value of post-questions in learning from written discourse. *Dissertation Abstracts International*, 1971(May), Vol. 10(1-A), 5818-5819.

9813 Clark, D. Cecil. (U. Washington) Teaching concepts in the classroom: A set of teaching prescriptions derived from experimental research. *Journal of Experimental Psychology*, 1971(Jan), Vol. 81, No. 1, 25-38. Attempted to determine to what extent the large body of experimental research in concept attainment may be used to construct an empirically derived set of prescriptions for teaching various types of classroom concepts. From the results of experimental research in concept attainment over the past 10 yr, students were selected whose independent variables could be identified and placed into the following groups: (a) concept variables, (b) stimulus variables, (c) subject variables, and (d) task variables. Factors in the experimental context which may lower external validity are delineated. 4 examples of conceptual objectives found in the classroom, along with their operational evidence, are presented. A set of 11 statements about concept attainment and a set of teaching prescriptions suggested by these statements are formulated. Research from which each statement was derived, as well as research which failed to support that statement, are cited. (7 p. refs.) *Journal abstracts*.

9814 Costa, Alexander B. (U. Maryland) A study of a treatment designed to improve visual motor efficiency and readiness in kindergarten children. *Dissertation Abstracts International*, 1971(May), Vol. 11(1-A), 5057.

9815 Dwyer, Francis M. (Pennsylvania State U., University Div. of Instructional Services) Effect of questions on visualized instruction. *Journal of Psychology*, 1971(Jul), Vol. 80(2), 181-183. Attempted to measure the effectiveness with which different types of visual illustrations complementing textual material facilitated S achievement of different learning objectives when questions designed to direct S attention to relevant learning cues followed each visual display. 22 college Ss were randomly assigned to 1 of 9 treatment groups. Each S received a pretest, participated in his respective visualized presentation, and received S individual criterion measures. Results indicate that when questions follow textual material and focus S attention on relevant learning cues, visualization of the content material is not an effective instructional technique for facilitating S achievement of all types of learning objectives. *Author abstract*.

9816 Dwyer, Francis M. (Pennsylvania State U., Div. of Instructional Services) Effect of questions on visual learning. *Perceptual & Motor Skills*, 1971(Feb), Vol. 30(1), 51-54. Measured the effectiveness with which different types of visual displays facilitated S's achievement of different learning objectives when these were used to complement oral instruction. 224 undergraduates were Ss. Questions preceded each display and were designed to direct S's attention to relevant learning cues. Each S received a pretest, participated in his respective visualized presentation, and received S individual criterion measures. Analyses indicate that (a) the use of questions to complement the more realistic visuals is not

an effective technique for improving S's achievement and (b) all types of visual displays are not equally effective in facilitating S's achievement of different learning objectives. *Journal abstracts*.

9817 Hill, Richard J. (U. Wisconsin) Computer-assisted effective feedback in small group instruction. *Dissertation Abstracts International*, 1971(May), Vol. 11(1-A), 5846-5847.

9818 Kirkwood, James J. (Purdue U.) A comparative study of advance organizers in a classroom presentation in industrial arts. *Dissertation Abstracts International*, 1971(Apr), Vol. 11(10-A), 5202-5203.

9819 McMillan, William B. (Southern Illinois U.) The effect of monetary reinforcement upon mathematics performances with sixth grade ghetto children in a naturalistic classroom setting. *Dissertation Abstracts International*, 1971(Apr), Vol. 11(10-A), 5206.

9820 Menduni, Enrico. La dinamica del corso programmato nelle sue fasi. [The dynamics of a programmed course in its phases.] *Bollettino di Psicologia Applicata*, 1970, No. 85-87, 125-147. Studied the operative principals of programmed instruction in Italy. Programming is defined as a technique that considers a given problem in all its visible aspects and tries to solve the problem in the most reasonable manner. The phases of programming instruction are studied: (a) work equipment, (b) selection of the course, (c) evaluation of the point of departure, (d) definition of the objectives, (e) definition of contents, (f) selection of the program, (g) construction of the elements, (h) experimentation in evaluation, and (i) final edition. The programmed course should be accompanied by a general introduction defining a programmed course, a specified introduction concerning information about Ss, and a guide for the learner. —A. M. Faraglia.

9821 Nikandrov, N. D. Programirovanie obucheni i idei kibernetiki. [Programmed instruction and cybernetic ideas.] USSR: Nauka, 1970. 92 p. —Describes the effect of cybernetics on the development of new theoretical and practical approaches in human instruction. Most of the ideas were concerned with programmed instruction. Theoretical principles underlying the creation of various programmed instruction methods and of systematically programmed materials were analyzed. Old classical instruction methods, the cybernetic pedagogy, and mathematical psychology are examined. 1. Hines.

9822 Richards, P. N. & Bolton, N. (Bath U. of Technology, School of Education, England) Type of mathematics teaching, mathematical ability and divergent thinking in junior school children. *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 32-37. Administered tests of intelligence, mathematical ability, divergent thinking, and attitudes toward school subjects to a sample of 265 children in their final yr. at 3 junior schools. The 3 groups were matched for social class, intelligence, and time devoted to mathematics teaching. The chief difference between them being that in School C mathematics was taught by a discovery approach and in School B by traditional methods, while in School A the staff aimed to "keep a balance" between the traditional and discovery methods. Factor analysis of the data reveals a large, general factor with high loadings for intelligence, mathematical and divergent ability tasks, and a 2nd factor of divergent thinking, on which a few of the mathematical tests loaded, but then only minimally.

A comparison of the 3 schools shows that, in general, the performance of School C on the mathematics tests was significantly below that of the other 2 schools, although Ss at School C tended to perform well on divergent thinking tests. There were some exceptions to this pattern.—*Journal abstract.*

9823. Sjöberg, Kristina & Tropé, Barbro. (Pedagogical & Psychological Inst., Malmö, Sweden) **The value of external direction and individual discovery in learning situations: The learning of a grammatical rule.** *Scandinavian Journal of Educational Research*, 1969, No. 4, 233-240.—45 pairs matched according to sex, line of study, and intelligence, were selected out of 4 6th grade classes. Group A was told a principle and allowed to practice it on a number of examples. Group B was given the practices only. It was found that Group A learned the principle better, and was also better as to transfer. On a test of retention 5 wk. later there were no longer any differences between the groups. It is suggested that different methods be tested at many levels of the school, since the effectiveness of the methods depends on the general stage of the pupils' development.—*Journal abstract.*

9824. St. Romain, Clyde D. (Syracuse U.) **The effect of sensory orientation on immediate and delayed recall.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5948-5949.

9825. Underwood, Billie J. (U. Arizona) **A program for grapheme discrimination for preschool children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5218.

9826. Vasil'eva, A. O **sisteme i posledovatel'nosti v obuchenii starshikh doshkol'nikov nablyudeniyu.** [On the system and sequence of teaching observation to older preschoolchildren.] *Doshkol'noe Vospitanie*, 1970(Dec), Vol. 43(12), 19-26.—Details a successively structured systematic plan for training older kindergarten children to be observant in order to prepare them psychologically for future attendance in the primary school. The plan was developed from the author's own work and the data of contemporary research on sensory training and on the development of observational powers. I. D. Londer

9827. Virag, Wayne F. (Florida State U.) **The effectiveness of three instructional modes employed to transmit content to students with different aptitude patterns.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5520.

9828. Warren, Thomas F. (U. Wisconsin) **Creative thinking techniques: Four methods of stimulating original ideas in sixth grade students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5863.

9829. Wheelbarger, Johnny J. (U. Virginia) **An investigation of the role of pictorial complexity in visual perception.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5864.

9830. Wiczerkowski, Wilhelm; Alzmann, Orturd, & Charlton, Michael. (Pedagogical Coll., Psychological Seminar, Flensburg, W. Germany) **Die Auswirkung verbesserter Textgestaltung auf Lesbarkeit, Verständlichkeit und Behalten.** [The effects of improved text arrangement and readability values, comprehension and retention.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(4), 257-268.—For testing the readability of a written text, 144 1st-yr high school students were presented with a textbook excerpt on statistical prob-

lems. 2 versions were used, 1 in the original wording, the other with simplified syntax and grouping. It was hypothesized that the modified version would be the simpler one to read in terms of comprehension. Results were highly significant, with a total of 42% of the variance accounted for by text improvement and recall. (English summary)—R. F. Wagner.

9831. Woods, Pat & Hartley, J. R. (Leeds U., England) **Some learning models for arithmetic tasks and their use in computer based learning.** *British Journal of Educational Psychology*, 1971(Feb), Vol. 41(1), 38-48.—Discusses the advantages in having a computer individualize instruction by generating teaching material when it is needed, at a level which suits a pupil's particular competence. This requires valid models of task difficulty. Such models and the experiments to validate them for practice tasks in arithmetic computation are described. Using criteria of probability of success and rate of working for each column of an addition task in vertical format, analyses of variance of experimental data reveal main effects of digit size and number of rows. Following a formal development of the model a least squares analysis derives a function which, for the experimental data, relates those variables to the criteria. These are used by the computer to generate examples so that a pupil works at any specified level of success. Methods of implementation and decision making together with some preliminary results are given. These are extended by describing an experiment with subtraction tasks in which 2 competing models were used to describe the success and working levels of 24 7-yr-old children. These analyses and experiments show the complexity of the decision making which is needed for adaptive teaching and which exploit the computer's capabilities.—*Journal abstract*

PERSONNEL & INDUSTRIAL PSYCHOLOGY

9832. Burš, Z. (Charles U., Inst. of Psychology, Prague, Czechoslovakia) **Metodologické problémy správné formulace úkolů v aplikované psychologii.** [Methodological problems of correct formulation of tasks in applied psychology.] *Psychologie v Ekonomické Práci*, 1969, No. 2, 67-79.—Discusses the cooperative relationship between industrial managers and psychologists. The formulation of the psychological task is considered essential to their mutual relations. The tasks considered essential to their mutual relations are defined as (a) consultation of the industrial psychologist, (b) short-term consultation or short-term specialized reports, (c) short-term analysis, (d) applied research, (e) special basic research, and (f) theoretical research. Various other tasks are considered in view of their complexity, methodology, homogeneity, and psychological theory. Content analysis of individual tasks and their organizational management in industrial programs are discussed. The preparation of applied tasks is emphasized. Instructions for industrial managers in allocating work to industrial psychologists or special psychological institutes are presented (Russian & German summaries). English summary.

9833. DeCoster, Don E. (U. Oregon) **A comparison of interpersonal relationship variables of Northwest public accountants with selected comparison groups.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 5119.

9834. Gursburg, D. Wage Incentives in Australia: II. Operation. *Personnel Practice Bulletin*, 1970(Mar), Vol. 26(1), 10-24.

9835. Gursburg, D. (Dept. of Labour & National Service, Melbourne, Victoria, Australia) Wage Incentives in Australia: I. Extent. *Personnel Practice Bulletin*, 1969(Dec), Vol. 25(4), 2-4, 287.

9836. Hong, M. A. & Craig, J. D. (Dept. of Labour & National Service, Melbourne, Victoria, Australia) Survey of psychological tests as predictors of training and job success. *Personnel Practice Bulletin*, 1970(Dec), Vol. 26(4), 246-252.

9837. Mendirabal Oses, Luis. (Inst. of Political Studies, Youth Inst., Madrid, Spain) Situación de los jóvenes ante el trabajo. Indagación crítica sobre la singular condición del joven, sujeto de derechos y deberes en la relación laboral. [The position of youth in relation to work. Critical investigation on the singular condition of youth as the subject of rights and duties in work relations.] *Revista del Instituto de la Juventud*, 1970(Dec), Vol. 12, 88-106. —Critically evaluates the position of 14-18 yr olds in labor relations in Spain. Suggestions are offered which would benefit the development of the young in the working force and the nation as well. The need to prevent children under 14 yr from working, particularly in rural areas, is stressed. Contracts for apprentices which impose more duties than rights for the minor are studied. A new contract is proposed where the S should be at least 16 yr old. In Spain, where productive expansion is being sought in all sections, it is imperative to be conscious of the problems which confront the young by updating and modifying laws regarding the young in the labor force.—J. M. Farleyman.

VOCATIONAL CHOICE & GUIDANCE

9838. Johnson, James C. (U. Minnesota) Differences in the vocational interests of engineers in research, development, production, and sales functions. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5687.

9839. Lindeman, Robert P. (Oklahoma State U.) A study of selected non-intellectual variables among classes of students in a college of engineering. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5852.

9840. Tucker, Bernice Z. (Temple U.) Feminine sex-role and occupational choice: A study of self and intergroup perceptions of three groups of women. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5783-5784.

SELECTION & PLACEMENT

9841. Ambler, Rosalie K. & Guedry, Fred F. Reliability and validity of the Brief Vestibular Disorientation Test compared under 10-rpm and 15-rpm conditions. *USN AMRL Army-Navy Joint Report*, 1970(Aug), No. 1115, 9 p. Determined if reliability, validity, and augmentation of correlation could be obtained with less disturbance to the S than that caused by the 15-rpm speed of rotation used thus far in the Brief Vestibular Disorientation Test (BVDI). Reduced disturbance and aftereffects are desired because the BVDI is now envisioned as becoming part of the entering flight physical. It is suggested that procedures that might either

minimize performance on the other tests or require retests be used be used to a minimum. The BVDI procedure used here was identical to 2 previous studies except a 15-rpm program was used instead of 15-rpm. Subjects were 150 military aviators who were tested within the 1st 4 weeks of training. Retesting of 72 of the Ss was conducted 1 wk later. The test-retest and rater reliability coefficients were not quite so high as for those who had the 10-rpm procedure, but they were of acceptable magnitude. The validity coefficients were approximately the same as those obtained for 15-rpm, and significant differences of the existing selection battery and BVDI was demonstrated. It is concluded that the 10-rpm BVDI was a feasible procedure. It is also concluded that because the mean score for the 10-rpm group was lower than the mean for either of the 15-rpm groups used previously, S disturbance was reduced.—Author abstract.

9842. Carlson, Robert E., Thayer, Paul W., Maifred, Eugene C., & Peterson, Donald A. (Life Insurance Agency Management Assn., Hartford, Conn.) Improvements in the selection interview. *Personnel Journal*, 1971(Apr), Vol. 50(4), 268-275, 317. Studies of interview programs were conducted by the Life Insurance Agency Management Association for the purpose of improving agency selection interviews. An Agency Selection Kit was developed which shows many promising as an improved interview procedure.—P. L. Connelley.

9843. Michaelis, W. & Eysenck, H. J. (U. London, Inst. of Psychology, England) The determination of personality inventory factor patterns and intercorrelations by changes in real-life motivation. *Journal of General Psychology*, 1971(Jun), Vol. 118(2), 223-234. —A personality inventory containing scales for Neuroticism (N), Extraversion (E), Psychoticism (P), and Lie (L) was administered to 339 applicants for a much sought-after training course for industrial apprentices (high-motivation group) as part of the selection test and to 225 similar apprentices already accepted (low-motivation group). The high-motivation group had higher scores on the I scale, and lower scores on the N and P scales, as predicted. Factor analyses of the intercorrelations between the items showed that similar factors (N, E, P, and L) emerged from both groups but that the I scale accounted for more of the variance in the high-motivation group, while the personality scales accounted for more of the variance in the low-motivation group. Motivation increased the correlation (negative) between I and N, and the data suggest that the I scale might with advantage be used as an empirical correction device particularly in employment and selection situations. (21 ref.)—Author abstract.

9844. Raubenheimer, I. & Tiffin, Joseph. (U. South Africa, Pretoria) Personnel selection and the prediction of error. *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 229-233. Summarizes a few trends in current personnel selection research and presents the rationale for a prediction model, taking advantage of the concept of under- and overpredictability. A noncognitive predictor of predictability was developed, using 224 male and female clerical workers, and used to subgroup a cross-validation sample of 110 Ss into underpredictables, accurately predictables, and overpredictables. Product-moment correlations between the unweighted sum of 6 cognitive predictors (subtests on the Purdue Clerical Adaptability Test) and a criterion measure of overall job

performance were .26, .48, and .40 for the 3 subgroups, respectively. This compared favorably with a correlation of .25 before subgrouping and .34 for the 6 cognitive predictors and 2 noncognitive predictor scales (used to develop the predictor of predictability). (15 ref.)—*Journal abstract.*

9845. Sharf, James C. (U. Tennessee) **Decision making in the employment interview.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5688.

9846. Tripathi, R. B. (Gorakhpur U., T.D. Coll., Jaunpur, India) **A sociometric study for the selection of section commander in "SICP" cadets.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 104-106. —Measured the relationship between sociometrically derived magnitudes of popularity and order of rankings given by an officer to a group of 21 cadet police officers for possible commandership. The obtained relationship was high and significant. Sociometric preference was related to examination marks of cadets. Age of Ss was not related to sociometric indexes. —K. C. Panda.

9847. Valenzi, Enzo R. (Bowling Green State U.) **Configural cue-utilization in human decision making.** *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5689.

TRAINING

9848. Campbell, John P. (U. Minnesota) **Personnel training and development.** *Annual Review of Psychology*, 1971, Vol. 22, 565-602.—Discusses (a) theoretical and conceptual issues relevant to the training and development problem, (b) recent developments in training techniques, and (c) the evaluation problem. Review of the literature is organized around the following topics: (a) models, theories, and the training problem; (b) new developments in technique; (c) evaluation methodology; and (d) empirical research (management development, training the disadvantaged, programmed and computer assisted instruction, and other research areas). (213 ref.)—P. Hertzberg.

9849. Owens, A. G. **A note on the relation of intelligence and education to graduation at OTU.** *Australian Military Forces Research Report*, 1970(Jul), No. 5-70, 6 p.—Examined graduation rate of 1,133 Officer Training Unit entrants in relation to intelligence and educational attainment. It was found that relation of graduation to intelligence was curvilinear, dropping off at the upper and lower ends of the ability spectrum. Possession of a degree enhanced graduation prospects, particularly at the lower intelligence levels but had little bearing at the highest level. Possession of a diploma at the highest intelligence level was associated with the diminished graduation rate. An explanation of the latter is offered involving categorization of Ss into under- and overachievers.—*Journal abstract.*

9850. Wilterding, Jim A. (Texas Tech U.) **Intelligence as a variable affecting attitude change in management development courses.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 4977-4978.

TASK & WORK ANALYSIS

9851. Aume, Nilss M. **Estimation of target locations with conventional measurement units.** *USAF AMRL Technical Report*, 1969(Sep), No. 69-21, 33 p.—Studied human ability to estimate lateral distances

from an identified point in 3 experiments, 2 carried out indoors on table-top visual ranges, and 1 conducted outdoors on a landing field. Reference markers were placed on these ranges. Ss pointed a simple aiming device at various points which they estimated to be a required distance (specified by the E) laterally away from the reference markers. The major conclusions are (a) lateral distance estimates are inaccurate, responses range from 25-500% of the required distances, (b) certain factors influence performance, i.e., the magnitude of the response tends to be proportional to the required distance, feedback reduces variability, and background features have varied influences, and (c) estimation of distances in terms of ratios to given reference distances should be studied, because there appears to be a potential for improvements. *Journal abstract.*

9852. Grandjean, E. (Swiss Federal Inst of Technology, Inst. for Industrial Hygiene & Work Physiology, Zurich) **Fitting the task to the man: An ergonomic approach.** London, England: Taylor & Francis, 1969. 161 p. £4.10.

9853. Mead, Donald F. & Christal, Raymond E. **Development of a constant standard weight equation for evaluating job difficulty.** *USAF AFHRI Technical Report*, 1970(Nov), No. 70-44, 11 p. Describes the development of a multiple regression equation which captured the job difficulty evaluation policy of accounting and finance supervisors. The equation yielded predicted difficulty values for 250 jobs which correlated .95 with the supervisory rankings. Results validate the findings of 2 previous job difficulty studies using jobs from the Vehicle Maintenance and Medical Materiel Career Ladders. A constant standard weight equation was developed which reflected the job evaluation policy of supervisors from the 3 diverse career fields. Applying this equation to the appropriate predictor data from the 3 studies yielded valid difficulty measures for 750 jobs within the 3 career ladders tested. *Journal abstract.*

9854. Turner, Ronald E. (Northwestern U.) **Perceptual dimensions of salesmen: A multi-dimensional analysis of call-allocating and sales-response behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 4974-4975.

PERFORMANCE & JOB SATISFACTION

9855. Cameron, C. G. **Job satisfaction of employees in a light engineering firm: A case study.** *Personnel Practice Bulletin*, 1970(Mar), Vol. 26(1), 34-41.

9856. Cannon, Martin J. (Maryland) **Sources of referral and employee turnover.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 226-228.—Compared 7 methods or sources that are used to obtain new workers in terms of their influence on employee turnover. 4 sources are shown to be predictors of stable employment: (a) the reemployment of former workers who left but now desire to return, (b) the hiring of individuals referred by their high schools, (c) the hiring of individuals referred by present employees, and (d) others (primarily walk ins). 3 sources associated with high employee turnover are: (a) the utilization of hiring agencies other than the major one under contract with the firm, (b) newspaper advertising, and (c) the use of the major hiring agency. *Journal abstract.*

9857. Gruzina, Milica & Štajnberger, Ivan. **Komparativna analiza stavova radnika prema**

Integraciji. [Comparative analysis of the workers' attitudes to fusion of enterprises] *Psichologija*, 1969, 1970(Oct), Vol. 3(1), 111-121. Compared 760 workers' attitudes to fusions in 3 metal-processing companies. Emphasis was placed on the following: (a) workers' attitudes to fusions as a socioeconomic phenomenon, (b) attitudes to the fusions in which the given companies were about to take part; and (c) the workers' estimate of, and satisfaction with, the existing situation in the company. Results show that the workers' attitudes are positive both to fusion in general and to fusion in which each respective company was to take part. However, a tendency was noted for workers from companies of different strength to react to the fusion differently. Weaker companies were quicker to decide in favor of the fusion. There was a resistance in companies of sounder economic standing to fusion with weaker companies. It was also demonstrated that, in the opinion of the workers, there are certain groups which most frequently resist fusion. Workers were dissatisfied with the management, organization, and incomes in their companies, and probably expected the new company, following the fusion, to be managed more adequately and that incomes would be higher. Consequently, a large percentage of the workers were in favor of the fusion. (Russian summary) — *English summary*.

9858. **Hackman, J. Richard & Lawler, Edward E.** (Yale U.) **Employee reactions to job characteristics.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 259-286. Developed and tested a conceptual framework specifying the conditions under which jobs will facilitate the development of internal motivation for effective performance. Ss were 62 supervisors and 208 telephone company employees who worked on 13 different jobs. Primary independent variables were (a) a measure of strength of desire for the satisfaction of higher order needs (e.g., obtaining feelings of accomplishment, personal growth); and (b) descriptions of jobs on 4 core dimensions (variety, autonomy, task identity, feedback). It was predicted and found that when jobs are high on the 4 core dimensions, employees who are desirous of higher order need satisfaction tend to have high motivation, have high job satisfaction, be absent from work infrequently, and be rated by supervisors as doing high quality work. A number of supplementary analyses are reported. (48 ref.)—*Journal abstract*.

9859. **Hrnjica, Sulejman.** **Uticaj nekih tipova zadovoljstva (sobom, staršinom i kolektivom) na stav prema armiji.** [Influence of certain types of satisfaction (with oneself, with the direct superior, and with the given collectivity) on the attitude to the army.] *Psichologija*, 1969-1970(Oct), Vol. 3(1), 15-24. —Verified the supposition that there exists a significant influence of various types of dissatisfaction on social attitudes, irrespective of the possible connection between the source of dissatisfaction and the object toward which an attitude is formed. 355 cadets of the Yugoslav People's Army Reserve Officers Academy, all college graduates, were Ss. Their attitude to the Army was measured by a Likert-type scale. Satisfaction with oneself, one's superior, and the collectivity was estimated by answers given to a standardized questionnaire. This was followed by an estimate of the satisfaction as a whole, for each type. The individual combination of satisfactions served as the criterion for the placing of Ss into groups. Differences between the groups were established on the basis of the scores obtained by means of the scale for measuring the

degree of positiveness of the attitude to the army. Results show that there is a significant influence of various types of satisfaction on the degree of positiveness of the attitude to the army, so that the supposition of the influence of various types of satisfaction on social attitudes was confirmed. Satisfaction with one's superior had the most marked influence on the degree of positiveness of the investigated attitude. Certain forms of satisfaction with oneself were believed to influence the degree of positiveness of the attitude in question. It is shown that satisfaction with the collectivity was not without influence on the degree of positiveness of the attitude to the army, but its influence was on the border of statistical significance. (Russian summary)—*English summary*.

9860. **Huber, George P., Daneshgar, Rahman, & Ford, David L.** (U. Wisconsin, Social Systems Research Center.) **An empirical comparison of five utility models for predicting job preferences.** *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 267-282. —Studied the validity of several utility models as predictors of job choices and job ratings. Ss were 4 experienced and 15 inexperienced persons seeking professional employment in the public schools. The utility models differed in form and in scaling methods used in their construction. Job choices were used to determine and compare the validity of the models. With respect to the validity as predictors of job choices, it appeared that a 2-stage rating model was generally superior. Job ratings were also used to determine the validity of the models and to test several hypotheses concerning their validity relative to one another. (18 ref.)—*Journal abstract*.

9861. **Hulin, Charles L. & Waters, L. K.** (U. Illinois.) **Regression analysis of three variations of the two-factor theory of job satisfaction.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 21-27. —Tested 3 distinct variations of the 2-factor theory by reanalyzing data previously published by L. Waters and C. Waters (see PA, Vol. 44:1432). No support for any of these 3 frequently assumed versions was found. Results of this and several prior studies are explained by assuming the existence of 2 main effects: (a) intrinsic job factors are generally more potent for predicting overall job attitudes, and (b) overall job satisfaction is more predictable than overall job dissatisfaction. Neither effect requires the assumptions of the discontinuity of satisfaction and dissatisfaction or the assumptions of dimensional differences between intrinsic and extrinsic job factors.—*Journal abstract*.

9862. **Korman, Abraham K.** (New York U., Ed.) **Expectancies as determinants of performance.** *Journal of Applied Psychology*, 1971(Jun), Vol. 55(3), 219-222. —Reports 5 studies which support the general proposition that high expectancies of competence in others are positively related to performance. 2 of the studies involved laboratory research with 300 under graduates where the expectancies emanated from peers. The other 3 involved field research with 87 employees. The different types of working situations where the expectancies were those of organizational leadership vis-à-vis subordinate performance. Intelligence and environmental variables were not moderators of the obtained relationship.—*Journal abstract*.

9863. **Malotinová, M.** (Charles U., Inst. of Psychology, Prague, Czechoslovakia) **Posuzovací škály zakotvené v příkladech očekávaného chování.** [Rating

power and subordinate job satisfactions. *Canadian Journal of Behavioural Science*, 1971(Apr), Vol. 3(2), 183-193.—Related 5 bases of supervisory power (coercive, expert, legitimate, referent, and reward) proposed by J. R. French and B. Raven to a survey of subordinate satisfaction (a) company, (b) job, (c) supervisor, and (d) climate for growth in performance, learning, and (e) climate for growth in day-to-day interaction with supervisor. 58 were 523 employees of a large public utility company who answered a questionnaire survey. Expert power was the most common, followed by legitimate, coercive, referent, and reward. Generally, referent and expert powers were associated with greater satisfaction, legitimate power was intermediate, reward and coercive powers were associated with least satisfaction. The 2 clearest reversals were meaningful when the unique aspects of satisfaction were considered. Also, the most (and least) effective bases of power were perceived as being used together. Comparison with other published research reveals few population differences in prevalence of various types of power. (French summary.)—*Journal abstract*

9875 Campbell, John J., Dunnette, Marvin D., Lawler, Edward E., & Weick, Karl E. (Eds.). *Managerial behavior, performance, and effectiveness*. New York, N.Y.: McGraw-Hill, 1970. xiv, 546 p. \$12.50

9876 DeVries, David L., & Jahromsky, Stephen F. (Johns Hopkins U.). *Applying operant conditioning principles to the management of organizations*. *Center for Social Organization of Schools, Report, Johns Hopkins U.*, 1971(May), No. 102, 28 p.—Expands W. Nerd's predictive model of individual behavior based on both operant conditioning and management literatures. The behavior of an organizational member is seen as a function of the reinforcement contingencies applied by various groups in his environment and of his cognitive assessment of such contingencies. Several characteristics of reinforcement contingencies are examined, e.g., positive vs. negative reinforcement, schedules of reinforcement, and immediacy of reinforcement. It is suggested that the model may provide a potentially useful schema for classifying environmental contingencies operating on a member of an organization and for predicting their varied effects on behavior. (28 ref.)—*Journal abstract*

9877 Fink, Stephen L., Beak, Joel, & Tadden, Kenneth. (U. New Hampshire, Whittemore School of Business & Economics). *Organizational crisis and change*. *Journal of Applied Behavioral Science*, 1971(Jan), Vol. 7(1), 15-41.—4 stages of a model of human adaptation to crisis—shock, defensive retreat, acknowledgement, and adaptation and change—are extended to explain organizational behavior under crisis. Known concepts of individual, group, and organizational behavior are related to the model and implications for organizational consultants are discussed. A comment by L. Solomon and N. Paris follows. (D. Jewell)

9878 Glover, George M. (U. Georgia). *An assessment of the organizational climate of a technical, scientific, and research organization*. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 5844

9879 Gray, Jerry L. (U. South Carolina). *Interpersonal relations orientation and its relationship to discipline style attitudes*. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-A), 4962

9880 Greese, Richard M. *The management game:*

How to win with people. Homewood, I. Jones-Irwin, 1969. ix, 281 p. \$6.95.

9881 Hundert, Alan T. (Cornell U.). *Psychological differentiation and rating behavior in a large organization*. *Dissertation Abstracts International*, 1971(Mar), Vol. 31(9-B), 5686-5687.

9882 Schultz, Andrew F. (U. Illinois, Coll. of Business Administration, Chicago Circle). *Values and work systems: importance and relationship to management and organizational behavior*. *Journal of Psychology*, 1971(Jul), Vol. 8(2), 277-286.—Reports the value analysis approach to explain motivated behavior. It is argued that the value theory approach to behavior is more equally or more insightful than the more popular theories which are either conceptually too narrow. In addition, an explanation is provided of how value analysis can be used to study not only individual behavior, but group and organizational behavior as well. Increased recognition of the applications of value theory will be forthcoming. The value research which has been enhanced by the development of new value measuring devices. (ref.)—*Author abstract*

9883 Taylor, James C. (U. Michigan, Inst. for Social Research). *An empirical examination of a four-factor theory of leadership using smallest space analysis*. *Organizational Behavior & Human Performance*, 1971(May), Vol. 6(3), 249-266.—Studied the integrative 4-factor theory of leadership proposed by G. Bowers and S. I. Seashore (see PA, Vol. 41, 873, 1970) in the empirical clustering of variables type used to measure the factors. 13 supervisory type questionnaire variables and 11 work group leader variables were examined for geometric proximity clustering using smallest space analysis. Data obtained from 3 industrial organizations, a petroleum refinery, insurance company, and a plastics producer (n = 99, and 54) are examined separately, with the refined data reviewed in considerable detail. Results suggest that the 4 factors originally postulated exist as separate, measurable entities with slight exceptions. Some modifications of the original factors seem necessary based on consistent differences across the 3 sites examined. Several differences among the sites are noted.—*Journal abstract*

9884 Wager, L. Wesley. (U. Washington). *The expansion of organizational authority and conditions affecting its denial*. *Sociometry*, 1971(Mar), Vol. 34(1), 91-113.—Investigated the opposition organizational actors experience from diverse occupational status groups when they attempt to expand their accepted sphere of influence into nonwork spheres, the context of potential corporate infringement. The relative importance of 5 variables were studied: (a) type of the appeal, (b) channel of communication, (c) status behavior requested, (d) company stand, and (e) status group. Utilizing hypothetical situations for 2 different types of voting-related issues, the reactions of 760 blue collar, white collar, engineering, and managerial employees were assessed. While status differentiated employees responded similarly, the magnitude of opposition and latent protest ranged from 10-90% depending upon which mode of expanding authority was employed. Contrasting states of the form of appeal and channel of communication generated the greatest change in opposition to the authority expansion attempts. (23 ref.)—*Journal abstract*

9885. Yien, Shan-Pang. (Michigan State U.) Employee participation on organizational decision making and acceptance of planned change. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-A), 6166.

SPECIAL ENVIRONMENTS

9886. Smith, Paul F., Howard, Robert; Harris, Martin, & Waterman, Day. Underwater hearing in man: II. A comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater. *U.S. Naval Submarine Medical Center Report*, 1970(Jan), No. 608, 4 p.—Explored the upper limits of useful hearing by underwater swimmers. 6 men were subjected to 3,500 Hz. pure tones of 1250-msec pulse length repeated every 2.5 sec. for a 15-min period at SPLs of 168 and 178 db. re .0002 dynes/square cm. Temporary threshold shifts were measured and compared to temporary threshold shifts induced by similar exposures at lower levels in air in a 2nd group of 5 men. It was found that the SPL of 3500 Hz. tones in water must be about 68 db. higher than tones in air in order to induce comparable magnitudes of temporary threshold shifts.—*Journal abstract*.

ADVERTISING & CONSUMER PSYCHOLOGY

9887. Bennett, Peter D. & Mandell, Robert M. (Pennsylvania State U.) Prepurchase information seeking behavior of new car purchasers: The learning hypothesis. *Journal of Marketing Research*, 1969(Nov), Vol. 6(4), 430-433.—146 car purchase case histories were analyzed according to sources of information and information seeking as a function of number of prior purchases, number of prior purchases of brand just purchased, and number of sequential prior purchases of brand just purchased. 2 hypotheses were supported—"as the total number of reinforced purchases of a brand increases... as the number of sequential reinforced purchases increases" the amount of information seeking will decrease before purchase of that brand. J. C. Franklin.

9888. Bither, Stewart W., Dolich, Ira J., & Nell, Elaine B. (Pennsylvania State U.) The application of attitude immunization techniques in marketing. *Journal of Marketing Research*, 1971(Feb), Vol. 8(1), 56-61. Student attitude changes on a controversial issue were measured as subject to immunization, source, and attack experimental conditions. Some commercial application is inferred from the findings but the conclusions "must be labeled as tentative."—J. C. Franklin.

9889. Blake, Brian; Perloff, Robert, & Heslin, Richard. (St. John's U., Jamaica, N.Y.) Dogmatism and acceptance of new products. *Journal of Marketing Research*, 1970(Nov), Vol. 7(4), 483-486.—Male college students' experimental reactions indicate that "consumers' tolerance for ambiguity may be negatively related to acceptance of novel products, but may be unrelated to the acceptance of recent products" and "it may mediate the relationship between consumer innovation and the presence of a group norm prescribing new product acceptance; such a norm may be more effective for a sample of high-recency products than a sample of high-novelty ones."—J. C. Franklin.

9890. Britt, Stuart H. (Ed.) (Northwestern U. Graduate School of Management) *Psychological ex-*

periments in consumer behavior. New York, N.Y.: John Wiley, 1970. xv, 416 p. \$6.95 (paper).

9891. Cohen, Joel B. & Goldberg, Marvin E. (Illinois) The dissonance model in post-decision product evaluation. *Journal of Marketing Research*, 1970(Aug), Vol. 7(3), 315-321. "Decision, immediate post-decision, non-consumption and postconsumption" measurements were made in an experiment involving instant coffee and college students. It was found that the "amount of dissonance was an important source of influence only as it interacted with brand selected" thus "leading to the belief that differential prior information... must be taken into account in predicting the kind of cognitive reevaluation that will take place."—J. C. Franklin.

9892. Fry, Joseph N. & Siller, Frederick H. (Western Ontario, London, Canada) A comparison of housewife decision making in two social classes. *Journal of Marketing Research*, 1970(Aug), Vol. 7(3), 333-337. "Comparison of the search, brand preferred and deal sensitivity measures for the 2 social classes (working and middle) revealed a fairly high degree of similarity in observed behavior in the shopping simulation. However, differences found between the class groups in the sign and/or magnitude of variables related to observed behavior imply variation by social class in the nature of the decision-making process."—J. C. Franklin.

9893. Green, Paul E. & Rao, Vithala R. (Pennsylvania) Multidimensional scaling and individual differences. *Journal of Marketing Research*, 1971(1st), Vol. 8(1), 71-77. Using "synthetic data analysis" the performance of 5 different methods are compared for scaling averaged dissimilarities data under conditions involving individual differences in "perception." All methods perform well when no "degradation" of the (simulated) ratings is entailed. J. C. Franklin.

9894. Hamm, B. Curtis & Cundiff, Edward W. (Oklahoma State U.) Self-actualization and product perception. *Journal of Marketing Research*, 1969(Nov), Vol. 6(4), 470-472. Through the use of sorts, certain relationships between measurements of self-actualization and perceptions of products were found. These are reported and discussed. J. C. Franklin.

9895. Hawkins, Del. (Southern Illinois U.) The effects of subliminal stimulation on drive level and brand preference. *Journal of Marketing Research*, 1970(Aug), Vol. 7(3), 322-326. Reviewed the concepts associated with subliminal research, and tested a theoretical explanation of subliminal effects. "Basic drive arousal was predicted and achieved but attempts to form subliminal associations with behavioral consequences proved futile."—J. C. Franklin.

9896. Kollat, David I., Engel, James F., & Blackwell, Roger D. (Ohio State U.) Current problems in consumer behavior research. *Journal of Marketing Research*, 1970(Aug), Vol. 7(3), 327-332. Discusses problems "attributable to the complexity and inflexibility of consumer research." If they are "resolved or even some significant progress toward their solution is made, a significant stride will be taken toward the development of a consumer research tradition."—J. C. Franklin.

9897. Mittelstaedt, Robert. (U. Missouri) A dissonance approach to repeat purchasing behavior. *Journal of Marketing Research*, 1969(Nov), Vol. 6(4), 444-446. In a laboratory study of swim suit choices by male business school students, choice decisions tended to

be made in accordance with the view that "brand loyalty is a function of the dissonance experienced at time of purchase." *J. C. Franklin*

9898. Sparks, David L. & Tucker, W. T. (U. Richmond) **A multivariate analysis of personality and product use.** *Journal of Marketing Research*, 1971 (Feb), Vol. 8(1), 67-70. The results of correlational, then canonical analyses of personality traits and product-use data show that the "association of identical personality traits (within different sets of personality traits) with diverse consumer behavior suggests that trait interactions or non-linear relationships may compose a significant portion of the personality-behavior relation." Moreover, "the apparent lack of correlation among product-use patterns suggested by factor analysis... leads to the conclusion that a general model applicable to all consumer behavior would prove extremely complex." *J. C. Franklin*

ENGINEERING PSYCHOLOGY

9899. Howell, William C. & Goldstein, Irwin L. (Rice U.) **Engineering psychology: Current perspectives in research.** New York, N.Y.: Appleton-Century-Crofts, 1971, xiv, 648 p.

Displays & Controls

DRIVING & SAFETY

9900. Ceașu, Valeriu & Cristescu, Constantin. **Utility of the EEG investigation as a means of assessing psychological traits in drivers of vehicles.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(2), 163-179. In a correlational study, the

frequency, incidence, amplitude, and arrest rate of EEG alpha rhythm were related to indices of speed-accuracy on a number of psychological tests in a sample of 100 college-age student drivers. Significant negative correlations were found between alpha rhythm and speed of mathematical calculation, latency of association, and motor RT to optical and auditory stimuli. Relations between alpha rhythm and decision processes identified 2 driver types: slow and high quality decision makers and fast tempo-risk takers (25 ref.).—*C. Mayo*

9901. Fruchter, Dorothy A. (U. Texas) **The completion test as a learning device for driver-renewal applicants.** *Dissertation Abstracts International*, 1971 (May), Vol. 31(11-A), 5842.

9902. Hill, Paul F. **Contributions to the history of psychology: XI. Alvah R. Lauer: 1896-1967.** *Psychological & Motor Skills*, 1970 (Feb), Vol. 30(1), 31. —Reports 4 decades of dedicated research by A. R. Lauer which provides insight into new techniques, methods, and procedures in determining qualifications and the training required for safe motor vehicle drivers.—*Journal abstract*

9903. Milošević, Staniša. **Studija distribucije saobraćajnih nezgoda.** [Study of the distribution of traffic accidents.] *Psihologija*, 1969-1970 (Oct), Vol. 3, 103-110.—Evaluated several hypotheses attempting to explain the occurrence of traffic accidents by a statistical analysis of the distribution of traffic accidents in a sample of 518 bus and trolleybus drivers were involved during a 1-yr period. The distribution was compared with Poisson's, the negative-binomial, the long, and the short distributions. The observed distribution closely resembled theoretical distributions, with the exception of Poisson's. With no reference to the results of this study, the accident-proneness and the Spell hypotheses were briefly evaluated. (Russian summary)—*English summary*

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- Social Deprivation** (SEE Childhood/Disadvantaged, Socioeconomic Status)
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- Social Distance** (SEE Isolation, Social Approval)
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- Social Movements**
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10—Abstract source.

BOOK ENTRY

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4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.) (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol 45: (5c) Issue 1) (6) 17-47.

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ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement: g, kg, L, mL, mm, cm, m, s, min, h, d, wk, mo, yr.

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
c = cents
CA = chronological age
cc = cubic centimeter
C(R = conditioned emotional response
CHF = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

- db, =decibel
- DC =direct current
- DL =differential limen
- DNA =deoxyribonucleic acid
- DRL =differential reinforcement of low rates

F = experimenter
ICS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

f.	= Fahrenheit
ft.-c.	= footcandle
ft.-l.	= foot-lambert

R = gravity
gm = gram(s)
CPA = grade-point average
GSR = galvanic skin response

Hz, = 1 Hertz

IC S	=intracranial stimulation
in	=intramuscularly
ip	=intraperitoneally
IQ(s)	=intelligence quotient(s)
II	=intertrial interval
iv	=intravenously

kc. = kilocycle
 kg. = kilogram
 kg./m = kilogram per meter
 kHz. = kilo-Hertz

LD = lethal dose
LSD = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma, MA = milliamperes
MAO = mental age
ml. = monooxygenase
mm. = millilambert
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NRLEM = nonrapid eye movement

0 = observer

p = probability

PM postmaster
pps postpaid
PR1 printer's register
PSI postscript
psi postscript

r	product moment correlation
r	recovery
RIM	rapidly reversible inhibition
rms	root mean square
RNA	ribonucleic acid
rpm	revolutions per minute
RT	reverse transcription

S - subject
SUT - subject's utterance
SP, - second pressure case

TV — television

CCR	Carbon content (%)
CS	Carbon (%)
GP	Graphite (%)

V volt
VIII = versus (before) or
vs. versus

YMCA - Youth Movement
YMCA - Youth Movement

Test abbreviations are: abt

[illegible]

Abstracts of the ...

Assoc.	_____
Assoc.	_____
Co.	_____
Coll.	_____
Corp.	_____
Dept.	_____
Div.	_____
Inst.	_____
Prop.	_____
Pub.	_____
Univ.	_____
U.	_____
Ave.	_____
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Bldg.	_____
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Mt.	_____
Plaza.	_____
Pl.	_____
PO.	_____
Rd.	_____
St.	_____
N. S. E. W.	_____
S.	_____

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DRL = differential reinforcement of low rates
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IMC = _____
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ip = intraperitoneally
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ITI = intertrial interval
iv = intravenously
kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz
LD = lethal dose
LSD = lysergic acid diethylamide
m. = meter
M = mean
M = mole or molar
ma. = milliampere
MA = mental age
MAO = monoamine oxidase
mL = millilambert
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)
N = number
NREM = nonrapid eye movement
O = observer
p = probability
% = percent

PM = post meridiem
pps = pulses per second
psd = _____
pt. = point of subjective equality
pμ = pounds per sq. in.
r = product-moment correlation
r = twenty
RTM = rapid eye movement
rm = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time
S = subject
SEM = _____
TV = television
UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency
V = volt
VHI = _____
V = _____

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California I Scale (I-thiocentrum)
California I Scale (I-ascent)
CMA scale = Children's Manifest Anxiety scale
CMI = California Intellectual Inventory
CTMM = California Test of Mental Maturity
EPIS = Edwards Personal Preference Schedule
MA = Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MMI = Minnesota Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university
Ave. = avenue
Bldg. = building
Blvd. = boulevard
Ct. = court
Dr. = drive
Fr. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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ERRATA

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PA, Vol. 45:2230: Dealing with ministers' defenses.

PA, Vol. 45:2623: Comparing the classification of subjects by two independent judges.

PA, Vol. 45:3007: Developmental group counseling: An outcome study.

PA, Vol. 45:3359: Auditory pattern perception: Processing limits and organization tendencies.

PA, Vol. 45:6612: Aspects of alcoholics' self-concepts as measured by the Tennessee Self-Concept Scale.

PA, Vol. 45:6620: Completed suicide and month of birth.

PA, Vol. 45:8025: The healing community: Church and mental hospital.

PA, Vol. 45:8161: Diffusions of innovation research bibliography: Supplement.

PA, Vol. 45:8684: The principle of normalization and its implications to psychiatric services.

PA, Vol. 45:10562: Self-destructive behavior of uncooperative diabetics.

The following corrections refer to journal information which was omitted or listed incorrectly. The correct entry follows each abstract number.

PA, Vol. 46:3273: Vol. 31(7-A).

PA, Vol. 46:4290: (See PA, Vol. 46:Issue 3).

PA, Vol. 46:4952: *Journal of Personality & Social Psychology*.

PA, Vol. 46:5355: *Training School Bulletin*.

PA, Vol. 46:5435: *Center for the Study of Social Organization of Schools Report, Johns Hopkins U.*

PA, Vol. 46:5453: Vol. 63(9).

PA, Vol. 46:6386: Vol. 2.

PA, Vol. 46:6548: *Dissertation Abstracts International*.

PA, Vol. 46:6690: 1970(Nov), Vol. 6(4), 326-331.

PA, Vol. 46:7042: *Journal of Clinical Pharmacology & New Drugs*.

PA, Vol. 46:8279: *Physiology & Behavior*.

PA, Vol. 46:8342: Vol. 172(3983).

PA, Vol. 46:8380: Vol. 172(3985).

PA, Vol. 46:8899: Vol. 33(4).

PA, Vol. 46:9061: Vol. 7(6).

PA, Vol. 46:9181: *Bulletin de Psychologie*.

GENERAL

OBITUARIES

9904. Miyamoto, Misako. (Japan Women's U., Tokyo) **Professor Abraham H. Maslow (1908-1970).** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 120.—Presents a tribute to A. H. Maslow whose unique contribution to psychology lay in his concern with healthy people and "the

new cognition of growth motivation." He called his view "humanistic psychology" and contrasted it with neo-behaviorism and neo-Freudianism. He was interested in Zen and Taoistic knowledge and had a deep insight into them.—R. D. Nance.

HISTORY

9905. Hall, Elizabeth. "Absolute ozer": A sketch of Kurt Lewin. *Psychology Today*, 1971(May), Vol. 4(12), 72.—Describes the professional life and continuing impact of Kurt Lewin.—E. J. Posavac.

9906. Holmes, John H. Three evils of present-day psychology. *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 19-24. Condenses a 1930 sermon in which are noted a materialistic trend neglecting spiritual elements which comprise the substance of personality, overemphasis on self-centeredness, and lack of social concern.—A. R. Howard.

9907. Meuris, Georges. (U. Louvain, Lab. of Experimental Pedagogy, Belgium) Jan-Amos Komensky-Comenius (1592-1670), *pédagogue d'aujourd'hui*. [Jan Amos Kohmensky-Comenius (1592-1670) modern educator.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 67-75.—The actual significance of J. A. Kohmensky-Comenius, as both a thinker and a pedagogue, is becoming ever more evident. From a pedagogical viewpoint Comenius is renowned in connection with principles held by contemporary pedagogues and which founded his reputation as a pioneer of educational organization, active methods, intuition and popularization of learning. From a philosophical and political viewpoint, Comenius is regarded as a forerunner of modern ideas: the promotion of harmony and cooperation among peoples through sciences, culture, and philosophical tolerance. (Flemish summary) (21 ref.)—English summary.

PHILOSOPHY

9908. Anzai, Jiro. (Ed.) (Otemongakun I. Osaka, Japan) Two cases of Zen awakening (Kensho) experiences: I. Master Shibayama's case. *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 140-144. —San-zen means the Zen disciple's diurnal visits to the Zen master to present him the novice's response obtained through meditation. The novice "casts his real image in the mirror of the master's." Essentially everyone undergoes the same sort of experiences. The author reports some of his own. He stresses the importance of the "after-awakening phase" in the Zenist's life. If Zen's ideals have not been fully realized, it should be practiced constantly.—R. D. Nance

9909. Downing, George D. (Yale U.) Freud's concept of unconscious mind. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6658

9910. Feibleman, James K. **An introduction to the philosophy of Charles S. Peirce: Interpreted as a system.** Cambridge Mass. Massachusetts Inst of Technology Press, 1970. xiv, 503 p. \$12.50 (cloth), \$2.95 (paper).

9911. Feibleman, James K. **Psychology.** In J. K. Feibleman "An introduction to the philosophy of Charles S. Peirce: Interpreted as a system" (See PA, Vol. 46: Issue 6) 215-273.

PARAPSYCHOLOGY

9912. Beloff, John & Bate, David. **An attempt to replicate the Schmidt findings.** *Journal of the Society for Psychical Research*, 1971(Mar), Vol. 46(4), 21-31. Creating 4 test conditions: direct or precognitive guessing with immediate or delayed feedback; an electric machine randomly selected a "target" which the Ss would guess, either before machine selection (testing precognitive guessing) or after (testing clairvoyant, telepathic). Feedback could be present or withheld. Although none of the results reached significance, failing to provide evidence of ESP, this is not believed to detract from H. Schmidt's (see PA, Vol. 44:4322 and 4466) successes. The delayed feedback condition did produce superior results though not significant. This is viewed as consistent with J. B. Rhine's view that immediate feedback tends to disrupt unconscious processes on which ESP would seem to depend.—G. J. Frankel.

9913. Levy, Walter J., Mayo, L. Allen, André, Eve, & McKee, Anita. (Medical Coll of Georgia, Augusta) **Precognition experiments with mice: Repetition of the French.** *Journal of Parapsychology*, 1971(Mar), Vol. 35(1), 1-17. Replicated the work of P. Duval and I. Montredon (see PA, Vol. 43:13484) in 6 exploratory precognition tests with 14 Swiss Webster mice and 9 jirds. Ss were tested on their ability to use their psi to avoid jumping onto the side of the cage which would be electrified in forthcoming S-see trials. Out of 1,154 random-behavior trials, Ss made a hit (avoided shock) 612 times ($p < .05$). Since the apparatus monitored Ss' positions at all times in the cage, it was possible to reanalyze the data for evidence of psi in behavior patterns. It was found that (a) Ss significantly avoided shocks after a nonshock trial ($p < .015$), (b) the number of hits after shock trials was not significant, (c) trials following a period of low activity (fewer than 3 jumps back and forth during the ITI) were significant ($p = .015$); and (d) trials following 3 or more jumps were not significant. When both successful conditions (nonshock and low activity) were combined, separation was significant at the .006 level. Possible E effects in the experiments are discussed.—*Journal abstract*.

9914. Lichtenstein, Parker E. (Denison U.) **A behavioral approach to "phenomenological data."** *Psychological Record*, 1971(Win), Vol. 21(1), 1-16. Assesses the importance of the recent resurgence of phenomenology emphasizing both the strengths and weaknesses of the system. An attempt is made to place phenomenology within the framework of a broadened behavioral psychology. (45 ref.) *Journal abstract*.

9915. Medhurst, R. G. **The origin of the "prepared random numbers" used in the Shackleton experiments.** *Journal of the Society for Physical Research*, 1971(Mar), Vol. 46(747), 39-55.—Attempting to refute G. Albert's allegation of fraud with "target numbers."

the replication of the experiments' methodology sections is discussed. From 1940-1954 S. G. Soal made statements indicating the numbers' selection source could be found by exhaustive search. Had this been achieved, conclusive proof might have been present to indicate the allegation. However, Soal did not believe these procedures to be true, as in the Shackleton sessions. Various methods are suggested for origin, yet are not substantiated. Medhurst does not believe these results to suggest the possibility of fraud, but may or may not create an element of doubt on the accuracy of the experiments reports.—G. J. Frankel.

9916. Randall, J. L. **Experiments to detect a psi effect with small animals.** *Journal of the Society for Psychical Research*, 1971(Mar), Vol. 46(747), 31-39.—E placed a wood louse (*Oniscus asellus*) in the center of 2 concentric circles as S looked at the 1st card of a pack of standard ESP cards from a sealed envelope. A hit was scored when any part of the animal's body crossed into a sector. Completing 25 trials (a run), cards were turned, reread to Es, who recorded them opposite the results. 15 Ss completed runs spread out over a period of weeks. The final overall control ratio was 1.8 (2 = chosen level of significance). Although all possible physical factors could not be excluded, the results' attribution to chance seems unlikely. The most likely explanation is believed to be a psi effect between the S and the animal.—G. J. Frankel.

9917. Rhine, J. B. (Inst. for Parapsychology, Durham N.C.) **Location of hidden objects by a man-dog team.** *Journal of Parapsychology*, 1971(Mar), Vol. 35(1), 18-33.—Conducted an experiment in which 2 German shepherd dogs and their trainer, as a team, attempted to locate empty land mine cases that were buried in a straight line 4 m deep in sand under 6-12 in. of water. Each 5-yd section made up of 5 1-yd units, contained a buried mine, the location of which was determined by a random number table. All surface signs except section and unit locations were removed by raking. The dog was led over each section as a single trial, continuing to retrace until it indicated a location by sitting. The E who buried the mine observed and recorded the team's responses from a screened position. When an assistant was present, the recording O did not know the target positions. Steady crosswinds, surface ripples, and strong side currents in the water gave good assurance against olfactory cues. On 203 underwater trials there were 38.9% hits where only 20% was expected ($p < .001$). Thereafter a decline set in with both dogs, although there were no changes in personnel or overt conditions. Possible psychological factors are noted which suggest an essential link in the man-dog relation.—*Journal abstract*.

9918. Rhine, Louisa E. (Inst. of Parapsychology, Durham, N.C.) **The establishment of basic concepts and terminology in parapsychology.** *Journal of Parapsychology*, 1971(Mar), Vol. 35(1), 34-56.—Reviews the research in parapsychology and the development of the concepts and terminology in 3 historical periods: (a) the preexperimental period before 1930, (b) the modern experimental period from 1930-1950, and (c) the present. Previous experimental period from 1951 to the present. Previous to 1930, only telepathy and clairvoyance were considered, but evidence was lacking and the theories diverse. After 1930 clairvoyance, telepathy, and eventually precognition were shown to occur in a laboratory setting. These abilities were labeled ESP and experiments

indicated that they were similar aspects of a single ability. Later findings of psychokinesis were interpreted as the motor aspect of the cognitive ESP abilities and the 2 together were given the name of psi. Experiments in the modern period have indicated that psi is an unconscious ability and have concentrated on the ways in which it operates. Experimental procedures, findings, and terminology in the modern period are discussed. (35 ref.)—S. Knapp.

THEORY & SYSTEMS

9919. ———. **Comment and queries: Revivalism in psychology.** *Psychological Record*, 1971(Win), Vol. 21(1), 131-134. —Examination of the succession of basic psychological theories shows that they are not novel approaches to psychological data and problems, but revivals of mentalistic theories in somewhat modified form. Since this revivalism is not conducive to scientific progress, the question arises why it persists and flourishes, in view of the ease of distinguishing between authentic observations and fictional interpretations. It is suggested that revivalism in psychology and other sciences is influenced by spiritistic intellectual institutions which in turn reflect the general spiritistic foundations of Western civilization.—*Journal abstract.*

9920. Johnson, Edgar M. **A bibliography on the use of information theory in psychology (1948-1966).** Aberdeen Proving Ground, Md: U.S. Army, Aberdeen Research & Development Center, Human Engineering Lab., 1970. 22 p. —Presents a bibliography of work done in, or relevant to, psychology using information theory. This listing is a supplement to "A bibliography on the use of information theory in psychology (1948-1966)" published in December 1967. An index is included. (186 ref.)—*Journal abstract.*

EDUCATION & TRAINING

PROFESSIONAL DEVELOPMENTS

INTERNATIONAL PSYCHOLOGY

9921. Kuo, You-Yuh. (Ball State U.) **Psychology in Communist China.** *Psychological Record*, 1971(Win), Vol. 21(1), 95-105. —Outlines the theory and development of psychology in Communist China emphasizing the differences between Western and Communist Chinese psychology. Mainland Chinese psychologists are described as seeking a psychological basis for communism. Psychology is defined as the brain's reflection of reality, determined by the contradictions that exist in objective reality and the ideology of the social class to which the individual belongs. Western psychology is blamed for helping the capitalists to suppress the workers' class struggle. Research on the development of the brain function in children is being conducted with the EEG instead of intelligence tests, while Piaget's theory is being used to study cognitive development. Research is also described as emphasizing the traditional Chinese interest in moral development. Research and professional organizations and publications are noted. (25 ref.)—*Journal abstract.*

METHODOLOGY & RESEARCH TECHNOLOGY

MODELS & MATHEMATICAL MODELS

9922. Abbott, Robert D. (U. Washington) **Further evidence regarding trait and evaluative models of response consistency.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6235.

MATHEMATICS & STATISTICS

9923. Auerbach, Carl. (Yeshiva U.) **Correcting two-alternative forced-choice data for response bias.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 533-534. —Describes a method for correcting 2-alternative forced-choice data for response bias which requires only a table of integrals of a normal distribution.—*Journal abstract.*

9924. Barbut, M. (Practical School for Higher Studies, Paris, France) **Une classe de quasi-groupes qui peuvent servir à représenter des "moyennes."** [A class of quasi-groups which can represent means.] *Mathématiques et Sciences Humaines*, 1970(1ab), No. 31, 33-37. —Demonstrates certain relationships between Abelian groups and ordered quasi-groups. Under given restraints the binary operation $x * y$ can be interpreted as a weighted mean. M. G. Strobel

9925. Bartussek, Dieter. (U. Hamburg, Inst. of Psychology, W. Germany) **Eine Methode zur Bestimmung von Moderatorreflektoren.** [A method for determination of moderator effects.] *Diagnostica*, 1970, Vol. 16(2), 57-76. —Reviewing and critically evaluating the 2 presently used methods (Anastasi and Ghisella) for differentiation of individuals in terms of their predictability, a new approach is described—Saunders' method for the determination of "moderated regression" appears to avoid the pitfalls of the previous methods. This model is presented and linear and nonlinear moderator functions are estimated. The data were subjected to significance testing and 2 possible interpretations of the significant moderator effects are evolved. 5 advantages of the Saunders model are listed. (21 ref.) H. Muth

9926. Brown, Thomas S. (Texas Christian U.) **Correction for overlap in principal component loadings.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6278.

9927. Carter, Michael C. (U. Georgia) **A Bayesian analysis of concomitant information.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6279.

9928. Cormier, Roger A. (U. Montreal, Quebec, Canada) **Of significant and important differences.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 33-42. —Points out abuses of search for significant differences. The researcher is advised to use descriptive statistics rather than rely on Fisherian methodology which often leads to contradictory conclusions. The approaches of Bayes and of Neyman-Pearson are recommended in lieu of Fisherian statistical inference.—A. M. Chavsky

9929. Cutter, Henry S. & Heitler, Fred. (Veterans Administration Hosp., Brockton, Mass.) **Logic of analysis of variance in relation to predictions and evaluations of interaction means.** *Psychological Record*

GENERAL BOOKS & REFERENCE WORKS

ports, 1971(Jun), Vol. 28(3), 839-842.—Discusses the customary confounding of row and column effects with their interaction in terms of cell means purported to represent the interaction. Row, column, and overall mean corrections for cell means are outlined that clarify the relation between the mean and variance components of an interaction. Implications of this methodology for graphic and tabular representations of and interpretations of relationships among the means involved in an interaction are discussed.—*Journal abstract*

9930. Domotor, Zoltan & Stelzer, John. (Stanford U.) Representation of finitely additive semiorordered qualitative probability structures. *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 145-158.—Given a finite Boolean algebra together with a binary relation, necessary and sufficient conditions are given for the existence of a probability measure on the algebra and a real number—the so-called just noticeable difference (jnd)—such that for any 2 Boolean elements the relation holds if and only if the corresponding probability values of the elements satisfy the threshold inequality (the difference of the probabilities is greater than the jnd). Some of the applications of this theorem to indifference structures are also discussed.—*Journal abstract*

9931. Fisher, Mary A. (U. Connecticut) A note on the generalization of some results in hypothesis sampling theory. *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 235-239.—A basic derivation of Trabasso and G. H. Bower, that presolution probability of correct responding is constant and equal to p , uses 2 statements which are not true in general. The theorem can, however, be proved in the special case $p = .5$, by a different method as shown here. A modified result in which the presolution probability of correct responding depends on the composition of the focus sample is also derived for the general case of $p \neq .5$.—*Journal abstract*

9932. Forsyth, Robert A. (U. Iowa) An empirical note on correlation coefficients corrected for restriction in range. *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 115-123.—24 different sampling distributions of correlation coefficients corrected for restriction in range were generated for 3 sample sizes, 4 cutoff points, and 2 population values. Fisher's z transformation to establish confidence limits proved to be inaccurate. A more satisfactory trial and error procedure was undertaken to adjust standard errors. N. M. Chansky.

9933. Horn, John. (U. Denver) Integration of concepts of reliability and standard error of measurement. *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 57-74.—Attempted to clarify the distinction between assumptions underlying derivations of various indices or error of measurement and coefficients of reliability such as Kuder-Richardson Formulas 20 and 21. Theoretical models are provided along with their derivations. Data are presented to illustrate the extent different reliability coefficients affect standard errors of measurement and their respective confidence intervals using the same summary statistics. The results show that different models lead to somewhat different reliability coefficients. The decision as to which coefficient to use is left to the user. (20 ref.) R. W. Covert.

9934. Jernigan, Larry R. (Texas Christian U.) The development and investigation of a method for removing the effects of the distribution of mean values from the relationships among binary variables.

Dissertation Abstracts International, 1971(Apr), Vol. 31(4-B), 624.

9935. Leclerc, B. (Practical School for Higher Studies, Paris, France) Applications pratiques de lois de probabilité VII. [Practical application of the law of probability VII.] *Mathematiques et Sciences Humaines*, 1970(Sum), No. 30, 43-51.—The models in this series of selected articles converge on the formation of groups. The central role of the Poisson distribution and diverse applications of the negative binomial distribution are demonstrated. The number of distributions obtained is inferior to the number of models proposed. Several well-known distributions are applied to problems in history, sociology, psychology, economics, and ecology.—M. G. Strabel.

9936. Leclerc, H. (Practical School for Higher Studies, Paris, France) Applications pratiques des lois de probabilités VIII. [Practical applications of the law of probability VIII.] *Mathematiques et Sciences Humaines*, 1970(Fall), No. 31, 57-63.—Presents a series of selected articles which demonstrate the applicability of the Poisson, gamma, exponential, and binomial distribution to problems in history, genetics, zoology, and psychology.—M. G. Strabel.

9937. Levin, Joseph. (Tel-Aviv U., Israel) A least squares fit for comparison of configurations of points in two-dimensional space. *Psychological Reports*, 1971(Jun), Vol. 28(3), 999-1002.—Reports that multidimensional scaling techniques map a set of objects into geometric space, usually Euclidean. As the solutions are not unique, and linear transformations are admissible operations, 2 solutions for a given set of objects are not comparable owing to differences of the coordinate systems. A transformation of coordinates to obtain a least squares fit of 2 configurations is derived for the 2-dimensional case.—*Journal abstract*.

9938. Livingston, Samuel A. & Stanley, Julian C. (Johns Hopkins U., Center for Social Organization of Schools) What is the true coefficient of partial correlation? *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1971(Jul), No. 107, 8 p.—The correction of the 1st-order partial correlation coefficient for attenuation due to errors of measurement reveals a seeming paradox in test-score theory. Although other studies have touched on the problem in connection with measures of change and the reliability of errors of estimate, none has directly confronted the discrepancy discussed here. Although partial correlation is a correlation of residuals, the correlation of the true-score components of these residuals is not equivalent to the partial correlation of the true scores themselves. The source of this discrepancy is explained and its implications are briefly discussed.—*Journal abstract*.

9939. Lu, K. H. (U. Oregon, Dental School) A measure of agreement among subjective judgments. *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 75-84.—Attempted to devise a coefficient of agreement of judges of categorical data based on a weighing procedure of the categories. The coefficient is based on 2 measures of agreement, the maximum within-S variance and the maximum within-S entropy which are appropriately weighted. The weights of Y are determined on a probabilistic scale in terms of the distribution function of random variable X . The statistic θ which is a ratio of within-S variance to within-S entropy is distributed as χ^2/df where df is the number of

5s times the number of raters minus 1. An example of the statistics use is provided. *R. W. Covert.*

9940. Moeschberger, Melvin L. (North Carolina State U.) **A parametric approach to life-testing and the theory of competing risks.** *Dissertation Abstracts International*, 1971(May). Vol. 31(11-B). 6984-6985.

9941. Morrison, Denton E. & Henkel, Ramon E. (Eds.) (Michigan State U.) **The significance test controversy.** Chicago, Ill.: Aldine, 1970. xviii, 333 p. \$12.50.—Presents a collection of papers dealing with some of the basic mathematical, philosophy of science, and statistical assumptions connected with significance tests. Information is included on the continuing debate about the usefulness of tests, the central issues involved, and practical problems and possible pitfalls involved in using the tests.

9942. Roberts, Fred S. (RAND Corp., Santa Monica, Calif.) **Homogenous families of semiorders and the theory of probabilistic consistency.** *Journal of Mathematical Psychology*, 1971(May). Vol. 8(2). 248-263.—Beginning with the data $p(a,b)$, interpreted as the frequency with which a is preferred to b , various conditions of probabilistic consistency are defined on this data. Most of these are expressed as conditions on a family of binary relations defined from the $p(a,b)$'s, where a is in the λ th relation to b if $p(a,b) > \lambda$. The conditions essentially state that this family of relations is a homogenous or consistent family of semiorders. The conditions are then restated in a more general setting, starting with a family of binary relations rather than with the data $p(a,b)$ and the particular family of relations defined from $p(a,b)$. The main result is that almost all the probabilistic consistency conditions studied are equivalent. The logical relations among all these conditions are described. Recent work by A. Tversky and J. E. Russo on conditions of probabilistic consistency on the data $p(a,b)$ is shown to hold in the more general setting of this paper. *Journal abstract.*

9943. Shine, Lester C. & Bower, Samuel M. (U. Dayton) **A one-way analysis of variance for single-subject designs.** *Educational & Psychological Measurement*, 1971(Spring), Vol. 31(1), 105-113.—Illustrates the applicability of 1-way analysis of variance for a single S observed on several trials under different experimental conditions. The S is assumed to be a random generator of responses to a particular stimulus. The responses are statistically independent and normally distributed. The 1-way design is handled as a 2-way design with 1 observation/cell. A modified error term for testing main effects is discussed along with a statistical test based on the assumption that main effects for trials change slowly from 1 trial to the next. Schematic calculation procedures are provided.—*R. W. Covert.*

9944. Urry, Vern W. (Purdue U.) **A Monte Carlo investigation of logistic mental test models.** *Dissertation Abstracts International*, 1971(Apr). Vol. 31(10-B). 6319.

9945. Werts, Charles E. & Linn, Robert L. **Considerations when making inferences within the analysis of covariance model.** *Educational & Psychological Measurement*, 1971(Sum). Vol. 31(2). 407-416.—Discusses the applicability of analysis of covariance in naturalistic and quasi-experimental studies. The analysis of variance model is discussed in relationship to the general linear model. In standardized form, the dummy variables represent the treatments and the covariates the

regression weights. 4 possible methods for determining the proportion of variance that the categorical treatment accounts for are discussed in terms of regression analysis. The interpretation of results with respect to what assumptions have been made is presented. *R. W. Covert.*

Factor Analysis

9946. Cureton, Edward E. (U. Tennessee) **Communality estimation in factor analysis of small matrices.** *Educational & Psychological Measurement*, 1971(Sum). Vol. 31(2). 371-380.—Attempts to provide an accurate estimate of communality in the factor analysis of small correlation matrices. This estimate is especially useful when the complete centroid method of factorization is employed. A simple formula is provided and discussed for the communality estimate. 10 well-known examples of factor analysis of small matrices are provided. Results show that communalities estimates using Cureton's procedure are a more accurate estimate of the communality than the more common procedure of selecting the highest absolute r . The application of the procedure is discussed along with criteria for determining the number of factors. *R. W. Covert.*

9947. Fulgosi, Ante. (Faculty of Philosophy, Zagreb, Yugoslavia) **Prokrustino-analićke rotacije i problem kongruencije u faktorskoj analizi.** [Comparison of different analytical and procrustes rotations] *Revija za Psihologiju*, 1970. Vol. 1(2). 49-50.—Considers the problem of rotation of factor axes in factor analysis, employed as a method of hypothesis testing in a multivariate experiment. It is concluded that neither the analytical methods nor all of procrustes methods can serve this purpose.—*English abstract.*

9948. Kalimo, Eskimo. (National Pensions Inst., Helsinki, Finland) **Notes on approximate procrustes rotation to primary pattern.** *Educational & Psychological Measurement*, 1971(Sum). Vol. 31(2). 363-369.—Presents a brief review of rotation methods to a specified target matrix in factor analysis and 2 notes. The notes dealt with the approximate least squares fit to a target matrix. The 1st note suggested a direct procedure for obtaining a primary pattern, when the target matrix is a reference structure. On the basis of this result it was also concluded that the resulting primary pattern and the corresponding reference structure are in the same sense maximally similar to the target matrix. The 2nd note showed that usually numerically different but interpretatively similar primary patterns are obtained when the target matrix is a reference structure and when it is the co-responding primary pattern.—*Journal summary.*

COMPUTERS & PROGRAMING

9949. Baron, S., et al. (Bolt Beranek & Newman Inc., Cambridge, Mass.) **Development of behavioral science programming language.** *NAVAL Research & Development Command Technical Report*, 1971(1 Feb). No. 70-0006-1. 54 p.—Describes the design criteria and an implementation plan for a Behavioral Science Programming Language (BSPL) to be used for programming experiments on a computer-driven, high-performance artificial simulation facility. The BSPL was conceptualized to (a) take full

advantage of the existing hardware and software facilities, (b) be rich enough in structure to allow the programming of meaningful experiments, yet simple enough to be readily learned by the nonprogrammer; (c) be usable by individuals who do not have intimate knowledge of the simulation program, (d) be incrementally implementable, and (e) be capable of graceful expansion and elaboration. A description of the present facility, a conceptualization of a prototype experiment, and the implication of these factors for the design of the BSPL are discussed. A proposed design is presented along with an implementation plan. A formal description of the language and a sample program are included as appendices.—*Journal abstract.*

9950. Fulgosi, Ante & Gospodnetić, R. (Faculty of Philosophy, Zagreb, Yugoslavia) Program za izračunavanje transmitirane informacije na računalo IBM 1130 "TRINF." ["TRINF": An IBM 1130 program for calculating information transmission indices.] *Revija za Psihologiju*, 1970, Vol. 1(2), 51-71. Describes a program for unidimensional information transmission. The program is written in FORTRAN IV-IBM 1130 language and was developed for that machine. The program can calculate values of $H(S/R)$, $H(R/S)$, and $I(Y/X)$ from any stimulus-response event in the experimental sequence to any other stimulus-response event in the sequence as well as for the whole range of the experiment. Calculations can be for an individual S or for data pooled across 2 or more S s. Stimulus-response matrices up to dimension of 50×50 can be formed and, optionally, printed or discarded. (English abstract)—A. Fulgosi.

9951. Georgiade, Constantin. (U. Bucharest, Romania) a) *Éléments cybernétiques dans l'œuvre d'Henri Piéron.* [Cybernetic elements in the work of Henri Piéron.] *Année Psychologique*, 1970, Vol. 70(1), 161-177. Presents a survey of over 50 yr. of the work of Piéron, founder of behavioral psychology in Europe, and posits analogies among certain of his psychological conceptions and those of cybernetics: (a) gradation capacity in the nervous system, supporting the hypothesis of mathematical function; (b) different forms of behavior in lower organisms, behavior through subjection, autoconduction, and exploration; (c) the nervous system as an apparatus of behavioral direction and control; (d) the regulating function, regulation of intrapsychic and cortical origin; (e) the problem of model, information theory and its repercussions in Piéron's psychology; (f) the neurophysiologic mechanism as the foundation of sensory information, and (g) experiments on the phenomenon of transmission of arousal corresponding with cybernetics. (24 ref.)—G. Rubin-Rabson.

9952. Kelly, Michael D. (Stanford U.) *Visual identification of people by computer.* *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6562.

9953. Treu, Siegfried. (U. Pittsburgh) *Supplementing human memory by means of interactive, computer-based associative storage and retrieval.* *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6099-6100.

TESTING

9954. Cureton, Edward E. (U. Tennessee) *The stability coefficient.* *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 45-55. The stability coefficient is described as the extent to which a test

varies as the result of factors associated with the particular time and occasion on which the test was administered. A theoretical model is provided which includes not only the traditional true score and error score but also an error score due to instability. A formula for stability based on a measure of consistency is provided. 4 sets of verbal test scores are examined. The results tentatively show the instability curve to be of the inverted S type. Where instability increases slowly from 0 sec. to 2 days, then increases rapidly at the 5-day interval only to rapidly decrease at the 8-day interval.—R. H. Covert.

9955. Kane, Robert B. (Purdue U.) *Minimizing order effects in the semantic differential.* *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 137-144. 9 semantic differential strategies were produced, 8 by a previously developed computer program. 3 studies were conducted: (a) many varied vs. fixed concept order, scale order, and scale polarity; (b) few varied vs. fixed orders and polarity; and (c) concept, scale, and polarity fixed vs. concept and scale fixed but polarity varied. The responses of 180 randomly assigned undergraduates were obtained. $34 \times 14 \times 14$ product-moment matrices were computed. Each was factored and rotated to the varimax criterion. 2 factors were extracted in each experiment. Differences in factor scores for the 3 experiments are nonsignificant leading to the conclusion of no important order effect in administering the semantic differential, under the conditions of these experiments.—N. M. Chansky.

9956. Lord, Frederic M. (Educational Testing Service, Princeton, N.J.) *Robbins-Monro procedures for tailored testing.* *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 3-31. Compared the Robbins-Monro procedures having approximate harmonic sequences of step lengths with fixed step and certain hybrid procedures. The comparisons are made considering the parameters: examinee ability level, test length, item difficulty, item discriminating power, item guessing, off-set, and step size. Although only a few possible procedures and circumstances were explored, shrinking-step-size procedures were found to have certain advantages over fixed-step-size procedures. However, if more than 6 or 7 items are to be administered to an examinee, the item pool required for shrinking step-size is prohibitive. (18 ref.)—R. H. Covert.

9957. Stallings, William M. & Gillmore, Gerald M. (Office of Instructional Resources, Champaign, Ill.) *A note on "accuracy" and "precision."* *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 127-129. The terms accuracy and precision are consistently differentiated in the literature of engineering and the "hard" sciences. Precision shares a common core of meaning with reliability as used by behavioral scientists. Accuracy and validity have a similar semantic overlap. A review of the literature in educational and psychological measurement reveals an interchangeable usage of accuracy and precision in defining reliability. To help beginning students distinguish between validity and reliability, the use of precision, rather than accuracy, in describing reliability is advocated. (19 ref.)—*Journal abstract.*

9958. Stuart, Irving R. & Murgatroyd, Dorothy. (Herbert H. Lehman Coll., City U. New York) *Field research model of the Rod-and-Frame Test.* *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 671-674. Field research makes size and weight demands upon

instruments which are sometimes not as important in the laboratory. A portable model of the Rod and Frame Test (RFT), which had been standardized against the original laboratory model, was considered too bulky for easy transportation as hand baggage where air travel was necessary. Another portable version of the RFT did meet portability requirements but suffered from design limitations which invalidated its results, as well as an absence of standardization data. Successful modifications of this lightweight instrument overcoming the handicaps and a successful comparison with scores on another standardized portable apparatus was made with 51 men and 97 women of college age.—*Journal abstract.*

9959. Waters, Carrie W. & Bayroff, A. G. (Ohio U., Center for Psychological Services) **A comparison of computer-simulated conventional and branching tests.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 125-136.—5, 10, and 15 hypothetical conventional tests with 2 difficulty ranges, .1 to .9 and .3 to .7, were evaluated as were 6 hypothetical 1-item and 4 hypothetical 2-item per stage branching tests. An underlying normally distributed ability was assumed. For the purposes of analysis biserial correlations were fixed, though varying in magnitude. With low biserials items with small spread yielded high correlations with ability for both conventional and branching tests. Wide range tests were better when high biserials were assumed. With low biserials the conventional test yielded higher r 's with the criterion than did the branching test. Higher correlations were found with 1-item branching tests as opposed to the 2-item tests.—*N. M. Chansky.*

Construction & Validation

9960. McQuitty, Louis L. (U. Miami) **Relaxed rank order typal analysis.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 33-43.—Develops and illustrates a method of classifying fallible data into and larger and larger internally consistent categories. Each set of data usually starts with 2 or more categories which are built up gradually and which combine at various levels. The classification is realized by relaxing gradually and minimally, step by step, the objective criterion of internal consistency.—*Journal summary.*

EXPERIMENTATION & OBSERVATION

9961. Hull, Harry G. (U. Houston) **Interobserver variation in recording behavior: Random or systematic error?** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6904.

APPARATUS

9962. Davidson, Robert S., Streeb, R. David, & Bremser, Robert. (Veterans Administration Hosp., Miami, Fla.) **Modification of the Grason-Stadler experimental rat chamber.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 471-474.—Suggests several modifications of a currently popular small animal experimental chamber in the hopes of facilitating common laboratory procedures, e.g., lever insertion and removal, animal transfer, and liquid dipper operation.—*Journal abstract.*

9963. Gaillard, Jean-Michel; Simmen, Andre E., & Tissot, Rene. (U. Geneva, Psychiatric Clinic, Switzerland)

Analyse automatique des enregistrements polygraphiques de sommeil. [Automatic analysis of sleep records.] *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 557-561. Describes a device which automatically analyzes polygraph recordings of human sleep, giving a minute by minute diagnosis of the sleep stage, along with comments and numerical results for rapid and slow eye movements, muscle tone, heart rate, and respiratory rate. The analytical device consists of an analog component, consisting of 18 analyzers (filters and discriminators) a digital component (small computer), and an interface permitting the establishment of a dialogue between the 2 previous components (in-out registers, scalars). An automatic correction of the gross results by the context and a series of logical decisions constituting the program eventually produces a diagnosis. Results are recorded step by step on a typewriter. Other applications of the device are feasible by way of a simple change in program, e.g., long-term recordings in animals (17 ref.).—*English summary.*

EXPERIMENTAL PSYCHOLOGY

9964. Hosman, Jan. (U. Stockholm) **The dimensionality of cross-modality matches.** *Reports from the Institute of Applied Psychology*, U. Stockholm, 1970, No. 6, 10 p.—4 standard continua (white noise, duration, grayness and area) were scaled by 2 variable continua (length of line and fingerspan), using the method of cross-modality matching. Ss were 8 males and 12 females with no previous experience in the method. The logs with no previous experience, standardized estimates were rithmically transformed, standardized estimates were subjected to factor analysis in order to compare the factor structure of cross-modal matches with that of free numerical assignments. It turned out that the factor matrices obtained under both conditions of scaling are highly similar, supporting the hypothesis that "anchoring on end-stimuli" is not specific for the method of free numerical assignment, but is a general characteristic of scaling methods where the S is free to specify his own unit measurement. *Journal abstract.*

9965. Hosman, Jan. (U. Stockholm) **The factor structure of magnitude productions.** *Reports from the Institute of Applied Psychology*, U. Stockholm, 1970, No. 5, 8 p.—Tested the hypothesis that number matching is an intermediate step in cross-modal equal ratio setting. 20 teenage females were Ss. Duration length of line and fingerspan were scaled with the method of magnitude production. The intercorrelations between the rithmically transformed magnitude productions were factor-analyzed and rotated to simple structure. The factor structure of magnitude productions turned out to be highly similar to that of cross-modal equal ratio settings, which does not support the hypothesis.—*Journal abstract.*

9966. Jacob, Theodore. (U. Pittsburgh) **Experimenter bias effect as a function of demand characteristics and experimenter investment.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 1003-1010.—Attempted to clarify the nature of the experimenter bias effect (1961). The experimental design consisted of 2 2×2 factorial designs in which experimenter expectations and experimenter investment were each represented on 2 levels. 72 male undergraduates served as Ss and each administered the Rorschach Inkblot Test and Number Test.

mation Test to 3 or 4 other male undergraduates. The data did not reflect an EBL with either task or with any combination of experimental conditions. Findings are discussed in terms of E's inaccuracies in receiving and/or retaining the stated expectancy, E's inability in identifying the intended demand characteristics, and the unreliable nature of the EBL. (25 ref.)—*Journal abstract*.

9967. Cronin, Denise M., Spanos, Nicholas P., & Barber, Theodore X. (Northeastern U.) **Augmenting hypnotic suggestibility by providing favorable information about hypnosis.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 259-264. An experiment was designed to determine the effects of transmitting information concerning hypnosis (favorable vs. no information) and E's attitude (friendly vs. nonfriendly attitude) on the following dependent variables: Ss' attitudes toward hypnosis, expectations of their own hypnotizability, objective and subjective responsiveness to hypnotic suggestions, and self-ratings of hypnotic depth.—M. V. Kline.

PERCEPTION

9968. Abravanel, Eugene. (George Washington U.) **Intersensory integration of selected spatial dimensions: Extension to an adult sample.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 479-484. The development of intersensory integration had been studied previously in 3-13 yr. old children in terms of several spatial dimensions. This research extends the study by E. Abravanel (see PA, Vol. 42 16524) of intersensory integration across visual and haptic systems with a sample of 14 undergraduates. 4 conditions of length estimation were administered, and, for 2 of them, careful observations were made of Ss' haptic perceptual activity while engaged in perceiving length. Findings indicate a convergence in levels of accuracy for 3 of the 4 intersensory conditions by 18 yr. of age. Haptic perceptual activity was not substantially different at 13 and 18 yr. of age.—*Journal abstract*.

9969. Auerbach, Carl. (Yeshiva U.) **An elementary derivation of Stevens' law and Fechner's law from first principles.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 361-362. Stevens' law is derived from the assumption that equal stimulus ratios produce equal sensation ratios and Fechner's law is derived from the assumption that equal stimulus ratios produce equal sensation differences. Both derivations use only elementary properties of logarithms. *Journal abstract*.

9970. Borg, Gunnar. (U. Stockholm) **Relative response and stimulus scales.** *Reports from the Institute of Applied Psychology*, U. Stockholm, 1970, No. 1, 7 p.—In psychology and physiology there is a need for a theory concerning interprocess comparisons. In some cases, e.g., when making interindividual comparisons between perceptual magnitudes, it is impossible or not meaningful to convert raw scores to a standard scale by using the standard deviation as the unit of measurement. A theory is presented which introduces the range of possible responses as a frame of reference. On the basis of the range and the stimulus-response function in question, relative response and stimulus scales are constructed for interindividual and other kinds of interprocess comparisons. The validity of the theory is tested by comparing correlations between variables with and without correcting according to the theory. Abundant empirical evidence is presented in favor of the assumptions.—*Journal abstract*.

9971. Dornic, Stanislav; Künnnapas, Teodor, & Bratfish, Oswald. (U. Stockholm) **Subjective similarity as a function of exposure time and short term memory.** *Reports from the Institute of Applied Psychology*, U. Stockholm, 1970, No. 9, 9 p.—Performed 2 experiments to verify the usability of the method of similarity estimation in the area of perception and short-term memory. In Exp. I pairs of simple visual stimuli were exposed for different time periods which ranged from 1-20 msec. 35 18-21 yr. old students were Ss. Similarity was found to decrease with increasing exposure time. In Exp. II with 18 (9-22 yr. old) Ss, the Ss compared the similarity of the 1st and last stimulus in a series of 7 different figures. Exposure time of 300 msec. was used in order to rule out any errors on the perceptual level. The whole series was repeated 5 times. Similarity was found to decrease with repeated presentation of the series, the difference in similarity estimates between the 1st and the last series being 20%. Probable mechanisms of the processes involved in the tasks are discussed. It is concluded that the method of similarity estimation is a highly usable measurement tool in investigations concerning visual discrimination and short-term memory. (23 ref.)—*Journal abstract*.

9972. Horiuchi, Hideo. (Wakayama U., Japan) **Effects of auditory vs. visual presentation on dot pulse counting.** *Psychologia*. In *International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 203-209. Describes 2 experiments. 9 series of dot pulses (auditory or visual) were presented at 10 rates. Delayed dot pulses were presented as interfering materials. 12 Ss counted the numbers of pulses. In the binaural and binocular presentations, auditory stimuli yielded results superior to visual stimuli. In the monaural and monocular interference presentations, auditory stimuli also produced superior responses. The unisensory situation was more affected by interference materials than was the bisensory. (20 ref.)—R. D. Nance.

9973. Hosman, Jan & Borg, Gunnar. (U. Stockholm) **The mean and standard deviation of cross-modality matches: A study of individual scaling behavior.** *Reports from the Institute of Applied Psychology*, U. Stockholm, 1970, No. 3, 8 p.—Analyzed the variability of repeated cross-modality matchings to a series of stimuli. 2 hypotheses are formulated: (a) the variability arises from different units of measurement over replications; and (b) the variability arises from different exponents over replications. From both hypotheses testable deductions were made. An experiment with 10 paid undergraduates gave evidence favoring the 1st hypothesis.—*Journal abstract*.

9974. Houck, Robert L. & Mefferd, Roy B. (Veterans Administration Hosp., Houston, Tex.) **Perceptual categorization: A parallel between perceptual identification and serial learning.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 578.—As the number of cues facilitating the perceptual categorization of a stimulus list was increased the number of serial presentations required for the S to learn them decreased. 10 laboratory personnel were Ss. A striking parallel was observed between the performance curves of the serial learning task and an earlier perceptual recognition task.—*Author abstract*.

9975. Lambert, Robert M. (U. Pennsylvania) **Bisensory judgment of the value of a measurable object attribute.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6294.

9976. McAuley, Patrick C. (Loyola U., Chicago, Ill.) **A test of a hypothesis in the method of equal appearing intervals.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6879.

9977. Valter, Vladimir. (U. Stockholm) **Deduction and verification of a quantum psychophysical equation.** *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 13, 8 p.—Assuming sensitivity of the senses to decrease uniformly towards the lower and upper thresholds from the standpoint of a fictive continuum of a scale set up on the basic sensitivity which occurs at middle stimulus levels, a difference equation which relates to the fundamental problem in psychophysics, and which is characterized as a "quantum psychophysical equation" is described. The equation determines a set of pairs of stimulus levels r and r' , where $r < r'$, between which an equal and, in a special case, a liminal subjective contrast appears. The remaining members of the equation are constants which have to be determined empirically for the given sense modality, experimental situation, selected subjective contrast, and object of measurement; the latter may be either man, animal, or in a certain sense also plants. After a formal adjustment the equation may be used to express the course of Weber's fraction within the lower and upper thresholds. The equation was verified on many classical and contemporary studies by several authors. (68 ref.)—*Journal abstract*.

Illusion

9978. Avant, Lloyd L. & Kent, Mike. (Iowa State U.) **Anchoring lines and the Mueller-Lyer illusion.** *U.S. Army Human Engineering Laboratories Technical Note*, 1970(Jul), No. 6-70, 6 p.—Using the method of pair comparisons, 10 undergraduate females judged 12 Müller-stimulus configurations comprised of horizontal Müller-Lyer (M-L) figures bordered above and below by shorter or longer anchoring lines. From the pooling model of Adaptation-Level Theory, it was predicted that perceived length of the M-L figures would be assimilated toward anchor length. Results confirm the prediction. (16 ref.)—*Journal abstract*.

9979. Avery, G. C. & Day, R. H. (Monash U., Clayton, Victoria, Australia) **Relationship between the horizontal-vertical illusions for velocity and extent.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 22-31.—Studied the horizontal-vertical (HV) velocity illusion in which an object moving vertically seems to move faster than one moving horizontally at the same physical speed. 6 experiments were conducted with a total of 65 male and 47 female paid volunteers using a stimulus display consisting of a lighted L figure and 2 points of light moving in paths parallel to the 2 bars, in an otherwise dark field. Results indicate that (a) the direction of movement (upward, downward, rightward, leftward) in each orientation was not a significant variable; (b) there was no significant effect due to the movement orientation (horizontal, vertical) used as the standard; (c) the illusion persisted when horizontal and vertical paths were equated for apparent length; (d) different functions for the length and velocity illusions occurred as the separation and overlap of the motion paths were varied; and (e) the velocity illusion did not occur when S was recumbent. Results are interpreted as showing that the HV velocity illusion is not secondary to

the HV length illusion but has independent determinants. (29 ref.)—*Journal abstract*.

9980. Howard, Roger B. (Colgate U.) **Neurophysiological models of figural aftereffects and visual illusions.** *Psychonomic Monograph Supplements*, 1971, Vol. 4(3), 57-72.—Suggests that most figural aftereffects (FA) and many illusions can be explained by a model based on lateral inhibition and adaptation, provided that at least 2 different levels of the visual system are involved. A review of the 6 models proposed to explain both FAs and illusions indicates that none can explain all 15 phenomena which have been shown to characterize these distortions. In contrast, the model presented can explain the phenomena by assuming that FAs are the result of trace interactions among position detectors at the cortex, and that illusions result from similar interactions among size detectors at a different level of the cortex. The neurophysiological data indicate that further extension of the model will eventually be necessary to explain distortions in other stimulus attributes such as orientation and angularity (50 ref.)—*Journal abstract*.

9981. Massaro, Dominic W. & Anderson, Norman H. (U. Wisconsin) **Judgmental model of the Ebbinghaus illusion.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 147-151.—Studied the Ebbinghaus illusion as a function of 4 stimulus variables: (a) the size of the context circles, (b) the number of context circles, (c) the distance between the context circles and the center circle, and (d) the size of the center circle. Results with 34 Ss provide a quantitative test of a judgmental model that considers the Ebbinghaus illusion to be comparative in nature: the context circles serve as standards, and the center circle is judged partly relative to them. The model provided a reasonably good description of the magnitude of the illusion as a function of the several stimulus variables. (15 ref.)—*Journal abstract*.

9982. Olson, Richard K. (U. Oregon) **The role of shape variables in the trapezoidal window illusion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6299.

9983. Pressey, A. W. & Moro, T. L. (U. Manitoba, Winnipeg, Canada) **An explanation of Cooper and Runyon's results on the Mueller-Lyer illusion.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 564-566.—Presents evidence that a solid line is overestimated as compared to an empty space. On this basis it is argued that M. R. Cooper and R. P. Runyon's data (see PA, Vol. 45:5312) on the Müller-Lyer illusion is confounded by a filled-space illusion and that their results do not lead to any conclusions about the Müller-Lyer illusion per se.—*Journal abstract*.

9984. Wagner, Kathleen & Avant, Lloyd L. (Iowa State U.) **Anchoring stimuli and Titchener's Technical Note.** *U.S. Army Human Engineering Laboratories Technical Note*, 1970(Jul), No. 7-70, 5 p.—In a series of Titchener illusion figures, 10 female undergraduate controls were asked to report the larger, center or surrounding circles when the ratio of surrounding to center circle diameter varied, in .05 steps, from .75 to 1.25 across series members. 2 groups of 10 female undergraduates each judged these series members, alternated with a stimulus configuration in which the ratio of diameters was either .20 or 1.80. In both groups, shifts in center surrounding circle PSE and changes in judgments of series members were consistent with predictions drawn from the pooling model of adaptation level theory. *Journal abstract*.

Time

9985. **Balducci, Domenick.** (New York U.) **Cognition, personal tempo, and subjective passage of time.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6868.

9986. **Bratfisch, Oswald.** (U. Stockholm) **Time-estimations of the main activities of university students.** *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 2, 9 p. —On each day of 1 wk. a group of 32 university mathematics students received a questionnaire and reported what kind of activities they were occupied with the day before and to express, in min., how much time they had spent on each. In another part of the investigation the same Ss were instructed to estimate the relation between main activities, sampled from the questionnaire, regarding the time they devoted to the various activities on the average. When relating these 2 kinds of time-measures-answers to the questionnaire (objective and subjective data), it was found that Ss overestimated certain activities while they underestimated other ones, i.e., periods of rest and sleep as well as time spent on amusement activities were underestimated while the time devoted to studies was strikingly overestimated. A possible application of time-measures of this kind in applied psychology is discussed. (32 ref.)—*Journal abstract*.

9987. **Knutson, David L.** (U. Kansas) **The effects of random feedback, I-E control, and performance expectancy on response variability and accuracy.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6940-6941.

9988. **Meerlo, Joost A.** **Along the fourth dimension: Man's sense of time and history.** New York, N.Y.: John Day, 1970. x, 278 p. \$8.95.—Discusses the complexities of the many "times" running through human life: the biological clock, and clinical, gnostic, and other kinds of time. An important feature of the study shows how derangements of different time senses can cause aberrations in man's behavior and how, if man changes his way of life, his senses of time change accordingly.

VISION

9989. **Adams, Anthony J., Kapash, Richard J., & Barkan, Eric.** (U. California, School of Optometry, Berkeley) **Visual performance and optical properties of Fresnel membrane prisms: I. Distortion.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Apr), Vol. 48(4), 289-297.—Describes the Fresnel prism, an outgrowth of the early 19th century lenses designed for lighthouses by A. J. Fresnel, as a series of small prisms lying adjacent to each other on a thin transparent platform. Ophthalmic quality Fresnel prisms of almost any power have recently been made of flexible material (less than 1 mm. thick) which can be pressed onto existing prescription lenses. A comparison of membrane Fresnel and conventional prisms is made in terms of design variables available for each in optimizing prism performance.—*Journal abstract*.

9990. **Gestrin, Phyllis J.** (U. Washington) **Changes of temporal summation during light and dark adaptation.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6288.

9991. **Hardt, Martha E., Held, Richard, & Steinbach, Martin J.** (Massachusetts Inst. of Technology) **Adap-**

tation to displaced vision: A change in the central control of sensorimotor coordination. *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 229-239.—Examines the changes that occur in sensorimotor coordination after viewing the prism-displaced image of the hand. 4 types of explanation for the changes are advanced: (a) visual, (b) proprioceptive, (c) motor, and (d) sensorimotor. Each predicts different consequences on different tests of coordination; i.e., reaching for visual targets, orienting head to hand, orienting eye to hand, and repositioning the hand in a learned posture. The results of 4 experiments with a total of 32 undergraduates and college employees were consistent only with the sensorimotor explanation. Findings suggest a change in the control and assessment of coincidence between the direction indicated by the exposed arm and that of either a sensed external object or other body part. (24 ref.)—*Journal abstract*.

9992. **Ohlbaum, Morton K., O'Brian, Charles R., & Van Patten, Robert E.** (Wright-Patterson Air Force Base 6570th Aerospace Medical Research Lab., O.) **The effect of viewing distance on the visual decrements associated with Gz vibration.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Apr), Vol. 48(4), 298-306.—Discusses degradations of visual performance in vibration environments. The mechanisms involved in the response are poorly understood and limited quantitative data is available. Binocular visual acuity was measured on 28 male 21-42 yr. old volunteers at .4, 1 and 4 m. during vibration exposures from 5-50 Hz., at $\pm .75$ Gz. Viewing distance-dependent variations in acuity suggest that a form of visual tracking may occur at frequencies above 3 Hz. provided that the angular displacement is small.—*Journal abstract*.

9993. **Perkins, Richard B.** (307 Talbot St., St. Thomas Ontario, Canada) **Clinical measurement of the physiologic position of rest of the crystalline lens.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Apr), Vol. 48(4), 343-350.—The position of physiologic rest of the crystalline lens is the accommodative state which it assumes when all the stimuli to accommodation have been eliminated except the basal innervations. A study with 30 12-39 yr. old patients is described using a clinical method which measured this position with considerable precision. The physiologic and clinical implications are discussed. The test evaluates and/or prescribes minus spherical additions for a patient's night driving needs.—*Journal abstract*.

9994. **Uhlarik, John J.** (U. Washington) **An information processing analysis of adaptation to prismatic displacement of the visual field.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6308.

Perception

9995. **Anderson, Robert H. & Deffenbacher, Kenneth A.** (U. Nebraska, Omaha) **Effect of sound stimulation on visual afterimages.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 343-346.—Attempted to confirm and extend the Soviet findings concerning the effects of sound frequency and intensity on reported size and brightness of Purkinje afterimages. The structure and operation of a device which provides reliable measurement of changes in the apparent size and brightness

of achromatic negative afterimages are described. Utilizing this device, 2 experiments with 40 undergraduates in each, were conducted to assess the effects of pure tone intensity and frequency on reported size and brightness of afterimages. Intense sound stimulation produced very pronounced increases in afterimage size and brightness. Results are discussed in light of previous Soviet findings.—*Journal abstract.*

9996. Begelman, D. A. & Steinfeld, G. J. (Fairfield Hills Hosp., Newtown, Conn.) **Retinal vs. phenomenal determinants of the horizontal-vertical illusion.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 77-85.—Attempted to ascertain whether the retinal or phenomenal determinant is the crucial factor in the horizontal-vertical illusion. To control for the effects of body tilt and stimulus equivalence, the phenomenal and retinal sizes of 2 stimulus arrays were systematically varied ($N = 32$ Ss). Analyses of the Length \times Distance interaction supported the retinal hypothesis. When stimuli were phenomenally equal but retinally unequal, illusion scores differed significantly. In the reverse condition, no significant difference between illusion scores was obtained. It is concluded that the horizontal-vertical illusion is affected predominantly by the retinal factor. Although the illusion is a case of visual anisotropy, its explanation is still uncertain. (18 ref.)—*Author abstract.*

9997. Eichelman, William H. (U. Oregon) **Changes in the relative discriminability of slant and configuration differences.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6284.

9998. Eriksen, Charles W. & Eriksen, Barbara A. (U. Illinois) **Visual perceptual processing rates and backward and forward masking.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 306-313.—Presented 3 different stimuli successively to the same foveal location. In Exp. I with 11 undergraduates and an 11-yr-old girl, the effect of varying dark intervals between the 3 constant-duration stimuli was compared to varying the durations of immediately successive stimuli. Forward and backward masking interactions revealed integration of the stimuli rather than an erasure process. Evidence for a processing rate in the neighborhood of 200 msec. was obtained. In Exp. II with 4 undergraduates, some of the stimuli were filtered in order to make comparisons between the 2 conditions with stimulus energy held constant. Time-intensity reciprocity was found out to 100-msec stimulus duration with equal energy giving highly similar performance levels for the compared conditions. (17 ref.)—*Journal abstract.*

9999. Farley, Frank H. & Severson, Herbert H. (U. Wisconsin, Research & Development Center for Cognitive Learning) **The stability of individual differences in strength and sensitivity of the nervous system.** *Educational & Psychological Measurement*, 1971(Sum), Vol. 31(2), 453-459.—15 Ss were dark adapted wearing red lucite goggles in a semidark sound-reduced room. Thresholds were obtained with an NDRC Model III adaptometer. Ss were told to fixate upon the red fixation cross. An auditory cue was given following which the main visual cue below the fixation point would be presented, to which S would respond "yes" or "no." In 2nd phase of the study the focus was on the modified shape of the curve index. The procedure took 15 min. To estimate stability of the effect, Ss were run 1 mo later. The stability coefficient for the absolute visual threshold

was .91; for the modified shape of the curve, .61.—*N. M. Chansky.*

10000. Huckingson, Richard D. (Texas Christian U.) **The effects of time stress and task difficulty on closed-loop tracking performance and physiological correlates.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6292.

10001. Mehling, Kevin D. (Oklahoma State U.) **The influence of retinal speed and retinal size on the duration of the spiral aftereffect.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6908.

10002. Organt, Gerald J. (Montgomery County Public Schools, Supporting Services Div., Rockville, Md.) **Effect of m value on visual search.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 90(1), 174.—Investigated the effect of differential searchfulness (m) on stimulus discriminability by search methods. 64 male undergraduates located a target word embedded in a single-spaced column of 4 lists in each of the 4 possible combinations of high- and low-m value of the target and field items with the target word at a different predesignated position in each of the 4 lists. Analysis of variance for repeated measures indicated Scheffe's method of multiple comparisons that mean search time was significantly longer for high-field items than for low-field items. Results support the hypothesis that m value, does affect stimulus discriminability in a search task.—*Journal abstract.*

10003. Pachella, Robert L. **The nature of the effect of set on tachistoscopic recognition.** *Human Engineering Laboratory Report*, 1970(Aug), No. 21, 20-29 p.

which Ss decided whether or not a picture of a common object was presented or an alternative. The alternative was presented either before or after the stimulus exposure. In Exp. I, 10 enlisted men (the alternative was presented before the stimulus) and 10 enlisted men (the alternative was presented after the stimulus) were shown a picture of a common object with a picture aftereffect. Results indicated that Ss receiving the picture before the alternative were more sensitive to the picture than Ss receiving the picture after the alternative. When the alternative was presented before the picture, however, the results indicated that the picture resulted in a significant improvement in performance. No change in sensitivity to the picture was observed when men were shown a picture of a common object and each 24 hr picture of a common object. No significant differences were found between the 2 groups of alternatives. Results indicate that the nature of the effect of set on tachistoscopic recognition is dependent upon the timing of the alternative relative to the stimulus.

Ss in the name-after condition performed as well as the Ss in the picture-after condition. The nature of the effect of set on tachistoscopic recognition is dependent upon the timing of the alternative relative to the stimulus.

10004. Pratt, Joseph J. A. **Imagery in individual subjects.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 90(1), 174-175.

in which 4 subjects were asked to imagine a scene and then to describe it. Results indicated that the nature of the effect of set on tachistoscopic recognition is dependent upon the timing of the alternative relative to the stimulus.

form clear complex images than clear simple images and that the complex images were generally rated lower in clarity. (b) with continued practice the complex images showed improvement in clarity and speed of visualization.—*Journal abstract.*

10005. Schell, Bruce J. (U. Florida) **Nonlanguage cerebral mechanisms in a visual field task.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6912-6913.

10006. Taysi, O. P. (Indian Inst. of Technology, Kanpur) **Visual processing schema: A theory of perception.** *Journal of General Psychology* (Jul), Vol. 85(1), 3-28.—Advances a theory stating that inputs from the retinal image sources together with a set of inputs obtained from the retinal shift in the retinal image with a fluttering motion of the eye constitute the basis of visual perception. These 2 sets of inputs generate a processed image as a progressed version of the retinal image and a processed version of external reality in a 3-dimensional perspective. Functional relations between the parameters of the processed image and those of proximal and distal stimuli are proposed. The implications of these formulations were examined for perception of size, form, distance, depth in geometric figures, and for peripheral vision. An analogous model capable of generating a processed image in accordance with the theory is also suggested. (26 ref.)—*Author abstract.*

10007. Wheeler, Gayle R. (U. Kansas) **The differential effects of fine and gross bodily movements upon visual adaptation to prism-produced tilt.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6884-6885.

10008. Wilkinson, D. Adrian. (Addiction Research Foundation, Toronto, Ontario, Canada) **Visual-motor control loop: A linear system?** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 250-257.—Conducted 2 experiments to test a model of prism adaptation which suggests that the visual-motor control loop is a linear system comprising a number of independent subsystems, and that errors in the subsystems sum algebraically to produce the error of the total loop. Results with 12 and 8 undergraduates and graduates indicate that exposure to visual-motor discordance produced by wedge prisms caused a change in the judged visual direction (V) of targets and in setting the hand to the median plane of the head (H). The prism-induced change in target-aiming performance (T) was equal to $(H + V)$. Viewing a visual display through the prisms produced changes in V and H, but the data did not fit the linear model $(H + V = T)$. Changes in pointing at visual targets with the untrained arm were fully accounted for by changes in V. (18 ref.)—*Journal abstract.*

Size & Distance & Depth Perception

10009. Baird, John C. (Ed.) (Dartmouth Coll.) **Human space perception: Proceedings of the Dartmouth conference.** *Psychonomic Monograph Supplements*, 1970, Vol. 3(13), 137-219.—Presents topics delivered by 8 researchers on human space perception at the 1969 Dartmouth conference. Research on problems of size, distance, shape, movement, and depth perception are discussed. Recent research and the emergence of limited theoretical models are noted. (5 p. ref.)—*P. Hertzberg.*

10010. Ferris, Steven H. **Interocular apparent movement in depth and its relation to stereopsis.**

Dissertation Abstracts International, 1971(May), Vol. 31(11-B), 6929-6930.

10011. Frey, Karl J. (New School for Social Research) **Demonstration of adaptation in distance perception based on oculomotor cues.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6286-6287.

10012. Lawson, R. B. & Frey, W. F. (U. Vermont) **Effects of short-term sensory isolation upon stereoscopic size and distance.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 571-577.—6 sensory isolated Os and 6 yoked controls. Os estimated stereoscopic size and distance of disparate squares of constant angular size. Os were 11 males and 4 female with a mean age of 20 yr. Data indicate that short-term sensory isolation did not affect stereoscopic size-distance relationships, whereas stereoscopic size and distance varied directly with the magnitude and direction of the disparity carried by the target.—*Journal abstract.*

Color Vision

10013. Brigner, Willard L. (Appalachian State U.) **Role of lateral inhibitory interaction in color coding.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 451-468.—Presents a theory of color coding which is applicable to both the Prevost-Fechner-Benham subjective color and the color sensation arising from retinal stimulation by a narrow band of the light spectrum. The primary features of the theory examined in 4 experiments are (a) 3 types of photoreceptors which are present in the retina in approximately equal numbers; (b) lateral inhibitory interaction among the photoreceptors; (c) a fixed temporal or serial order in which the relative response of each photoreceptor type is processed; and (d) an integration interaction period of approximately 100 msec. On the basis of the theory, the operation for eliciting specific subjective colors are successfully predicted. (43 ref.)—*Journal abstract.*

10014. Menzer, George W. (U. Louisville) **Experiments on orientation-specific chromatic after-effects.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6949.

10015. Molnar, Francois. (Inst. d'Esthétique et des Sciences de l'Art, Paris, France) **Influence de la couleur sur le déclenchement du réflexe de fixation.** [Influence of color on the release of the fixation reflex.] *Année Psychologique*, 1970, Vol. 70(1), 7-18.—At 3 different intensity levels, 2 simultaneously presented but differently colored visual stimuli were perceived in different order: (a) red, green, yellow, existed in a hierarchy of attractiveness for the group; (b) an intragroup division showed some Ss preferring green to red, and (c) there was an intragroup division which was a function of the stimulus situation, left-right. These findings are interpreted in terms of a dual mechanism underlying the action of the fixation reflex: 1 mechanism reacts to geometric features, the other to specific stimulus characteristics.—*G. Rubin-Rabson.*

Form & Pattern Discrimination

10016. Andrews, Martin H. (Purdue U.) **Binocular and dichoptic masking of simple geometric figures by light flashes and patterned grids.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6274.

10017. Cohen, Gillian. (U. Oxford, Inst. of Experimental Psychology, England) **Differential effects of**

Irrelevant dimensions in three shape recognition tasks. *British Journal of Psychology*, 1971(May), Vol. 62(2), 151-156. —Examined 3 shape recognition tasks in an experiment with 6 male undergraduates: (a) matching 2 shapes, (b) matching a written name to a shape, and (c) naming shapes orally. In each the relevant dimension was shape, but the irrelevant dimensions of color, orientation, and proportion were varied. The effect of changes in the irrelevant dimensions in each task was used to infer the degree of specificity present in the internalized standard against which the test stimulus was matched. The finding that name-visual matches resembled visual-visual matches rather than naming latencies indicates that comparison in that task was based on a generated visual code. —*Journal abstract*.

10018. Gregg, Claudette L. & Psnak, Robert. (Catholic U. of America) **Effects of instructions and training on shape constancy.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 485-486. —16 undergraduate volunteers were instructed to judge both the true shapes and the retinal images of tilted triangles in reduced cue viewing conditions and were given feedback on the correctness of their responses. Ss were able to change their judgments in accordance with the instructions; the correction procedure itself had only a small effect. —*Journal abstract*.

10019. Pelton, Leroy H. (Wayne State U.) **Perceptual organization, stability, attraction, and volition: A study of the reversible figure-ground phenomenon.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6954.

10020. Zobrist, Albert L. (U. Wisconsin) **Feature extraction and representation for pattern recognition and the game of GO.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6566.

Eye Movement

10021. Edwards, David C., Antes, James R., Adams, Randall W., & Trumm, Gerald A. (Iowa State U.) **Comparison of first-eye-movement detection methods.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 435-441. —Detected the 1st eye movement from a point of fixation by direct observation, by electrooculograph (EOG), and by corneal reflection apparatus. 6 male graduate students and faculty members served as Ss. Essential agreement was obtained among the measures. Only with movements less than 5° were there serious numbers of discrepancies in detection against the criterion of photo-recorder corneal reflection measurement. A horizontal movement was detected more reliably than a vertical movement. The EOG was most likely to miss detection of a vertical movement. The efficiency of the measures regarding movement detection and monitoring choice-looking-behavior are discussed. —*Journal abstract*.

Brightness & Contrast Discrimination

10022. Fitch, Jean H. (Washington U.) **Effects of area and reflectance of lightness contrast and assimilation: A test of the area-luminance hypothesis.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6931.

10023. Semmelroth, Carl C. (Cleveland State U.) **Prediction of lightness and brightness on different backgrounds.** *Journal of the Optical Society of America*, 1970(Dec), Vol. 60(12), 1685-1689. —Hypothesizes 2 psychophysical responses to surface or self-luminous stimuli. A response to the luminance of the stimulus (α) and a response to the luminance difference between the stimulus and its surround (β) are both considered to be power functions. Lightness or brightness is taken to be an additive or subtractive combination of these 2 responses ($\alpha \pm k\beta$) depending on whether the surround is darker or brighter than the stimulus, respectively. This model is shown to produce a quantitatively adequate explanation of H. Takasaki's data on crispening. An attempt is made to use this formulation to fit scaling data from previous magnitude-estimation and partitioning studies of lightness and brightness in which different results have been obtained from different backgrounds. Data from matching experiments that involve different backgrounds for the comparison and standard stimuli are also analyzed by means of the same formulation. The model is compared with the Adams-Cobb-Judd formulation of background effect on lightness, the Takasaki empirical formula for crispening, and Stevens's power-law formulation for brightness and lightness. (19 ref) —*Journal abstract*.

AUDITION

10024. Bregman, Albert S. & Campbell, Jeffrey. (McGill U., Montreal, Quebec, Canada) **Primary auditory stream segregation and perception of order in rapid sequences of tones.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 244-249. —Examined the finding by R. Warren, C. Obusek, R. Farmer and R. Warren (see PA, Vol. 45:1605) that listeners were unable to judge the order of 3 or 4 nonspeech sounds presented in a repetitive cycle. 2 experiments with 32 and 21 undergraduates show that at high presentation rates of a short cycle of 3 high and 3 low tones Ss invariably segregated the tone sequences into streams relating frequency and could perceive only those patterns relating elements of the same subjective stream. (18 ref) —*Journal abstract*.

10025. Dimmick, Kenneth D. (Stanford U.) **Effects of accessory sensory stimulation on auditory perception.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6971.

10026. Djupesland, G. & Zwislock, J. J. (Rikshospitalet, Oslo, Norway) **Effect of temporal summation on the human stapedius reflex.** *Oto-Laryngologica*, 1971(Feb), Vol. 76(2), 262-265. —Studied the sensitivity of the acoustic stapedius reflex as a function of stimulus duration by monitoring acoustic-impedance changes at the eardrum in 10 yr. old Ss. Results indicate an unexpectedly pronounced duration effect. The sound intensity required for a criterion response had to be lowered by about 20 dB when the signal duration was increased from 10 to 100 msec. (French & German summaries). —*Journal abstract*.

10027. Perrott, David R. (California State U., Los Angeles) **Signal and interaural level difference effects on binaural critical band.** *Journal of Acoustical Research*, 1970(Jan), Vol. 10(1), 1-4. —Binaural fusion thresholds were determined for a sinusoidal tone as a function of signal level and interaural level difference. Binaural bandwidth, as defined by sinusoidal tone, increased as a direct function of signal level. These results are in agreement with the notion that the binaural fusion mechanism could be described as analogous to the

tunability of individual neurons sensitive to binaural input. The interaction of bandwidth with interaural level differences is less readily defined and may simply reflect contralateral masking.—*Journal summary.*

Perception

10028. Ahumada, Al & Lovell, John. (U. California, Irvine) **Stimulus features in signal detection.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1751-1756.—Short bursts of computer-generated Gaussian noise were rated by Os for the presence or absence of a 500-Hz signal tone burst in 2 experiments with 17 undergraduates and young faculty members. A multiple regression analysis found for each O the linear combination of the energies in narrow bands around the tone frequency that best predicted his total ratings. The estimates of the regression coefficients provided graphs of the frequency responses of the Os. Most of the reliable variance in the total ratings was accounted for by the regression analysis in terms of energy in narrow bands. Differences among Os are explained in terms of differential weighting by Os of features labeled "tone presence," "pitch," and "loudness." (20 ref.)—*Journal abstract.*

10029. Elfner, Lloyd F., Bothe, Gary G., & Simrall, Dorothy S. (Florida State U.) **Monaural localization: Effects of feedback, incentive, and interstimulus interval.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 11-16.—Localization tests using 1-sec bursts of white noise were run on simulated monaural college students in both a 2-loudspeaker and a 4-loudspeaker situation, in which no loudness information was available. Some Ss were able to localize well even with a $\pm 15^\circ$ separation of speakers either front or back across the midline, and the rest were able to improve their performance with information feedback. Additional mild monetary incentive had no effect. Performance remained high with interstimulus intervals as long as 33 sec.—*Journal summary.*

10030. Le Ny, Jean F. (U. Paris-Vincennes, Psychology Lab., France) **Certitude exprimée et généralisation du stimulus dans une tâche d'identification perceptive.** [Expressed confidence and stimulus generalization in a task of perceptive identification.] *Année Psychologique*, 1970, Vol. 70(1), 19-32.—In Phase 1, a pure tone and others differing in frequency were presented; in Phase 2, all stimuli except the original. A plus indicated recognition of the original, a minus for all others, and an indication of confidence from 1-3. Results showed the existence, for both positive and negative responses, of a gradient of confidence that was a function of stimulus similarity. Suppression of the original stimulus produced a decrement in the number of correct identifications and in confidence, this decrement depending on stimulus similarity. (32 ref.)—G. Rubin-Rabson.

10031. Pinheiro, Marilyn L. & Placek, Paul H. (Case Western Reserve U.) **Reversals in the perception of noise and tone patterns.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1778-1782.—Investigated perception of auditory patterns based on an intensity difference in 20 experienced normal-hearing Ss under binaural and monaural listening conditions. Patterns were made up of either 3 white-noise bursts or 3 1000-Hz tone bursts which were temporally spaced. Bursts within each pattern differed

only in intensity and were either loud (L) or soft (S), i.e., each pattern included 1 of 1 intensity and 2 of the other. The 6 possible patterns were SLS, LSL, LLS, SSL, LSS, and SLL. The loud bursts remained at a constant intensity and the soft bursts were attenuated by either 9, 7, 5, or 3 db. Patterns were presented at 50-db sensation level. Tone-burst patterns were easier to perceive and resulted in a larger number of correct responses than noise-burst patterns. However, there was no significant difference between tone- and noise-burst patterns in the percentage of errors that were pattern reversals. Symmetrical patterns were reversed more frequently than asymmetrical patterns. Auditory pattern reversals are compared to figure-ground reversal and simultaneous contrast phenomena in vision and are discussed in relation to sensory inhibition.—*Journal abstract.*

10032. Rochester, Sherry. (U. Toronto, Clarke Inst. of Psychiatry, Ontario, Canada) **Detection and duration discrimination of noise increments.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1783-1789.—When weak signals are presented in a background of continuous noise, the process of detection and the discrimination of a change in duration appears to be very similar. 2 experimental techniques were used (with 1 male and 2 female listeners in each group) to investigate duration discrimination. The procedure in which the difference in duration between signals, ΔT , was varied given a fixed signal-to-noise ratio gave different results than the procedure in which signal amplitude was varied given a fixed ΔT . Although there were marked individual differences, all Ss roughly supported the general conclusion. (22 ref.)—*Journal abstract.*

10033. Sandusky, Arthur & Ahumada, Al. (U. California, Santa Barbara) **Contrast in detection with gated noise.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1790-1794.—In 2 experiments with 10 undergraduates and young faculty members, the response bias in yes-no detection with gated noise and simultaneously gated signal plus noise was found to show both sequential and probability contrast. The sequential dependencies showed that the more recent a signal event, the more the response bias shifts away from yes. Similarly, the more probable the presentation of a signal, the more the response bias shifts away from yes. The response bias in detection with continuous noise usually shows the opposite effect—response assimilation. The probability of a yes response increases with either greater signal probability or with signal recency. It is suggested that the response-bias learning which has been postulated to occur in detection experiments depends on the stability of the judgmental frame of reference provided by the continuous noise. When this basis is removed, as in the present study, the response pattern parallels that usually observed in signal recognition studies for which responses are assumed to depend on the memory of the previous presentations. It is concluded that the response pattern, assimilation or contrast, depends more on the stability of the frame of reference than on the type of psychophysical task. (17 ref.)—*Journal abstract.*

10034. Simon, J. Richard; Craft, John L., & Small, A. M. (U. Iowa) **Reactions toward the apparent source of an auditory stimulus.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 203-206.—Utilized interaural phase shifts to manipulate the spatial locus of a stimulus and the potency of the directional cue in 2

experiments with 16 male and 16 female undergraduates in each. Reactions to binaural tonal commands signifying "right" or "left" were significantly slowed when the meaning of the command conflicted with its apparent source. Results indicate that the stronger the directional cue, the greater the interference with information processing.—*Journal abstract.*

10035. Stokinger, T. E., Cooper, W. A., & Lankford, J. E. (Veterans Administration Hosp., Oklahoma City, Okla.) **Effect of interval durations on interaural loudness balancing.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 35-44.—2 experiments were performed on normal-hearing young men to study the effects of varying the duration of interstimulus intervals on the loudness relation of pure tones 1 kcps presented successively to the opposite ears. Interval durations of less than 240-400 msec. resulted in an overestimation of the loudness of the 2nd tone, the classic negative time-order error (TOE). With intervals from 400 to at least 1600 msec the loudness of the 2nd tone was underestimated (positive TOE). The existence of interaural TOE suggests that the 2 ears of an individual do not respond independently to successive, though temporally discrete, stimuli, but that central or binaural interaction occurs. Measurements of auditory phenomena which utilize successive interaural loudness comparisons may therefore be affected by the TOE and should take its presence into consideration.—*Journal summary.*

10036. Sussman, Harvey M. (U. Texas) **The laterality effect in lingual-auditory tracking.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1874-1880. Investigated binaural sensory processing when continuous nonspeech tonal stimuli were dichotically presented to 10 male undergraduates. The experimental task consisted of auditory (frequency) pursuit tracking, and consequently there was no influence of selective attention or competition on the listening task. The target sound was externally controlled, whereas the cursor sound was generated and controlled by the transduced movements of either the S's tongue or hand. A significant laterality effect was found only when the source of motor control over the acoustic signal was the speech-related movements of the tongue. Theoretical implications of these results towards a feedback regulatory theory of speech production are discussed. (18 ref.)—*Journal abstract.*

10037. Taylor, M. M., Clarke, D. P., & Smith, S. M. (Defence Research Establishment Toronto, Ontario, Canada) **Monaural detection with contralateral cue (MDDC): III. Sinusoidal signals at a constant performance level.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1795-1804.—2 female Ss detected a monaural sinusoid burst masked by continuous white noise, either with or without an unmasked contralateral cue. The cue, presented in intervals of each 2-interval forced-choice trial, was a sinusoid of the same frequency and duration as the signal, but its phase and intensity were experimentally varied. In 3 preliminary experiments it was shown that (a) when the cue nominally matched the frequencies and intensity, it improved detection at frequencies below about 1200 Hz. and was detrimental at frequencies above about 1400 Hz.; (b) at 500 Hz., cue phase strongly affected detection performance, some phases resulting in performance much worse than without the cue; (c) at 500 Hz., the effect of cue intensity was small for the cue

phase giving best performance (good phase), but increasing the cue intensity was detrimental to performance with a bad phase. With very loud cues, regardless of phase, performance declined with increasing cue intensity. The main experiment was a factorial study to examine the interactions of frequency, cue phase, and cue intensity. Phase was again found to be important at frequencies below about 1200 Hz., and to be more important the louder the cue. Worst performance at midfrequencies was found for the phase representing a cue lead of about 700 μ sec. The phase and the related interaural time difference giving best performance were functions of both cue intensity and frequency.—*Journal abstract.*

10038. Wilbanks, W. A. (U. Georgia) **Detection of a narrow-band noise as a function of the interaural correlation of both signal and masker.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1814-1817.—In an experiment with 5 Ss, the signal, 135-Hz noise centered at 250 Hz., was partially masked by continuous wide-band noise. The interaural correlation of both signal and masker was varied between +1 and 0. With a correlated masker, detection is about 14 db. better with an uncorrelated signal than with a correlated signal. The masking-level difference (MLD) diminishes as the correlation of the signal is increased to unity and as the correlation of the masker is decreased to 0. Results imply that sizable MLDs are obtained under those conditions where the addition of the signal to the noise results in a decrease in the correlation between the stimulus events at the 2 ears. (16 ref.)—*Journal abstract.*

10039. Witter, Henry L. (Purdue U.) **Ipsilateral and contralateral remote masking with continuous and interrupted maskers.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6310

Speech Discrimination

10040. Baumrin, Judith A. (Washington U.) **Confusions in the perception of verbal and non-verbal items as a function of response modality.** *Dissertation Abstracts International*, 1971(May), Vol. 31(1-B), 6918

10041. Coleman, Robert F. (Vanderbilt U.) **Effect of median frequency levels upon the roughness of jittered stimuli.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 330-336.—Investigated the relationship between median frequency levels and roughness perception for jittered stimuli. Median frequency levels were combined with 4 jitter conditions to form stimuli which were submitted to 32 undergraduate listeners who judged roughness by paired-comparison matching, magnitude estimation techniques. Results show the same trends in each of the procedures. Stimuli of lower median frequency were judged to be rougher than those of higher median frequency for all jitter conditions. It was concluded that the median frequency level of jittered waveforms affect the perception of roughness in analogue stimuli.—*Journal abstract.*

10042. Erber, Norman P. (Central Inst. for the Deaf, St. Louis, Mo.) **Interaction of audition and vision in the recognition of oral speech stimuli.** *Journal of Speech & Hearing Research*, 1968(Jan), Vol. 1(2), 423-425.—Conducted an experiment with 16 normal male 20-23 yr old adults to gather data on manner of speech reception in acoustic noise. Auditory and visual speech reception in acoustic noise was found to be superior to recognition via auditory-only under a wide

range of speech-to-noise (S/N) conditions. Data support the theory that Os rely increasingly on visual cues for speech information as S/N ratio is degraded. Audition-only performance was found to be less variable among Ss than was audiovisual recognition. Increased variability in audiovisual scores at poorer S/N ratios was attributed to differences in lip-reading skill among untrained Ss. Speech levels so low that recognition by audition-only approximated chance behavior were found, nevertheless, to systematically improve Os' audiovisual scores as a function of increasing S/N ratio.—*Journal abstract.*

10043. Horii, Yoshiyuki; House, Arthur S., & Hughes, George W. (Purdue U.) **A masking noise with speech-envelope characteristics for studying intelligibility.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1849-1856.—A noise whose amplitude envelope followed closely that of a concomitant speech signal was generated by multiplying white noise and the amplitude envelope of the speech, permitting the signal-to-noise (S/N) ratio to be specified on a short-time nonvarying basis. The spectrum of the amplitude envelope for continuous speech was studied with 22 young adults, and the distributions of the vowel and consonant levels in articulation test materials were determined. Articulation functions in such noise and in continuous white noise were generated. Within the range of S/N ratios studied, the gains of the functions for vowels and consonants were 4 and 2.5 % db, respectively, in both types of noises. Results clearly depict the operational differences between conventional and envelope-noise S/N-ratio specification and suggest that use of the envelope-noise masker may eliminate some of the problems associated with current methods. (29 ref.)—*Journal abstract.*

10044. Kreul, E. James; Bell, Donald W., & Nixon, James C. (Stanford Research Inst., Menlo Park, Calif.) **Factors affecting speech discrimination test difficulty.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 281-287.—Examined changes in item and overall test difficulty of speech discrimination and intelligibility tests as a function of (a) carrier phrase, (b) talker, (c) reutterances by a talker, and (d) level of accompanying noise. Results with 23 junior college students indicate that all of these variables must be considered in test development. It is concluded that only the actual recordings of the spoken lists of words, not the word lists themselves, should be thought of as test material.—*Journal abstract.*

10045. Mattingly, Ignatius G., Liberman, Alvin M., Syrdal, Ann K., & Halwes, Terry. (Haskins Lab., New Haven, Conn.) **Discrimination in speech and nonspeech modes.** *Cognitive Psychology*, 1971(Apr), Vol. 2(2), 131-157.—Discrimination of 2nd-formant transitions was measured under 2 conditions: when, as the only variation in 2-formant patterns, these transitions were responsible for the perceived distinctions among the stop-vowel syllables, and when, in isolation, they were heard, not as speech, but as bird-like chirps. The discrimination functions obtained with the synthetic syllables showed high peaks at phonetic boundaries and deep troughs within phonetic classes; those of the nonspeech chirps did not. Reversal of the stimulus patterns, producing vowel-stop syllables in the speech context and mirror-image chirps in isolation, affected the speech and nonspeech functions differently. An additional nonspeech condition, presentation of the transitions plus the 2nd-formant steady state, yielded data

similar to those obtained with the transitions in isolation. These results support the conclusion that there is a speech processor different from that for other sounds. (30 ref.)—*Journal summary.*

10046. Spreen, O., & Boucher, A. R. (U. Victoria, British Columbia, Canada.) **Effects of low pass filtering on ear asymmetry in dichotic listening and some uncontrolled error sources.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 45-51.—Meaningful 1-syllable words matched for initial phoneme were presented dichotically to 32 Ss under 4 low-pass filter conditions ranging from 2.5-1 kcps. A right ear superiority of recall obtained at the 2.5-kcps condition disappeared gradually with increasing amount of filtering. Results were interpreted as support for the notion that right ear superiority is dependent on the degree of similarity of the stimulus material to highly encoded speech sounds. An examination of differences in intensity, onset, and offset between pairs of simultaneously presented words showed that these error sources did not significantly affect the results, but a consistent trend among the results obtained for all 3 variables suggests the need for a careful control in future studies of dichotic listening. (18 ref.)—*Journal summary.*

Audiometry

10047. Copeland, Alfred B., & Mowry, Harris J. (Southern Illinois U.) **Real-ear attenuation characteristics of selected noise-excluding audiometric receiver enclosures.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1757-1761.—Measured the attenuation characteristics of 3 commercial audiometric headsets of the noise-barrier type—Aural Research (AR-100) "auraldomes," Madsen (Type ME-70) "noise-excluding headset," and Rudmose (RA-125) "otocups" and a standard audiometric headset (Telephonics 1DH-39 earphone with an MX-41/AR cushion). The threshold-shift method was used with 4 normally-hearing Os, employing a pure-tone sound field in an anechoic room. The resulting attenuation data for each of the noise-barrier headsets were compared statistically to those for each of the others and to the data for the standard headset. Data are contrasted with those supplied by the manufacturers. In terms of their attenuation capabilities for the octave bands pertinent to audiometry, the Rudmose otocup is ranked 1st, the auraldome 2nd, and the Madsen headset 3rd. It is suggested that (a) attenuation data alone should not determine the acceptability of any such device, and (b) the potential user should consider use only after measurement of octave-band noise levels in the environment in question. (17 ref.)—*Journal abstract.*

10048. Hattler, Karl W., & Northern, Jerry L. (Walter Reed General Hosp., Army Audiology & Speech Center, Washington, D.C.) **Clinical application of temporal summation.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 72-78.—Temporal summation functions were determined with 20 normal-hearing Ss classified by flat or sloping audiometric hearing loss configurations. Auditory thresholds were obtained at standard audiometric frequencies with 8 stimulus durations ranging from 10-300 msec. The temporal summation patterns were clinically reliable and virtually unaffected by changes per log unit of stimulus duration time were essentially the same under quiet or ipsilateral masked

background conditions. Substantially smaller S variability was shown for Ss at test frequencies where cochlear hearing impairment was present. Temporal summation measurement was found to be particularly sensitive to cochlear impairment and is recommended for inclusion in the clinical audiologic test armament.—*Journal summary.*

10049. Lester, Gene. (State University Coll. New York, Buffalo) **Vestibular stimulation and auditory thresholds.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 103-105.—Auditory thresholds of 8 Ss were tested before, during, and immediately after acceleration and deceleration in a rotating chair. Thresholds for 6 other Ss were tested after abrupt deceleration from rotation. Vestibular stimulation was not followed by any significant change in auditory threshold.—*Journal summary.*

10050. Meyer, Robert C. (U. Wisconsin) **Time-intensity trade ratios for low-frequency pure tones as a function of duration and sensation level.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6950.

10051. Ventry, Ira M., Woods, Robert W., Rubin, Martha, & Hill, Wathina. (Teachers Coll., Columbia U.) **Most comfortable loudness for pure tones, noise, and speech.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1805-1813.—Studied most comfortable loudness (MCL) levels for pure tones, broad- and narrow-band noise, and connected speech in 3 independent experiments using Békésy audiometers and 192 young (mean age, 22.4) normal-hearing males and females. Differences in MCL were explored as a function of attenuation rate, sex, frequency of the pure-tone and narrow-band stimuli, interrupted vs. continuous pure-tone stimuli, instructional set, session, and a modified Békésy operation which allowed the S to hold intensity constant over time vs. standard Békésy operation. There were no significant sex, set, session, or operation differences. In all 3 experiments, a 2.5-dB/sec operation differences. In all 3 experiments, a 2.5-dB/sec attenuation rate produced higher MCLs than a 1.25-dB/sec rate. In general, a 500-Hz tone or narrow-band noise centered at 500 Hz. was tracked at the highest SPLs, while broad-band noise was consistently tracked at the lowest levels. Regardless of frequency or attenuation rate, continuous pure tones were tracked at higher SPLs than interrupted pure-tone stimuli. Although inter-S variability was relatively high, the majority of test-retest differences in each experiment was 10 db. or less. Over-all MCLs in decibels SPL re .0002 μ bar were 49.3 for speech, 49.4 for noise, and 51.7 for pure tones. (23 ref.)—*Journal abstract.*

CHEMICAL SENSES

10052. Mitchell, M. J. & Gregson, R. A. (U. Canterbury, Christchurch, New Zealand) **Between-subject variation and within-subject consistency of olfactory intensity scaling.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 314-318.—10 male and 10 female undergraduates made magnitude estimations of olfactory intensity on 4 separate test sessions as closely matched as possible. The only independent variable manipulated was the chemical nature of the stimuli: eugenol was tested on 2 occasions, n-propanol on the others. Exponents of psychophysical power functions showed low within-S variability and while within-group variability was high, the between-S dif-

ferences were very consistent over sessions. The implications of these findings for traditional methods of obtaining group exponents are discussed. Some changes in procedure are considered necessary since group exponents were identical for the chemicals tested (16 ref.)—*Journal abstract.*

10053. Schiffman, Susan S. (Duke U.) **A psychophysical gustatory model.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6303.

SOMESTHESIA

10054. Benson, Alan J. & Guedry, Fred E. **Comparison of tracking task performance and nystagmus during sinusoidal oscillation in yaw and pitch.** (SS) *AMRL Army-Navy Joint Report*, 1970(Oct), No. 1123, 20 p.—Sinusoidal torsional oscillation (.041Hz, peak angular velocity ± 60 to $\pm 159^\circ$ /sec) degraded Ss' performance of a compensatory tracking task because inappropriate nystagmic eye movements impaired visibility of the display. Response to angular oscillation in yaw and pitch were compared. 2 experiments with 11 and 6 healthy young men, respectively, were conducted. During angular motion in the pitch-forward direction the nystagmus frequency and slow phase velocity and the consequent performance decrement, were significantly greater than during the pitch-back $\frac{1}{2}$ cycle. No such asymmetry was found during oscillation in yaw where the nystagmus measures and error scores were similar to those obtained in the pitch-back $\frac{1}{2}$ cycle. The poorer suppression of vestibular nystagmus during pitch and forward motion is attributed to the higher frequency and smaller amplitude of downbeating nystagmus. Any differential oscillation in pitch induced motion sickness more rapidly than a comparable yaw-axis stimulus. This was probably caused by differences in the dynamic response of vertical and lateral canals and the greater mismatch of canal and gravireceptor signals during oscillation in pitch. (18 ref.)—*Journal abstract.*

10055. Carmon, Amir & Finger, Stanley (Hebrew U., Hadassah Medical School, Jerusalem, Israel) **Spatial and temporal interaction in tactile adaptation.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 427-433.—Examined adaptation to 1 weight as a function of the temporal parameters of a spatially dynamic 2nd weight in 3 behavioral studies in which large series of trials in multiple sessions were presented to female and male undergraduates. A positive relation between adaptation time and stimulus intensity was observed, and the preceding weight served to decrease adaptation time to the test stimuli in all experiments. The role of neural inhibition in pressure adaptation is discussed.—*Journal abstract.*

10056. La Pointe, Leonard L. & Williams, William N. (Veterans Administration Hosp. Gainesville, Fla.) **Effect of selected form attachment devices on oral stereognosis scores.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 469-470.—Tested 12 adults with normal speech on a 10 form task of intraoral form identification (oral stereognosis) under 3 conditions: (a) forms attached to stainless steel orthodontic wire, (b) forms attached to nylon mandibular arch, and (c) forms with no attachment device. No significant differences were found among conditions in either response accuracy or time.—*Journal abstract.*

10057. McCall, Gerald N. & Cunningham, Nancy M. (State U. New York, Upstate Medical Center, Syracuse) **Two-point discrimination: Asymmetry in spatial**

discrimination on the two sides of the tongue: A preliminary report. *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 368-370. —Used 25 young adults in a study of asymmetry in spatial discrimination on the 2 sides of the tongue. 10 2-point limen values were established on the left and right tongue margins of each S. Analysis shows statistical evidence of asymmetry in spatial discrimination ability in 14 of the Ss, supporting the concept that "sensory sidedness" in the tactile sensory system may be a normal neurological phenomenon. (17 ref.)—*Journal abstract*.

10058. **Parker, David M.** (San Fernando Valley State Coll.) **A psychophysiological test for motion-sickness susceptibility.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 87-92. —In a combined field and laboratory study of a new technique for predicting motion-sickness susceptibility the volar sweating of 100 undergraduates viewing a film depicting motion was measured. Ss who showed .100-micromho changes in conductance were considered prone to motion sickness. Under field conditions at sea 10 Ss judged to be susceptible became seasick, while 10 judged to be immune did not. A modification of Reason's "receptivity" hypothesis is advanced which elucidates the results of the experiment.—*Author abstract*.

10059. **Potemkin, B. A. & Frolov, K. V.** (State Research Inst. for Machine Operation, Moscow, USSR) **O model'nykh predstavleniyakh biomekhanicheskoi sistemy "chelovek-operator" pri sluchainom vibratsionnom vozdeistvii.** [Biomechanical models of the human operator, affected by random vibration.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 197(6), 1284-1287. —Vibrations ranging from 2-200 Hz., produced by a random vibration generator, were amplified and applied to the S's body in 3 different sitting positions by way of a sitting platform. Vibratory output was recorded from a transducer attached to the S's head and used to evaluate the transmission functions of the human body, assuming it to be a static and linear system. Mathematical models representing the human body in terms of its vibratory input and output characteristics as a function of posture were formulated.—*L. Zusne*.

10060. **Reason, James T. & Graybiel, Ashton.** (U. Leicester, England) **The effect of varying the time interval between equal and opposite Coriolis accelerations.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 165-173. —Investigated the effect of varying the time interval between 2 equal and opposite Coriolis accelerations on the duration of the subjective responses evoked by the 2nd stimulus in 20 navy enlisted men and male undergraduates. Theoretical curves derived from the torsion pendulum model approximated fairly closely the reported durations of the subjective phenomena which increased as a function of the time interval between the 2 Coriolis accelerations. This result supported the a priori assumption that the neural events underlying the subjective phenomena are closely linked to mechanical events occurring within the cupula-endolymph system. However, (a) the estimated time constants of signal decay were shorter than those expected on the basis of the known mechanics of the semicircular canal system, and (b) the persistence of the Coriolis sensation (feelings of apparent whole body motion without visual reference) was greater at all intervals than the Coriolis oculogyral illusion. Adequate explanation of these findings requires the postulation of additional central mechanisms.—*Journal abstract*.

10061. **Wade, N. J. & Schöne, H.** (U. Dundee, Scotland) **The influence of force magnitude on the perception of body position: I. Effect of head posture.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 157-163. —Investigated judgments of body position during rotation in the sagittal plane at force magnitudes of 1, 1.2, 1.4, 1.6, and 1.8 g. With the head and trunk upright, the judgments of 6 Ss were displaced forward as a function of the force operating. The forward shift could be related to the increase in the backward acting shear force on the utricular statolith organs. This hypothesis was supported by the reduced forward shift in perceived body position that occurred under the same conditions but with the head tilted 30° forward of the upright trunk. (23 ref.)—*Journal abstract*.

10062. **Williams, William N. & La Pointe, Leonard L.** (U. Florida) **Intra-oral recognition of geometric forms by normal subjects.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 419-426. —Determined oral form recognition abilities for 40 normal 20-59 yr. old Ss, using 12 different geometric forms in 8 sizes. The purposes were: (a) to explore such related variables as form complexity, form size, Ss' age, sex, and education level, and Ss' response time; and (b) to reduce the total number of test items to a more manageable level by selecting those shapes and sizes from the original test items which contribute most to the obtained oral stereognosis scores. There were no significant differences for sex or educational level, but significant relations were found among performance levels and age groups. Ss' performance tended to be inversely related to response time. Within the limits of several criteria, 10 forms were selected which can practically and effectively provide a measure of oral form recognition. And, these forms may permit assessment of oral sensory integrity.—*Journal abstract*.

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

10063. **Albert, Ira B.** (U. Delaware) **A motivational analysis of REM sleep.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6917.

10064. **Berggren, Richard J.** (Tufts U.) **The function of REM sleep for the oculomotor system.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6918.

10065. **Kramer, Milton; Winget, Carolyn, & Whitman, Roy M.** (U. Cincinnati, Medical School) **A city dreams: A survey approach to normative dream content.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1350-1356. —The dream reports of a population of 300 adults obtained by a survey questionnaire revealed the preoccupations of the population, and are different in some aspects from the early memories of the same population. Dream reports were transcribed, coded, scored, and classified with several procedures: the Hall-Van de Castle Dream Content System, the Gottschalk-Gleser Verbal Sample System, and the determination of typical dream themes, affects, death themes, institutional references, premonitions in dream reports, and alleged age of occurrence of the early memory. Dream reports contain equal frequencies of aggressive and friendly social interactions, tend to be more negative as to mood and event outcome, have more

anxiety than hostility, and refer mainly to the family. Early memories have more familiar settings, oral incorporation, castration anxiety, and overt hostility.—*Journal abstract.*

HYPNOSIS & SUGGESTIBILITY

10066. **Greene, Robert J.** (Michigan State U.) **Stimulus tolerance in hypnotic analgesic and imagination states.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6901.

1971(May), Vol. 31(11-B), 6901.
10067. Kihlstrom, John F. & Edmonston, William E. (U. Pennsylvania) Alterations in consciousness in neutral hypnosis: Distortions in semantic space. *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 243-248.—30 highly hypnotizable Ss were equally divided into 3 groups, equated for age, sex, and hypnotic susceptibility. A semantic differential scale was administered to each S in waking, individual sessions. An oral form of the same scale was administered during: (a) hypnosis, (b) waking-posthypnosis, and (c) waking, no hypnosis. All groups showed significant change between administrations of the scale; hypnosis showed more change than waking-posthypnosis, and the latter more than waking, no hypnosis.—*M. V. Kline.*

10068. **Suit, Donald T.** (Michigan State U.) **An experimental investigation of a belief in hypnosis and hypnotic suggestibility.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6960.

MOTIVATION & EMOTION

10069. **Brookshire, Robert H. & Eveslage, Roberta A.** (Veterans Administration Hosp., Kansas City, Mo.) **Verbal punishment of disfluency following augmentation of disfluency by random delivery of aversive stimuli.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 383-388.—10 normal adult speakers read a passage, 1st in a random condition, then in a contingent condition. In each condition, Ss read in 30-min sessions: (a) 5-min base rate, (b) 15-min conditioning, and (c) 10-min extinction. During conditioning in random condition, Ss received a .75-sec. 95-db burst of white noise on a random schedule. During conditioning in contingent condition, Ss heard the word "no" each time they were disfluent. Disfluency increased under random noise and decreased under contingent no. Results indicate that disfluency that is established or augmented by an aversive stimulus is amenable to suppression by punishment with a different aversive stimulus.—*Journal abstract.*

10070. Coleman, Linda A. (Florida State U) The effects of vicariously conditioned emotional arousal on observer responding. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6893.

10071. Fogel, Marvin E. (Texas Technological University, Lubbock, Texas). **Conflict, stress response and stress adaptation in humans: the role of sensitizers, neutrals and repressors: A construct validity study.** *Dissertation Abstracts International*, 1971(Apr). Vol. 31(10-B). 6255-6256. 1971(Apr). Vol. 31(10-B). 6255-6256.

1971(Apr), Vol. 31(10-B), 6255-6256.
10072. Fredenthal, Burton J. (Wayne State Univ., Detroit, Mich.). **Repression: Toward establishment of an experimental paradigm.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6899.
10073. Fredenthal, Burton J., & Powers, Patrick C. (Wayne State Univ., Detroit, Mich.). **Repression: Toward establishment of an experimental paradigm.** *Journal of Experimental Psychology*, 1971(May), Vol. 77(2), 155-161.

10073. **Geen, Russell G.** & Powers, Patrick (Missouri) **Shock and noise as instigating stimuli in human aggression.** *Psychological Reports*, 1977 (Jan)

Vol. 28(3), 983-985.—In 2 separate experiments with 15 male undergraduates each, Ss were either attacked or not attacked by a confederate (C), with shocks or loud noises. In each case, S was later allowed to retaliate in kind to C. Ss attacked with shocks retaliated with both a greater number and greater intensities of shock than Ss not attacked. Ss attacked with loud noise retaliated more than nonattacked Ss only in terms of the number of noise bursts given. It is concluded that shock is a more reliable instigator of retaliatory aggression than average noise.—Journal abstract.

10074. Goyeche, John R. & Thysell, Richard V. (1971). Waterloo, Ontario, Canada) Cardiac index of the orientation reaction as a function of anticipation interval. *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 619-630. Investigated the form of the heart-rate (HR) response in anticipation of a brief visual stimulus and to determine whether the form of the response changed over trials. 14 undergraduates were exposed to 12 presentations of a visual stimulus which they identified. $\frac{1}{3}$ the Ss were presented with the stimulus every 10 sec., $\frac{1}{3}$ every 15 sec. HR was recorded for each sec. during the anticipation intervals. Results indicate that the cardiac anticipatory response in the 10-sec. group was triphasic: a slight deceleration, followed by an acceleration, followed by a deceleration of approximately equal magnitude, and that the response habituated during the last block of 4 trials. In the 15-sec. interval the anticipatory response was biphasic and was primarily biphasic (acceleration followed by deceleration) appeared to be in the previous block of trials. In the 12-sec. triphasic HR response was not habituated. Index of the cardiac response was calculated and habituated as a temporal function. (See also 10073, 10075, 10076, 10077, 10078, 10079, 10080, 10081, 10082, 10083, 10084, 10085, 10086, 10087, 10088, 10089, 10090, 10091, 10092, 10093, 10094, 10095, 10096, 10097, 10098, 10099, 10100, 10101, 10102, 10103, 10104, 10105, 10106, 10107, 10108, 10109, 10110, 10111, 10112, 10113, 10114, 10115, 10116, 10117, 10118, 10119, 10120, 10121, 10122, 10123, 10124, 10125, 10126, 10127, 10128, 10129, 10130, 10131, 10132, 10133, 10134, 10135, 10136, 10137, 10138, 10139, 10140, 10141, 10142, 10143, 10144, 10145, 10146, 10147, 10148, 10149, 10150, 10151, 10152, 10153, 10154, 10155, 10156, 10157, 10158, 10159, 10160, 10161, 10162, 10163, 10164, 10165, 10166, 10167, 10168, 10169, 10170, 10171, 10172, 10173, 10174, 10175, 10176, 10177, 10178, 10179, 10180, 10181, 10182, 10183, 10184, 10185, 10186, 10187, 10188, 10189, 10190, 10191, 10192, 10193, 10194, 10195, 10196, 10197, 10198, 10199, 10200, 10201, 10202, 10203, 10204, 10205, 10206, 10207, 10208, 10209, 10210, 10211, 10212, 10213, 10214, 10215, 10216, 10217, 10218, 10219, 10220, 10221, 10222, 10223, 10224, 10225, 10226, 10227, 10228, 10229, 10230, 10231, 10232, 10233, 10234, 10235, 10236, 10237, 10238, 10239, 10240, 10241, 10242, 10243, 10244, 10245, 10246, 10247, 10248, 10249, 10250, 10251, 10252, 10253, 10254, 10255, 10256, 10257, 10258, 10259, 10260, 10261, 10262, 10263, 10264, 10265, 10266, 10267, 10268, 10269, 10270, 10271, 10272, 10273, 10274, 10275, 10276, 10277, 10278, 10279, 10280, 10281, 10282, 10283, 10284, 10285, 10286, 10287, 10288, 10289, 10290, 10291, 10292, 10293, 10294, 10295, 10296, 10297, 10298, 10299, 10300, 10301, 10302, 10303, 10304, 10305, 10306, 10307, 10308, 10309, 10310, 10311, 10312, 10313, 10314, 10315, 10316, 10317, 10318, 10319, 10320, 10321, 10322, 10323, 10324, 10325, 10326, 10327, 10328, 10329, 10330, 10331, 10332, 10333, 10334, 10335, 10336, 10337, 10338, 10339, 10340, 10341, 10342, 10343, 10344, 10345, 10346, 10347, 10348, 10349, 10350, 10351, 10352, 10353, 10354, 10355, 10356, 10357, 10358, 10359, 10360, 10361, 10362, 10363, 10364, 10365, 10366, 10367, 10368, 10369, 10370, 10371, 10372, 10373, 10374, 10375, 10376, 10377, 10378, 10379, 10380, 10381, 10382, 10383, 10384, 10385, 10386, 10387, 10388, 10389, 10390, 10391, 10392, 10393, 10394, 10395, 10396, 10397, 10398, 10399, 10400, 10401, 10402, 10403, 10404, 10405, 10406, 10407, 10408, 10409, 10410, 10411, 10412, 10413, 10414, 10415, 10416, 10417, 10418, 10419, 10420, 10421, 10422, 10423, 10424, 10425, 10426, 10427, 10428, 10429, 10430, 10431, 10432, 10433, 10434, 10435, 10436, 10437, 10438, 10439, 10440, 10441, 10442, 10443, 10444, 10445, 10446, 10447, 10448, 10449, 10450, 10451, 10452, 10453, 10454, 10455, 10456, 10457, 10458, 10459, 10460, 10461, 10462, 10463, 10464, 10465, 10466, 10467, 10468, 10469, 10470, 10471, 10472, 10473, 10474, 10475, 10476, 10477, 10478, 10479, 10480, 10481, 10482, 10483, 10484, 10485, 10486, 10487, 10488, 10489, 10490, 10491, 10492, 10493, 10494, 10495, 10496, 10497, 10498, 10499, 10500, 10501, 10502, 10503, 10504, 10505, 10506, 10507, 10508, 10509, 10510, 10511, 10512, 10513, 10514, 10515, 10516, 10517, 10518, 10519, 10520, 10521, 10522, 10523, 10524, 10525, 10526, 10527, 10528, 10529, 10530, 10531, 10532, 10533, 10534, 10535, 10536, 10537, 10538, 10539, 10540, 10541, 10542, 10543, 10544, 10545, 10546, 10547, 10548, 10549, 10550, 10551, 10552, 10553, 10554, 10555, 10556, 10557, 10558, 10559, 10560, 10561, 10562, 10563, 10564, 10565, 10566, 10567, 10568, 10569, 10570, 10571, 10572, 10573, 10574, 10575, 10576, 10577, 10578, 10579, 10580, 10581, 10582, 10583, 10584, 10585, 10586, 10587, 10588, 10589, 10590, 10591, 10592, 10593, 10594, 10595, 10596, 10597, 10598, 10599, 10600, 10601, 10602, 10603, 10604, 10605, 10606, 10607, 10608, 10609, 10610, 10

ref.) - *Journal of Personality and Social Psychology*, 1977, 35, 1, 1-10.

10075 Heilizer, Fred & Cutler, Henry S. **Anxiety and arousal** *Journal of Personality and Social Psychology*, 1977, 35, 1, 1-10.

1971(Jul), Vol. 35, 1, 1-10.

gence between the anxiety and arousal scales (N = 144 undergraduate students) and nonpathological levels of anxiety and arousal. (b) the convergent validity of the scales, greater in a sample of nonpathological students than in a sample of clinical patients. (c) clearly and unambiguously support Malmlo's theory of the convergence of arousal and anxiety. (d) to include the range of arousal and anxiety in the scales. (e) the scales can be considered as a general measure of arousal rather than as a measure of anxiety. (f) the scales are valid and reliable.

of arousal
construct validated.
—Journal Summary
11876 Jorgensen, Dale O. (1) *Measurement of
experimental and correlational analysis of some
expectancy value models of motivation* *Psychology
Abstracts* 1976
6939

10077. Kaurer, Warren R. *Phylogenetic analysis of nondirective generalized drive.* Ph.D. diss., University of California, San Diego, 1970. 140 pp.

Hull, drive energized but did not direct behavior. An important issue is whether or not it is necessary to postulate a plurality of drives. Such a formulation seems to have its basis in the fact that different antecedent conditions can motivate an organism. If plurality is assumed, all drives must be thought of as having something in common yet differing in some aspect. In the absence of a better theory, the generalized drive construct still has interpretive utility. An intellectual debt to J. S. Brown is acknowledged. (70 ref.)—*R. D. Nance.*

10078. Nourse, James C. & Welch, Robert B. (U. Kansas) **Emotional attributes of color: A comparison of violet and green.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 403-406.—Exposed 14 undergraduates for 60-sec intervals to violet light and to green light, in alternating order, for a total period of 6 min. Electrical skin conductance was monitored throughout the session. The crucial measure was the GSR occurring in the 1st 12 sec. of exposure to a given color. As predicted, GSR was greater to violet than to green.—*Journal abstract.*

10079. Shaham, Nannette. **The effect of differences in ego-superego patterns on reactions to success and failure.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6913.

10080. Shellberg, Lisa O. (Claremont Graduate School) **The effects of motivational arousal on humor appreciation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6882-6883.

10081. Wake, Margaret B. (Wayne State U.) **Unconscious response to sexual symbols.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6915-6916.

10082. Wilkins, Wallace W. (U. Washington) **Cognitive and physiological determinants of emotion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6271.

ATTENTION & EXPECTANCY & SET

10083. Bicknell, Ann T. (Texas Technological U.) **Aging, arousal, and vigilance.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6275-6276.

10084. Blackwell, Peggy J. (Texas Technological U.) **The effect of differential payoff matrices upon vigilance performance.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6276.

10085. Chalupa, B. & Dornič, S. (Purkyně U., Brno, Czechoslovakia) **Obtížnost percepce a rekognice symbolů použitých v hledacím úkolu.** [Difficulty of perception and recognition of symbols in detection tasks.] *Activitas Nervosa Superior*, 1970(May), Vol. 12(2), 132-134.—2 groups of 18-yr-old Ss looked for specific symbols on 3 tasks. Each task was a 7 × 7 square with 49 symbols (2-digit number, 2 letters, clocks with different times). Ss had to identify quickly 10 or 20 symbols. After that Ss were to recognize symbols on lists. (Each list contained 1/3 symbols which they were looking for on the task, 1/3 which were not on the recognition list, and 1/3 which were on the recognition list.) Ss noted on a 5-point scale the degree of certainty of recognition. Perception of letters was slightly more difficult than numbers, and much more difficult with clocks.—*H. Bruml.*

10086. Green, Jesse L. (Oklahoma State U.) **Visual search in a dynamic field.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6934.

10087. Halcomb, Charles G., McFarland, Barry P., &

Denny, Nathan R. (Texas Technological Coll.) **Monitoring performance with a time-shared memory task.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 347-351. 30 female undergraduates participated in an auditory vigilance task, time-shared with a memory task. Results show no change in memory whether assessed independently or time-shared with the vigilance task. The task consisted of a taped series of random digits between 1 and 10, in which Ss were to detect the occurrence of 3 odd digits in a row. The vigilance performance demonstrated the classical vigilance decrement. Ss performing the vigilance task time-shared with the memory task performed significantly more poorly than Ss performing the vigilance independently of the memory task.—*Journal abstract.*

10088. Huber, R. John. (U. New Hampshire) **Selective attention behavior as predicted by Adler's social interest hypothesis.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6291-6292.

10089. Prangishvili, A. S. (Georgian Academy of Sciences, Tbilisi, USSR) **Problema ustanovki na sovremenom urovne ež razrabotki.** [The problem of set at the present level of its development.] *Matsne*, 1968, No. 5, 129-142.—Discusses the major results obtained from studies on the concept of set, conducted by the Georgian psychological school in the USSR. Examines those aspects of the theory of set which are, at the present level of the theory, of greatest interest, and in this connection presents the results of research attempting to substantiate the method of "fixed set" (attitudes) as an experimental path to the study of the "general psychological problem of the person." Discusses the place of the concept of set in different branches of psychology: learning theory, cybernetic theory of behavior including engineering psychology, and psycholinguistics. Analyzes the place of set in social psychology and presents experimental findings in favor of a much broader conception of set than that represented in the Yale social-psychological studies on individual evaluative judgments about debatable social issues.—*I. D. London.*

10090. Stanek, Francis J. (Syracuse U.) **The effect of stimulus complexity on selective attention.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6959.

10091. Šverko, Branimir. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Korelacijska analiza uspjesnosti u detektiranju rijetkih signala različitog osjetnog modaliteta.** [A correlational analysis of detection of rare signals presented through different sensory channels.] *Revija za Psihologiju*, 1970, Vol. 1(2), 13-21.—Attempted to ascertain the degree of correlation among individual performances in a long-term monitoring (vigilance) task in which the signals to be detected were presented through different sensory channels. The vigilance task consisted of a type-recorded train of stimuli similar to Morse signals. The frequency of the critical signals was 24/hr. The stimulus material was displayed to 80 Ss by means of a loudspeaker (auditory stimuli), finger electrodes (electrocutaneous stimuli), and 2 visual displays (discrete flashes of light stimuli) and pointer deflections. After a practice session, each S was given 8 consecutive daily sessions with 4 different displays. Every session lasted about 90 min. Order of occurrence of different displays was counterbalanced. The cross-modality correlations were high, both for the correct detections and for the false alarms (median values .77 and .63, respectively) suggesting that indi-

visual differences in vigilance performance are invariant across different sensory modalities. (English abstract) (22 ref.).—A. Fulgosi.

10092. Warner, Harold D. (U. South Dakota) **Effects of intermittent noise on visual search tasks of varying complexity.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6963.

MOTOR PERFORMANCE

10093. Brattfisch, Oswald; Dornič, Stanislav, & Borg, Gunnar. (U. Stockholm) **Perceived difficulty of a motor-skill task as a function of training.** *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 11, 7 p.—Used a simple wire labyrinth in an experiment involving learning of a 2-hand motor task. 14 21-31 yr. old university students were asked, after completing each of 7 successive trials, to give their estimates of perceived (subjective) difficulty of the task. For this purpose, the psychophysical method of magnitude estimation was used. Time was measured as a criterion of performance. 7 repetitions of the task resulted in a drop of performance time from 61-35 sec., i.e., about 43%, while the perceived difficulty decreased from the initial value of 10-5.2, i.e., 48%. The course of both functions was fairly similar; the correlation coefficient of .96 showed a close relationship between perceived difficulty and time. It is suggested that, in the task employed, the estimation of difficulty was mainly based on the perception of time.—*Journal abstract.*

10094. Cohen, Leon. (Stanford U., Medical School, Palo Alto, Calif.) **Synchronous bimanual movements performed by homologous and non-homologous muscles.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 639-644. Compared synchrony of bimanual wrist movements by 12 normal right-handed Ss when homologous muscles (e.g., left and right wrist flexors) and when nonhomologous muscles (e.g., left flexors and right extensors) were simultaneously active. Movements of the 2 limbs were less synchronous and more variable in the nonhomologous condition. Data imply the existence of a unitary coupling mechanism which facilitates simultaneous action of homologous muscles of the upper limbs.—*Journal abstract.*

10095. Dick, Robert A. (U. Minnesota) **Independence of component tasks in a multi-dimensional tracking task.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6282.

10096. Eysenck, H. J. & Gray, J. E. (U. London, Inst. of Psychiatry, England) **Reminiscence and the shape of the learning curve as a function of subjects' ability level on the pursuit rotor.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 199-215.—Conducted 2 experiments in which the shape of the learning curve pre- and postrest, and the reminiscence phenomenon, were studied as a function of the ability of the Ss to perform on the pursuit rotor under conditions of massed practice. 192 industrial apprentices and 210 undergraduates served as Ss under different practice and rest period conditions. Both experiments demonstrated unequivocal differences in the performance curves of high- and low-ability Ss, both before and after the rest pause. These differences were in part a function of the length of the rest pause. Reminiscence was also found to depend on ability level, with high reminiscence being found in high-ability Ss. The applicability of several different hypotheses to the phenomena is discussed. A theory is

suggested which combines features from several earlier theories. (28 ref.).—*Journal abstract.*

10097. Frith, C. D. (U. London, Inst. of Psychiatry, England) **Strategies in rotary pursuit tracking.** *British Journal of Psychology*, 1971(May), Vol. 62, 187-197.—Derived 10 measures describing different aspects of the pursuit rotor performance of 30 20-35 yr. old male volunteers. These included variables indicating the shapes of the distribution of hit and miss lengths and the amount of rhythmicity present in performance. The relationship between the various measures suggests that performance could be described in terms of 2 independent factors. (a) the level of attainment (total mean target), and (b) different strategies of performance. There was a strong relationship between strategy and personality, extroverts adopting velocity-matching and introverts adopting position-matching. There was evidence that these differences in response style were due to the greater production of rest pauses by the extroverts.—*Journal abstract.*

10098. Mackay, Donald G. & Soderberg, George A. (U. California, Los Angeles) **Homologous intrusions: An analogue of linguistic blends.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 645-661. Homologous intrusions represent a frequent type of error in tasks involving synchronous tapping with the fingers of both hands and reflect the incursion of 1 motor sequence into another in a manner resembling linguistic blends. To avoid an inadvertent combination of *fevade* and *evade*, experiments with 20 and 30 undergraduates, respectively, were conducted.—*Journal abstract.*

10099. Paben, Marjorie & Ruenzel, Joel. (East Missouri State Coll.) **Control of muscular tension in learning a novel gross motor skill.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 666-668. Told college women how to relax and how to produce, on command, given percentages of maximum tension through EMG. A comparison was made with 15 controls of the ability to learn a novel gross motor skill. Significant differences were found indicating that learned control of general muscular tension facilitates learning.—*Journal abstract.*

10100. Schott, Thomas R. (U. South Dakota) **A comparison of visual, auditory and cutaneous tracking displays when divided attention is required to a cross-adaptive loading task.** *Dissertation Abstracts International*, 1971(May), Vol. 31(10-B), 6958.

10101. Sussman, Harvey M. (U. Wisconsin) **Sensory feedback characteristics of tongue movement control.** *Dissertation Abstracts International*, 1971(May), Vol. 31(10-B), 6967.

REACTION TIME

10102. Mintman, Hilder. (U. South Carolina) **Cognitive interaction in the visual field: A reaction time study.** *Psychological Reports*, 1971, 26(1), 115-116. 12 female 19-24 yr. old Ss were presented with stimulus fields each consisting of 4 points surrounded by 4 peripheral points. The Ss were required to respond with respect to the stimulus field. The peripheral words were *up*, *down*, *left*, and *right*. The RT to SC was measured. Results indicated that the RT to SC was faster when the stimulus field was identified was counted. Results indicated that the RT to SC was faster when the stimulus field was identified was counted.

relationship between field associativity and the number of SPs identified. Moreover, when an SP was identified, the RT to SC was shorter in high than in low associativity fields. In these latter, identifying an SP increased the RT to SC. Results are discussed in terms of cognitive interaction between parallel processes of stimulus identification in a system of limited capacity. —*Journal abstract.*

10103 Larimer, James O. (Purdue U.) **Reaction time: A similarity analysis.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6295.

10104 Levis, Donald J. & Warchime, Robert C. (U. Iowa) **Effects of primary and secondary aversive motivation on finger-withdrawal reaction time responses.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 126-131. —Assigned 129 male undergraduates to 4 groups which received RT instructions. Group 1 received a shock for an incorrect response. Group 2 saw a "wrong" sign light up for an incorrect response. Group 3 received no punishment for wrong responses, and Group 4 received shocks which were not paired with the RT signal. Group 1 showed significantly faster response latencies and more avoidance responding than Group 3. This effect did not appear to be dependent upon the informational value of the shock since Group 2 also responded significantly slower than Group 1, while Group 4 responded slower than each of the other 3 groups. The effects of the signal-shock condition persisted for at least the 1st 20 extinction trials. Scores on 3 personality inventories did not separate Ss on the dependent measures analyzed. It is concluded that conditioned anxiety played a significant role in producing the faster latencies. —*Journal abstract.*

10105 Morgerstern, F. S., Haskell, S. H., & Waters, P. D. (London U., Inst. of Education, England) **Distributive reaction times in single and multiple response units.** *Ergonomics*, 1971(Mar), Vol. 14(2), 219-230. Describes experiments with 22 normal adult volunteers dealing with the properties of response units to a simple stimulus, presented in the visual or auditory mode. It was found that the RT for a given letter was affected by the organization, position, and size of the response unit. The RTs for all items in response units were affected by the modality; RTs to visually presented stimuli were slower at all positions. The frequency of errors in the auditory series was almost twice that of the visual series. There was no consistent carry-over of practice with 1 response unit to another made up of a smaller or larger number of items. Results indicate a higher order of motor response integration in which a number of responses become organized into units with characteristics of their own. (French & German summaries) (27 ref.) —*Journal abstract.*

10106 Simon, J. Richard; Craft, John L., & Webster, John B. (U. Iowa) **Reaction time to onset and offset of lights and tones: Reactions toward the changed element in a two-element display.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 197-202. —Conducted 2 RT experiments with 20 male and 20 female undergraduates in each. In Exp. I, Ss responded to the onset or offset of one light in a 2-light display. On onset trials, RTs were faster toward the light which went on (changed element) than toward the light which remained off (unchanged element). Similarly, on offset trials, RTs were faster toward the light which went off than toward the light which remained on. Exp. II involved an analogous auditory task which consisted of

pressing right or left-hand keys in response to the onset or offset of a tone in 1 ear. On onset trials, results paralleled Exp. I, while on offset trials RTs were faster on the side of the unchanged element. Results indicate a potent stereotypic tendency to react toward the apparent source of stimulation. —*Journal abstract.*

LEARNING

10107 Ashley, Donald R. (Syracuse U.) **Relative influence of three possible mediators of observational learning: Imaginal, verbal and proprioceptive.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6917-6918.

10108 Blalock, Arthur S. (Human Factors Lab., Orlando Fla.) **Transfer as a function of task difficulty in pursuit-rotor and paired-associate learning.** *NASA TRAFFIC Technical Report*, 1970(Oct), No. 11112, 46 p. —Studied the generality of psychological findings across different kinds of tasks. The approach taken was to compare the influence of task difficulty on the performance in training and transfer of a paired-associate and pursuit-rotor task. Ss were 60 undergraduates in Exp. I and 80 in Exp. II. Difficulties connected with computerized attempts to answer the question of whether variables affect learning in the same way on different tasks are considered. Some problems with the concept of "task difficulty" are also treated. Suggestions for remedying these difficulties are given. —*Journal abstract.*

10109 Bransford, John D. (U. Minnesota) **Temporal integration and the acquisition of linguistic ideas.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6277.

10110 Dorfman, Donald D. & Biderman, Michael. (U. Iowa) **A learning model for a continuum of sensory states.** *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 264-284. —Investigated a learning model for signal detection which assumes a continuum of sensory states. The model, a generalization of a model originally proposed by M. Kac and selected special cases of this model were evaluated in a 2-alternative forced choice signal detection task. The general model and its associated special models are quite tractable from the viewpoint of parameter estimation, and the axioms of the models generate tractable functions for the theoretical probabilities on each trial. Of the special models evaluated, the Kac error-correction model gave the poorest fit on the average. (29 ref.) —*Journal abstract.*

10111 Drake, Raymond W. (U. South Dakota) **Elimination of human avoidance responding: The immediate and enduring effects of punishment and response prevention.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6925-6926.

10112 Gliner, Jeffrey A., Harley, J. Preston, & Badia, Pietro. (Bowling Green State U.) **Elicitation and habituation of the orienting response as a function of instructions, order of stimulus presentation, and omission.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 414-416. —Studied 60 female undergraduates in 4 groups which differed with respect to order of presentation of sequential stimuli (light-tone or tone-light) and instructions (concentrate on 1st or 2nd element of the sequence). All groups received 21 trials of the sequence except on Trials 11, 14, 16, and 20, when light was omitted. Response habituation showed both an order effect ($p < .01$) and an Order \times Instructions

interaction ($p < .05$). Ss with instructions to concentrate on the 1st element of the sequence showed less habituation. Some orienting responses to omission of 1 element of the compound did occur.—*Journal abstract.*

10113. Hill, Hunter S. (Claremont Graduate School) **Cue utilization as a function of change in relevant and irrelevant stimulus dimensions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6935-6936.

10114. Lazar, Gerald & Weiss, Ethel. (State U. New York Coll., New Paltz) **Can unlearning be undone? Tests of the inhibition hypothesis.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 819-826.—Investigated the suggestion that in the A-B, A-C paradigm, A-B recall might be facilitated after A-C learning if A-C were inhibited by a 3rd list. Exp. I with 56 undergraduates showed that while A-C can be interfered with by a C-C'r list, A-B retention loss increased, contrary to prediction. Exp. II with 45 undergraduates varied the A-C inhibition task without effect on A-B recall. However, in Exp. III with 64 undergraduates, data consistent with the inhibition hypothesis were obtained when the B items were from a different response class than all the other items on the A-C and C-C'r lists.—*Journal abstract.*

10115. Lippman, Louis G. (Western Washington State Coll.) **Organization of intralist similarity in serial learning.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 39-43.—3 groups of 15 undergraduates each anticipated a serial list of compound stimuli (clusters) for 50 trials. Each cluster consisted of 4 CCCs which (a) were similar to other units within each cluster (Group W), (b) were similar to units in corresponding spatial positions between clusters (BC), or (c) were similar to units in noncorresponding spatial positions between clusters (BNC). Group W produced more correct anticipations than BC and both of these groups produced more overt errors than BNC. Results are interpreted in terms of cue utilization and efficiency in acquisition.—*Journal summary.*

10116. McGourty, David P. (U. North Carolina, Chapel Hill) **The effects of discrimination training on multidimensional stimulus control in humans.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6948-6949.

10117. Miller, Stuart. (Towson State Coll.) **Free associative prediction of mediated learning.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 187-191.—Studied the performance of 162 undergraduates in a mediated learning experiment. Ss were presented with indirectly related word pairs in each of 3 learning tasks: paired-associate, serial learning, and free recall. Learning was studied in forward facilitation, backward facilitation, and interference lists. Various measures of mediated strength, derived from free association norms, were correlated with learning. An associative overlap measure yielded higher correlations than predictors based upon a chaining model of mediation. Non-significant correlations were found in the interference conditions. (16 ref.)—*Journal abstract.*

10118. Radtke, Robert C., Jacoby, Larry L., & Goedel, George D. (Southern Illinois U.) **Frequency discrimination as a function of frequency of repetition and trials.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 78-84.—Assigned 90 undergraduates to 6 groups in which (a) words were presented at a 1- or 2-sec rate on study trials and at a 2-sec rate on test trials; and (b) the more frequent alternatives were underlined on the

1st occurrence, underlined on each occurrence, or not underlined. Over 8 paired comparison study-test trials, Ss chose the more frequent alternatives. Results indicate that (a) frequency discrimination was based on relative rather than absolute frequency differences in the no-underlining condition, (b) rate of study trial presentation had a significant effect only in the underlining conditions, and (c) performance improved over trials only in the underlining conditions. *Journal abstract.*

10119. Seidel, Robert J. (HumRRO Div No. 1, Alexandria, Va.) **Theories and strategies related to measurement in individualized instruction.** *HumRRO Professional Paper*, 1971(Mar), No. 2-71, 14 p. Discusses problems in bridging gaps between learning research and instructional development by considering the relevance of the premises of learning theory and identifying some promising directions that draw on the concepts of cybernetics and information processing. (42 ref.)—*HumRRO.*

10120. Smith, Karl U. & Kao, Henry. (U. Wisconsin Behavioral Cybernetics Lab.) **Social feedback: Determination of social learning.** *Journal of Nervous & Mental Disease*, 1971(Apr), Vol. 152(4), 289-297. Studied social learning by cross-yoking the behavior of 2 individuals in a manual-visual tracking task so that both persons received an immediate combined or systems error feedback of their socially coordinated movements. A laboratory real-time computer system was used to combine the movement-controlled sensory signals of the 2 Ss in controlling the combined visual error display. The computer system generated a variable sine wave target for which the 2 Ss had to compensate by coordinate hand motions. Results on 10 2-person groups showed that the interactive systems error was effective in producing progressive and significant learning in social tracking. Results suggest that systems sensory feedback factors of interactive movements rather than discrete stimulus response and reinforcing rewards operate as the primary determinants of social guidance and learning. (24 ref.) *Journal abstract.*

10121. Tracy, Robert J. (Texas Christian U.) **The effect of number of training problems and total training trials on amount of transfer to a new problem.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6247.

10122. Turner, Keith D. & Lippman, Louis G. (U. Washington) **Serial isolation effect as a function of instructions and stimulus intensity.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 85(1), 107-114. Groups of 18 Ss anticipated a 12-CVC list for 40 trials. The groups were informed that an auditory isolation effect might be presented, the 7th position was isolated, and groups by either a high or low intensity tone. The magnitude of the isolation effect was found to be a direct function of the intensity of the isolating stimulus. Facilitated total-list performance for the high intensity group only, indicating that an intense isolating stimulus plus information about the occurrence of that stimulus was a sufficient condition to facilitate total list performance.—*Author abstract.*

Conditioning

10123. Bobbitt, Robert C. & Beck, Robert C. (U. State U.) **Semantic differential judgments of single and multiple conditioned stimuli with an aversive delay conditioning paradigm.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 107-114. Studied semantic differential judgments of single and multiple conditioned stimuli with an aversive delay conditioning paradigm. (16 ref.)—*Journal abstract.*

Psychology, 1971(Aug), Vol. 89(2), 398-402.—Studied the responses of 76 male and 52 female undergraduates in 8 groups receiving (a) a single light CS of 1, 3, 9, or 27 sec. terminating with the onset of a 4-sec shock; or (b) the same CSs with an additional 1-sec different color light CS following shock offset. Ss rated the CS(s) on the semantic differential (SD) before and after 12 conditioning trials. Onset and offset of the delay CSs were rated separately; the "backward CS" was rated as a unity. Results indicate that (a) as duration of the delay CS increased, onset was judged less aversive, active, and potent on the SD while offset became more aversive, active, and potent; (b) the addition to the backward CS significantly exaggerated the overall ratings of the delay CSs; and (c) the backward CS itself was judged to change in the direction of being equally good, weak, and passive at all CS delays.—*Journal abstract*.

10124. Brophy, James C. (Vanderbilt U.) **One-trial conditioned suppression and the retention of habituation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6921.

10125. Brotsky, S. Joyce & Keller, William H. (San Fernando Valley State Coll.) **Semantic conditioning and generalization of the galvanic skin response: Locus of mediation in classical conditioning.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 383-389.—Established semantic conditioning of GSR through the auditory presentation of neutral words with 10 interspersed CS-UCS pairings. 24 male and 24 female undergraduates were trained with 1 of 3 sub- or superordinates as the CS and tested for semantic generalization on the related sub- or superordinate. The UCS, 1 sec. of white noise, followed the CS by 10 sec. Although semantic generalization was demonstrated in all groups, Ss trained on the superordinate showed more semantic generalization than Ss trained on the subordinate. Results support the hypothesis that the test phase is the primary locus of mediation when the classical conditioning paradigm is used.—*Journal abstract*.

10126. Carlson, Carl G. (U. Hawaii) **Extinction of conditioned meaning: Support for a classical conditioning model of word meaning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6922.

10127. Coffman, Maryrose & Kimmel, H. D. (U. South Florida) **Instrumental conditioning of the GSR: A comparison of light deprivation and monotony hypotheses.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 410-413.—Assigned 60 undergraduates to 4 groups for different types of reinforcement of elicited GSRs. Reinforcement was a dim white light (on or off for 3.2 sec.) delivered contingent upon responses or nonresponding. All Ss had 10 min. of preacquisition, 25 min. of acquisition, and 15 min. of extinction. The effect of contingency was significant in both groups during acquisition and extinction. The contingent light-on group responded more frequently than the contingent light-off group during acquisition. It is concluded that reinforcement is effective by relieving the monotony of unchanging stimulus conditions, and that the extent of this effect may depend upon the arousal level or the operant rate of S.—*Journal abstract*.

10128. Drews, David R. (U. Delaware) **Some determinants of the effects of preface conditioning on the acquisition of an avoidance response.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6283-6284.

10129. Farley, Frank H. (U. Wisconsin) **Study of individual differences in salivary conditioning.** *Indian*

Psychological Review, 1969(Jul), Vol. 6(1), 1-3.—Reviews studies on salivary conditioning in relation to individual difference variables. Recent works using adequate control and accurate continuous recording devices have shown salivary conditioning. Inter-S variability is an important feature of this conditioning. Uses of salivary conditioning in personality research are stressed.—K. C. Panda.

10130. Furedy, John J. & Doob, Anthony N. (U. Toronto, Ontario, Canada) **Autonomic responses and verbal reports in further tests of the preparatory-adaptive-response interpretation of reinforcement.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 258-264. Differentially conditioned 2 groups of 8 male and 8 female high school students in each of 3 experiments with light and tone as CSs, shock as UCS, a 5-sec CS-UCS interval, and GSR and digital volume pulse change as autonomic responses. The trial series included interpolated UCS-alone trials. UCS intensity was held constant within Ss to test the regression, aversiveness, and preference hypotheses derived from the preparatory-adaptive-response (PAR) interpretation of reinforcement. The disconfirmation of all 3 hypotheses, together with the earlier disconfirmations by J. Furedy and A. Doob (see PA, Vol. 46:Issue 6) with varied within-Ss UCS-intensity arrangements, further weakens the PAR interpretation. *Journal abstract*.

10131. Furedy, John J. & Doob, Anthony N. (U. Toronto, Ontario, Canada) **Classical aversive conditioning of human digital volume-pulse change and tests of the preparatory-adaptive-response interpretation of reinforcement.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 403-407.—Differentially conditioned 24 male and 24 female high school students with light and tone as 8-sec CSs and shock (occurring at CS+ offset) as UCS. The trial series included interpolated UCS-alone trials, and both UCS intensity (1.5, 2, and 2.5 ma) and duration (.3, .8, and 2 sec.) were varied within Ss. 3 hypotheses derived from the preparatory-adaptive-response (PAR) interpretation were tested: (a) the anticipatory conditional volume-pulse change is negatively related to the rated aversiveness of the immediately following shock; (b) signaled shocks are rated as less aversive than unsignaled shocks; and (c) signaled shocks are preferred over unsignaled shocks. Experimentally internal checks on the adequacy of the tests of these hypotheses were positive, but the hypotheses, and hence the PAR interpretation, were not supported.—*Journal abstract*.

10132. Gouaux, Victor C. (Purdue U.) **The influence of induced affective states on the effectiveness of social and non-social reinforcers in an instrumental learning task.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6289.

10133. Hinton, Donald E. (U. Southern Mississippi) **An investigation of vicarious conditioning, generalization, and extinction and their relationships to Eysenck's extraversion factor.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6936.

10134. Volckmann, David B. (Indiana U.) **Magnitude, direction, and absolute level of noise intensity change as a conditioned stimulus in classical eyelid conditioning.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6308-6309.

Verbal Learning

10135. Tuinman, Jaap & Hafner, Lawrence E. (U.

dimensions being same vs. different letter sequences on original and interpolated learning and same vs. different grouping on original and interpolated learning. When Ss changed organization from original to interpolated learning, negative transfer and retroactive inhibition were obtained.—*Journal summary*.

10143. Loigman, Barry M. (Rutgers State U.) **Acquisition and transfer with paired-associates and discourse presented visually and aurally.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6944.

10144. McAdams, Lou A. (U. South Carolina) **Mediation with a modified chaining paradigm and varying percentages of experimental pairs.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6296.

10145. Nelson, Thomas O. (U. Washington) **Extinction, delay, and partial-reinforcement effects in paired-associate learning.** *Cognitive Psychology*, 1971(Apr), Vol. 2(2), 212-228.—Presents a theoretical framework for comparing human paired-associate learning with animal instrumental learning. The informational aspects of reinforcement are emphasized and reinforcement is considered to be an internal event which derives from, but is not necessarily isomorphic with, E's feedback to S. 3 experiments are reported which demonstrate extinction, delay of reinforcement, and partial-reinforcement effects in paired-associate learning. (25 ref.)—*Journal summary*.

10146. Schlottmann, Robert S. & Dachowski, Lawrence. (Oklahoma State U.) **Retroaction, intrusions, and group paired-associate learning.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 137-143.—Studied retroactive interference effects in group paired-associate learning in undergraduates. Original learning for all groups consisted of practice on stimulus-response, (S-R) pairs from cultural free-association norms. Interpolated learning consisted of either S-R₁, S-R₂, or S-R₃ pairs, or a vowel cancellation task. Rate of performance in relearning showed significant retroactive-inhibition effects. Test trials interpolated during relearning showed intrusions which varied systematically with interpolated learning treatment. Suggestions are offered for facilitating the study of intrusions in a retroactive-inhibition paradigm.—*Author abstract*.

10147. Smallwood, Richard D. (Stanford U.) **The analysis of economic teaching strategies for a simple learning model.** *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 285-301.—Formulates in economic terms the decision problem for teaching a list of paired associate items. The analysis assumes that learning behavior for each item is described by the 1-element model with parameters that can depend on both the student and the item. A dynamic programming formulation for the decision problem is developed that accounts for the cost of instruction and the cost of terminating the instruction in the unconditioned state. This formulation considers 3 alternatives at each decision: present the item with no elicited response, present the item and observe the students' response, and terminate instruction for the item. It is proved that the optimum policy for a multitem list can be calculated by considering each item individually and then aggregating the individual results into a total policy. Also, an algorithm for calculating the optimum policy for each item is derived. The algorithm is simple enough so that the optimum policy can be calculated by hand. 2 examples illustrate the application of the algorithm.—*Journal abstract*.

10148. Wearing, Alexander J. (Yale U.) **On the Adams-Bray retrieval model.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 96-101.—Reviews assumptions underlying the conventional theory of response retrieval in paired-associate (PA) learning. Some alternative formulations, including that of Adams and N. Bray (see PA, Vol. 45:1703), are presented. A PA learning experiment bearing on the theories was conducted with 61 female undergraduates. Results indicate that (a) response monitoring and comparison occurred, (b) subjective judgments related meaningfully to other variables, (c) latency was a function of response correctness and was closely related to confidence judgments and response perceptual trace strength, and (d) response criterion was a complex function of the other variables involved in retrieval. Provisional support for the Adams and Bray position is indicated. (21 ref.)—*Journal abstract*.

Reinforcement

10149. Bronson, Robert W. (U. Texas) **The effects of four contingencies of reinforcement on joint responding of human subjects.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6920.

10150. Guthrie, John T. (Johns Hopkins U., Center for Social Organization of Schools) **Motivational effects of feedback in reading.** *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1970(Jul), No. 74, p.—Investigated the effects of feedback on motivation and learning in a 3×3 factorial design. 72 male undergraduates read prose sentences and completed cloze test items. Feedback on each sentence and retention tests over the sentences were either immediate, delayed, or omitted. Ss were then given a continuation of the original passage to read for as long as they wished as a measure of perseverance and motivation. Results indicate that (a) delayed feedback produced significantly ($p < .05$) more learning on the task than immediate feedback, (b) immediate feedback produced significantly ($p < .01$) more perseverance on the continuation passage than delayed feedback, and (c) perseverance was positively correlated (.46) with scores on a comprehension test over the continuation passage. Results are explained in terms of differential affective responses acquired to the reading task under the different feedback conditions.—*Journal abstract*.

10151. Lamberth, John C. (Purdue U.) **The effect of sequential variables on performance using attitudinal stimuli.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6294-6295.

10152. Laws, Carol J. (Southern Illinois U.) **Reinforcement density and the control of complex human behaviors.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6295.

10153. Newberry, Benjamin H. (Kent State U.) **Response variability and the partial reinforcement effect.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 137-141.—Gave 120 male and 120 female undergraduates acquisition and extinction in an instrumental task with 4 manipulanda of which any 1 could be operated on each trial. The 4 switches produced 16 different response transitions of which 8 were defined as correct. It was found that under partial reinforcement more different correct transitions were learned than under continuous reinforcement. Continuous reinforcement produced more emissions of learned transitions.

during acquisition and fewer emissions during extinction than did partial reinforcement. Reinforcement rate did not significantly affect the number of times each learned response was emitted in extinction. It is suggested that response variability could account for the partial reinforcement effect in situations in which response variability has not been assessed.—*Journal abstract.*

10154. Sallows, Glen O., Dawes, Robyn M., & Lichtenstein, Edward. (U. Oregon) **Subjective value of the reinforcer (RSv) and performance: Crux of the S-R versus cognitive mediation controversy.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 274-281.—Examined the effect of subjective value of the reinforcer (RSv) on performance in a sentence-construction, verbal conditioning task. 60 undergraduate males were randomly assigned to positive or negative reinforcement groups in which they were reinforced following sentences beginning with designated pronouns. After each sentence, Ss rated the pleasantness of the reinforcer or of E's silence. Awareness of the pronoun-reinforcement contingency was assessed by (a) a post-conditioning interview, (b) written thoughts about the experiment, (c) a simple recognition question, and (d) a new card-sort technique. Using the most defensible criterion of awareness, only aware Ss who rated the reinforcer as more pleasant than silence showed significant performance change. Performance of unaware Ss was unaffected by the value of RSv. It is concluded that the effect of RSv on performance was mediated by awareness of the correct response-reinforcement contingency. (18 ref.)—*Journal abstract.*

10155. Sanders, Richard M. (Southern Illinois U.) **Two parameters of human discrimination learning.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 747-753. —Tested 115 female undergraduates to determine the number of trials required to learn a concept-identification task. An analysis was made based on a notational system which associated stimulus elements of the task with reinforcement (S), with nonreinforcement (N), or with reinforcement (S), with nonreinforcement (N). Whereas increases in the number of 1-type stimulus elements in a task (associated randomly with reinforcement and nonreinforcement) made little difference in the number of training trials required to reach task mastery, a slight increase in the number of S and N stimulus elements (associated systematically with reinforcement or nonreinforcement) produced a very great increase in the number of trials required to master the task. *Journal abstract.*

MEMORY

10156. Aminev, G. A., et al. **Psikhologicheskii v mekhanizmy pamyati i ee zakonomernosti v protsesse obucheniya: Materialy i vnesoyuznogo simposiuma po psikhologii pamyati.** [Psychological mechanisms of memory and their regularity during the instruction process: Material from the All-Union symposium on the psychology of memory.] Kharkov, USSR: Kharkov U., 1970. 264 p. 75 K.

10157. Bahrick, Harry P. (Ohio Wesleyan U.) **Accessibility and availability of retrieval cues in the retention of a categorized list.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 117-125. Presented in blocked or random form a categorized word list with high-, medium-, and low-frequency members to 160 undergraduates. Free recall tests were followed by category-cued recall or by recognition tests. Access-

bility, the probability that the cue itself can be retrieved in the context of a particular recall situation, and availability, the probability that the cue will be retrieved of the to-be-remembered item, were measured. It was found that (a) in free recall, accessibility and availability jointly determined the effect of frequency, and (b) in prompted recall, only availability was necessary. The prompted recall task was analyzed in a 2-phase model stipulating independent accessibility and recognition processes. It is concluded that the sequence in prompted recall is primarily determined by permanent organization of the verbal store, the effects produced by blocked presentation of items increase a prior retrieval probability. (15 ref.)—*Journal abstract.*

10158. Bell, Jerald A. & Shapiro, S. L. (U. Hawaii) **A normative study of organizational strategies in free recall learning.** *Psychonomic Monographs*, 1971, Vol. 4(1), 1-32. Examined the effects of organizational strategies on free recall of 16 unrelated words. Ss were divided into two groups: one recalled 1 of 48 lists of 16 unrelated words of high or mixed word frequencies. Recall was significantly better than for low-word-frequency lists. The effects of organizational strategies were found to be significant. Analyses of the kinds of organizational strategies employed and their frequency of use were reported. Evidence that some subjects used organizational strategies frequently and should be analyzed as such is presented. (ref.)—*Journal abstract.*

10159. Binstrom, Alan G. (U. of Illinois) **Memory for label quality.** *Psychonomic Monographs*, 1971(May), Vol. 4(1), 1-32. Examined the effects of label quality on memory for verbal stimuli and label quality. (ref.)—*Journal abstract.*

10160. (Colheart, Veronika) **Memory for stimuli and memory for hypotheses in concept identification.** *Psychonomic Monographs*, 1971(May), Vol. 4(1), 1-32. Examined the effects of stimulus and hypothesis quality on memory for stimuli and memory for hypotheses. (ref.)—*Journal abstract.*

10161. (Colheart, Veronika) **Memory for stimuli and memory for hypotheses in concept identification.** *Psychonomic Monographs*, 1971(May), Vol. 4(1), 1-32. Examined the effects of stimulus and hypothesis quality on memory for stimuli and memory for hypotheses. (ref.)—*Journal abstract.*

10162. Davis, Jonathan C. (U. of Toronto) **Retention and recall of positively forgotten items.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 117-125. Examined the effects of retention and recall of positively forgotten items. (ref.)—*Journal abstract.*

10163. (Davis, Jonathan C.) **Retention and recall of positively forgotten items.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 117-125. Examined the effects of retention and recall of positively forgotten items. (ref.)—*Journal abstract.*

10164. (Davis, Jonathan C.) **Retention and recall of positively forgotten items.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 117-125. Examined the effects of retention and recall of positively forgotten items. (ref.)—*Journal abstract.*

10163. Ehrlich, S. & Ricateau, M. (U. Poitiers, Faculty of Letters & Human Sciences, France) **Le rôle de la structuration dans la rétention verbale.** [The role of structuration in verbal retention.] *Année Psychologique*, 1970, Vol. 70(1), 95-108. —3 groups learned a list of 20 words and were given a free-recall test. Immediately following acquisition, a disorganized learning trial was given to Group A and an organized learning trial to Group C; Ss in Group B were given no learning trial of any sort. After 15 days, Ss were given 10 consecutive recall trials, without original stimuli. Recall was greater for Group C than B. Only $\frac{1}{2}$ the Ss in Group A recalled less than Group B. These results are interpreted in terms of transitory dominances existing within the verbal repertory which determine learning and permanent dominances which determine long-term retention.—G. Rubin-Rabson.
10164. Fergenson, P. Everett & Telchner, Warren H. (Stevens Inst. of Technology) **Short-long-term memory interaction with underlearned long-term storage.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 51-61.—24 male and 24 female Ss were divided into 6 groups containing an equal number of each sex. Ss were taught the 1st 26 characters of the Russian alphabet in their proper sequence. Ss then reported the contents of a series of 144 briefly exposed slides which contained letter sequences with gaps in alphabetic, but not physical, sequence. The number of gaps per slide and the number of letters missing per slide were varied in the same way for each group. Each group was assigned to 1 cell of a 2×3 factorial design where the variables were base rate (.5%, 1%, or 5% prize for best performance) and ratio of high half to low half of sequence (2:1 or 4:1). Data were analyzed with respect to correct response and 2 types of false-alarm reports.—Author abstract.
10165. Fisher, Dennis F. **Word recall and clustering as a function of delay interval, list type and sorting technique.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(May), No. 12-70, 49 p.—Tested the hypothesis that amount recalled and clustering, occurrence of related words in strings of 2 or more, are inversely related to the delayed recall interval. The experimental manipulations employed were list type—categorized and random, card sorting technique—free or constrained, and delay interval—1, 2, 5, and 24 hr., and 1 wk. Results indicate that the amount and number of clusters recalled decreased with increases in the delay interval. However, word frequency, degree of clustering, and cluster size were not affected. Ss were 249 senior psychology students from 3 different high schools. The categorized list group recalled more words, had the greatest degree of clustering, and formed larger clusters than the random list group. The free-sort group recalled more words and used more clusters than the constrained-sort group. The constrained-sort group formed larger clusters than the free-sort group. Sorting technique was not seen as a factor in determining the degree of clustering. Results are interpreted as supporting G. A. Miller's coding hypothesis about superordinate and subordinate labels. The nature of the categorization was not found to be exclusively organizational or associational. A relationship between organization and amount recalled was substantiated. (36 ref.)—*Journal abstract*.
10166. Glickman, Henry. **The selective effect of drive state on recall.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6900-6901.
10167. Johnston, Carroll D. & Jenkins, James J. (U. Minnesota) **Two more incidental tasks that differentially affect associative clustering in recall.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 92-95. Presented a word list comprised of pairs of highly associated words in the same random order to 5 groups of undergraduates (N = 158). Groups 1 and 2 were told to write a rhyming word, Groups 3 and 4 wrote appropriate modifiers or nouns, and Group 5 (control) simply "took dictation." Groups 2, 4, and 5 were prewarned of the recall task, while Groups 1 and 3 were not. All groups were required to recall the stimulus words immediately after the list presentation. Both associative clustering and amount of recall were significantly greater for Groups 3, 4, and 5 than for either rhyming group. It is concluded that the rhyming task inhibited the assignment of meaning to words by Ss, thereby reducing the amount of clustering and recall.—*Journal abstract*.
10168. Lehr, Donald J. (Northwestern U.) **Spontaneous recovery of verbal items as a function of paradigm and type of recall test.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6295-6296.
10169. Mahler, William A. (Stanford U.) **Effects of manipulating information retrieval during study on the retention of paired-associates.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6945.
10170. Meunier, Gary F. (Oklahoma State U.) **Memory search and rehearsal.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6950.
10171. Olson, Gary M. (Stanford U.) **On the cognitive structure of noun phrases: Memory for prenominal adjectives in ordinary English sentences.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6952-6953.
10172. Rundus, Dewey. (Rockefeller U.) **Analysis of rehearsal processes in free recall.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 63-77.—Conducted 4 experiments with female undergraduates in which overt rehearsal was required during the presentation of free recall lists. This rehearsal was tape-recorded and analyzed in conjunction with written recall data. In Exp. I lists of unrelated nouns were presented to 25 Ss. The serial position effect, the order of recall of items as a function of item strength, and the organization of list items were examined using rehearsal and recall protocols. The introduction of distinctive items into a free recall list affected recall of the distinctive item, items adjacent to distinctive items, and the list as a whole. Exp. II with 15 Ss examined changes in rehearsal associated with these recall effects. In Exp. III with 11 Ss, some items of a list were repeated. Recall of repeated items increased with spacing of the repetitions. 20 Ss were tested with lists containing both categorized and unrelated items in Exp. IV. Category information was used extensively by Ss in structuring rehearsal. Clustering in recall was related to the observed rehearsal protocols. (30 ref.)—*Journal abstract*.
10173. Saegert, Joel G. (U. Texas) **Effects of retention interval and meaningfulness on false recognition of implicit associative responses.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6957.
10174. Santa, John L. (Purdue U.) **The effects of verbal coding on recognition memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6244-6245.

10175. Scarborough, Don L. (U. Pennsylvania) **Memory for brief visual displays of symbols.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6303.

10176. Segui, Juan. (U. Paris-Sorbonne, Lab. of Experimental & Comparative Psychology, France) **Rétention de paires de mots en fonction de certaines variables linguistiques.** [Retention of word pairs in function of certain linguistic variables.] *Année Psychologique*, 1970, Vol. 70(1), 123-130.—Investigated the role of 2 variables in the retention of word pairs—the order of the elements of a pair and the “semantic congruence” between word pairs. Results indicate that these 2 variables introduce significant differences in the correct retention of word pairs and that their roles are additive. An interpretation is given in terms of implied linguistic rules.—G. Rubin-Rabson.

10177. Shapiro, S. I. & Gregory, Judith. (U. Hawaii) **Contemporary research on free recall: A duodecadal bibliography.** *Psychonomic Monograph Supplements*, 1970, Vol. 3(14), 221-242.

10178. Shebilske, Wayne; Wilder, Lucinda, & Epstein, William. (U. Wisconsin) **Forget instructions: Effect of selective rehearsal and categorical distinctiveness.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 372-378.—Examined the “only effect” in which recall of to-be-remembered (TBR) items is higher when S is instructed to forget part of the list than when he is responsible for the whole list. Lists of 4 pairs, subdivided in sets of 2 pairs, were presented to 192 undergraduates with instructions to learn all items. 1 pair was tested after each list. Between list presentation and the recall test, S was cued on $\frac{1}{2}$ the trials that he would be responsible for only the 1st or only the 2nd set. On the remaining trials, the cue told S that he would be responsible for all 4 pairs. The use of categorized and uncategorized lists either permitted or inhibited rehearsal. It was found that differential rehearsal of TBR and to-be-forgotten items was not necessary for the only effect, and that the only effect was greater when the sets of pairs were categorized. Results are discussed in terms of the possible mechanisms underlying the effect of forget instructions.—*Journal abstract.*

10179. Smith, Anderson D. (U. Virginia) **Reproductive interference in long-term memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6305.

10180. Soto-Padín, Jose L. (U. Texas) **A language effect in the recall of Spanish names: Proactive experimentation with English and Spanish in Puerto Rico schools.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6959.

10181. Titus, Thomas G. (U. Louisville) **Codability and retention.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6961-6962.

10182. Weber, Robert J. & Blagowski, Jim D. (Oklahoma State U.) **Metered memory search and concurrent chanting.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 162-170.—Studied the performance of 8 wives of graduate students on metered memory search and emissive chanting, done separately and concurrently. When writing was used as the response mode in metered memory search and speaking as the response mode in chanting, the memory search rate under concurrent conditions was about the same as for metered memory search done alone. Evidence concerning intercept values indicated that chanting slightly increased the time spent on processes other than

scanning. An effect due to compatibility of the memory search and chant tasks was found, indicating that even a written chant drew on some form of verbal trace system. Results are interpreted as support for the existence of an abstract verbal scanning system distinct from visual image or ordinary implicit speech representation (16 ref.).—*Journal abstract.*

10183. Williams, John D. (Ohio State U.) **Memory ensemble selection in human information processing.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6310.

10184. Woodward, Addison E. & Bjork, Robert A. (Albion Coll.) **Forgetting and remembering in free recall: Intentional and unintentional.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 109-116.—Designed 2 free recall experiments with 16 and 40 undergraduates to study the processes by which Ss remember some items and forget others. In both experiments, Ss were cued immediately after each word in a list whether to remember (R) or to forget (F) that word. After each of 6 such lists, Ss were asked to recall the R words and to avoid recalling the F words. In general, Ss were remarkably able to do both. At the end of the experiment, Ss were asked, without forewarning, to recall any and all R and F words they could remember. Final recall of F words from lists of 16 words was very poor, while recall from categorized nouns was very good, given that there were R words in the same semantic category. Results suggest that the difference between rehearsal devoted to R words operates primarily on retrieval rather than on storage (12 ref.).—*Journal abstract.*

Short Term & Immediate Memory

10185. Abramczyk, Rudolf R. (Veterans Administration Hosp., West Haven, Conn.) **Clustering and sequential ordering in multitrial free recall as a function of meaningfulness.** *Psychonomic Bulletin & Review*, 1971(Jun), Vol. 28(3), 783-793.—Investigated the effect of meaningfulness on the recall of 15-item CVC lists by 15 undergraduates to learn a 15-item CVC list representing 15 categories of meaningfulness (M) for 15-item CVC lists. presentation-free-recall trials under conditions of immediate (I), or delayed (D) recall. In the D condition, a 30-sec task-filled interval preceded each trial. Substantial organization in recall was observed in the I condition, and sequential order was observed in the D condition. Recall was higher and more consistent in the D than in the I condition. The most prominent in controlling recall strategies and performance differences were attributed to the greater use of clustering in short-term recall strategies. The results suggest that discriminating the M of a CVC list is a function of its associative hierarchy and of the nature of the word. (27 ref.)—*Journal abstract.*

10186. Baddeley, A. D. & Levy, Betty A. (Brighton, England) **Semantic coding and short-term memory.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 132-136.—Examined the suggestion that the absence of semantic organization effects in most short-term memory studies is due to the use of words that are semantically unrelated. The effect of semantic similarity on minimal paired-associate learning was examined. Results showed that semantic similarity (e.g., priest-deacon) or non-adjacent pairs (e.g., priest-deacon) were not as compatible as adjacent pairs (e.g., priest-deacon).

was examined in 56 undergraduates. An adverse effect of similarity was found for compatible but not for incompatible pairs. Serial recall and attempts to distinguish primary and secondary memory components by comparing immediate recall with recall after a 20-sec distractor task were studied in 24 undergraduates. The semantic-similarity decrement again occurred with compatible lists, but only after delay. This result suggests that semantic coding was limited to secondary memory. (15 ref.)—*Journal abstract.*

10187. Block, Richard A. (U. Oregon) **Effects of instructions to forget in short-term memory.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 1-9.—Conducted 2 short-term memory experiments with 24 and 20 paid volunteers. In Exp. I, proactive interference (PI) was reduced when Ss were cued to forget the 1st of 2 trigrams; but there was no reduction in retroactive interference when Ss were cued to forget the 2nd. The residual amount of PI depended upon the acoustic similarity of the 2 trigrams. In Exp. II, PI was reduced when Ss were cued to forget the 1st 6 words in a 12-word sequence. A subsequent recognition test, however, showed that the to-be-forgotten words were recognized as often as words taken from sequences with no forget cue. Results support a hypothesis that the effects of a forget cue are due to differential storage and retrieval of to-be-remembered and to-be-forgotten items.—*Journal abstract.*

10188. Butterfield, Earl C. & Belmont, John M. (U. Kansas, Medical Center, Kansas City) **Relations of storage and retrieval strategies as short-term memory processes.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 319-328.—Performed 6 experiments with high school, medical school, and undergraduate students (N = 61) to explore relations between storage and retrieval in a short-term memory task. Storage was indexed by measuring pauses following item exposure in an S-paced serial task, and retrieval was indexed by plotting correct response latency against ordinal presentation position. Data show that retrieval varied systematically with type of storage strategy. Active rehearsal led to slow retrieval which varied directly with ordinal position and number of items learned. Passive attention led to rapid retrieval which varied with the number of items learned but not with ordinal position.—*Journal abstract.*

10189. Clark, William R. (Oklahoma State U.) **A pupillographic study of short-term memory search.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6279-6280.

10190. Detterman, Douglas K. (U. Alabama) **Rehearsal as a determinant of induced amnesia in short-term memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6281.

10191. Deutsch, Diana. (U. California, San Diego) **The deterioration of pitch information in memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6281.

10192. Dornić, Stanislav; Bratfisch, Oswald, & Santesson, Anna. (U. Stockholm) **Verbal factor in immediate memory.** *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 14, 10 p.—Messages consisting of increasing number of digits were presented acoustically at a rate of 1 digit/.75 sec. In the 1st condition (forward recall), Ss recalled the messages in the original order; in the other condition (backward recall), Ss recalled the digits in the reversed order. 13

Swedish Ss with a fluent knowledge of English were used. The messages were presented both in the Ss' mother tongue and in English. Data obtained show the recall to be significantly better with messages presented in the Ss' dominant language, the difference being greater regarding the criterion of "order information" than that of "item information." Results are interpreted in terms of differences in coding capacity between the dominant and nondominant languages. (27 ref.)—*Journal abstract.*

10193. Ellis, Norman R., et al. (U. Alabama, Center for Developmental & Learning Disorders) **Amnesia effects in short-term memory.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 357-361.—Produced the von Restorff effect in a free recall experiment with 68 undergraduates by the interpolation of a photograph of nude human beings at Serial Position 8 in a 15-item list consisting of line drawings of familiar objects. This effect was accompanied by a retrograde amnesia at the 2 serial positions immediately preceding the interpolated item. A substantial anterograde amnesia resulted from the nude photograph, affecting the 6 following positions. A 2nd study presented 4 classes of 108-161 undergraduates with a recognition task. Lists of 30 photographs from popular magazines were shown at .75-sec or 1.50-sec rates, and recognition memory for 12 of the positions was probed by presenting 12 old and 12 new pictures on a "test" trial. Photographs of nudes were interpolated at Serial Position 15. A profound anterograde amnesia resulted, with the effect being greater for the .75-sec rate. No retrograde amnesia resulted.—*Journal abstract.*

10194. Falkenberg, Philippe R. (Duke U.) **The influence of context on learning and forgetting in short-term memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6284-6285.

10195. Levy, Betty A. (U. Toronto, Canada) **Similarity effects in short-term memory: A study of acoustic, articulatory and semantic information in short-term memory.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6944.

10196. Oléron, Geneviève. (U. Paris-Sorbonne, Lab of Experimental & Comparative Psychology, France) **Les effets de série comme analyseurs des processus de la mémoire immédiate.** [Series effects as analyzers of immediate memory processes.] *Année Psychologique*, 1970, Vol. 70(1), 73-94.—On 3 levels of mnemonic activity, the establishment of backward and forward associative links hypothetically acquired after a 1-trial acquisition of a series of words was investigated. The primary effect depended on a more stable consolidation of mnemonic traces than the recency effect. Word associations only partially accounted for the primacy effect; backward contiguous associations were more numerous than forward associations; however, the latter were more often given as responses in probed recall. Learning in the correct order developed the primacy effect and reduced the recency effect; with increasing trials, recency gained in strength. (35 ref.)—*G. Rubin-Rabson.*

10197. Paivio, Allan & Begg, Ian. (U. Western Ontario, London, Canada) **Imagery and associative overlap in short-term memory.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 40-45.—Systematically varied noun imagery-concreteness and interitem associative overlap within and between noun triads in a L. R. Peterson and M. J. Peterson (see PA, Vol. 34:5499) short-term memory (STM) paradigm. 40 extension

Applied Psychology Unit, Cambridge, England) **Violent exercise and a cognitive task.** *Ergonomics*, 1971(Mar), Vol. 14(2), 265-267.—Describes 3 experiments with 21 Ss investigating the effect of a burst of violent exercise upon a cognitive task. No decrement was detected; and it is concluded that mild hypoxia did not account for decrements in skills previously found. (French & German summaries)—*Journal abstract*.

10207. Katzman, Natan I. (Stanford U.) **The effects of uncertainty and choice points on cognitive processing.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6939.

10208. Staudenmayer, Herman & Schvaneveldt, Roger W. (Graduate Research Center, City U. New York) **Instructions and stimulus properties in processing relevant-redundant information.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 175-180.—Studied the effects of instructions, discriminability, and redundancy in a constrained-classification task with multidimensional stimuli. 80 male and 80 female undergraduates were run in 1 of 10 conditions, each of which consisted of training, overtraining, and conflict. Mean RT in overtraining for instructed relevant-redundant dimensions was faster than either component dimension alone only when both dimensions were highly discriminable. Similar trends were found for conditions with an added noninstructed relevant-redundant dimension, lending support to a parallel, self-terminating model of information processing. However, results in the conflict phase and in conditions with dimensions unequal in discriminability were not consistent with the model. When 1 dimension was difficult to discriminate, mean RT for the instructed relevant-redundant dimension condition fell between mean RT for the fast and slow dimensions, which implies serial, self-terminating processing.—*Journal abstract*.

10209. Webster, Murray A., Roberts, S. Lynne, & Sobieszek, Barbara I. (Johns Hopkins U., Center for Social Organization of Schools) **Combining sources of evaluations: Six alternative models.** *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1971(Apr), No. 99, 38 p.—Examined 6 alternative models of the ways in which individuals accept and organize information from potential sources. Parameter estimates were obtained from a set of experiments with 110 Ss, and the models were tested against data from an independent set of experiments with 114 Ss. Results of the tests favor a simple additive model, and are consistent with ideas recently proposed by J. Berger and M. Fisek. Possible application of the models to extensions of this experimental situation and to natural settings are discussed.—*Journal abstract*.

Problem Solving

10210. Gaudet, Irby J. (Auburn U.) **Problem solving and transfer in three age levels of adult humans.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6288.

10211. Krković, Anđelko & Kolesarić, Vladimir. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Prikaz novog testa za ispitivanje osjetljivosti za probleme.** ["Problem Test": Instrument for measuring sensitivity for problems.] *Revija za Psihologiju*, 1970, Vol. 1(2), 73-78.—Describes Z. Bujas "Problem Test," a 70-item instrument designed to measure sensitivity to problems. Every item presents a

different problem situation. Nothing is told to the S about the nature of problems so that the S by himself has to find the problem. The solutions are easy to find after the understanding of the problem situation. Metric characteristics and correlation coefficients with some traditional measures of intelligence are given. (English abstract)—*A. Fulgosi*.

10212. Parkman, John M. & Groen, Guy J. (Carnegie-Mellon U.) **Temporal aspects of simple addition and comparison.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 335-342.—Presented 4 male and 2 female undergraduates in 5 sessions with series of simple addition problems of the form $p + q = nn$. Ss were asked to respond rapidly whether the solution given with each problem (nn) was correct or not. On $1/2$ the trials, the presented solution equalled the true sum, and on the remaining trials, the presented solution differed from the true sum by not more than 2. Additive addition-stage and comparison-stage RT effects were found for correct responses. For the addition stage, latencies increased linearly as a function of the minimum addend and also as a function of the sum. For the comparison stage, negative responses had longer latencies than positive responses.—*Journal abstract*.

Concepts

10213. Borich, Gary D. (Indiana U.) **Learning and transfer in concept identification as a function of concept rule, saliency, and stimulus variety.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6918-6919.

10214. Bower, Archibald C. (U. Alberta, Edmonton, Canada) **Some transfer effects among conceptual rules.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 407-410.—Examined biconditional (BC) rule training effects and the effects of experience with the inclusive-disjunction (ID) and joint-denial (JD) rules upon BC rule learning. 112 undergraduates were assigned to 7 groups which (a) received BC training and then solved either ID or JD problems, (b) solved ID problems, (c) solved JD problems, (d) solved BC problems after solving JD or ID problems, and (e) worked on BC problems alone. BC pretraining was most helpful with the JD rule. Only the joint denial pretraining facilitated performance on BC problems. When the 3 rules were compared in difficulty, the BC was hardest, followed by the JD and the ID. Transfer effects were related to the development of a "truth-table" strategy and to increased familiarity with the way in which the rules assign stimuli to response classes.—*Journal abstract*.

10215. Eifermann, Rivka R. & Steinitz, Ruth. (Hebrew U., Jerusalem, Israel) **A comparison of conjunctive and disjunctive concept identification.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 29-37.—50 undergraduates were assigned to 4 groups: conjunctive and disjunctive number and form problems. The comparison showed that (a) after initial learning, tasks of identifying disjunctive concepts were no more difficult to accomplish than corresponding tasks for conjunctive concepts; and (b) the experimental task was approached and treated by the Ss as a kind of puzzle, in which rules of a new game had to be mastered rather than as a task similar to that of formation and acquisition of concepts, familiar from everyday life.—*Author abstract*.

10216. Falmagne, Rachel. (U. Brussels, Lab of Psychology, Belgium) **Concept identification: Effect of**

and indicate that Ss in the different information groups emphasized different aspects of the hypothesis pool.—*Journal abstract.*

10226. Williams, Gloria F. (Los Angeles County Dept. of Mental Health, Calif.) **A model memory in concept learning.** *Cognitive Psychology*, 1971(Apr), Vol. 2(2), 158-184. —A concept learning model was developed and tested in 2 conjunctive attribute identification tasks. The model includes assumptions about the focus of attention, decision making, and memory for stimulus information and prior decisions. Predictions are made about how S changes his hypothesis following an error. Procedures in both tasks allowed inference of the S's current hypothesis. Selections and error statistics for the hypothesis were in the majority of cases accurately predicted by the model. Deviations from predictions on hypothesis sampling occurred for naive Ss but not for trained Ss who were required to state a hypothesis on each trial. (31 ref.)—*Journal summary.*

10227. Wojtaszek, Florence P. (Fordham U.) **Concept formation as a function of information type and rule difficulty.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6310-6311.

DECISION & CHOICE BEHAVIOR

10228. Barrett, Helen R. (Southern Illinois U.) **The effect of payoffs and prior probabilities on decision-making about normally distributed populations.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6274-6275.

10229. Fischer, Gloria J. (Washington State U.) **Number of event choices and the difference between event probabilities in human probability learning.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 192-196. —Examined the finding that multiple-event tasks in human probability learning result in more predictions of the most frequently occurring event, $p(A_1)$, than occur with 2-event tasks. Findings from 3 experiments with 192 undergraduates indicate that this effect was not dependent upon the method used, but may be dependent on the use of a large number of trials S were given 300 contingent probability learning trials on a 2- or 4-event task, with a difference of .4 or .6 between the probabilities of occurrence of the most and less frequent event(s). Asymptotic $p(A_1)$ was lower for the greater number of events, but higher for the greater difference between event probabilities. It is concluded that the so-called multiple-event effect is more likely due to an increase in the difference between event probabilities that necessarily accompanies an increase in the number of events such that the sum of event probabilities equals 1 (e.g., 70:30 vs. 70:10:10:10).—*Journal abstract.*

10230. Halpern, Joseph & Poon, Leonard. (U. Denver) **Human partial reinforcement extinction effects: An information processing development from Capaldi's sequential theory.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 207-227. —Designed a series of experiments to evaluate the applicability of E. Capaldi's sequential hypothesis to human partial reinforcement-extinction effects (PREEs). A total of 330 undergraduates was required to make a decision about whether or not to gamble on an uncertain outcome. 5 experiments were designed (a) to determine whether the experimental context would result in a usual PREE, (b) to evaluate memory trace assumptions via the use of intertrial reinforcements, and (c) to evaluate assumptions con-

cerning the effects of patterns of reinforcements and nonreinforcements on the PREE. Results are interpreted as being in general agreement with predictions from sequential theory. It is suggested that human choice behavior can be best described as a situation where Ss process information for the purpose of developing sequential response strategies. (26 ref.)—*Journal abstract.*

10231. Howell, William C. (Rice U.) **Uncertainty from internal and external sources: A clear case of overconfidence.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 240-243. —Hypothesized that if, as earlier work suggests, people tend to be overconfident of uncertain outcomes which depend on their own performance, they should show a preference for situations in which the total uncertainty is more internal (I) or skill-based than external (E) or environment-based. The I-E composition of objectively equiprobable choice alternatives in a paired-comparisons paradigm was manipulated. Each alternative included a specified criterion on a dart-throwing task (I component) and a specified zone on a probability spinner. 15 undergraduates, trained to a stable dart-throwing level under 1 of 3 different set conditions, made a series of choices at 3 overall uncertainty levels. Neither variable modified the chief result, which was a clear-cut verification of the hypothesis (87% of all choices were in the predicted direction). Scaled preference values for the various I-E mixtures were generally as expected, except that "psychological distances" were disproportionately large under the highest level of overall certainty.—*Journal abstract.*

10232. Hsia, Heidi M. (Purdue U.) **The role of ability and motivation in achievement-oriented risk-taking behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6291.

10233. Jordan, Ronald D. (Indiana U.) **Subjective response uncertainty as a function of task structure and flexibility of closure.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6876.

10234. Kraft, Thomas R. (Catholic U. of America) **Choice reaction time as a function of the internal/external personality construct, skill/chance instructional set, and reinforcement value.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6877.

10235. Lichtenstein, Sarah & Slovic, Paul. (Oregon Research Inst., Eugene) **Reversals of preference between bids and choices in gambling decisions.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 46-55. —Conducted 3 experiments in which undergraduate males ($N = 261$) chose their preferred bet from pairs of bets and later bid for each bet separately. In each pair, 1 bet had a higher probability of winning (P bet); the other offered more to win (\$ bet). Bidding method (selling vs. buying) and payoff method (real-play vs. hourly wage) were varied. Results show that when the P bet was chosen, the \$ bet often received a higher bid. It is concluded that these inconsistencies violate every risky decision model, but can be understood via information-processing considerations. In bidding, S starts with amount to win and adjusts it downward to account for other attributes of the bet. In choosing, there is no natural starting point: amount to win dominates bids but not choices. *Journal abstract.*

10236. Lindman, Harold R. (Indiana U.) **Inconsistent preferences among gamblers.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 390-

397.—Conducted 5 decision-making experiments with a total of 119 undergraduates. It was found that Ss, when choosing among gambles, tended to prefer gambles with high probabilities of winning. The same Ss, when naming selling prices, preferred gambles with small probabilities of winning larger amounts. Results generally support those found by P. Slovic and S. Lichtenstein (see PA, Vol. 43:2036) in a previous study. Contextual factors that might have contributed to this inconsistency were eliminated in the series of experiments. Changes in preferences over trials were found which fit a hypothesis of learning through simple reinforcement.—*Journal abstract.*

10237. Lynn, Richard S. (U. Southern California)
**Decision making: An individual parameterized
deterministic model.** *Dissertation Abstracts Interna-
tional*, 1971(May), Vol. 31(11-B), 6945.

10238. Pollatsek, Alexander. (U. Massachusetts) The inconsistency of expected utility theory with certain classes of single-peaked preference functions. *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 225-234. Compared the "psychophysics of gambling" model, in which a person is assumed to have a single-peaked or monotonic preference function on each of the primary psychological dimensions of a gamble, to the expected utility model for 2-outcome gambles. 2 theorems are proved, the 1st of which shows that expected utility (EU) theory is inconsistent with single-peaked preference functions on both skewness and variance, while the 2nd shows that subjectively-expected utility (SEU) theory is inconsistent with single-peaked preference functions on both skewness and range. The applicability of the theorems is discussed and a weak test of SEU theory is made employing the 2nd theorem. —Journal abstract.

10239. Schmitt, David R. (U. Washington) **Effects of intermittent reinforcing consequences on task choice.** *Psychological Reports*, 1971(Jun). Vol. 28(3), 771-776.—Explored the effects of supplementary reinforcement on 1 of 2 tasks as an element determining task choice. In an experimental setting, work on the lower paying of 2 concurrent operants received additional reinforcement on either a fixed or variable interval schedule. A wide range of addition magnitudes were studied under each schedule. Results from 8 female undergraduates indicate that addition magnitude significantly affected task choice only when additions were available at unequal intervals. Under this schedule the higher the additions the greater the time spent on the lower paying task. The fixed interval schedule produced a small amount of time on the lower paying task regardless of addition magnitude. These findings and those from a previous study suggest that additions and penalties when applied to opposing tasks in a concurrent setting have similar effects on patterns of task choice.

10240. Sensenig, John. (Duke U.) Self exposure to information as a function of decision certainty and direction of information. *Dissertation Abstracts International*, 1971 (May). Vol. 31(11-B), 6882. *Section for*

10241. Yellott, John I. (U. Minnesota) **Correction for fast guessing and the speed-accuracy tradeoff in choice reaction time.** *Journal of Mathematical Psychology*, 1971(May), Vol. 8(2), 159-199.—In choice RT tasks, response latency varies as the S changes his bias for speed vs. accuracy; this is the speed-accuracy tradeoff. Ollman's fast guess model provides a mechan-

nism for this tradeoff by allowing the S to vary the probability of making a guess response rather than a stimulus controlled response (SCR). It is shown that the mean latency of SCR's (μ) in 2 choice experiments can be estimated from a single session regardless of how the S adjusts his guessing probability. Experiments with 10 Ss are reported in which μ apparently varied with the constant despite tradeoffs in which accuracy varied from chance to near-perfect. In the context of the fast Guess model, this result is interpreted to mean that the tradeoff here was produced almost entirely by varying different proportions of fast guesses (rather than by varying latency SCR's. The question of what other processes may be compatible with μ invariance is also discussed.

—Journal abstract

A judgmental approach to decision analysis
sertation Abstracts International 14 (Apr 1979) 6312.

10243. Zechmeister, Kathleen M. *Determinants of resolution of conflict of interest in a simulation of political decision making*. *Abstracts International* 1971, Apr. 6313.

PHYSIOLOGICAL PSYCHOLOGY

NFI ROLCK, A

10244 Bizzzi, Emilio & Davis, Edward V. 1968
Massachusetts Inst of Technology
ences between "relax
patterned" movements the
and limb movements a
movements are thought to be
control, saccadic eye movements
intermittent sampling of
input-output properties of
to limb movements
castle, and Brooks are
agreement with Sperry
impulses are related to
motor responses are ap
of single cortical neurons
eye movements of other
illustrate basic differences
activity is related to
respectively. Central control of movement 1 and
lational mechanisms between input and neural
Neuroscience Research Program

9/11/31 10:24 AM
Somatosensory responses of bullfrogs to escape
awake cat. Relation to escape-producing stimuli.
Science, 1931, Vol 77, 1001-1002. 20. 1001-1002
experiment with adult cats indicates that the
unrestrained bullfrogs are responsive to
electrical stimulation of cutaneous nerves with increasing
discharge as escape response is elicited.
vigorous escape response is elicited by
not driven by escape response.
stimulation through the cutaneous nerves
elicited escape response.
pain sensory threshold.

10246. Delong, Mahlon. (National Inst. of Mental Health, Bethesda, Md.) **Central control of movement: Central patterning of movement.** *Neurosciences Research Program Bulletin*, 1971(Jan), Vol. 9(1), 10-30.—Reviews the interaction between central patterning and peripheral feedback in the production of coordinated motor input in certain basic movements. "While the contribution of central patterning is enormous in almost every instance, it is striking how varied is the role of proprioceptive feedback. In some instances exerting only a nonspecific tonic effect (wing-beat frequency control in the locust flight system), in other cases providing phasic reinforcement of discrete phases of the movement (lobster swimmeret), and elsewhere providing timing cues for the overall patterning (dogfish swimming)."—B. Preilowski.
10247. Divac, I. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Functions of the caudate nucleus.** *Acta Biologica Experimentalis*, 1968, Vol. 28(2), 107-120.—Discusses the hypothesis that neostriatum has many functions as well as cortex, and that interconnected parts of cortex and neostriatum subserve the same behavioral functions, probably at different levels. The functional heterogeneity of the neostriatum is considered to be the most important aspect of the hypothesis (63 ref.) *Journal summary*.
10248. Dlabac, A. (Research Inst. for Pharmacy & Biochemistry, Prague, Czechoslovakia) **The importance of research in biogenic amines for the experimental psychopharmacology.** *Activitas Nervosa Superior*, 1970(Aug), Vol. 12(3), 215-225.—Presents a review of the present knowledge of the physiology and biochemistry of adrenergic and serotonergic neurons in the CNS and new information published in the year 1969. (101 ref.)—H. Bruml.
10249. Evars, Edward V. (National Inst. of Mental Health, Bethesda, Md.) **Central control of movement: Feedback and corollary discharge: A merging of the concepts.** *Neurosciences Research Program Bulletin*, 1971(Jan), Vol. 9(1), 86-112.—Reviews that part of a work session concerned with 3 types of feedback in the control of movements: (a) internal feedback, i.e., feedback arising from within the nervous system (e.g., Sperry's "corollary discharge," von Holst and Mittelstaedt's "efference copy," and Mackay's "feedforward control"); (b) response feedback, i.e., afferent feedback; and (c) knowledge of results, i.e., feedback arising from the external environment as an indirect consequence of movement. Included is a contribution by O. Oscarsson on "recent developments on internal feedback" with regard to "flexor reflex afferents."—B. Preilowski.
10250. Evars, Edward V. & Thach, W. Thomas. (National Inst. of Mental Health, Bethesda, Md.) **Central control of movement: Strategies and tactics in research on central control of movement.** *Neurosciences Research Program Bulletin*, 1971(Jan), Vol. 9(1), 113-140.—Reviews summaries of contributions to a work session by K. Frank on the use of neural signals to control external devices, J. M. Brookhart on a technique for investigating central control of posture, E. Henneman on "size principle" of motoneuron recruitment, M. Ito on the special role of the cerebellum in movement control, and C. G. Phillips on corticomotoneuronal and corticofusimotor projections in movement control.—B. Preilowski.
10251. Fluor, E. & Mellström, A. (Royal Caroline Inst., Stockholm, Sweden) **Vestibular nystagmus: A differential reaction.** *Acta Oto-Laryngologica*, 1971(Apr), Vol. 143, 299-302.—Applied galvanic polarization to 20 adult spinalized cats to study the interplay between the 2 labyrinths during different stimulation conditions. Results indicate that it is the difference in activity between the 2 reflex arcs which determines the direction and intensity of the reaction, i.e. the vestibular reflex arcs function in the same way as a differential amplifier. (German summary)—*Journal abstract*.
10252. Henry, Kenneth R. (U. Wisconsin) **Genetic, neural, and stimulus variables in sound-induced convulsions.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6291.
10253. Isgur, Jay A. (U. Massachusetts) **Intermodality interaction in the cortex of the unanesthetized rat.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6292.
10254. Kimura, Doreen & Vanderwolf, C. H. (U. Western Ontario, London, Canada) **The relation between hand preference and the performance of individual finger movements by left and right hands.** *Brain*, 1970, Vol. 93(4), 769-774.—"Normal left-handed and right-handed Ss were asked to flex a single finger or parts of fingers at the middle joint. Ability to do this was better for the left hand than for the right, the left-hand superiority being most consistent for right-handers. The findings suggest that the neural mechanism for hand preference is not based on an asymmetry in the control of fine movement."—W. A. Wilson.
10255. Luria, A. R. (USSR Academy of Pedagogical Science, Moscow) **The process of reflection under the light of modern neuropsychology.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 61-74.—In classical psychophysiology, the basic mechanisms of the process of "reflection" were presumed to be relatively simple. Pavlov introduced in the physiology of higher nervous activity, the concept of "analyzer" to substitute for "sensory organ." 3 groups of neurons participate in the reflection process, including the body's reaction to changes in the signal received. At the highest levels of evolution, progressively greater corticalization of the analysis and synthesis of information is seen. Reflection must be understood as a complicated system of jointly working parts of the cortex. The problem of reflection takes a fundamental place in the materialistic theory of cognition.—R. D. Nance.
10256. Ramsey, Herschel R. (U. Oklahoma) **The effects of visual information on vestibular nystagmus habituation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6955.
10257. Smialowski, A. (Jagellonian U., Kraków, Poland) **Studies on the hypothalamus of the dog: II. Intermediate (tuberal) part.** *Acta Biologica Experimentalis*, 1968, Vol. 28(2), 121-144.—Describes the topography and connections of nuclei of the intermediate part of the dog's hypothalamus, based mainly on a series of 8 myelin sections from the brain of the dog, stained by the Weigert-Wolters method. The intermediate part of the hypothalamus is situated between the anterior part of this structure frontally and the mammillary bodies caudally. The following areas have been described in the intermediate part: the ventrolateral, dorsomedial, dorsocaudal, dorsal, infundibular, posterior lateral, posterior supraoptic, ventrolateral, and

tubermammillary nuclei as well as the periventricular area. These areas were distinguished in the hypothalamus of most other animals with the exception of the ventrolateral nucleus, which was reported only from a few mammals. In general, the myeloarchitectonic analysis of the intermediate part of the hypothalamus of the dog showed that this region does not differ much from the essential structural scheme of the hypothalamus in other animals in topography, structure, and connections. (30 ref.)—*Journal summary.*

10258. Trykova, O. V. (Inst. of the Brain, Moscow, USSR) *Sravnitel'noe izuchenie korkovogo kontsa slukhovogo analizatora v postnatal'nom ontogeneze u nizshei obez'yany i cheloveka.* [Comparative study of the cortical terminus of the auditory analyzer in lower simian and human postnatal ontogenesis.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 233-240.—Presents the results of: (a) an ontogenetic study of the cytoarchitectonic development of the cortical division (Fields 41, 22, 41/42, 42) of the auditory analyzer (in monkeys in the posterior part of the superior temporal convolution) in the adult, neonate, and 1/2- and 1-yr-old rhesus monkey, and (b) a comparison with the development of the corresponding structures in man. A comparison of the course of postnatal ontogenesis of the auditory fields in the monkey and man disclosed great differences. A more complex structural organization of the auditory fields was observed in man, expressed in (a) the emergence of Field 42, (b) the division of Field 41 into subfields, and (c) a better expression of areal signs. There were also differences in times and rates of formation of these fields, corresponding to the great differences in times and rates of formation of auditory sensitivity after birth—differences connected with the appearance in man of the 2nd signal system. (English summary) (39 ref.)—*J. D. London.*

10259. Vardiman, Donald R. (U. Oklahoma) *A re-examination of localization of function in the rat neocortex.* *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6962.

10260. Wurtman, Richard J. (Massachusetts Inst. of Technology) *Brain monoamines and endocrine function: Neuroendocrine transduction: An essay.* *Neuroscience Research Program Bulletin*, 1971(Mar), Vol. 9(2), 182-187.—In general, the brain sends signals to other organs via synaptical chains of neurons. However, for some tasks, including regulation of concentrations of certain substances in the extracellular fluid, and control of reproduction and lactation mechanisms, the brain communicates via cells called "neuroendocrine transducer cells." Their input signal is that of a neuron, they respond to a neurotransmitter diffusing across a short distance, typically at a synapse. Their output signal is that of a true endocrine cell; they emit coded chemical messages that are delivered by the circulation to many or all cells in the body, but only a relatively small number of cells can decode the message. At least 5 types of cells, 3 peripherally and 2 centrally innervated, can now be thus classified.—*U. A. Preilowski.*

Neuroanatomy

10261. Fial, Ronald A. (U. Hawaii) *Hippocampal structure and function in the albino rat.* *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6930.

LESIONS

10262. Harriman, Arthur E. (Oklahoma State U.)

Inadequate intakes of NaCl by adrenalectomized rats given a 20% dextrin-maltose solution opposite a 1.5% NaCl solution. *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 115-121.—Studied the importance of palatability in organization of fluid choices after bilateral adrenalectomy in 2-bottle drinking tests with laboratory rats. ADX Ss given dextrin-maltose opposite NaCl drank no more NaCl than did sham-ADX Ss given the same fluids. Also, these ADX Ss lost significantly more weight than did ADX Ss tested with distilled water opposite NaCl. Preference for the sugar solution apparently checks onset of compensatory NaCl appetite in naive ADX rats as well as in ADX rats preoperatively experienced with sugar and NaCl solutions.—*Author abstract.*

Brain Lesions

10263. Bohdaneky, Z., Radil-Weiss, T., & Krekule, I. (Czechoslovak Academy of Sciences, Lab. of Psychophysiology, Prague) *Visual evoked potentials in rabbits after rostromedial brain stem transection.* *Physiologia Bohemoslovaca*, 1970, Vol. 19(1-2), 89-93.—Recorded visual evoked potentials in 10 male chinchilla rabbits treated with tubocurarine before and after transverse section of the brainstem at rostromedial level (by means of a LINC computer) that the operation led to slowing down of EEG activity and to an increase in its amplitude. The evoked response acquired a simple biphasic shape, its latent period was prolonged and its amplitude increased. No habituation of evoked responses was observed. *Journal summary.*

10264. Brown, Gary E. (Texas Christian U.) *The effects of septal and olfactory bulb lesions on stimulus reactivity.* *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6277.

10265. Deuel, Ruthmary K., Mishkin, Mortimer, & Semmes, Josephine. (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) *Interaction between the hemispheres in unimanual somesthetic learning.* *Experimental Neurology*, 1971(Jan), Vol. 34(1), 123-138.—Studied the pathways through which the prefrontal and temporal lobes of both hemispheres in monkeys contribute to unimanual learning of somesthetic discrimination and reversal. Ss with bilateral removals of each lobe (B group) were compared with 6 Ss having corresponding unilateral removals combined with section of the telencephalic commissures (U + s group). 10 unoperated Ss and 6 Ss with contralateral lesions alone served as controls. Although the B and U + s groups showed quantitatively similar overall impairments, the B group Ss were impaired only in extinction of the original habit whereas those of the U + s group were deficient only in acquisition of the new habit after the acute extinction phase. It is proposed that the deficit specific to B group Ss was persistent interference between nonsensorimotor regions of the endbrain and lower centers, by contrast, the deficit specific to the U + s group Ss was a sensory and motor "neglect," resulting from the loss of horizontal connections between nonsensorimotor and sensorimotor regions within the endbrain.—*Journal abstract.*

10266. Dissinger, Mervin L. (Temple U.) *Effects of olfactory bulb ablation and scopolamine on water*

and air drinking in rat. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6282-6283.

10267. Elkins, Ralph L. (U. Georgia) Effects of limbic lesions of irradiation contingent saccharin preference shifts. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6927.

10268. Fife, Douglas D. (U. South Dakota) Stimulus equivalence reactions in monkeys with lesions of the dorsolateral prefrontal cortex. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6931.

10269. Flood, Nancy C. (U. Minnesota) Effects of telencephalic and olfactory tract lesions on appetitive runway performance of the goldfish, *Carassius auratus*. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6285.

10270. Hanson, Donald G. (U. Pennsylvania) Drinking by rats with septal-area lesions during acute hypovolemia. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6934.

10271. Henke, Peter G. (U. Georgia) Changes in response to conditioned reinforcement following lesions in the hippocampus, septal area and amygdala. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6935.

10272. Hicks, Samuel P. & D'Amato, Constance J. (U. Michigan, Medical Center) Motor-sensory and visual behavior after hemispherectomy in newborn and mature rats. *Experimental Neurology*, 1970(Dec), Vol. 29(3), 416-438. —Removed 1 lateral half of the forebrain and diencephalon from 22 infant and 6 adult hybrid and Wistar rats. Ss were then compared with 16 sibling controls. Operated Ss showed (a) loss of tactile placing opposite the ablation, (b) the ability to discriminate visual patterns, and (c) the ability to visually gauge variable jumping distances. Some Ss performed the visual tasks using the eye opposite the hemispherectomy alone, which was exclusively supplied with uncrossed retinogeniculate fibers. Differences between Ss were (a) loss of tactile placing after operation in infants was delayed until the 17th day, (b) impaired stride in operated adults; and (c) the development in infants of a small, uncrossed corticospinal tract. The stride component in locomotion seemed dependent on the corticospinal tract system, and was partially dissociated from the placing reaction essential for locomotion on rough terrain. The possibility that the small remodeled corticospinal tract spared the stride component is discussed. (31 ref.)—*Journal abstract*.

10273. Marks, Henry E. (Texas Christian U.) The effects of type of lesions and percentage body weight loss on measures of motivated behavior in rats with hypothalamic lesions. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6946.

10274. Norman, Sandra A. (U. Pennsylvania) Effects of primary cortical ablations on cerebral somatosensory evoked responses in chronic cats. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6297-6298.

10275. Seva Diaz, Antonio. (U. Zaragoza, Medical School, Spain) Algunos aspectos de catatonía experimental por serrados en polo frontal de distinta amplitud. [Some aspects of experimental catatonía with various induced serrated lesions of the frontal cortex.] *Archivos de Neurobiología*, 1969(Apr), Vol. 32(2), 155-189. —Describes a new technique applicable for use in investigations of experimentally induced feline catatonía. The technique, called the serrated technique, consists of

the application of bow knot nylon sutures to various induced serrated lesions on surfaces of the frontal cortex in cats. Brain electrical activity is monitored during the procedure via EEG recordings. Induced lesions are found to produce a reduction of aggressive behavior in cats; there appears to be a correlation between lesions of the frontal lobe and experimental catatonía. This technique is recommended as a means of investigation of catatonic behavior in cats. (French & English summaries) (15 ref.)—B. A. Stanton.

10276. Sherman, S. Murray. (Australian National U., Capital Territory, Canberra City) Role of visual cortex in interocular transfer in the cat. *Experimental Neurology*, 1971(Jan), Vol. 30(1), 34-45. —Investigated the role of the visual cortex (areas 17, 18, and 19) as a locus important for interocular transfer. 14 cats were tested for interocular transfer of a series of brightness and pattern discriminations in a 2-choice, positive reinforcement paradigm. 3 Ss were controls, and 11 Ss underwent manipulations designed to reduce the number of binocular cells in their visual cortices: (a) rearing with external strabismus induced by neonatal transection of 1 or both medial rectus muscles and/or surgery in adulthood to cut midbrain and forebrain commissures (but not the optic chiasm); and (b) ablation of areas of visual cortex. Controls showed complete transfer of every discrimination. Ss reared with strabismus and no adult surgery and 8 normally reared Ss with adult brain lesions showed transfer deficits. Results suggest a role in interocular transfer for the binocular cells of the visual cortex, and that few binocular cells in the visual cortex or the geniculocortical regions outside of areas 17, 18, or 19 can subserve interocular transfer. (20 ref.)—*Journal abstract*.

Brain Hypothalamic & Hippocampal Lesions

10277. Milan, Michael A. (U. Florida) Acquisition and reversal of a two manipulanda differentiation in sham, neocortically, and hippocampally lesioned rats. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6951.

10278. Powley, Terry L. (U. Wisconsin) Reduction of body weight set-point by lateral hypothalamic lesions: Implications for an analysis of the lateral hypothalamic feeding syndrome. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6954-6955.

10279. Schiele, Daniel R. (Washington U.) The effects of ventromedial hypothalamic lesions on food and water intake under ad lib or restricted intake conditions. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6957.

10280. Schram, Donn L. (U. Washington) The effect of hippocampal and fornix lesions on the acquisition, transfer, and reversal of a visual discrimination. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6304.

10281. Seago, John D. (Texas Christian U.) The relationship between behavioral and biochemical changes during development of hypothalamic obesity. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6304.

BRAIN STIMULATION

10282. Paolino, Ronald M. & Levy, H. M. (Purdue U.) Amnesia produced by spreading depression and ECS: Evidence for time-dependent memory trace

loral effects of intracranial adrenergic and cholinergic chemical stimulation in the cat. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6951-6952.

10291. Setler, Paulette E. (U. Pennsylvania) Changes in feeding behavior produced by adrenergic stimulation of the brain of the rhesus monkey. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6228.

10292. Wilkinson, H. A., Mark, V. H., & Wilson, R. (Harvard Neurosurgical Service, Boston, Mass.) Sleep induced by focal brain suppression using anesthetic gases. *Experimental Neurology*, 1971(Jan), Vol. 30(1), 30-33. Studied the safety and effectiveness of silicone rubber tubing "chemodes" for stereotaxic intracerebral implantation in cats. In 23 adult cats, the chronically implanted silastic chemodes and the anesthetic gas, tetrafluoroethane, caused little cerebral reaction, while inducing satisfactory and reversible focal cerebral suppression. Silastic rubber chemodes allowed the focal introduction of various gases, liquids, and solutions into the brain with no additional distortion of the brain. Since the membrane was impermeable to bacteria, nonsterile chemicals could be employed. It is concluded that the use of brain stimulants as well as suppressants should make these devices useful for animal experimentation and human therapy.—*Journal abstract*.

Electrical Stimulation

10293. Aleksandrovskaya, M. M. & Kruglikov, R. I. (USSR Academy of Sciences, Inst. of Higher Nervous Activity & Neurophysiology, Moscow) Vliyaniye elektroschoka na funktsiyu pamyati i gliko-neironal'nye otnosheniya v golovnom mozge krya. [The effect of electric shock on the functioning of memory and glial-neuronal relationships in the rat's brain.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 197(5), 1216-1217. — Passive avoidance response was established in white rats; Ss were tested for retention of the CR 24 hr. later. Electric shock was administered immediately after conditioning, 2 hr. after, 2 hr. before, and 2 hr. before the test. Only immediate shock led to a significant loss of retention ($p < .01$). Ss were sacrificed and their brain cells, especially those of the motor area, were stained and examined microscopically. Immediate shock led to the swelling of neuron bodies, nuclei, and dendrites. 2 hr. after shock only the dendrites of some of the neurons were swollen, but other morphological changes indicated a sharp increase in neuronal activity. The number of astrocytes increased immediately after shock and was even larger after 2 hr., but their size decreased somewhat. In addition, electric shock led to an increase in the number of oligodendroglial and microglial cells. It is hypothesized that the swelling of neurons interferes with neuronal metabolic processes and therefore with the circulation and consolidation of short-term memory. *L. Zusne*.

10294. Atrons, Dale M. (Rutgers State U.) Reinforcing and emotional properties of electrical stimulation of the subcortical limbic forebrain. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6918.

10295. Carew, Thomas J. (U. California, Riverside) Retrograde amnesia: A behavioral and electro-

physiological analysis. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6236-6237.

10296. Desisto, Michael J. (Tufts U.) Hypothalamic mechanisms of killing behavior in the laboratory rat. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6924.

10297. Fantl, Lawrence. Discrimination of electrical stimuli on lateral and medial striate cortex in *Macaca mulatta*. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6928-6929.

10298. Gerken, George M. (Calder Hearing & Speech Center, Research Div., Dallas, Tex.) Behavioral measurement of electrical stimulation thresholds for medial geniculate nucleus. *Experimental Neurology*, 1971(Apr), Vol. 31(1), 60-74. Performed 3 experiments using adult female cats ($N = 6$) with electrodes permanently implanted in the medial geniculate nucleus (MG). The manner in which detection thresholds were influenced by pulse-train, pulse-pair, and the presence of concurrent acoustic stimulation was examined. Detection thresholds for electrical stimulation decreased in the initial sessions of testing but then stabilized, typically showing a slight increase in sensitivity with prolonged testing. Data indicate that threshold values for caudal MG are approximately twice the threshold values for anterior MG. In the pulse-train and pulse-pair experiments, threshold was lowered by reduction of interpulse interval. Results are discussed in terms of the efficiency of the electrical stimulation and the summation of neural excitation. The effects of concurrent acoustic stimulation on MG detection thresholds were complex, sometimes resembling facilitation or masking. These results suggest a means of evaluating the central effects of peripheral stimulation. (20 ref.)—*Journal abstract*.

10299. Koenig, Isolde D. (U. Toronto, Ontario, Canada) The reinforcement value of intracranial stimulation and its interaction with arousal level. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6941.

10300. Lewińska, Maria K. (U. Łódź, Poland) The effect of amygdaloid stimulation on daily food intake in cats. *Acta Biologica Experimentalis*, 1968, Vol. 28(2), 71-81. Implanted electrodes into the ventromedial part of amygdala in 26 cats 2 wk. after the implantation during a period of about a mo., this region of amygdala was stimulated every other day for about 30 min. Changes in the daily milk intake were observed as an effect of the irritating action of the electrodes. As a result of the electrical stimulation, these changes were additionally intensified. The effect of the electrodes on the ingestion of cereal was less intensive, with changes occurring only during electrical stimulation. A decrease in the daily intake of milk and cereal occurred in Ss with electrodes implanted in basal parvocellular nucleus. In most of these, a simultaneous strong aversion towards raw meat was observed. An increase in the daily consumption of milk and cereal occurred in Ss with electrodes situated in the anteromedial area. Some of these Ss also displayed an increased appetite for raw meat.—*Journal summary*.

10301. Monti, J. M. (Hosp. de Clínicas, Montevideo, Uruguay) Effect of recurrent stimulation of the brain stem reticular formation on REM sleep in cats. *Experimental Neurology*, 1970(Sep), Vol. 28(3), 484-493.—Studied 5 adult cats prepared for chronic sleep

recordings of the effect of (a) recurrent stimulation of the pontine reticular formation, (b) REM sleep-deprivation, and (c) the interaction of both on the total REM sleep time and the mean number and duration of REM periods. A regularization in the occurrence of REM periods, as well as an increase of the total REM sleep time and mean duration of REM periods was observed. A significant increase in the number of REM periods occurred only when pontine reticular formation and REM sleep deprivation were interacted. Findings support the concept that REM sleep is an active process and that REM periods soon after stimulation of the pontine region are closely related to the stimulus.—*Journal abstract.*

10302. Orem, John M. (U. New Mexico) **Two systems of efference from visual cortex to anterior middle suprasylvian gyrus.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6299.

10303. Peeke, Harman V. & Herz, Michael J. (U. California, San Francisco) **Caudate nucleus stimulation retroactively impairs complex maze learning in the rat.** *Science*, 1971(Jul), Vol. 173(3991), 80-82. —Describes an experiment in which male albino Sprague-Dawley rats, with permanent electrodes implanted bilaterally in the caudate-putamen complex, were stimulated with single pulses after reinforcement of each maze learning trial or were stimulated with multiple pulses after each choice point or after reinforcement. Single pulses retarded the development of learning only when stringent learning criteria were required, whereas multiple pulses interfered with acquisition when the criteria for learning were less difficult.—*Journal abstract.*

10304. Stutz, Robert M. (Wayne State U.) **Stimulus generalization within the limbic system.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6959-6960.

10305. Syka, Josef & Straschill, Max. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **Activation of superior colliculus neurons and motor responses after electrical stimulation of the inferior colliculus.** *Experimental Neurology*, 1970(Sep), Vol. 28(3), 384-392.—Electrically stimulated the inferior colliculi (ICs) of encephale isolé cats. Stimulation elicited contralaterally directed, conjugate deviations of the eyes and movement of the contralateral pinna. These motor responses were usually accompanied by pupillary dilatation and widening of the palpebral fissure. Electrical, and acoustic stimulation of the same sites in the visual, and acoustic stimulation of the same sites in the IC activated single neurons in the stratum intermedium. Results support the hypothesis that output signals of the IC, which control orientation movements of eyes and pinnae to acoustic stimuli, are relayed through neurons of the superior colliculus. (24 ref.)—*Journal abstract.*

10306. Tarnecki, Remigiusz & Konorski, Jerzy (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Instrumental conditioning of thalamogenic movements and its dependence on the cerebral cortex.** *Acta Biologica Experimentalis*, 1969, Vol. 29(1), 17-28.—Movements of the limbs evoked by electrical stimulation of the ventralis posterolateralis (VPL) or stimulation of the ventralis posterolateralis (VPL) nucleus with the frequency of 300 cps were used in instrumental alimentary conditioning in 10 cats. In the 1st stage there was mutual facilitation between the instrumental and VPL-evoked movements consisting in triggering of the instrumental movements

by VPL-evoked movements and lowering the threshold of the VPL-evoked movements by instrumental conditioning. After the instrumental CR was firmly established, Ss performed the trained movement immediately after eating food presented after the preceding movement. The VL-evoked movements were instrumentalized after about 100 trials (for the forelimb). When instrumental conditioning was completed, the intervals between the performances of the trained movement remained long, amounting to 1 min. or more. The instrumental responses transformed from the thalamogenic responses had exactly the same shape as the former ones. Lesions sustained in the sensorimotor and premotor cortex did not abolish the instrumental responses derived from thalamic stimulation, but made them low, irregular, and fatigable. (15 ref.) *Journal summary.*

10307. Tokumasa, K., Suzuki, J. I., & Goto, K. (Tokyo, Faculty of Medicine, Japan) **A study of the current spread on electric stimulation of the individual utricular and ampullary nerves.** *Acta Otolaryngologica*, 1971(Apr), Vol. 71(4), 313-318. —Electrically stimulated single vestibular nerve branches in 20 healthy cats through implanted electrodes. Different combinations of extraocular muscles were activated by each of the single vestibular nerve branches and there were 3 frequency-dependent contraction modes: the lateral-canal, the vertical-canal, and the utricular type. Results show that these could be utilized for detecting whether single or combined vestibular nerve branches are stimulated. (German summary)—*Journal abstract.*

10308. Ungiadze, A. A. (Inst. of Physiology, USSR) **O topograficheskoj lokalizacii funktsij gippokampa.** [On topographical localization of functions in the hippocampus.] *Sakartvelos SSR Mets'mereba'ta Akademii Moambe*, 1970(Jan), Vol. 9(1), 165-168.—Cats were used to study the role of different parts of the dorsal and ventral hippocampus in emotional behavior. Distinct topographic localization of function in the dorsal and ventral hippocampus areas was demonstrated by electrical stimulation of the hippocampus. Electrical stimulation produced different emotional reactions: the "arrest reaction" from electrical stimulation of the posterodorsal hippocampus and the "fear reaction" with avoidance from electrical stimulation of the medial portion. Electrical stimulation of the ventral hippocampus evoked orientation and fear reactions without avoidance. Electrical stimulation of the posteroventral hippocampus evoked the fear reaction with aggression. Threshold electrical stimulation of the anteroventral hippocampus elicited sleep. Strong electrical stimulation of the same area produced the fear reaction. Electrical stimulation of the medial portion of the ventral hippocampus evoked the arousal reaction. (15 ref.)—*Journal abstract.*

10309. Ungiadze, A. A. (Inst. of Physiology, USSR) **Vyrabotka uslovnoi reakcii strakha na bazis razdrasheniya gippokampa.** [Elaboration of the conditioned reaction of fear on the basis of hippocampal stimulation.] *Sakartvelos SSR Mets'mereba'ta Akademii Moambe*, 1970(Jan), Vol. 9(1), 169-172. —Studied the possibility of elaborating conditioned behavior using those emotional reactions which are elicited by direct stimulation (UCS) of the dorsal and ventral hippocampus; also studied was the electrical activity of

brain structures in the course of elaborating a CR. Ss were cats with chronically implanted electrodes in various structures: lateral hypothalamus, ventromedial nucleus of the hypothalamus, ventral and dorsal hippocampus, and sensorimotor area of the neocortex. A CR to sound (CS) became apparent after 5-9 reinforcements. After establishment of the CR the CS evoked slow potentials in the hippocampus, hypothalamus and the sensorimotor area of the cortex similar to the waves arising after cessation of hippocampal stimulation. It is suggested that this synchronized generalized activity is due to the influence of the mesencephalic reticular formation. (Georgian & English summaries).—*J. D. London.*

10310. Wada, J. A., Matsuda, M., Jung, E., & Hamm, A. E. (U. British Columbia, Kinsmen Lab of Neurological Research, Vancouver, Canada) **Mesencephalically induced escape behavior and avoidance performance.** *Experimental Neurology* 1970(Nov), Vol. 29(2), 215-220.—Trained 16 male and female cats who displayed escape or fearlike behavior upon electrical stimulation of the hypothalamus (HP) and/or midbrain (MB) to interrupt the stimulation by plate pushing (escape learning). 7 Ss who successfully learned to escape were further subjected to avoidance conditioning trials with a bell or flicker as CS, and electrical HP or MB stimulation as UCS. All Ss failed in avoidance learning with HP stimulation and 4 Ss succeeded with MB (central gray matter) stimulation. It is concluded that, if this difference reflects differential motivational process produced by either HP or MB stimulation, then the notion of a "homogenous" neuronal mechanism for flight-escape extending from forebrain through hypothalamus into central gray matter of MB is not supported. The bell was somewhat more effective than the flicker as CS, suggesting the possibility of then differential neurobiological significance in organizing the innate behavioral pattern necessary for the survival of this particular species.—*Journal abstract.*

10311. Wolfe, Thomas L. (U. California, Los Angeles) **The motivational properties of electrical stimulation in dorsal tegmentum of the rat.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6311-6312.

ELECTRICAL ACTIVITY

10312. Cowen, Murray A. (Veterans Administration Hosp., Syracuse, N.Y.) **Biochemical modulations of the transepithelial direct current circuit in humans.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 408-421.—Defines and describes the transepithelial direct current (TCDC) potentials. The relationship of TCDC potentials to blood sugar levels, state of hydration, eosinophile counts, and blood cortisol levels was examined in 52 male and 14 female 18-45 yr old healthy adults and 21 male and 21 female postmenopausal or senile hospital patients. The effects of various chemical variables on the TCDC potentials were studied in the Ss. Variables included: thyroid, testosterone, estrogen, progesterone, cortisone and ethanol administrations; water loading; hypocapnia due to hyperventilation; blood sugar and eosinophile determinations. Results indicate "that the TCDC potentials are very sensitive to certain of the above factors and the effects are compatible with the hypothesis that the voltages are modulated by changes in the permeability of the cortical blood brain barrier system." (19 ref.)—*S. Knapp.*

10313. Fernández-Guardiola, Augusto & Ayala, Fructuoso (National Autonomous U. Mexico, Biomedical Research Inst., Mexico City) **Red nucleus fast activity and signs of paradoxical sleep appearing during the extinction of experimental seizures.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30, 547-555. Analyzed the electrical activity of several cortical and subcortical structures in 34 cats during electrically and pentamethylenetetrazol-induced seizures and compared this with the spinal monosynaptic reflex variations. 5 major results are revealed: (a) The monosynaptic spinal reflex was initially facilitated during the tonic phase and when elicited in the vicinity of a clonic wave. (b) In the last stages of the seizure, the monosynaptic spinal reflex appeared deeply inhibited. This inhibition coincided with the appearance of fast sinusoidal (40 cps) activity in the red nucleus. (c) The electrical stimulation of red nucleus areas which show fast sinusoidal activity was also associated with a spinal monosynaptic reflex depression. (d) The electrical stimulation of the cortical sensorimotor areas in which the tonic clonic activity was recorded facilitated the monosynaptic spinal reflex. (e) In the last stages of the convulsive activity, central and peripheral signs appeared which were similar to those described for paradoxical or REM phase of normal sleep. (French summary) (34 ref.)—*Journal summary.*

10314. Gusevnikov, V. I. & Loginov, V. V. (Moscow State U., USSR) **Nekotory printsipy funktsional'noi organizatsii zritel'nogo tsentra karpa.** [Some principles of the functional organization of the visual center in the carp.] *Biologicheskue Nauki*, 1969(Apr), No. 4, 54-64.—The responses to light of 200 functional units, distributed in different layers of the optic tectum of 34 immobilized carps were utilized in a microelectrode study of the functional organization of the neuronal structures in the visual center of the carp. 12% of the neurons exhibited spontaneous activity and were indifferent to any visual stimuli. 38% reacted only to certain changes in illumination and in a number of cases exhibited constant activity in 1 or another range of illumination. Characteristic of 40% was a combination of (a) reaction to change of illumination, and (b) various degrees of specific sensitivity to contrast border movement, including selectivity with respect to direction of movement (10%). 10% reacted only to the movement of contrast objects, exhibiting various degrees of selectivity with respect to direction, speed, and form. It is suggested that the formation of such responses is connected with the successive integration of on- and off-impulsations arriving from the retina of the carp. Comparison with data, procured from other parts of the brain and from the visual nerve, makes it possible to substantiate conceptions concerning the role of the optic tectum in the treatment of visual signalization. (23 ref.)—*J. D. London.*

10315. Gusevnikov, V. I. & Supin, A. Ya. **Ritmicheskaya elektricheskaya aktivnost' golovnogo mozga.** [Rhythmic electrical activity of the brain.] *Uspekhi Sovremennoi Biologii*, 1968, Vol. 66(1), 66-86.—The authors survey (a) their findings on the mechanisms involved in cerebral rhythmic electrical activity, and (b) the literature on the subject. The characteristics of 4 major forms of cerebral rhythmic electrical activity are described: (a) α or α -like rhythm, (b) the rhythm of sleep spindles, (c) stress rhythm, and (d) the rhythmic activity of the vertebrate olfactory

analyzer. The major hypotheses of the neurophysiological mechanisms of cerebral rhythmic electrical activity are critically examined. In connection with this, the authors review their experimental material on the identity of the mechanisms underlying afteraction discharge with those underlying the α -like activity of the rabbit visual cortex (4 p. ref.)—*I. D. London.*

10316. Gusevnikov, V. I. & Vodolazskii, A. N. (Moscow State U., USSR) *Nekotorye dannye o zritel'nom analizatore golubya: "Detektornye" svoystva setchatki.* [Some data on the visual analyzer of the pigeon: The "detective" properties of the retina.] *Biologicheskoe Nauki*, 1968(Sep), No. 9, 45-52.—Immobilized pigeons (*Columba livia*) were used in a microelectrode study of the detective properties of single ganglionic cells in the retina (over 150 recordings), in order to determine the principles guiding these cells in coding the various parameters of the visual stimulus. A consideration of the data led to a classification of the ganglionic cells according to their responses to different visual test stimuli 4 types of cells were discerned: (a) 3%, distinguishing small objects (the convexity detectors); (b) 62%, distinguishing directed movement; (c) 28%, distinguishing moving contrast; and (d) 7%, enhancing their spontaneous activity when light was switched off. Proposed is a hypothesis dealing with (a) the coding of visual parameters in the distribution of cellular discharge frequencies, and (b) a probability-statistical mechanism for the recognition of visual images. It is still premature to attempt a connection between the detective properties of the retinal ganglionic cells and elements of the behavior of the organism, its ecology, etc.—*I. D. London.*

10317. Hall, Karyl M., Hicks, Robert A., & Hopkins, H. Kenneth. (Agnews State Hosp., San Jose, Calif.) *The effects of low level DC scalp positive and negative current on the performance of various tasks.* *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 689-691.—RT in detection of a 1,000 cycle tone was measured for 18 normal volunteers and followed by a memory test of the number of trials to criterion and the number of correct responses in a memory drum learning task, all following scalp polarization. None of the statistical tests following significance. Hence, the effects of scalp polarization on behavior previously reported in less controlled studies are thought to be of questionable validity.—*R. L. Sulzer.*

10318. Heffernan, Michael S. (U. California) *The effects of self-initiated control of brain waves on digit recall.* *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6404.

10319. Johnson, Laverne C. *A psychophysiology for all states.* *USN Medical Neuropsychiatric Research Unit Report*, 1970, No. 70-9, 501-516.—Investigated whether the same visceral changes occur in different states of consciousness. A survey of EEG and autonomic activity found in the awake state and during the various stages of sleep leads to the conclusion that they do. It is concluded that EEG and autonomic activity cannot be used to define states of consciousness. The state of consciousness of an S must 1st be known before the physiological significance and possible behavioral meaning of the EEG and autonomic responses can be inferred. (40 p. ref.)—*Journal abstract.*

10320. Keidel, W. D. (Friedrich-Alexander U., 1st Physiologisches Inst., Erlangen, W. Germany) *D.C. potentials in the auditory evoked response in man.* *Acta Oto-Laryngologica*, 1971(Feb), Vol. 71(2-3), 242-

248.—While the conventional auditory evoked response is mainly related to the onset of auditory stimuli and to their cessation (off-effect) during prolonged sinusoidal stimulation, it was found that a marked d.c. potential could be recorded by means of a special d.c. recording set-up in both animals and man. Precautions had to be taken to avoid polarization artifacts originated by the electrodes (Beckman-type). Those difficulties were overcome, and clearly reproducible records of d.c. potentials in man were obtained. These d.c. potentials depend upon both stimulus intensity and duration, and show interaction with other sensory modalities. A comparison of their time course with interval and PST-histograms from single units in colliculus and geniculate prove their intramodal specific nature. The importance of the d.c. potential for "objective" audiometry is demonstrated. (German summary) (22 ref.) *Journal abstract.*

10321. Kogan, A. B., Kuraev, G. A., & Choravan, O. G. (State U. Rostov, USSR) *Nekotorye kharakteristiki informatsionnykh protsessov v zritel'nom analizatore.* [Some characteristics of informational processes in the

visual analyzer.] *Doklady Akademii Nauk SSSR* 1971 Vol. 197(4), 951-953.—Microelectrode recordings were made of impulses originating in the retinal ganglion cells and the tectum in response to light flashes in the frog *Rana ridibunda*. Treating the nerve impulses obtained from the 2 sources as a binary code the following informational measures were computed: channel capacity, redundancy of nerve impulses from the ganglion cells, redundancy of nerve impulses from the tectum, and channel capacity and close relationship existed between channel capacity and the redundancy of nerve impulses from the tectum with the redundancy of nerve impulses corresponding to higher redundancy values, especially when nerve impulses from the ganglion cells was also high. An analogous relationship was found between the redundancy of the system and the redundancy of nerve impulses. The findings are taken to suggest the existence of a feedback mechanism whose function is to control different stages to ensure a constant level of activity of the entire system.—*L. Zusne.*

10322. Krekule, I. & Walker, D. (Czechoslovak Academy of Science Inst. of Physiology, Prague) *A simple on-line method for the detection of the dependence between the unit activity and amplitude of macropotentials.* *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 585-591.—The authors describe an attempt to fill a methodological gap which exists in the detection of relationships between macropotentials and simultaneously recorded intracellular potentials. This method can be applied to evoked potentials, and activity, can be implemented on-line with a computer, and results in a more distinctive representation of the form of histograms than do other methods. The dependence between the slow potential and the macropotential discharges) (French summary) *Journal abstract.*

10323. Krugman, Herbert I. *Brain wave measures of media involvement.* *Journal of Advertising Research*, 1971, Vol. 11(1), 3-9.—"It appears that the response to television is very different from the response to print... and the basic electrical differences. Response to print... may come to be understood as a response composed primarily of fast brain waves while the response to television might come to be understood as

passive and composed primarily of slow brain waves. Further testing is indicated."—J. C. Franklin.

10324. Kurtz, Ruth I. (U. Pennsylvania) **Electrophysiological correlates of copulatory behavior in the male rat.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6294.

10325. McAdam, Dale W. & Rubin, Eugene H. (U. Rochester) **Readiness potential, vertex positive wave, contingent negative variation and accuracy of perception.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 511-517.—Recorded the readiness potential (RP), contingent negative variation (CNV), and vertex positive wave (P302) in a situation where 10 19-24 yr. old female Ss presented themselves with brief visual stimuli, attempted to perceive them correctly, and subsequently reported their perceptions. Results show that the RP preceding the button press leading to the presentation of the stimulus was a reliable index of the neural events associated with subsequent correct or incorrect perception. P302, although showing clear localization at the vertex, was not reliably correlated with the behavioral response. The CNV was shown to be related in this situation to motivation/expectancy/attention factors following the perception and preceding the report. It is concluded that the RP and CNV reflect common underlying neural processes when both are studied in complex (global) psychological situations. (French summary)—*Journal summary*.

10326. Mendel, Maurice I. & Goldstein, Robert. (U. Wisconsin) **Stability of the early components of the averaged electroencephalic response.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 351-361.—Examined the early components of the averaged electroencephalic response (AER) at 3-hr intervals in 8 22-26 yr. old normal hearing adults over a single, sleepless 24-hr span. During each of the sessions, 3 series of clicks at 50 db. sound level were presented to the right ear of the S as he sat reading. 1,024 clicks at the rate of 9.6/sec were used in obtaining each AER, which was recorded from an electrode on the vertex. The response pattern was very stable, characterized by a polyphasic configuration. At the conclusion of the 24-hr span, 3 Ss were tested with the same stimuli during various stages of sleep. The early components of the AER remained consistent even during sleep. Threshold searches were successfully carried out on 2 of the sleeping Ss. It is concluded that the long-term stability of the early components of the AER in the awake and sleep states makes them practical as a response index for electroencephalic audiometry. Their characteristics are considered to be more compatible with a neurogenic than with a myogenic theory of their origin. (17 ref.)—*Journal abstract*.

10327. Mendel, Maurice I. & Goldstein, Robert. (U. Wisconsin) **The effect of test conditions on the early components of the averaged electroencephalic response.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 344-350.—Examined the effect of test conditions on the early components of the averaged electroencephalic response (AER) in 6 male and 6 female 21-43 yr. old normal hearing Ss. Clicks at 50 db. sound level were presented to the right ear at the rate of 9.6/sec while the S was (a) in the dark with eyes closed, (b) in the light with eyes open, and (c) reading. Order of presentation was counterbalanced with each condition repeated 3 times. 1,024 clicks were used in obtaining each of the 9 AERS, which were recorded from an electrode on the

vertex. The polyphasic response pattern was relatively consistent. No significant differences occurred in either latency or amplitude of the response with the different test conditions. Latency and amplitude did not differ as a function of order, although the 1st response was usually larger than the mean of the remaining 8. Implications for practical audiometry are discussed.—*Journal abstract*.

10328. Mitler, Merrill M. (Michigan State U.) **The developmental significance of low voltage, fast wave sleep for the stimulus input requirements, regulative mechanisms, and development of the central nervous system in a species of deer mouse, *Peromyscus maniculatus bairdi*.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6952.

10329. Oniani, T. N., Naneishvili, T. L., & Koridze, M. G. (Inst. of Physiology, Tbilisi, USSR) **Dinamika fonovoi élektricheskoi aktivnosti limbicheskikh struktur koshki vo vremya bodrstvovaniya i sna.** [Dynamics of spontaneous electrical activity in the limbic structures of the cat in the wakeful state and sleep.] *Sak'ar'velos SSR Mets'nierebat'a Akademii Moambe*, 1969(Nov), Vol. 56(2), 429-432.—Cats were used to study the dynamics of electrical activity involving bursts of near-sinusoidal waves in such structures of the brain as the olfactory bulbs, amygdala, pyriform cortex, and anterior hypothalamus when the Ss were engaged in various behavioral acts and during the various phases of sleep. Along with recordings of summated electrical activity, spectral analysis of the different rhythms was undertaken. During "emotional reactions (attention, fear)" electrical activity involving bursts of near-sinusoidal potentials appeared in the limbic structures with enhancement of θ -rhythm in the hippocampus. During the paradoxical phase of sleep, bursts were absent in the electrical activity of these structures despite strong θ -rhythm in the hippocampus. (Georgian & English summaries)—I. D. London.

10330. Radil-Weiss, T. & Škvaril, J. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **A technique for recording the impulse activity of four adjacent neurones in the brain.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 571-574.—Describes a stereotaxic instrument which allows the preliminary optical measurement of the distances between the tips of 4 independently movable microelectrodes and their introduction into a small region of the brain of different laboratory animals. The localization and mutual distances in space of the 4 electrode tips can be estimated. The pulse trains recorded extracellularly from 4 different neurons are processed by means of a LINC computer, evaluating interval and autocorrelation histograms of all of them separately and the forward/backward recurrence time interval and cross-correlation histograms for pairs of neurons in all possible combinations. (French summary)—*Journal summary*.

10331. Salomon, G. & Elberling C. (Copenhagen County Hosp., Gentofte, Denmark) **Cochlear nerve potentials recorded from the ear canal in man.** *Acta Oto-Laryngologica*, 1971(Apr), Vol. 71(4), 319-325.—Describes a nonsurgical, clinically applicable method of recording action potentials from the cochlea, using average technique on an IBM 1800 computer. The components N_1 , N_2 , and N_3 were obtained in response to well-defined transient sounds, which were measured with a sound probe. Also, an electropositive response is

relationship between convergence and accommodation. (French summary)—*Journal summary*.

10337. Howard, Gilbert; Howard, Alfreda, & Wittman, Eleanor. (Hillside Hosp., Glen Oaks, N.Y.) **Automating the EEG report.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 442.—Describes a standard checklist for recording EEG data. The information is keypunched and processed on an IBM 360/50 computer. Using a program written in NOVEL, a narrative report is generated suitable for clinical reporting. This system facilitates research and surveys since the data are machine retrievable. Further, the computer output can substitute for the usual typed report.—*Author abstract*.

10338. Irvine, D. R., Webster, W. R., & Sack, K. H. (Monash U., Neuropsychology Lab., Clayton, Victoria, Australia) **Effects of repetitive stimulation and state of arousal on cochlear potentials.** *Experimental Neurology*, 1970(Oct), Vol. 29(1), 16-30.—Recorded click-evoked responses from the round window (RW) in unanesthetized cats. In Exp. I, RW responses were obtained from 5 Ss during different arousal states prior to and following repetitive 60-db click stimulation. Averaging techniques were employed to separate the cochlear microphonic and auditory nerve action potential components of these responses. Pre- and post-stimulation comparisons for each arousal state gave no evidence of habituation decrements. The general pattern of amplitude variation with arousal was in accordance with the hypothesized dependence of such changes on nonreflex middle ear muscle activity. Certain features of the results suggest that masking by noise generated by the Ss own movements was also involved. In Exp. II with 10 Ss, there was no evidence of response decrements to repetitive 45-db click stimulation in Ss with unilaterally sectioned middle ear muscles. Results are contrary to theories of peripheral "gating" of auditory input. (37 ref.)—*Journal abstract*.

10339. Kirkland, Vance L. (Purdue U.) **Hippocampal driving in the theta frequency spectrum: Some behavioral effects.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6794.

10340. Kupperman, Gerard L. (U. Wisconsin) **Effects of three stimulus parameters on the early components of the averaged electroencephalic response.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6973.

10341. Mendel, Maurice I. (U. Wisconsin) **Early components of the averaged electroencephalic response during sleep.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6973-6974.

10342. Nelson, David A. (U. Minnesota) **Interactive effects of recovery period and stimulus intensity on the human auditory evoked vertex response.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6075.

10343. Nyquist, J. K. & Towe, A. L. (U. Washington, Medical School) **Neuronal activity evoked in cat precruciate cerebral cortex by cutaneous stimulation.** *Experimental Neurology*, 1970(Dec), Vol. 29(3), 494-512.—Made extracellular recordings of the evoked activity of neurons in the precruciate forepaw cortex of 41 adult domestic cats after cutaneous stimulation of each limb. Neurons having bilateral receptive fields confined to the forelimbs and thoracic trunk region comprised 25% of the sample of 690 neurons. These neurons discharged with a short latency after stimulation of precruciate arm cortex of the opposite hemisphere.

Many other wide-field but few small-field neurons responded (a) to interhemispheric activation, (b) to light and/or sound stimulation, and (c) to both light touch and hair-bending. Most pyramidal tract neurons had wide receptive fields. It is concluded that the corticofugal elements in precruciate tissue receive information from cutaneous receptors of various types, distributed widely over the body surface, and influenced by several modalities of sensory input. The "interneurons" of precruciate cortex, on the other hand, have sharply restricted input channels, and provide the most immediate and powerful modulation of corticofugal elements. (42 ref.)—*Journal abstract*.

10344. Oniani, T. N., Mol'nar, P. P., & Badridze, I. K. (Inst. of Physiology, Tbilisi, USSR) **Rezultaty spektral'nogo analiza elektroentsefalogrammy vo vremya sna i bodrstvovaniya.** [Results of spectral analysis of the electroencephalogram during sleep and in the wakeful state.] *Sak'art'velos SSR Mets'nierebat'a Akademii Moambe*, 1970(Jan), Vol. 57(1), 173-176.—Cats were Ss in a study of various cortical rhythms during several phases of the sleep-arousal continuum, making use of spectral analysis and integration. During spontaneous, as well as evoked, arousal (the latter by an alimentary conditioned signal or by electrical stimulation of the reticular formation), high-voltage slow waves (Δ , θ , and α) were found to be inhibited in different neocortical areas and for a short period in the hippocampus as well. In place of the generally reported increase in the low-voltage fast activity components (β_1 and β_2), a decrease in these rhythms was found. (Georgian & English summaries)—*I. D. London*.

10345. Oniani, T. N., Mol'nar, P. P., & Naneishvili, T. L. (Inst. of Physiology, Tbilisi, USSR) **O dvukh fazakh paradoksal'noi stadii sna.** [On two phases of the paradoxical stage of sleep.] *Sak'art'velos SSR Mets'nierebat'a Akademii Moambe*, 1969(Dec), Vol. 56(3), 685-688.—Cats were Ss in an EEG study of different cortical and subcortical structures during paradoxical sleep along with simultaneous registration of several somatic and autonomic indices. Paradoxical sleep was shown to be composed of 2 distinct phases. The hippocampogram showed Δ and θ dominance in the 2 phases, respectively. Autonomic and somatic indicators suggest the presence of "emotional, oneiric content" only in the 2nd (θ) phase, but not in the 1st (Δ). (Georgian & English summaries)—*I. D. London*.

10346. Osborne, R. T. (U. Georgia) **Heritability estimates for the visual evoked response.** *Life Sciences*, 1970(May), Vol. 9(9, Pt. 2), 481-490.—Studied cortical response patterns evoked by a light stimulus for identical and fraternal twins and for age and sex-matched control Ss. The evoked potential (visual evoked response—VER) responses were analyzed with a dual-channel online active band-pass filter system which separated the raw VER into the 3 common EEG frequency bands. The signals were next fed to the 4 input channels of a computer of average transients, CAT 1,000. For each S 4 X-Y plots representing the raw VER and the 3 major VER components were obtained. The VER determined from subdermal scalp electrodes is a stable and reliable physical measurement. Using only standard laboratory techniques the 1st 250 msec. of the pattern after the stimulus is almost perfectly reliable for periods as long as 17 wk. The hereditary nature of the VER is shown by the high degree of similarity of response patterns for identical twins and by the predictable

decrease in similarity for fraternal twins and for unrelated control Ss. The concordance of the VER intraclass correlations for monozygotic and dizygotic twins with those of well-established polygenetic, biometric, and psychometric human characteristics is remarkable.—*Journal summary.*

10347. Papakostopoulos, D., Cooper, R., & Walter, W. Grey. (Burden Neurological Inst., Bristol, England) **A technique for the measurement of phase relations of the EEG.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 562-564. —Describes a method in which the sine and cosine components of the Fourier analyses of multichannel data are displayed as vectors. Common reference recordings are recommended because of the interaction of amplitude and phase differences in bipolar montages. (French summary) —*Journal summary.*

10348. Passouant-Fontaine, Th., Gaillard, J. M., & Tournigant, J. C. (U. Montpellier, Lab. of Experimental Pathology, France) **Technique de préparation du rat pour enregistrements de longue durée.** [A technique for preparation of the rat for recordings of long duration.] *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 575-577. —Describes a technique for preparing the rat for long polygraphic recordings. It consists of making a prosthesis, holding the deep and cortical electrodes, to be fixed to the skull of the animal. It is also possible to place electrodes during operation as well as muscle and periocular electrodes. This technique gives good reproducibility and recording can be continuous without restricting the animal's movement.—*English summary.*

10349. Pelikan, Thomas B. (Purdue U.) **Behavioral and hippocampal EEG correlates of spontaneous and cholinergic drug modulated behavior in the rat.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6953-6954.

10350. Rawlings, Samuel C. (U. Miami) **Evoked potentials and psychophysics of binocular vision.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6955-6956.

10351. Ruhm, Howard B. (U. Oklahoma, Medical Center, Oklahoma City) **Rate of frequency change and the acoustically evoked response.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 29-34. —EEG responses were evoked from the scalp of 4 young adult human Ss by acoustic signals that were linearly raised and lowered in frequency at various sweep rates. It was found that the latency of the N_1 component and the amplitude of N_1 - P_2 are sensitive to the rate of signal change. Latency seems to be sensitive over a broader range of sweep rates than does amplitude and may be related to the perceptual differentiation between a sweep and an abrupt change in frequency. The response evoked by frequency sweeps seems to be elicited by the onset of upswing or downswing, but not by the offset of either.—*Journal summary.*

10352. Saltzberg, Bernard & Burch, Neil R. (Tulane U., Medical School) **Period analytic estimates of moments of the power spectrum: A simplified EEG and time domain procedure.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 568-570. —Describes mathematically the relationships that connect zero crossing descriptors (also called period analytic descriptors) with moments of the power spectral density. Analyzed EEG data are presented to demonstrate that counting zero crossings over an epoch is

effectively equivalent to the more complex procedures of computing the autocorrelation function and taking its derivatives at zero lag, or squaring and integrating derivatives of the EEG time trace over each epoch. (French summary)—*Journal summary.*

SENSORY PHYSIOLOGY

10353. Føns, M. (University Hosp., Otolaryngological Clinic, Copenhagen, Denmark) **Psychophysical scaling of electric taste.** *Acta Oto-Laryngologica*, 1970(May), Vol. 69(5), 366-370. —Determined the psychophysical function of electric taste in 6 normal students by means of magnitude estimation. With purely anodal tongue stimulation the subjective intensity of the electric stimulus grew as a power function of the physical stimulus intensity up to at least 300 μ A. The value of the exponent n varied individually from .7-1.8 with an average of 1.1. (German summary)—*Journal abstract.*

10354. Gronwall, D. M. & Sampson, H. (U. Auckland, New Zealand) **Ocular dominance: A test of two hypotheses.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 175-185. —Administered a battery of eye dominance tests to 50 17-22 yr. old undergraduates to determine (a) whether there are 5 types (J. Lederer) or 2 types (G. Walls) of ocular dominance, and the relation between these tests and handedness. There was no evidence in support of either classification, or of any correlation between the preferred eye and the preferred hand. An alternative hypothesis to those formulated by Lederer and by Walls is presented to account for the results. (17 ref.)—*Journal abstract.*

10355. Luz, George A. & Hodge, David C. (U.S. Army Medical Research Lab., Ft. Knox, Ky.) **Recovery from impulse-noise induced TTS in monkeys and men: A descriptive model.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1770-1777. —Systematically traced the recovery from impulse-noise induced temporary threshold shift for 9 monaural rhesus monkeys with normal sensitivity and 39 Army enlisted men. In addition to the well-known logarithmic recovery, 3 other types of recovery were seen (diphasic, plateau, and rebound). A descriptive model is developed for the classification of these recovery functions. The model postulates the existence of 2 types of temporary threshold shift, process M (metabolic fatigue) and process S (structural fatigue), both of which may be seen after impulse-noise exposure. (25 ref.)—*Journal abstract.*

10356. Nelson, Thomas M., Bartley, S. Howard; Bourassa, Charles M., & Ball, Richard J. (Eds.) (U. Alberta, Edmonton, Canada) **Symposium on aftereffect of response.** *Journal of General Psychology*, 1971(Jan), Vol. 84(1), 3-177. —Presents a group of papers pertaining to certain reactions of the optic pathway to various patterns of photic input, a major variable being time, and the consequent sensory outcome such as brightness, visual acuity, and color. The activities of the visual system are compared with those of several other sensory systems and a general theory of the neural basis for sensory response is proposed.

10357. Pollen, Daniel A., Lee, Jame R., & Taylor, Joseph H. (Massachusetts General Hosp., Neurobiology Lab., Boston) **How does the striate cortex begin the reconstruction of the visual world?** *Science*, 1971(Jul), Vol. 173(3991), 74-77. —Reports experiments which indicate that the striate cortex transforms the topographic representation of visual space in the lateral

geniculate body into a Fourier transform or frequency representation at the complex cell level via the intermediary simple cell stage of "strip integration." Each of these 3 stages contains essentially the same amount of information, which expresses a conservation of information principle; however, the form of the information is changed. In the transform domain, invariant descriptions of visual objects can be derived to serve as the basic sets required for pattern recognition and memory. It is suggested that these findings are fundamental for understanding the functional organization of the striate cortex. (29 ref.)—*Journal abstract.*

10358. Wickelgren, Barbara G. (U. Oregon) **Superior colliculus: Some receptive field properties of bimodally responsive cells.** *Science*, 1971(Jul), Vol. 173(3991), 69-71.—Reports that many cells in the intermediate and deep gray layers of the superior colliculus of a cat responded to both auditory and visual stimuli. These cells had similar receptive fields for both modalities and were directionally selective for both modalities, requiring stimuli moving laterally away from the S. It is suggested that cells that integrate auditory and visual information participate in the control of orienting and following responses to stimuli of both modalities.—*Journal abstract.*

BIOCHEMISTRY

10359. Barbiroli, Bruno & Potter, Van R. (U. Wisconsin, McArdle Lab.) **DNA synthesis and interaction between controlled feeding schedules and partial hepatectomy in rats.** *Science*, 1971(May), Vol. 172(3984), 738-741.—Measured the rate of DNA synthesis during liver regeneration in male Holtzman, Sprague-Dawley, and Charles River rats adapted to a controlled feeding schedule. Results show 2 different phenomena in the regulation of DNA synthesis: (a) the appearance of a peak of DNA synthesis following the operation itself and independent of the time of day; and (b) the presence of constant diurnal variations in the rate of DNA synthesis in response to the partial hepatectomy and following the stimulus or stimuli of the controlled feeding schedule. (22 ref.)—*Journal abstract.*

10360. Coombs, H. I. (St. Bernard's Hosp., Southall, England) **The estimation of lithium in serum.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 225-226.—Discusses the apparatus and materials required and the method of quantifying the extent of lithium present in serum.—*R. L. Sulzer.*

10361. Enns, Melvin P. (Texas Christian U.) **Effects of running wheel activity on circulating free fatty acid levels and subsequent bar pressing behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6284.

10362. Firth, H., Lewis, S. A., Ogunremi, O. O., & Oswald, I. (Royal Edinburgh Hosp., Morningside, Scotland) **The effect of acute administration of (meta-trifluoro methyl-phenyl)-1-(benzoyl oxy) ethyl amino-2-propane (780 SE) and fenfluramine on human sleep.** *British Journal of Pharmacology*, 1970(Jun), Vol. 39(2), 462-463.—In contrast to other amphetamine derivatives, fenfluramine (40 mg.) and (meta-trifluoromethylphenyl)-1-(benzoyl oxy) ethyl amino-2-propane (780 SE) (300 mg.) had no effect on the REM phase of sleep. Ss were 7 normal 21-24 yr. old males. Like other amphetamines they disturbed sleep, increasing the number of shifts to Stages 1 (drowsiness) and W (arousal).—*Journal abstract.*

10363. Glushchenko, T. S. & Demin, N. N. (USSR

Academy of Sciences, Pavlov Inst. of Physiology, Leningrad) **Activnost' proteoliticheskikh fermentov razlichnykh otdelov golovnogo mozga krysa pri estestvennom sne i lishenii ego paradoxal'noi fazy.** [The activity of proteolytic enzymes in different regions of the rat's brain in natural sleep and with its paradoxal phase eliminated.] *Doklady Akademii Nauk SSSR*, 1971, Vol. 197(5), 1222-1224.—The amount of acid and neutral proteinase was determined in different parts of the brains of male Wistar rats under conditions of wakefulness, normal sleep, sleep deprivation, and different amounts of deprivation of paradoxal sleep. In normal sleep there was a slight increase in the activity of neutral proteinase in the brain hemispheres and in the mesencephalon, but not in the cerebellum. Deprivation of the paradoxal phase of sleep led, in general, to a decrease in the amount of neutral proteinase and an increase in acid proteinase. Sleep after prolonged sleep deprivation facilitated a relatively rapid reestablishment of normal proteolytic enzyme activity.—*L. Zusne.*

10364. Israel, Yedy. (U. Toronto, Ontario, Canada) **Cellular effects of alcohol: A review.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 293-316.—Ethanol, as well as the higher alcohols, can be classified as a "general depressant" since at large enough concentrations they depress different functions in many types of cells. It is generally accepted that alcohol is not metabolized to any great extent in the brain and that the tissue does not contain the enzyme alcohol dehydrogenase. The effect of alcohol in connection with the metabolism of gamma-amino-butyric acid was examined and it was found that alcohol inhibits the maximum sodium and potassium conductances responsible for the action potential in the squid giant axon. Ethanol reduces the plasma concentration of most amino acids. Most of the nonmetallic effects of ethanol are exerted on the cell membrane. (142 ref.)—*S. R. Diamond.*

10365. MacPherson, Catherine F. & Chinerman, Jakub. (McGill U., Allan Memorial Inst. of Psychiatry, Montreal, Quebec, Canada) **Effect of intraventricular injections of brain isoantibodies on learning.** *Experimental Neurology*, 1971(Apr), Vol. 31(1), 45-52.—Tested a passive immunization technique with anti-brain isoantibodies which produced the same type of detrimental effect on learning as active immunization in a shorter period of time. 20 female Wistar rats received serum γ -globulin (IgG), anti-brain IgG, or immune IgG at various levels of training on a visual discrimination problem. Ss receiving normal IgG showed no adverse effects, while Ss receiving anti-brain IgG before training performed below criterion after they received normal IgG on the day they reached criterion. Ss that received immune IgG prepared from the sera of rats that had been immunized with the microsomal fraction of rat brain (RB F-III) or rat liver (RL F-III) required a significantly larger number of trials to learn the problem. The anti-RB F-III IgG had a more widespread effect, producing Ss with significantly higher latencies, poorer memories, and an unusual behavioral trait tentatively called "spinning." It is suggested that the effect of the anti-RL F-III was due to its reaction with species-specific antigens in the brain, whereas the more deleterious effect of the anti-RB F-III IgG was due to its reactivity with both species- and organ-specific antigens in the brain.—*Journal abstract.*

10366. MacPherson, Catherine F. & Shek, Raymond P. (McGill U., Allan Memorial Inst. of Psychiatry, Montreal, Quebec, Canada) **Effect of brain iso-an-**

antibodies on learning and memory in the rat. *Experimental Neurology*, 1970(Oct), Vol. 29(1), 1-15.—Conducted 5 experiments with female Wistar and Lewis rats ($N = 108$) to examine the effects of immunization on the performance of a visual discrimination task. Ss that had been immunized with a crude microsomal fraction from rat brain or liver required a greater number of trials to learn the problem than Ss injected with saline solution. When trained Ss that had required a similar number of trials to learn the task were studied, the Ss that subsequently were immunized for 1 mo. with rat brain or liver proteins performed the learned task and learned a new problem as well as the controls that had been injected with saline solution. However, the immunized Ss required fewer trials to learn the reversal than the controls. Ss immunized with hen egg albumin behaved like animals injected with saline solution. Results suggest that species-specific antigens play as important a role as brain-specific antigens in the brain cells responsible for memory and learning. (37 ref.)—*Journal abstract*.

10367. Protiva, M. (Research Inst. for Pharmacy & Biochemistry, Prague, Czechoslovakia) **News in chemistry of psychotropic drugs in the year 1969.** *Activitas Nervosa Superior*, 1970(Aug), Vol. 12(3), 193-214.—Presents a review of the field of chemistry of psychotropic drugs. (236 ref.)—*H. Bruml*.

10368. Wurtman, Richard J. (Massachusetts Inst. of Technology) **Brain monoamines and endocrine function: Brain monoamines.** *Neurosciences Research Program Bulletin*, 1971(Mar), Vol. 9(2), 188-217.—The brains of mammals are able to synthesize at least 3 monoamines that appear to be neurotransmitters and to have a special role in the control of anterior pituitary function. These compounds are norepinephrine, dopamine, and serotonin (5-hydroxytryptamine; 5-HT). The 1st 2 are catecholamines and have their origin in circulating tyrosine; 5-HT is an indoleamine and is synthesized from circulating tryptophan. Evidence is described in detail.—*U. A. Preilowski*.

10369. Yanagihara, Takehiko & Hyden, Holger. (U. Göteborg, Inst. of Neurobiology, Sweden) **Protein synthesis in various regions of rat hippocampus during learning.** *Experimental Neurology*, 1971(May), Vol. 31(2), 151-164.—Studied leucine incorporation into proteins of various hippocampal regions of 80 Sprague-Dawley female rats during a learning experiment consisting of change of handedness. There was a consistent stimulation of leucine incorporation into total proteins (a) in the CA3 region throughout the course of learning, and (b) in the CA4 region only during the early period of learning. No clear stimulation could be detected in the CA1 region. 2 acidic protein fractions were further studied by polyacrylamide gel electrophoresis. Certain protein fraction incorporated tritiated leucine in the CA1 and CA3 regions more preferentially than in the CA4 region during the course of learning. Findings are correlated with the physiological-anatomical functions of the various parts of the hippocampus. The possibility that this particular protein fraction possessed preferential affinity to the function of the temporo-ammonic system during learning is noted. The specificity of this preferential stimulation for learning is discussed in comparison with the cellular and regional localization of the protein fraction. (20 ref.)—*Journal abstract*.

Hormones

10370. Baum, Michael J. (McGill U., Montreal,

Quebec, Canada) **Hormones and the development of mating behavior in male rats.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6251.

10371. Colby, Howard D. (State U. New York, Buffalo) **Studies on the effects of androgens on adrenocortical function in the rat: A comparison with metopirone.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6074-6075.

Drug Effects-Human

10372. Benke, A. & Unger, W. (K. A. Rudolf Foundation, Surgical Div., Vienna, Austria) **Ein tricyclen-derivat in der Narkose-Vorbereitung.** [A tricyclene derivative (BP 400) in anesthesia premedication.] *Arzneimittel-Forschung*, 1969(Nov), Vol. 19(11), 1900-1901.—For anesthesia premedication of 200 patients the tricyclene derivative 9-(N-methylpiperidylidene-4'-thioxanthene (BP 400) was used instead of atropine. Sufficient inhibition of salivation was observed in 91% of cases; 76% showed stable blood pressure conditions, in 15.5% the pressure values were elevated by more than 20 mm mercury (Hg) compared with the systolic initial values, and in 8.9% they were lower by more than 20 mm Hg. Pulse rate did not change in 77.5% of Ss, and 22.5% showed an increase of pulse rate by more than 20 bpm. In a comparison group of 100 Ss who had been premedicated with atropine, tachycardia occurred in 63 (= 63%).—*English summary*.

10373. Brohult, Johan; Levi, Lennart, & Reichard, Hans. **Urinary excretion of adrenal cortical and medullary hormones in man during and after one single massive dose of ethanol, and their modification by chlormethiazole.** *Reports from the Laboratory for Clinical Stress Research, Karolinska Sjukhuset*, 1969(May), No. 6, 22 p.—Administered approximately 500 ml. brand whiskey to 9 young, healthy males. This stimulus provoked pronounced increases in adrenaline and noradrenaline excretion during and soon after the ethanol ingestion. Similarly the hangover the next morning was accompanied by marked increases in adrenaline and noradrenaline excretion levels, in addition to increased excretion rates of 17-hydroxycorticosteroids. In 5 Ss treated with .5 gm. chlormethiazole, the catecholamine increases during the hangover period were significantly reduced. During the wk. following the ethanol ingestion, the increase in adrenal function tended to persist. Some theoretical and clinical implications of these findings are discussed and some indications in favor of a relationship between the emotional-behavioral and the physiological effects of ethanol ingestions are mentioned. (45 ref.)—*Journal summary*.

10374. Morgan, Hilary; Scott, D. F., & Joyce, C. R. (Royal Infirmary, Bristol, England) **The effects of four hypnotic drugs and placebo on normal subjects' sleeping and dreaming at home.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 649-652.—Effects upon quality of sleep and dreaming of 4 hypnotics, sodium amobarbitone, dichloralphenazone (welldorm), methaqualone-diphenhydramine (mandrax), and nitrazepam (mogadon), each at a single dose, were compared, double-blind, with placebo in 10 healthy Ss. A good night's sleep was more frequent after taking amobarbitone, mandrax, and, particularly, mogadon. Amyobarbitone reduced the number of dreams recalled.

and such dreams as were reported with this drug appeared to be free of anxiety and hostility.—R. L. Sulzer.

10375. Newmark, Charles S. (U. North Carolina, Medical School, Chapel Hill) **Techniques used to assess the efficacy of psychotropic drugs: A critical review.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 715-723.—Evaluates and summarizes some relevant literature concerning the techniques used to assess psychotropic drug efficacy. The need for an objective dependent variable to assess behavioral changes associated with drug effects is indicated. It is concluded that the most obvious basic requirements for the evaluation of psychotropic drugs at the human level are the development and maintenance of stable and reproducible base lines against which to assess drug-correlated changes. (39 ref.)—*Journal abstract*.

10376. Pelzer, H. & Maass, D. (Dr. Karl Thomae Ltd., Biochemical Research Lab., Biberach/Riss, W. Germany) **Pharmakokinetik und Metabolismus von 7-Chlor-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-on und dessen Hemisuccinat beim Menschen.** [Pharmacokinetics and Metabolism of 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one and its hemisuccinate in humans.] *Arzneimittel-Forschung*, 1969(Oct), Vol. 19(10), 1652-1656.—The tranquilizer, 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one (adumbran) is, in humans, well absorbed both rectally and orally. Within 48 hr. of administration, $\frac{2}{3}$ of the oral dosage, and $\frac{2}{3}$ of the rectal dosage were recovered in the urine as glucuronide. The maximum blood level after oral and rectal administration was reached after 1-2 and 3-4 hr., respectively. For comparative doses the maximum blood level after rectal administration is about $\frac{2}{3}$ as high as that following oral administration. Due to the limited number of experiments carried out, a statistical evaluation of the blood levels is not yet possible. Similarly, 48 hr. after oral administration of the readily soluble hemisuccinate, $\frac{2}{3}$ of the adumbran residue was excreted in the urine in the form of its glucuronide. Unchanged hemisuccinate was not found in the urine. The chemical estimation was carried out by hydrolysis to 2-amino-5-chlorobenzophenone and its diazotization and coupling with α -naphthol to a red dye.—*English summary*.

10377. Redding, Conway H. (U. Massachusetts) **Placebos, instructions, and the development of expectancy.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6267.

10378. Skinner, Paul & Antinoro, Frank. (U. Arizona) **Auditory evoked responses in normal hearing adults and children before and during sedation.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 394-401.—Compared averaged evoked responses to auditory stimuli presented to young children and adults between awake and induced sleep conditions. 8 21-24 yr. old adults and 20 16 days to 5-yr-old children with normal hearing were tested before and during sedation at 2 suprathreshold levels with tone pips. Responses obtained during sedation assumed a distinctly different wave complex than those obtained under the awake condition. In all cases where responses were obtained from awake Ss, greater amplitude responses were obtained during sedation. The use of sedation with the children proved to be most important in obtaining more detectable responses and permitting evoked potential

audiometry with otherwise unmanageable Ss.—*Journal abstract*.

10379. Smith, G. F. (Dept. of Employment, Bristol, England) **The investigation of the mental effects of trichlorethylene.** *Ergonomics*, 1970(Sep), Vol. 13(5), 580-586.—Describes the effects on the CNS of the industrial solvent, trichlorethylene, which is both a fat solvent and a narcotic. Tests of mental function (including the Cornell Medical Index, Heron's Personality Questionnaire, and a general knowledge test) were given to 108 men who had been exposed to trichlorethylene. Trichloroacetic acid in the urine was used as an index of exposure to the solvent vapor. Results were compared with those of 63 matched controls working at the same factories. It was found that the number of separate complaints was generally related to the amount of exposure, although complaints in the low exposure group corresponded closely to the control group. The introduction of errors by subjective judgment is discussed as a methodological problem in such studies. (24 ref.)—*P. McMillan*.

10380. Snyder, Solomon H. (Johns Hopkins U., Medical School) **Work with marijuana: I. Effects.** *Psychology Today*, 1971(May), Vol. 4(12), 37-38, 40, 64-65.—Controlled research with marihuana has provided a better understanding of its effects including some surprising results. Experienced users seem to get high on less marihuana than novice users. This may be related to the fact that the liver manufactures the highly psychoactive 11-hydroxytetrahydrocannabinol and the more exposure to marihuana the more the liver makes. On some experimental tasks marihuana highs did not impair performance while alcohol did. Some researchers, however, have been able to befuddle Ss on marihuana especially when recent memories were involved. Marihuana seems to be a mild intoxicant, however, when tetrahydrocannabinol is taken in very heavy doses, auditory and visual hallucinations as well as feelings of unreality are common. *E. J. Posavac*.

10381. Spence, Mary T. (Texas Technological U.) **Effects of alcohol, information reduction, and speed load on short-term memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6306.

10382. Strassman, Harvey D., Adams, Bill, & Pearson, A. W. (Illinois State Psychiatric Inst., Chicago) **Metronidazole effect on social drinkers.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 394-398.—Created a cocktail party atmosphere in order to perform a study in an environment in which the Ss could move about at will, conversing with friends and meeting other men and women. Ss were middle-class residents of southern California selected solely on the basis of their history as social drinkers. $\frac{1}{2}$ the group received 250-mg tablets of metronidazole; the rest received placebo tablets. There was no significant difference in the amount of alcohol consumed or in the drinking pattern between the 2 groups. Significantly more of the experimental group than the placebo group reported physical reactions, and fewer reported psychological reactions.—*S. R. Diamond*.

10383. Tart, Charles T. (U. California, Davis) **Work with marijuana: II. Sensations.** *Psychology Today*, 1971(May), Vol. 4(12), 41-44, 66-68.—A questionnaire was constructed to reflect the sensations experienced while high on marihuana. Students distributed 750 copies to acquaintances who anonymously completed and

returned 153. The responses were summarized under effects on vision, audition, taste, time-space perception, perception of the body, physical movement, interpersonal relations, sexual relations, thought processes, memory functioning, emotions, self-control, and sense of identity.—*E. J. Posavac*

10384. Vacca, L., Kemali, D., Paolozzi, C., & Bravaccio, F. (U. Naples, Clinic of Nervous & Mental Disorders, Italy) **Correlazioni elettrografiche e psicopatologiche in soggetti sottoposti a registrazione continua in corso di esperienza lisergica.** [Electrographic and psychopathologic changes in subjects submitted to continuous registration during LSD experience.] *Acta Neurologica*, 1970(Nov), Vol. 25(6), 655-672.—Describes EEG modifications occurring in 4 adult volunteers under the effect of LSD-25. Correlations between EEG patterns and neuropsychological changes were effectuated only when the effect induced by the drug was more marked. In order to obtain more accurate data about some peculiar EEG abnormalities found during the previous observation, 2 Ss were submitted to a 2nd investigation consisting of EEG, EKG, and myotactic reflex (rotuleus) records, continuously registered and matched with psychological changes until the effects disappeared. Besides EEG changes already described in the literature, other effects are emphasized, such as long-lasting abnormalities on fronto-temporal leads, impairment of EEG response to even markedly strong alerting stimulations (absence of desynchronization), unusual EEG pattern concurring with behavioral alertness, etc. Data might be explained by the possible effect exerted by LSD-25 upon reticular formation. (22 ref.)—*English summary.*

10385. Viala, A. **Oenanthe de fluphenazine ("moditen-retard" N.D.); Chimie et pharmacologie.** [Fluphenazine enanthate ("Modi en-Retard" N. D.): Chemistry and pharmacology.] *Psychopharmacologie*, 1970(Mar), 3-9.—Discusses the chemical structure, metabolism, and elimination of the long-acting preparation fluphenazine enanthate. Pharmacodynamic effects include a sedative effect (potentiated by hypnotics), antipsychotic activity, and a cataleptogenic effect. Effects appear within a few hr. after subcutaneous injection and continue for 10-20 days.—*W. W. Meissner.*

10386. Waterlooh, E., Rittel, H. F., & Leide, E. (Rheinisch-Westfälischen Technischen Hochschule, Aachen, W. Germany) **Untersuchungen über 1-(6'-Chlor-3'-methylphenoxy)-3-tert.-butylaminopropan-2-ol-hydrochloride (KL 255): I. Verträglichkeit beim Menschen unter Ruhebedingungen.** [Studies on 1-(6'-chloro-3'-methylphenoxy)-3-tert.-butylaminopropan-2-ol-hydrochloride (KL 255): I. Tolerance with humans under rest conditions.] *Arzneimittel-Forschung*, 1969(Feb), Vol. 19(2), 153-156.—Reports observations during application of a new β -receptor blocker to humans. In the animal experiment the substance, 1-(6'-chloro-3'-methylphenoxy)-3-tert.-butylaminopropan-2-ol hydrochloride (KL 255), shows remarkably stronger β -receptor blocking activity than the previously known compounds. In tolerance tests in humans given oral doses of up to 250 mg. under rest conditions, no influence on the chosen parameters of the hemodynamic and metabolism could be observed. The substance was further studied in a double blind test on comparable groups simultaneously with a placebo. Under rest conditions there were no significant differences.—*English summary.*

10387. Wyatt, R. J., et al. (National Inst. of Mental Health, Bethesda, Md.) **Effects of 5-hydroxytryptophan on the sleep of normal human subjects.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 505-509.—Studied the effects on sleep of increasing brain serotonin with 5-hydroxytryptophan (5-HTP), the immediate precursor of serotonin, on 12 normal 18-21 yr. old Ss. In each S, REM sleep increased from 5-53% of placebo base line. Total REM activity also increased. Non-REM sleep, decreased slightly, apparently compensating for the increased amount of REM sleep. The apparent serotonin-REM sleep association is discussed in light of recent animal experiments in which total insomnia was produced by decreasing brain serotonin concentration with parachlorophenylalanine. (French summary) (22 ref.)—*Journal summary.*

Drug Effects-Animal

10388. Altland, Paul D., Highman, Benjamin; Parker, Milton G., & Dieter, Michael P. (National Inst. of Health, National Inst. of Arthritis & Metabolic Diseases, Bethesda, Md.) **Serum enzyme, corticosterone and tissue changes in rats following a single oral dose of ethanol.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 281-287.—Describes the "effects of graded dose of ethanol in male Sprague-Dawley rats on certain serum enzymes of the Krebs cycle and of the glycolytic pathway, commonly used in clinical diagnosis of diseases, and attempts to correlate the enzyme changes with changes in corticosterone levels and tissue structure." Ss weighing 275-325 gm. were given ethanol by stomach tube, in amounts of 2, 4, 4.7, or 6 gm/kg of body weight, and were killed for study 5 hr. later. To establish control values Ss were given 38 ml. of water/kg by stomach tube. The ethanol produced a rise in serum glutamic oxaloacetic transaminase and glutamic pyruvic transaminase. It is suggested that results are "due to a change in cellular permeability caused by ethanol and by associated hormonal alterations." (18 ref.)—*S. R. Diamond.*

10389. Barlow, R. B., Oliverio, A., Satta, M., & Thompson, G. M. (U. Edinburgh, Scotland) **Some central effects in mice of compounds related to nicotine.** *British Journal of Pharmacology*, 1970(Jul), Vol. 39(3), 647-652.—Tested some hydroxy-, amino-, and methoxyphenylalkyltrimethylammonium compounds, and β -pyridylmethyl-, dimethylamine and pyrrolidine, and β -pyridylethyltrimethylammonium, were tested on avoidance learning in male mice of the DBA/2J strain and their effects were compared with those of (-)-nicotine. The o- and m-hydroxybenzyl-, o-hydroxynicotine. The o- and m-hydroxyphenylpropyltrimethylammonium compounds improved performance; (-)-nicotinium compounds improved performance. The m- and p-tine, in 1/4 of the dose, had similar effects. The m- and p-aminobenzyl, and o-, m-, and p-aminophenethyl-, trimethylammonium compounds impaired performance. (-)-Nicotine and m-hydroxyphenylpropyltrimethylammonium appeared also to enhance memory consolidating processes. The central actions of some of the compounds suggest the possibility that they can penetrate into the CNS even though they are quaternary salts. No correlation was found between the effects of the compounds on avoidance learning and on the frog rectus muscle. Though the differences may be due to differ-

ences in access to the CNS, it is also possible that the receptors associated with learning processes are different from those in the frog rectus and possibly more specialized.—*Journal abstract.*

10390. Benešová, O. (Inst. of Pharmacology, Medical Faculty of Hygiene, Prague, Czechoslovakia) **Is it possible to predict the clinical effect of antidepressants from experimental data in animals?** *Activitas Nervosa Superior*, 1970(May), Vol. 12(2), 127-128.—An analysis of experimental data from the author and other pharmacological laboratories was correlated with published clinical reports and the same sequence of decreasing activity in biochemical tests of noradrenaline uptake inhibition as in antiserpine and antitetraabenazine tests was found. The sequence of anticholinergic action estimated by the tests of antiphsostigmine, antinicotine, and antitremorine is just the opposite. (21 ref.)—*H. Bruml.*

10391. Crow, Lowell T., Story, Randall J., & Engels, David T. (Western Washington State Coll.) **Effect of pitressin on voluntary alcohol consumption in the rat.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 950.—Maintained 18 male Holtzman albino rats on an alternate day presentation schedule in which 1 of 3 ethanol concentrations (6, 12, or 24% by volume) was the sole liquid source. The effects upon this alcohol intake of ip injections of vasopressin synthetic or pitressin tannate in amounts of 1, 2½, or 5 units were observed. Results show no significant differences in alcohol consumed as a function of any drug condition imposed.—*Author abstract.*

10392. Davidson, W. J. & Innes, I. R. (U. Manitoba, Medical School, Winnipeg, Canada) **Dissociation of potentiation of isoprenaline by cocaine from inhibition of uptake in cat spleen.** *British Journal of Pharmacology*, 1970(May), Vol. 39(1), 175-181.—Studied the effects of 10 µg/ml. cocaine hydrochloride, potentiated isoprenaline, and noradrenaline in isolated spleen strips from normal cats and from cats treated with reserpine 24 hr. previously. Isoprenaline was taken up almost as well as noradrenaline by spleen strips from cats treated with reserpine. Cocaine blocked uptake of noradrenaline but did not reduce uptake of isoprenaline. Drug concentrations used in these studies were the same as in potentiation experiments. It is concluded that inhibition of uptake is not the mechanism by which cocaine potentiates the effect of isoprenaline on the spleen and might be only a contributory factor in the case of noradrenaline potentiation. (26 ref.)—*Journal abstract.*

10393. Follenfant, M. J. & Robson, R. D. (Wellcome Research Lab., Beckenham, England) **The antagonism of adrenergic neurone blockade by amphetamine and dexamphetamine in the rat and guinea-pig.** *British Journal of Pharmacology*, 1970(Apr), Vol. 38(4), 792-801.—In isolated male albino rat mesentery preparations, intraarterial injection of the following drugs rapidly suppressed vasoconstrictor responses to sympathetic nerve stimulation: bretylium, guanethidine, and bethanidine; with phenoxypropylguanidine the onset of blockade was slower. The blockade caused by these or higher concentrations was rapidly abolished by intraarterial injection of amphetamine as also was the blockade caused by infusing bretylium or guanethidine for 10-20 min. Partial blockade was produced by reserpine and was only slightly and briefly antagonized by amphetamine. In mesentery preparations taken from

Ss 24 hr. after subcutaneous injection of bretylium, guanethidine, phenoxypropylguanidine, or reserpine, responses to sympathetic nerve stimulation were greatly impaired. In rat mesentery, amphetamine did not cause vasoconstriction but briefly potentiated the vasoconstrictor effect of sympathetic nerve stimulation. Responses to noradrenaline were not importantly affected. The contractile responses of the rat inferior eyelid caused by stimulation of the cervical sympathetic nerve was greatly reduced 17-27 hr. after subcutaneous injection of bretylium, bethanidine, guanethidine, or reserpine. Iv dexamphetamine powerfully antagonized the effect of bretylium, weakly antagonized the blockade by bethanidine and guanethidine, and caused no change in the response of reserpine-treated Ss. The vas deferens taken from guinea pigs 24 hr. after subcutaneous injection of either bretylium or guanethidine showed greatly impaired responses to hypogastric nerve stimulation. Amphetamine largely restored the contractile response in bretylium-treated rats but caused only weak antagonism in the guanethidine-treated animals. (18 ref.)—*Journal abstract.*

10394. Guselnikova, K. G., Voronkov, G. S., Tsitolovskii, L. E., & Engovatov, V. V. (Moscow State U., USSR) **Vnutrikletochnoe i farmakologicheskoe issledovanie vyzvannykh voln obonyatel'noi lukovitsy lyagushki.** [An intracellular and pharmacological study of evoked waves in the frog olfactory bulb.] *Biologicheskie Nauki*, 1968(Oct), No. 10, 28-31.—Imobilized frogs (*Rana temporaria* L.) were used in a study of electrically evoked waves in the olfactory bulb, utilizing (a) pharmacological analysis (strychnine, adrenaline, noradrenaline), and (b) direct registration of intracellular changes of potential in the olfactory bulb neurons during emergence of the evoked waves, in order to investigate the genesis of the rhythmic processes of the vertebrate olfactory analyzer. Strychnine depressed the waves to 40-80% of the initial magnitude; adrenaline, on the contrary, increased their amplitude. A direct correlation between inhibitory postsynaptic potentials and evoked wave frequency was found in intracellular recordings. It is suggested that the formation of the evoked waves in the frog olfactory bulb is attributable primarily to summated inhibitory postsynaptic potentials.—*I. D. London.*

10395. Hillbom, M. E. (State Alcohol Monopoly (Alko), Research Lab., Helsinki, Finland) **Thyroid state and voluntary alcohol consumption of albino rats.** *Acta Pharmacologica et Toxicologica*, 1971, Vol. 29(1), 95-105.—27 male Wistar rats were made hypo- and hyperthyroid in a 3-wk period by the daily administration of propylthiouracil or 3,3',5-triiodo-L-thyronine, and the Ss' voluntary alcohol consumption was investigated. The triiodothyronine treatment increased, and propylthiouracil treatment decreased the total caloric intake of the Ss. However, the portion of ethanol in the total caloric intake of the Ss was significantly increased by propylthiouracil treatment and significantly decreased by triiodothyronine treatment while the total caloric intake did not correlate positively with the voluntary alcohol consumption. The absorption of ethanol from the intravascular space, the peritoneal cavity, and the gastrointestinal tract as well as the rate of elimination of ethanol were increased by triiodothyronine treatment and decreased by propylthiouracil treatment. The acetaldehyde concentration during oxidation of ethanol was found to be higher (166 ± 22

nmol/ml of blood) in the hepatic venous blood of euthyroid Ss, as compared with hypo- and hyperthyroid ones. Acetaldehyde accumulation was not found to be a factor regulating voluntary alcohol intake. (36 ref.)—*Journal abstract.*

10396. Hodges, J. R. & Mitchley, Susan. (Royal Free Hosp., Medical School, London, England) **The effect of betamethasone on circadian and stress-induced pituitary-adrenocortical function in the rat.** *British Journal of Pharmacology*, 1970(Apr), Vol. 38(4), 719-724.—Abolished both the circadian and stress-induced changes in plasma corticosterone concentration by the inclusion of betamethasone in the drinking water of rats. Ss were 200 male Sprague-Dawley rats. Adrenal sensitivity to exogenous corticotrophin was unimpaired by the betamethasone treatment. The normal circadian rhythm in plasma corticosterone returned within 1 day of withdrawal of the steroid, but the response to stress was normal only after 3 days. The possible significance of these observations is discussed. (22 ref.)—*Journal abstract.*

10397. Jones, B. E., Essig, C. F., & Creager, W. (National Inst. of Mental Health, Addiction Research Center, Lexington, Ky.) **Intraventricular infusion of ethanol in dogs: Effect on voluntary alcohol intake.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 288-292. Attempted to increase the voluntary drinking of ethanol in dogs via chronic intraventricular infusion of ethanol. 6 adult mongrel beagles were kept in individual cages in the same room. Each cage was fitted with 2 drinking pans, 1 containing tap water and the other a 10% solution of ethanol in tap water. Ss were operated on and a steel cannula permanently implanted into the left lateral ventricle. For 14-19 days following surgery a modified Locke-Ringer's solution was infused in 5 Ss. In 4 Ss the solution was continued for 29-50 days. 2 Ss received still more infusions with higher ethanol concentrations. Only 1 showed voluntary consumption of the ethanol solution during the ethanol infusion period in excess of the Locke-Ringer's infusion control period.—*S. R. Diamond.*

10398. Karadžić, V. (Belgrade Medical School, Yugoslavia) **Para-chlorophenylalanine and sleep in cats.** *Archives of Biological Sciences*, 1968, Vol. 20(1-2), 37-41.—Examined the effect of parachlorophenylalanine (PCPA), a tryptophan hydroxylation inhibitor, on sleep and alterations in 4 male cats. EEG, EMG, and eye movement registrations were made during an 8:16 hr. sleep and waking regime. PCPA reduced sleeping time and increased wakefulness during the 1st 48 hr. after the 150 mg/kg injection. Reduction of slow wave sleep was 32% below control values immediately after injection, and then proceeded to rise both absolutely and as a percentage of total sleeping time. Since PCPA depletes brain serotonin, it seems highly probable that serotonin is involved in the sleep control mechanism. Correlations between amount of sleep and serotonin level should be determined. Rapid normalization of sleep suggests serotonin reduction may be only partial.—*W. G. Breiting.*

10399. Kral, Paul A. (Parsons Research Center, Kan.) **Effects of scopolamine injection during CS-US interval on conditioning.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 690.—20 male Sprague-Dawley rats learned to avoid sweet water when illness was induced $\frac{1}{2}$ hr. after drinking. Since ECS interpolated during the taste-illness interval was previously shown to

impede learning and lower brain acetylcholine (ACh), cholinergic mediation of the interstimulus interval was hypothesized. Scopolamine (an ACh inhibitor) was injected instead of ECS but failed to retard learning. Scopolamine itself acted as an aversive US, confounding any affect of ACh depression on learning.—*Author abstract.*

10400. Leonard, B. E. & Tonge, Sally R. (ICI, Ltd., Pharmaceuticals Div., Macclesfield, England) **Some effects of an hallucinogenic drug (phencyclidine) on neurohumoral substances.** *Life Sciences*, 1970(Oct), Vol. 9(20, Pt. 1), 1141-1152.—Hallucinogens may owe some of their central activity to actions on the monoamine systems of the brain, however, a definite relationship between disturbed monoamine metabolism and hallucinogenesis has not been established. To investigate the possibility of other neurohumoral substances being affected by a hallucinogen phencyclidine was administered ip to Wistar rats at 10 mg/kg. Gross behavioral effects included agitation, confusion, head shaking, backing movements, and inability to escape from their home cage by climbing. Acetylcholine levels, cholinesterase activity, histamine concentration, and glutamic acid concentrations were unaffected by the phencyclidine injection. A significant depletion of gamma-aminobutyric acid (GABA) occurred in the injected Ss. The fact that the metabolism of other neurohumours, other than GABA, is not affected by the hallucinogen phencyclidine provides some negative evidence for the involvement of the monoamines in hallucinogenesis. (29 ref.)—*W. E. Wood.*

10401. Lewander, Tommy. (U. Uppsala, Ulleråker Hosp., Sweden) **Displacement of brain and heart noradrenaline by p-hydroxynorephedrine after administration of p-hydroxyamphetamine.** *Acta Pharmacologica et Toxicologica*, 1971, Vol. 29(1), 20-32.—After the administration of p-hydroxyamphetamine (p-OH-A) 20 mg/kg ip, there was a 50% decrease in the brain noradrenaline (NA) level and a 70% decrease in the heart NA level at 4-8 hr. after the injection. Ss were male Sprague-Dawley rats. Control levels of brain and heart NA were reached at 96-144 hr. after a single dose of the drug. Repeated injections of p-OH-A, 20 mg/kg twice daily for 3 days, caused a depletion of brain and heart NA to about 20% of the control levels. The brain dopamine (DA) level was reduced to 85% of the control level at 1 hr. after 20 mg/kg of the drug and to 76% after 40 mg/kg. After the repeated injections of p-OH-A, the brain DA was reduced to 70% of the control level. Radioactively labeled p-hydroxynorephedrine was isolated from both brain and heart tissue extracts after the administration of p-hydroxyamphetamine- 3 H. Parahydroxynorephedrine- 3 H remained in the brain and the heart as long as the NA levels were decreased. The NA deficit in the brain and heart corresponded approximately to the amounts of p-hydroxynorephedrine- 3 H present in the tissues. In reserpine pretreated Ss the amounts of p-hydroxynorephedrine- 3 H formed in the brain and heart tissues were reduced, indicating that p-hydroxynorephedrine is bound by a reserpine sensitive storage mechanism. Administration of p-OH-A or amphetamine accelerated the disappearance of labeled p-hydroxynorephedrine from the brain and the heart. (27 ref.)—*Journal abstract.*

10402. Lewander, Tommy. (U. Uppsala, Ulleråker Hosp., Sweden) **On the presence of p-hydroxynorephedrine in the rat brain and heart in relation to**

changes in catecholamine levels after administration of amphetamine. *Acta Pharmacologica et Toxicologica*, 1971, Vol. 29(1), 33-48.—The brain and heart noradrenaline (NA) in male Sprague-Dawley rats was maximally decreased by 28-52% at 3-12 hr. after 20 mg/kg ip of dl-amphetamine- SO_4 . Control levels of NA were not reached until 96 hr. after a single injection of amphetamine, while the drug disappeared from the brain and plasma within 12 hr. Amphetamine was found to disappear from rat tissues in a polyphasic pattern after ip administration. The brain/plasma ratio was $9 \pm .3$ (mean \pm standard deviation). Parahydroxynorephedrine was identified in the brain and heart as a metabolite of the d-isomer of amphetamine. Parahydroxynorephedrine, the apparent $T_{1/2}$ of which was estimated to be about 22 hr., seems to be responsible for the prolonged depletion in the brain and heart NA levels caused by amphetamine. However, there was not an exact stoichiometric relation between the NA deficit and the amount of p-hydroxynorephedrine present. After pretreatment with desmethylimipramine, which inhibits the parahydroxylation of amphetamine, the NA in the brain and heart was decreased by amphetamine but already returned to control levels in about 12 hr. It is concluded that the persistent depletion of brain and heart NA induced by amphetamine is caused by the incorporation of p-hydroxynorephedrine as false transmitter into NA neurons. (35 ref.)—*Journal abstract*.

10403. Matveev, V. F. (Moscow Medical Stomatological Inst., USSR) Patomorfologicheskie izmeneniya v golovnom mozgu pri dliitel'nom sochetannom yvedenii lizergamida (LSD-25) i galoperidola: Eksperimental'no-morfologicheskie issledovaniya: II. [Pathomorphological changes in the brain resulting from prolonged combined administration of lysergamide (LSD-25) and haloperidol: An experimental-morphological investigation: II.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 255-261.—In this continuation of an earlier report (see V. F. Matveev, PA, Vol. 46:590), a 28-day study was conducted during which 100 3-mo-old rats were given 40 mg/kg LSD-25 im daily followed by 1 mg/kg haloperidol 15 min. later over a period of up to 10 days or more than 10 days, with separate groups of Ss sacrificed at the end of each wk. for pathomorphological analysis. In the 1st case, haloperidol plus LSD-25 protected the cerebral neurons from the toxic action of the latter. Morphological changes were in this case characterized by a sharp increase in the compensatory-restoratory processes: swelling and hypertrophy of the neuronal body, nuclei, and nucleoli, and enhancement of interneuronal activity. In the 2nd case, haloperidol plus LSD-25 exerted a neurotoxic action. Prolonged administration produced dystrophic effects in the cerebral neurons in the form of total chromatolysis and cytoplasmic vacuolization, leading to the destruction of the neurons as a result of marked cytolysis. The most pronounced changes were observed in the ganglionic cells of the cortex, thalamus, and hypothalamus and were reminiscent of chronic LSD-25 intoxication. (English summary) (17 ref.)—I. D. London.

10404. Poletaeva, I. I. (Moscow State U., USSR) Rol' nekotorykh podkorkovykh struktur v generatsii ritma napryazheniya elektroentsefalogrammy krolika. [Role of some subcortical structures in the generation of theta rhythm in the rabbit electroencephalogram.] *Biologicheskie Nauki*, 1968(Dec), No. 12, 31-34.—22

rabbits were Ss in a study to determine whether the exclusion of the nonspecific structures of the thalamus (e.g., centrum medianum) and the central gray matter of the midbrain affects the genesis of θ rhythm. Canular introduction of small quantities of a concentrated solution of novocaine into the septum (13 Ss), medial thalamus (3 Ss), and anterior portion of the central gray matter of the midbrain (6 Ss) produced a reversible disappearance of θ rhythm in leads from all sections of the brain. The exclusion of θ rhythm was accompanied by an increase in rhythmic synchrony with flashing light (frequency, 9-20 sec.). In some cases the introduction of novocaine evoked a sharp increase in θ rhythm, accompanied by a weakening of rhythmic synchrony. The results are taken as evidence for a possible inhibitory role for structures participating in the generation of θ rhythm. In the normal state it would be masked by the excitatory influence of the ascending activating system. (17 ref.)—I. D. London.

10405. Radulovacki, M. & Rabe, F. Intraventricular administration of sodium chloride and appearance of paradoxical sleep in cats. *Archives of Biological Sciences*, 1968, Vol. 20(1-2), 43-45.—Assuming that hypertonic osmolarity of the blood caused by administration of hypertonic sodium chloride affects the osmolarity of the cerebrospinal fluid, the relationship between intraventricular administration of various sodium chloride concentrations and their possible connection with the appearance of paradoxical sleep was investigated. All concentrations produced initial desynchronization in the EEG followed by synchronized sleep while seizure phenomena were noticed at the dose of 25-mg NaCl/100 ml distilled water. Paradoxical sleep episodes were observed after 35 min. at the dose of 15-mg NaCl. Data might indicate a relation between sodium chloride concentration in cerebrospinal fluid and the appearance of paradoxical sleep episodes.—W. G. Breiterer.

10406. Schildkraut, Joseph J. & Efron, Daniel H. (Massachusetts Mental Health Center, Boston, Mass.) The effects of Δ^9 -tetrahydrocannabinol on the metabolism of norepinephrine in rat brain. *Psychopharmacologia*, 1971, Vol. 20(2), 191-196.—Administered Δ^9 -tetrahydrocannabinol (Δ^9 -THC), approximately 80 mg/kg, to male Sprague-Dawley rats by ip injection. This dose was found to cause an accelerated rate of disappearance of intracisternally administered norepinephrine- H^3 from the brain and a small increase in the uptake of norepinephrine- H^3 in the brain. In contrast to most stimulants, euphorants, or antidepressants (e.g., cocaine or amphetamine, MAO inhibitors, and tricyclic antidepressants), Δ^9 -THC appeared to cause no decrease in the deamination of norepinephrine- H^3 in brain. Levels of endogenous norepinephrine in brain tended to be slightly lower, whereas levels of endogenous serotonin were slightly higher in Ss treated with Δ^9 -THC than in matched controls. Behavioral effects were observed and are described.—*Journal abstract*.

10407. Seliger, Deborah D. (Temple U.) Effect of prenatal maternal administration of d-amphetamine on rat offspring behavior. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6304-6305.

10408. Sterescu-Volanschi, Margareta & Floru, R. (Academy of Medical Sciences, Bucharest, Romania) Effects of lysergic acid diethylamide (LSD₂₅) on short-term memory in cat. *Revue Roumaine de Physiologie*, 1970, Vol. 7(3), 225-234.—Studied the

effects on 10 cats of LSD₂₅, administered chronically on the alimentary motor delayed response to a visual stimulus (sight of food) as an index of short-term memory. While small doses of LSD₂₅, administered 30 min. before the experiment, increased the delayed-response performance at 5-sec delay intervals, large doses decreased this performance. In contrast to the performance-increasing effect at 5-sec delay intervals, performance-decreasing effects were noted at longer delay intervals with the same dosage, and were statistically significant. The decreased number of responses adequately directed toward the alimentary reinforcement locus, induced by LSD₂₅, persisted for 7-10 days after the drug had been discontinued. The effect of LSD₂₅ on the function of the visual analyzer is discussed. (44 ref.)—*Journal abstract*

10409. Stevenson, I. H. & Turnbull, M. J. (U. Dundee, Dept of Pharmacology & Therapeutics, Scotland) **The sensitivity of the brain to barbiturate during chronic administration and withdrawal of barbitone sodium in the rat.** *British Journal of Pharmacology*, 1970(Jun), Vol. 39(2), 325-333. —Determined the sensitivity of the CNS to barbiturate in female Wistar rats during the chronic administration of barbitone sodium and after its withdrawal. The brain barbiturate concentration determined on awakening from a hypnotic dose administered ip was found to increase throughout the period of barbitone administration. A similar gradual development of CNS tolerance was indicated by measuring the duration of anesthesia following an intraventricular injection of pentobarbitone. The change in sensitivity of the brain which occurred during the period of barbitone administration was not demonstrable from the measurement of sleeping time following ip injection of barbitone or pentobarbitone. After withdrawal, the sensitivity of the brain to barbiturate gradually returned to normal. It is concluded that the hypersensitivity to pentobarbitone, but not to barbitone, which develops after withdrawal of barbitone sodium is due to a decreased drug-metabolizing capacity.—*Journal abstract*

10410. Tagliamonte, A., Tagliamonte, P., & Gessa, G. L. (U. Cagliari, Italy) **Reversal of pargyline-induced inhibition of sexual behaviour in male rats by p-chlorophenylalanine.** *Nature*, 1971(Mar), Vol. 230(5291), 244-245. —Investigated the alleged ability of p-chlorophenylalanine (PCPA) to counteract reduced sexual activity produced by pargyline (an MAO inhibitor) to accumulation of brain serotonin. Male 140-150 day old Sprague-Dawley rats were housed individually and exposed to 14 hr. of light and 10 hr. of darkness. Mating tests (consisting of placement of a female in artificially-induced estrus in a cage containing a male during a 2-hr period of dim light) were carried out. The following parameters were observed: (a) the percentage of Ss copulating at least once within 30 min., (b) the percentage of Ss ejaculating at least once within 60 min. after exposure, and (c) the mean number of ejaculations prior to reaching exhaustion. Exhaustion was defined as having occurred when more than 30 min. lapsed between ejaculations. Rats were allocated into 4 groups: (a) untreated controls, (b) Ss receiving 80 mg/kg pargyline 8 hr. prior to testing, (c) Ss receiving 4 daily doses of PCPA (100 mg/kg), and (d) Ss receiving both PCPA and pargyline in same dose schedule as Groups b and c. Results reveal that: (a) 63% of controls copulated and 53% ejaculated, (b) only 3 pargyline-treated Ss copulated

and none ejaculated, and (c) all PCPA-pretreated Ss copulated and 90% ejaculated. Treatment with PCPA alone increased both the number of copulations and ejaculations. It is concluded that pargyline-induced inhibition of sexual behavior in male Ss is secondary to accumulation of brain serotonin. (16 ref.)—*B. A. Stanton*

10411. Us, Z. G. & Bozhko, G. Kh. (Kharkov Research Inst. of Neurology & Psychiatry, USSR) **Deistvie syvorotki krovi bol'nykh shizofreniei na obnovenie belkov mozga krys.** [Action of schizophrenic blood serum on protein renewal in the rat brain.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 253-255. —Compared the changes in rates of protein renewal (indexed by radioactive methionine) in the rat brain when acted upon by blood serum drawn from 30 donors with continuous (6) and recurrent (24) schizophrenia (in the acute period of the latter form of the psychosis, 12, and during associated, 6, and dissociated, 6, remission). 42 Ss were subjected to ip administration of the serum. 12 normal human donors and 8 intact rats served as controls. In the case of remittent schizophrenia in the acute period and in the case of the continuous form of the psychosis, the serum reduced the levels of protein metabolism in the cerebellum, hypothalamus, and the cerebral hemispheres. The serum of schizophrenics during dissociated remission produced the same effects. No changes were observed during associated remission. (English summary)—*I. D. London*

10412. Vedernikov, Yu. P. (Sverdlovsk State Medical Inst., USSR) **Interaction of amphetamine, apomorphine, disulfiram with morphine and the role played by catecholamines in morphine analgesic action.** *Archives Internationales de Pharmacodynamie et de Therapie*, 1969(Nov), Vol. 182(1), 59-64. —Groups of 10 white rats (tolerant and nontolerant to morphine) were used in a study producing evidence to support the role of catecholamines in the brain in morphine analgesic action, estimated through change in threshold for pain in response to mechanical pressure of the tail (the squeak reaction). Evidence was obtained on the role of the central adrenergic mechanism in morphine analgesic action. High doses of apomorphine (30 mg/kg) or amphetamine (10 mg/kg) produced stereotyped behavior and elevation of the threshold for pain. The influence of morphine on this threshold was significantly decreased for 5-6 hr. after such dosage. Disulfiram was antagonistic to morphine analgesic action, 2 mg/kg amphetamine, given 1 hr. before morphine, abolished the antagonistic action of both disulfiram and high doses of amphetamine and apomorphine against morphine analgesic action in Ss tolerant and nontolerant to morphine. (20 ref.)—*I. D. London*

10413. Vedernikov, Yu. P. & Afrikanov, I. I. (Moscow State U., USSR) **On the role of a central adrenergic mechanism in morphine analgesic action.** *Journal of Pharmacy & Pharmacology*, 1969, Vol. 21, 845-847. —Groups of 10 white rats were Ss in a study to determine the relation between drugs which interfere with noradrenaline metabolism in the brain and morphine analgesic action, utilizing tail pressure to assess the influence of the former. Central adrenergic stimulation, produced by apomorphine, cocaine, pyrogallol, or amphetamine led to stereotyped behavior and elevation of the threshold for pain. Lower doses of these drugs potentiated morphine analgesic action: Reserpine,

iproniazid, and disulfiram weakened this action; α -methyl dopa increased the action, but (\pm)-tryptophan did not influence it significantly. It is concluded that: (a) Central sympathetic activation can elevate the threshold for pain. (b) Drugs, increasing noradrenaline concentration at the receptor sites, potentiate morphine analgesic action, while drugs which decrease it, weaken the action. (c) Morphine analgesia results from the freeing of noradrenaline from brain stores. (d) While a direct action of morphine on the central adreno-structures may be involved, this mechanism is of less importance. (20 ref.)—*I. D. London.*

10414. Vernadakis, Antonia. (U. Colorado, Medical Center, Denver) **Effects of chlorpromazine on convulsive responses in developing rats.** *Experimental Neurology*, 1970(Dec), Vol. 29(3), 473-482.—Injected 28 litters of female Sprague-Dawley rats with various doses of chlorpromazine (CPZ), either at 6, 13, 20 or 29 days after birth, and studied responses to maximal electroshock stimulation during maturation. Each litter consisted of controls and Ss treated with 3, 15, 30, and 60 mg CPZ/kg. The durations of hind limb flexion were generally longer and extension shorter in Ss receiving CPZ at 6 or 20 days. In Ss receiving CPZ at 13 days, the durations of flexion were shorter and extension longer than those observed in appropriate controls. No changes were observed in 29-day-old CPZ-treated Ss. It is concluded that CPZ administered to developing rats has both stimulant and depressant effects, which appear to be age dependent (19 ref.)—*Journal abstract.*

10415. von Bahr, Christer & Borgå, Olof. (Karolinska Inst., Div. of Clinical Pharmacology, Stockholm, Sweden) **Uptake, metabolism and excretion of desmethylimipramine and its metabolites in the isolated perfused rat liver.** *Acta Pharmacologica et Toxicologica*, 1971, Vol. 29(4), 359-374.—Used male Sprague-Dawley rats as liver and blood donors and the perfused livers of male homozygous GUNN rats to study the metabolism of the tricyclic antidepressant drug, desmethylimipramine (DMI). Extraction procedures were developed which allowed a separation of DMI and its hydroxylated and conjugated metabolites. DMI and its metabolites were measured in perfusate plasma, liver, and bile. DMI (a) disappeared quickly from the plasma and reappeared in high concentrations in liver, bile, and red corpuscles; (b) was highly bound to proteins in perfusate plasma; and (c) was bound to the microsomal fraction of the liver cell. The conjugated metabolites (a) were not bound at all, (b) were not present in red blood corpuscles, (c) occurred in considerable amounts in perfusate plasma and bile, and (d) appeared mainly in the cytoplasm of the liver cell. Unconjugated hydroxylated metabolites were found in only small amounts in perfusate plasma, liver, and bile. (34 ref.)—*Journal abstract.*

10416. Walker, Timothy S. (U. Georgia) **Motivational aspects of alcohol consumption in mice.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6963.

CARDIOVASCULAR PROCESSES

10417. Bondy, Stephen C. & Morelos, Beatrice S. (U. Colorado, Medical Center, Denver) **Stimulus deprivation and cerebral blood flow.** *Experimental Neurology*, 1971(May), Vol. 31(2), 200-206.—Studied the effect of unilateral visual deprivation on the vascular

system of brain regions in white Leghorn chicks. Radioactivity within optic lobes and cerebral hemispheres was assayed, to estimate the velocity of blood flow or the plasma volume. As early as 1 hr. after monocular deprivation by eyelid suture or enucleation, significant deficits in the velocity of the circulation through the contralateral brain regions were observed, were maintained for at least 6 days, and were of similar magnitude in contralateral optic lobes and cerebral hemispheres. After 1 hr. of either form of monocular deprivation, a reduced plasma volume was found in contralateral optic lobes but not in cerebral hemispheres. Data suggest that maintenance of optimal cerebral vascular supply may be dependent on a patterned sensory input to the brain. A deficiency in the complexity of cerebral afferentation in the young animal may impair adequate vascularity and thus retard maturation.—*Journal abstract.*

10418. Cook, Mary R. (U. Oklahoma) **The cutaneous vasomotor orienting response and its habituation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6923.

10419. Hossmann, K. A. & Sato, K. (Max Planck Inst. for Brain Research, Cologne, W. Germany) **Effect of ischaemia on the function of the sensorimotor cortex in cat.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jun), Vol. 30(6), 535-545. Produced transient cerebral ischemia of 20 min. to 2 hr. in normothermic cats by clamping the innominate and subclavian arteries and simultaneous lowering of the systemic blood pressure, or by interrupting the blood supply to Ss with extracorporeal circulation. 23 experiments were made with 35 adult Ss. After ischemia high systemic blood pressure was maintained to assure the adequate blood recirculation of the brain. The effect of ischemia on the sensorimotor cortex was studied by recording the spontaneous EEG and the pyramidal response (PR) to electrical stimulation of the cortex. When ischemia was produced by clamping the innominate and subclavian arteries the EEG was suppressed after 12.8 ± 3.8 sec., the I wave of the PR after 181 ± 51 sec., and the D wave after 261 ± 50 sec. In Ss with extracorporeal circulation, the suppression time of the EEG was 16.9 ± 5.7 sec., of the I wave 178 ± 37 sec., and of the D wave 271 ± 50 sec. Under optimal conditions the D wave reappeared as early as 7 min. after ischemia of 1 hr., the I wave after 25 min., and the EEG after 45 min. Even after ischemia of 1.5 hr., and I and D waves reappeared, and the D wave transitorily after ischemia of 2 hr. Results confirm that basic neuronal functions may reappear after complete ischemia of more than 1 hr. (German summary) (35 ref.)—*Journal summary.*

10420. Wolin, L. R., Massopust, L. C., & Taslitz, N. (Cleveland Psychiatric Inst., Lab. of Neuropsychology & Neurophysiology, O.) **Tolerance to arrest of cerebral circulation in the rhesus monkey.** *Experimental Neurology*, 1971(Jan), Vol. 30(1), 103-115.—Subjected 20 rhesus monkeys (*Macaca mulatta*) to periods of arrest of cerebral blood flow varying from 4-15 min. Arrest was accomplished by placing ligatures around the carotid and vertebral arteries. A drainage cannula in 1 carotid artery served to remove blood reaching the circle of Willis via anastomotic routes. After clamping the vessels, EEG ceased within 25 sec. After reestablishment of blood flow to the brain, the EEG reappeared anywhere from 30 min. to 5 hr. depending on the duration of the

arrest period. Ss subjected to periods of cerebral arrest up to 13 min. showed no neurologic or behavioral deficits on the 2nd postoperative day. The S subjected to 14-min arrest retained motor deficits even 2 mo. postsurgically. 3 Ss subjected to 15 min. of arrest failed to survive. It is concluded that controlled cerebral arrest up to 12 or 13 min. appears to be relatively safe in the primate, while longer periods result in permanent neurologic deficits or death. (21 ref.)—*Journal abstract.*

ENVIRONMENT & STRESS

10421. Atherley, G. R., Gibbons, S. L., & Powell, J. A. (U. Salford, England) **Moderate acoustic stimuli: The interrelation of subjective importance and certain physiological changes.** *Ergonomics*, 1970(Sep), Vol. 13(5), 536-545. —Conducted a preliminary study with 14 male and 14 female Ss to determine the interrelation between moderate acoustical stimulation and certain physiological changes, using the Wilcoxon Matched-Pairs Signed-Ranks Test. It was shown that "subjective importance" of the noise was a material factor effecting changes in skin resistance. Further studies were made of the effect of whole-day exposure to aircraft, typewriter, and white noise. The noises of high subjective importance, the aircraft and the typewriter, both showed measurable physiological changes, whereas that of low subjective importance (white noise) showed no significant change compared with control levels. Estimations from 4 university staff Ss with sedentary occupations showed a marked decrease in 24-hr urinary 17-ketosteroid and eosinophils, and an increase in total white cell count, lymphocytes, and neutrophils. It is suggested that moderate noise does not act as a conventional stressor and that it may result in a characteristic syndrome which is comparable with a mild form of anxiety-depression. (French & German summaries) (19 ref.) —*Journal abstract.*

10422. Elam, LeRoy H. (Washington U.) **Neonatal cranial irradiation and its delayed effects on learning.** *Dissertation Abstracts International*, 1971(May). Vol. 31(11-B). 6926-6927.

31(11-B), 6926-6927.
10423. Fröberg, Jan, et al. **Conditions of work and their influence on psychological and endocrine stress reactions.** *Reports from the Laboratory for Clinical Stress Research, Karolinska Sjukhuset*, 1969(Oct). No. 8, 18 p.—Describes 3 investigations subjecting groups of Ss to a variety of stimuli including laboratory as well as real-life stressors. Ss were military personnel as well as male and female office workers. The stress situations used are prolonged sleep deprivation, experimental modification of real life stressors, and natural changes in the work environment. Stressor conditions of a relatively short duration and of an intensity far below what most people are exposed to now and then during everyday work may provoke marked changes in bodily function. If often repeated or occurring under lengthy periods of time, these changes might be of pathogenic significance. In an experiment on piecework, the results point to a subjective as well as objective state of stress. S. R. Diamond.

10424. Kennedy, Robert S. Two procedures for applied and experimental studies of stress. *USN AMI Army-Navy Joint Report*, 1970(Feb), No. 1099, 13 p.—Offered 2 methods to compensate for the low reliability of physiological manifestations of sympathetic nervous system activity. The 1st requires a major

research program by which a valid criterion of stress would be determined by experimentation, and then predictors of this criterion would be obtained empirically by correlational techniques. These predictors could then be cross-validated. By using the predictors, the influences of psychological stress and physiological stress could be separated. Whether a functional relationship exists between the magnitude of the response to stress and the probability of its occurrence could then be determined. The 2nd method is similar but less exact. It has been used successfully in motion sickness studies and avoids the necessity of a long exploratory program with numerous pilot studies. A procedure for the control and the regulation of the perception of the magnitude of the stress to the organism (human and infrahuman) is offered for use with the 2 methods. The lack of suitable control of this factor is discussed in connection with previous research. (31 ref.)—*Journal abstract*

10425. **Kepner, Larry A.** (Duke U.) **Electroconvulsive shock in passive avoidance and imprinting.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6293-6294. (See also 10424)
 10426. **Kepner, Larry A.** (Rockefeller U., New York,

31(10-B), 6295-6294.
10426. Stone, Eric A. (Rockefeller U., New York, N.Y.) **Behavioral and neurochemical effects of acute swim stress are due to hypothermia.** *Life Sciences*, 1970(Aug), Vol. 9(15, Pt. 1), 877-888. -To determine whether hypothermia is the immediate cause of the behavioral and central noradrenergic changes produced by cold-water swimming stress, male albino Sprague-Dawley rats were swim-stressed in cold water (14.5° C) for 30 min. Rewarming utilized a water bath maintained at 38° C for 30 min. Swim-stress in warm water (37° C) was also used. Brain norepinephrine and dopamine depletion produced by α -methyltyrosine (AMT) and reserpine was examined in the stressed Ss. Rapid rewarming reversed the hypothermia, behavioral inactivity, shivering, eye closure, reduction in brain norepinephrine concentrations, and the increased retention of radioactive norepinephrine. Warm-water swimming produced none of the results seen in cold-water swimming, showing that the behavioral and neurochemical effects of the stress are produced by phenomena occurring during hypothermia. Swim-stress in cold water interfered with the depleting actions of both AMT and reserpine on brain norepinephrine and dopamine, supporting the suggestion that this stress decreases the synthesis and utilization, while increasing the binding, of brain norepinephrine. It is suggested that the behavioral state seen in the rat during hypothermia may be similar to withdrawal reactions seen in primates and humans after severe stress. (23 ref.) -W. E. Wood.
10427. Stone, Eric A. (Rockefeller U., New York, N.Y.) **Behavioral and neurochemical effects of acute swim stress are due to hypothermia.** *Life Sciences*, 1970(Aug), Vol. 9(15, Pt. 1), 877-888. -To determine whether hypothermia is the immediate cause of the behavioral and central noradrenergic changes produced by cold-water swimming stress, male albino Sprague-Dawley rats were swim-stressed in cold water (14.5° C) for 30 min. Rewarming utilized a water bath maintained at 38° C for 30 min. Swim-stress in warm water (37° C) was also used. Brain norepinephrine and dopamine depletion produced by α -methyltyrosine (AMT) and reserpine was examined in the stressed Ss. Rapid rewarming reversed the hypothermia, behavioral inactivity, shivering, eye closure, reduction in brain norepinephrine concentrations, and the increased retention of radioactive norepinephrine. Warm-water swimming produced none of the results seen in cold-water swimming, showing that the behavioral and neurochemical effects of the stress are produced by phenomena occurring during hypothermia. Swim-stress in cold water interfered with the depleting actions of both AMT and reserpine on brain norepinephrine and dopamine, supporting the suggestion that this stress decreases the synthesis and utilization, while increasing the binding, of brain norepinephrine. It is suggested that the behavioral state seen in the rat during hypothermia may be similar to withdrawal reactions seen in primates and humans after severe stress. (23 ref.) -W. E. Wood.

10427. **Sutker, Louis W.** (U. Georgia) **Some autonomic and behavioral correlates of radiation induced aversive conditioning to saccharin solution.** *Dissertation Abstracts International*, 1971(May). Vol. 31(11-B), 6961.

10428. Uzzell, Barbara P. (U. Houston) **Changes in 40 CPS EEG activity in the olfactory bulb following gamma irradiation of the cat.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6308.

10429. von Schulthess, G. (Aeromedical Inst. of the Swiss Air Force, Dübendorf, Switzerland) **Auditory adaptation in hypoxia.** *Acta Oto-Laryngologica*, 1971(Feb), Vol. 71(2 3), 212-216. —Attempted to demonstrate the influence of hypoxia on auditory adaptation by testing with an automatic Békésy-Jerger audiometer. Experiments were made in a pressure cabin. Results

indicate that hypoxia corresponding to an altitude of 15,000 ft. may influence auditory adaptation at 4,000 cps to an individual degree. Only rapid adaptation seemed to be affected by O_2 deficiency, whereas no measurable changes of slow adaptation were found. (French and German summaries)—*Journal abstract*.

GENETICS

10430. Brubaker, Lowell L. (U. Texas) **A behavior-genetic study of race and deme differences in *Mus musculus*.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6921.

10431. Smith, Roy H. (U. Pennsylvania) **A behavioral analysis of the effects of genetic and environmental manipulation in four strains of mice.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6305-6306.

PERSONALITY CORRELATES

NUTRITION & GASTROINTESTINAL PROCESSES

10432. Almlı, Charles R. (Michigan State U.) **Thirst motivated behavior: Specification of the adequate internal stimulus.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6917.

10433. Berger, Thomas E. (Purdue U.) **The effects of maternal protein restriction on offspring development, learning and emotional behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6252.

10434. Cohen-Salmon, C. (U. Paris-Sorbonne, Lab. of Experimental & Comparative Psychology, France) **Etudes expérimentales de l'amaasement chez les rongeurs.** [Experimental studies in food accumulation among rodents.] *Année Psychologique*, 1970, Vol. 70(1), 223-246.—Variables linked to the environment include external temperature influence, lighting, familiarity with the cage and runs, and materials transported; internal variables are food deprivation, role of food deprivation, deficits, frustration, experience, sex, cortical lesions, emotionality and dominance, and the effect of grouping. The 2 most important factors seem to be the emotional security of the environment and the nature and palatability of food. (71 ref.)—G. Rubin-Rabson.

10435. Glavcheva, Luba; Rozkowska, Ewa, & Konorski, Jerzy. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Effects of alimentary reflexes on motor gastric activity.** *Acta Biologica Experimentalis*, 1969, Vol. 29(1), 63-74.—In 3 dogs subjected to routine alimentary CR experiments, the motor activity of the stomach was observed throughout each session. Reinforcement was maintained with 50-gm cubes of food. After a number of trials, a fasting S brought to the CR chamber manifested either rhythmic motor activity of the stomach of high amplitude and low frequency (hunger contractions) or increased tonus with small rapid waves. The food intake procedure produced relaxation of the stomach and disappearance of the rhythmic activity. After eating, the rhythmic activity was absent for some time and then gradually emerged, resembling the activity in the prefeeding period. The only difference was that oscillations of very high amplitude and low frequency failed to occur. The tonus of the stomach rose after eating, either abruptly or gradually. During the operation of the CS in the 1st trial, the relaxation of the stomach

and the disappearance of high oscillations occurred. When the CS was not reinforced, the high oscillations returned immediately. In the following trials (after the S ate), stomach motor activity was variable. Results are discussed with reference to the interplay between the hunger drive reflexes and consummatory food reflexes.—*Journal summary*.

10436. Stern, Jeffrey J. (U. Michigan, Dearborn) **Litter size and weight gain of neonatal guinea pigs.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 981-982.—Examined the relationship between litter size and weight gain in 13 litters of guinea pigs with a total of 34 offspring. The diets of the mothers were supplemented with 1% calcium glutonate. Without exception the larger the litter, the smaller the weight gain of the piglets.—*Journal abstract*.

ANIMAL PSYCHOLOGY

10437. Pollard, J. S. (U. Canterbury, Christchurch, New Zealand) **A bibliography of research using the Hebb-Williams Closed Field Test.** *University of Canterbury Department of Psychology & Sociology Research Project*, 1970(May), No. 19, 9 p.

COMPARATIVE PSYCHOLOGY

NATURAL OBSERVATION

EARLY EXPERIENCE

10438. Chiszar, David A. (Rutgers State U.) **Effects of handling pregnant rats on maternal behavior and postnatal development of the young.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6922.

10439. Diener, Joyce A. (U. California) **Strain differences in the effects of early social isolation on copulatory behavior in the adult male rat.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6282.

10440. Donaldson, Susan L. (Purdue U.) **The effects of early feeding and rearing experiences on social, maternal and milking parlor behavior in dairy cattle.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6283.

10441. Fazzaro, James M. (Rutgers State U.) **The effects of prenatal stimulation and postnatal factors on aversive and appetitive conditioning in the adult rat.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6929.

10442. Fulkerson, John R. (Baylor U.) **The interaction of pre- and postnatal stimulation on the stress responses of the rat.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6932-6933.

10443. Gallup, Gordon G., McClure, Michael K., Hill, Suzanne D., & Bundy, Rosalie A. (Tulane U.) **Capacity for self-recognition in differentially reared chimpanzees.** *Psychological Record*, 1971(Win), Vol. 21(1), 69-74.—Attempted to replicate and extend earlier findings by G. Gallup (see PA, Vol. 45:9560) on mirror self-recognition in chimpanzees. 3 feral-born group raised preadolescent chimpanzees and 3 laboratory born individually raised chimpanzees were given prolonged exposure to mirrors. Feral-born Ss learned to recognize their own reflections, while the captive-born Ss did not.

Implications for a theory which proposes that self-concepts arise out of interpersonal relationships are discussed.—*Journal abstract.*

INSTINCTS

10444. Fancher, Douglas B. (U. Southern Mississippi) **The effects of prenatal auditory stimulation on imprinting behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6928.

10445. Figler, Michael H. (Michigan State U.) **The intensity, habituation, and retention of habituation of the threat display in male *Betta splendens* (Regan) as a function of eliciting stimuli.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6931.

MOTIVATION & EMOTION

10446. Blizard, David A. (Jackson Lab., Bar Harbor, Me.) **Situational determinants of open-field behaviour in *Mus musculus*.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 245-252.—Crossbred 8 inbred lines of albino mice to construct a heterogeneous sample representative of the laboratory species. An experiment was performed incorporating the factors of light, noise, arena size, sex, and days using an open-field test standardized on the rat. Results were compared with previous findings on inbred lines and F₁ hybrids. Ambulation was markedly affected by most independent variables, while defecation seemed less sensitive in relation to them. The utility of multiple crosses of inbred lines is discussed. (25 ref.)—*Journal abstract.*

10447. Cole, Sherwood O. & Blaszczyk, Carolyn. (Rutgers State U.) **Adaptation to 23½-hour food deprivation under CRF conditions: A sex comparison.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 131-135.—6 male and 6 female albino rats were given 12 successive ½-hr adaptation sessions to 23½-hr cycles of food deprivation under conditions of continuous reinforcement. Using operant behavior as a measure of adaptation to such cyclic deprivation, the results yielded a significant trials effect ($p < .01$) and a significant Sex \times Trials interaction effect ($p < .05$). The significant Sex \times Trials interaction indicated a basic difference in the rate of adaptation by the males and females.—*Author abstract.*

10448. Leventhal, Leslie Y. (Southern Illinois U.) **A review and analysis of the frustration design: A chronicle of shift variable methodology.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6943-6944.

10449. McKinney, William T., Suomi, Stephen J., & Harlow, Harry F. (U. Wisconsin) **Depression in primates.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1313-1320.—Presents the results of a number of experiments designed to produce depressive behavior in young rhesus monkeys. Ss were observed in their home cages and/or playroom daily, and rated on a scale which included various behavioral categories. The reaction of the infant monkey occurred in 2 stages; an initial stage of protest, followed by a stage of despair and withdrawal. The studies are part of a research program aimed at creating an animal model of depression that should make it possible to study the effects of manipulation of the social and biological variables that are thought to be important in human depression. (23 ref.)—*Journal abstract.*

10450. McKinney, William T., Suomi, Stephen J., & Harlow, Harry F. (U. Wisconsin, Medical School) **The sad ones: Studies in depression.** *Psychology Today*, 1971(May), Vol. 4(12), 61-63.—Monkeys denied social interaction develop severe behavioral disorders while infant monkeys raised with peers only develop into normal adults. 6-wk to 13-mo-old monkeys were placed in isolation chambers designed to induce feelings similar to those described by humans suffering depression. When these Ss were removed after 30 or 42 days, their behavior had permanently changed. They were withdrawn and depressed even after months of extensive social experience with normal peers. Present research is directed toward detecting the effects of isolation in later life and the biochemical changes involved in depression.—*E. J. Posavac.*

10451. Nelson, Franklin. (C. W. Post Coll., Long Island U.) **Fear-reducing effect of graduated versus non-graduated forced exposure.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 907-910.—Contrary to a prediction from counterconditioning theory, forced, graduated exposure was less effective in reducing fear in 18 male Sprague-Dawley albino rats than forced, nongraduated exposure. This finding is interpreted to reflect a generalization decrement in the effect of graduated exposure resulting from exposure to conditions similar to, but not the same as, those present during the acquisition of fear. It is suggested that this decrement would be offset during free exposure where, in contrast to forced exposure, a graduated procedure would result in a greater amount of exposure.—*Journal abstract.*

10452. Taylor, Christopher J. & Erspamer, Richard. (Western Washington State Coll.) **A method for the measurement of cooperative behavior in albino rats.** *Psychological Record*, 1971(Win), Vol. 21(1), 121-124.—Gave 5 pairs of male Sprague-Dawley albino rats the opportunity to bar press in a 2-compartment box for food reinforcement. Pairs of Ss were connected by a restraining cable so that only 1 S of each pair could bar press at a given time. Ss had to alternate positions in the apparatus in order to feed and maintain body weight. Data indicate that all pairs met a maintenance of body weight criterion of cooperation.—*Journal abstract.*

LEARNING

10453. Deweer, Bernard. (U. Lille, Coll. of Sciences, France) **La période de consolidation mnésique: Quelques données apportées par l'expérimentation sur l'animal.** [The period of mnemonic consolidation: Data derived from animal experimentation.] *Année Psychologique*, 1970, Vol. 70(1), 195-221.—Reviews the period of consolidation: (a) date relative to its existence, and amnesic and aversive effects of electroshock, and disturbing agents other than electroshock. Trace consolidation and central excitability surveys methodological problems in the use of drugs and central electrical stimulation; and genetic aspects of learning, i.e., hypotheses relative to the mechanisms of mnemonic consolidation. (165 ref.)—*G. Rubin-Rabson.*

10454. Johnson, F. N. (U. Birmingham, England) **The use of the Kamin effect to distinguish between size and stability characteristics of long-term memory traces.** *Life Sciences*, 1970(Oct), Vol. 9(20, Pt. 2), 1175-1179.—The magnitude of a partly-learned avoidance response has been found to be a curvilinear function of the training-test interval (Kamin effect). To

examine the stability concept of the long-term memory trace extinction rate was examined in 48 male F₁ hybrid mice trained in a 1-trial passive avoidance learning situation. The extinction rates showed a linear trend with respect to training-test interval showing that the initial readiness of an animal to exhibit a learned response carries no necessary implications for the future course of extinction of that response. Trace stability, which depends upon the rate at which the learned response becomes extinguished, is regarded as being established during, or immediately after, learning acquisition and to be unaffected by those varying organismic circumstances surrounding response elicitation which are responsible for producing the Kamin effect.—*W. E. Wood.*

10455. Metzger, Leroy P. (U. Houston) **Intertrial interval, concurrent and previous trial reward magnitude and pattern responding in the discrete trials lever press apparatus.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6950.

Conditioning

10456. Adkins, David G. (U. Pennsylvania) **External inhibition and disinhibition of conditioned fear reactions.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6274.

10457. Calef, Richard S. (Southern Illinois U.) **The role of stimulus effects and incentive effects on reward magnitude in simple instrumental conditioning.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6278-6279.

10458. Godbout, Robert C. (U. Texas) **The influence of preliminary training of the negative contrast effect in differential conditioning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6933-6934.

10459. Grossen, Neal E. (U. Washington) **Effect of aversive discriminative stimuli on appetitive behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6290.

10460. Hartley, Arlene L. (Claremont Graduate School) **Learning and memory transfer in planarians.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6875-6876.

10461. Meyer, Merle E. & Gordon, Steven A. (Western Washington State Coll.) **Frequency of light onset on activation and sensory reinforcement in domestic chicks.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 769-770.—Exposed 100 white Leghorn cockerel chicks to 1 of 5 experimental conditions of differing frequencies of light onset with total light duration held constant during a 30-min preconditioning phase. Within a subsequent 25-min conditioning phase, light onset was response contingent. Exposure to different frequencies had significant behavioral effects in the preconditioning phase but not during the conditioning phase. The nonsignificant difference in conditioning suggests that Ss were in part satiated by the total duration of light. Frequency of light onset during preconditioning affected activation but not later sensory reinforced behavior.—*Journal abstract.*

10462. Wilson, Helen K. (U. Minnesota) **Contrast effects and reinforcement magnitude: The free operant case.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6250.

Discrimination

10463. Cogan, Dennis; Innam, Susan, & Gambrel,

Margaret. (Texas Technological Coll.) **Discrimination in parakeets (*Melospittacus undulatus*) as a function of age.** *Psychological Record*, 1971(Win), Vol. 21(1), 117-120.—Examined the use of parakeets as laboratory Ss, 4 1-2 mo. old and 4 9-12 mo. old parakeets (*Melospittacus undulatus*) were taught to discriminate between a circle and a triangle in a Y maze using a noncorrection procedure. Although no age differences were found, all Ss met the stringent criterion for learning 15 consecutive correct responses. It is concluded that the parakeet would make an interesting S for further study.—*Journal abstract.*

10464. Dobrzecka, Czeslawa & Konorski, J. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Qualitative versus directional cues in differential conditioning.** *Acta Biologiae Experimentalis*, 1968, Vol. 28(2), 61-69.—Trained 10 dogs to lift the right foreleg when 1 5-sec stimulus (S_R) was presented, and the left foreleg to the other (S_L). The correct response on a trial was reinforced immediately with food. A wrong response terminated the trial, and if no response occurred the correct one was passively generated and followed by food. Acquisition was slow or absent when S_R and S_L were in the same modality and presented from the same location, but rapid if the stimuli were separated spatially. Acquisition was also rapid for similarly located stimuli chosen from different modalities. These go right-go left discriminations—unlike go-no go discriminations, which were rapidly trained even with stimuli from the same modality located in the same place—were considered to be mediated by and so depend in difficulty on the discriminability of the orienting responses evoked by S_R and S_L.—*J. J. Bruno.*

10465. Elmsore, Timothy F. (Walter Reed Army Inst. of Research, Washington, D.C.) **Effects of response effort on discrimination performance.** *Psychological Record*, 1971(Win), Vol. 21(1), 17-24.—Conducted 2 experiments in which 6 White Carneaux pigeons performed on a discrete-trial successive discrimination procedure. On each trial the key was either red or white, the red being associated with a reinforcement probability of .25, and the white with .50. The effects of varying the effort required to complete a trial while keeping the effort requirements the same in the presence of both key colors were investigated. In Exp. I, effort was varied by changing the force required to operate the key. In Exp. II, effort was varied by changing the number of responses required to complete a trial. When the effort requirement was low, there was little or no difference in behavior in the presence of the 2 key colors. As the effort requirement was increased, the latency of response to the red key increased, and the probability of responding to the red key decreased. Little change was seen in behavior in the presence of the white key. The effects of manipulating the number of responses required to complete a trial were more consistent than those of manipulating the key force requirement.—*Journal abstract.*

10466. Lawicka, Wacława. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Differing effectiveness of auditory quality and location cues in two forms of differentiation learning.** *Acta Biologiae Experimentalis*, 1969, Vol. 29(1), 83-92.—Trained 2 groups of naive dogs, 1 with tone frequency cues (frequency group) and the other with auditory location cues (location group) on a task with 2 instrumental responses (go left-go right), both reinforced by food. It

was found that the acquisition of the location group was much superior to the frequency group. 2 other groups of dogs with the same cues were tested on the acquisition of a Pavlovian differentiation task (go-no go) in which only 1 stimulus was reinforced by food. In contrast to results of the previous task, the acquisition rate of the frequency group was significantly higher than that of the location group. Results are interpreted in terms of differential effectiveness of cues, indicating that auditory localization cues may become easily associated with motor acts, whereas tone frequency cues are easily associated with respective drives. (17 ref.)—*Journal summary*.

10467. McCausland, Donald F. (U. Louisville) **Degree of discriminative control as a function of stimulus reliability.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6947-6948.

Avoidance & Escape

10468. Dillow, Paul V. & Hurwitz, Harry M. (Arizona State U.) **Fixed ratio discriminated avoidance: Response contingencies in warning period.** *Psychological Record*, 1971(Win), Vol. 21(1), 107-116.—Describes 2 procedures used to establish fixed ratio discriminated lever press avoidance in 3 female hooded rats. Common to both procedures was the use of an adjusting ratio response requirement which increased or decreased in accordance with the avoidance performance. Shock was delivered (a) at the end of a fixed duration warning period if the required number of responses had not been performed, or (b) if a pause in responding beyond 4.5 sec. during the warning stimulus occurred. Highest ratios and number of avoidances/session were obtained with the 2nd method. The type of warning signal marginally influenced the results. (22 ref.)—*Journal abstract*.

10469. Flynn, William E. (U. South Carolina) **Contrast effects in a shuttle-box avoidance situation.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6285.

10470. Foxman, Joel. (Southern Illinois U.) **The effect of negative expectancy on rat phobic behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6932.

10471. Sachson, Steven M. (Kansas State U.) **The effects of CS alteration on the level of avoidance responding.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6956.

10472. Wolfe, Marshall; Ulrich, Roger, & Dulaney, Sylvia. (Western Michigan U.) **Fighting and escape reaction in paired rats.** *Psychological Record*, 1971(Win), Vol. 21(1), 59-68.—Presented an electric foot-shock to 4 pairs of male Long-Evans hooded rats confined in a start box. At the termination of the 100th shock, 1 side of the start box was removed and a runway exposed to a safe-plate. All members of 2 pairs, 1 member of a 3rd pair, and neither member of the 4th pair received individual escape training prior to pairing. Pairing of Ss receiving individual escape training had temporary disrupting effects on the efficiency of escape responding. When the safe-plate was also electrified, escape latencies increased. Fight probabilities were highest while paired Ss were confined in the start box, lower when Ss were allowed more floor area but prevented an effective means of terminating shock, and lowest when Ss were allowed an effective means of escape. It is concluded that the instrumental running

response did affect the interaction between aggression and escape, and that employing a more naturalistic response as a whole proved more successful in disrupting aggression in favor of escape.—*Journal abstract*.

Reinforcement

10473. Brooks, Charles I. (Syracuse U.) **Frustration and the small-trials partial reinforcement effect: The influence of inter-trial reinforcement on the intensity of primary frustration to nonreward.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6920-6921.

10474. Feldman, Jerome M. (U. New Mexico) **Added cue control as a function of reinforcement predictability.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6285.

10475. Filion, Ross D., Fowler, Stephen C., & Notterman, J. M. (U. Pennsylvania, Medical School) **Prefeeding, discontinuance of prefeeding, and force-proportional reinforcement.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 145-147.—Using an isometric lever, 3 groups of rats obtained reinforcement (45-mg pellets) in proportion to how hard they pressed, as well as by conventional increases in response rate. They were prefed 0, 3, and 9 gm. of lab chow, respectively, during original conditioning. Reliable intergroup differences in reinforcement rate were observed during the initial but not the final sessions of acquisition. Upon discontinuance of prefeeding, the 9-gm group showed a significant increase in reinforcement rate, the augmentation being statistically attributable to higher rate (and not force) of response. Previous reports indicate that increases in force (rather than rate) accompany greater hours of food deprivation.—*Author abstract*.

10476. Harrison, Robert G. (Florida State U.) **Investigations of Premackian reinforcement theory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6290.

10477. Rudy, Jerry W. (U. Virginia) **Sequential variables as determiners of the discriminability of reinforced and nonreinforced runway trials: Subsequent effects on extinction performance.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6302.

10478. Ziff, David R. (U. Texas) **The effect of magnitude of partial reward on acquisition and discrimination.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6965.

Reinforcement Schedule

10479. Brooks, Charles I. (Wilson Coll.) **Frustration considerations of the small-trials partial reinforcement effect: Experience with nonreward and inter-trial reinforcement.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 362-371.—Conducted 3 continuous and partial reinforcement experiments with 60 female, 40 male, and 120 male hooded rats. In Exp. I, continuously reinforced Ss jumped a hurdle to escape nonreward faster than partially reinforced Ss, even under equal reward conditions. The small-trials partial reinforcement effect was obtained in a runway under conditions of equal reward experience in Exp. II. In Exp.

III, Ss received either hurdle jumping or runway extinction following a small number of continuous, partial, or partial reinforcement trials with intertrial reinforcements (ITRs) given after rewarded or non-rewarded trials. Although runway performance differences were obtained during extinction for the ITR groups, no hurdle-jumping differences were found. It is concluded that whereas a primary frustration analysis can explain the usual small-trials partial reinforcement effect, a sequential hypothesis seems more appropriate for explaining the effect of ITRs. (16 ref.)—*Journal abstract*.

10480. Innis, Nancy K. (Duke U.) **Temporal tracking on cyclic-interval reinforcement schedules.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6937-6938.

10481. Jones, Elvis C. (Frostburg State Coll.) **Drinking behavior of food-deprived rats during feeding sessions.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 869-870.—Conducted 2 experiments with 20 male Sprague-Dawley rats each to examine the effect of a 23-hr food-deprivation schedule on drinking behavior. It was found that (a) as Ss adapted to the schedule, they ate for progressively shorter periods before stopping to drink; and (b) the more severely Ss were deprived of food, the less food they consumed before initiating drinking.—*Journal abstract*.

10482. Kleinginna, Paul R. (U. Miami) **Effect of number of grain responses at reinforcement on small fixed-ratios.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6940.

10483. Kramer, Thomas J. (Michigan State U.) **The differential reinforcement of low rates and stimulus control.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6941.

10484. Shanab, Mitri E. (U. California, Santa Barbara) **Sustained positive contrast in the Skinner box following extended intermittent reinforcement training in the runway.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6958.

10485. Soltysik, Stefan & Gasanova, Rima. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **The effect of "partial reinforcement" on classical and instrumental conditioned reflexes acquired under continuous reinforcement.** *Acta Biologica Experimentalis*, 1969, Vol. 29(1), 29-49.—Studied the effect of 67 and 50% fixed ratio quasi-random partial reinforcement upon classical salivary and instrumental motor CRs in 6 dogs after overtraining under CRF. The instrumental CR was a chained response of 14 bar presses to a metronome (instrumental CS) followed by a buzzer (salivary CS) and food, so that the instrumental and salivary CRs were elicited by 2 different CSs and could be studied simultaneously. PRE was observed on the rate of conditioned salivation, latency of the 1st bar press, and vigor of the instrumental CR. PRE caused a deterioration of salivary and instrumental CRs, but there was some evidence of an increase of a drive CR, masked by the decrease of incentive motivation. The immediate effect of nonreinforcement consisted in a diminution of salivary CRs, considered as a partial extinction of the consummatory CR, and a simultaneous increase of instrumental CRs, explained by the release of the drive center from inhibitory influence of the consummatory center. Thus the "frustration effect" was explained in terms of changing proportions of consummatory and drive CRs, due to the partial extinction of the former and

a release of the latter CR in conditions of an intermittent reinforcement. (45 ref.) *Journal summary*.

10486. Zemore, Robert W. (U. Texas) **Effects of amount and sequence of reward during differential conditioning on resistance to extinction.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6965.

Punishment & Extinction

10487. Cloar, Frank T. (U. Alabama) **The effects of type of training and fixed vs. variable shock location on vicious circle behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6280.

10488. Cooper, Almath M. (U. Alabama) **Punishment-produced contrast effects in chain schedules of positive reinforcement.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6280.

10489. Domber, E. A., Fowler, H., & Wischner, G. J. (Drew U.) **Shock-right facilitation: Correction training with differential S^o availability during an enforced delay following an error.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 329-334. Examined delay-of-reinforcement factors controlling error tendencies in retraces-correction training. Following an error, 70 shock-right and no-shock male Sprague-Dawley albino rats were subjected to different choice-point delays during which the visual discriminative stimuli (S^o) was either present or absent. Longer choice-point delays progressively reduced both errors and trials to criterion, as well as the magnitude of the shock-right facilitation effect. Presence or absence of the S^o interacted with length of the delay interval: at a 7.5-sec delay, the performance of Ss for which the S^o was present was facilitated over that of Ss for which it was absent, whereas the reverse held true at a 15-sec delay. Results delineate the role of both primary and secondary reinforcement in (a) controlling the rate of error reduction in correction training, and (b) providing a basis by which shock-right training can facilitate performance in an easy discrimination task.—*Journal abstract*.

10490. Fox, Paul A. (Southern Illinois U.) **The role of reward- and nonreward-produced stimuli on performance to patterned reinforcement.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6286.

10491. Galbraith, Karen. (Lakeshore Psychiatric Hosp., Toronto, Ontario, Canada) **Differential extinction performance to two stimuli following within-subject acquisition.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 343-350.—Examined the finding that within-S acquisition situations typically result in the generalized partial reinforcement effect. In an experiment with 80 male Wistar albino rats, this generalization was disrupted with a method derived from frustration theory. The usual within-S situation (continuous reinforcement to 1 stimulus and partial to a 2nd) involves only 1 response (approach) to anticipatory frustration (S_r). Following a within-S acquisition phase which involved conditioning 2 incompatible responses to S_r—approach when S_r accompanied 1 stimulus and avoidance when it accompanied a 2nd—differential extinction rates to the 2 stimuli were obtained. The same effect was observed when extinction was to the negative discriminandum in a discrimination. A number of differences between simple and discriminative extinction following identical pretraining were noted, raising

questions for conditioning-extinction models of discrimination. (16 ref.)—*Journal abstract.*

10492. McCloskey, J. L. & Tombaugh, Tom N. (Carleton U., Ottawa, Ontario, Canada) **The effects of volume of sucrose reward on resistance to extinction.** *Psychological Record*, 1971(Win), Vol. 21(1), 53-57.—Studied the effects of .01, .4, and .7 ml. of 32% sucrose on the acquisition and extinction performance of 24 female Sprague-Dawley albino rats in a discrete-trial barpress situation. In acquisition the performance of the .01 group was initially inferior to the other 2 groups, but there were no differences among groups at the end of training. In extinction the .01 group was the least resistant to extinction, with a tendency for the .7 group to extinguish faster than the .4 group. Results are discussed in relation to findings reported by other experiments.—*Journal abstract.*

10493. Tellish, Joseph A. & Dunstone, John J. (U. Maine) **Punishment of variable ratio maintained behavior.** *Psychological Record*, 1971(Win), Vol. 21(1), 49-52.—Examined the effect of continuous punishment of behavior maintained by a variable ratio schedule on the operant responding of 2 male Sprague-Dawley albino rats. Punishment resulted in disruption of responding confined primarily to the early portions of a session. Recovery of responding was noted during a daily session and over the punishment sessions. Punishment was effective in that final over-all rates were below those of the prepunishment rates.—*Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

10494. Gentry, Roger L. (U. California, Santa Cruz) **Social behavior of the Steller sea lion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 5809-5810.

10495. Harth, Marshall S. (Rutgers State U.) **The effects of developmental experience on the organization and development of reproductive behavior patterns in the ring dove (*Streptopelia risoria*).** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6875.

10496. Heingartner, Alexander. (U. Michigan) **Social facilitation in rats: The effects on bar pressing behavior of the presence of another animal under conditions of stress and non-stress.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6715.

10497. Jachowski, Richard L. (U. Maryland) **Agonistic behavior of the blue crab, *Callinectes sapidus* Rathbun.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6999.

10498. Monroe, Ben D. (Oklahoma State U.) **The effects of competitive social experiences on emotionality of the rat.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6879.

10499. Shapiro, Sandra & Schuckman, Harold. (Queens Coll., City U. New York) **Habituation and covariation of the components of the threat display in *Betta splendens*.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 827-837.—Repeatedly elicited the threat display of 6 male Siamese fighting fish, *Betta splendens*, during daily sessions over a 10-day period, using a mirror, a live *Betta*, and a picture of a *Betta* as stimuli. Between-day analysis of the rate of elicitation of component responses of the display shows that (a) for those records in which any decline in response frequency was evident, only the gill-cover extension and undulation responses showed marked and consistent habituation

trends; (b) gill-cover extension and undulation response rates covaried closely but were not consistently related to other response component rates; and (c) differential effectiveness of the 3 stimuli was reflected in the rates of several response components.—*Journal abstract.*

SENSORY PROCESSES

10500. Berman, Doreen; Karalitzky, A. R., & Berman, A. J. (Jewish Hosp. & Medical Center of Brooklyn, Neurosurgical Research Unit, N.Y.) **Auditory thresholds in monkeys asphyxiated at birth.** *Experimental Neurology*, 1971(Apr), Vol. 31(1), 140-149.—Determined the thresholds to pure-tone stimuli in 8 normal monkeys and 6 monkeys that had been asphyxiated at the time of birth. All Ss were trained and tested in a 2-way avoidance paradigm. Asphyxiated Ss had elevated thresholds at each of the frequencies tested: .5, 1, 2, 4, and 8 kHz. (34 ref.)—*Journal abstract.*

10501. Johnson, Richmond E. (Lehigh U.) **Visual sensitivity in the pigeon as a function of level of motivation, configuration of signal, and stage of practice.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6293.

10502. Meyer, Merle E. & Collins, Michael D. (Western Washington State Coll.) **Light deprivation and sensory reinforced behavior in chicks.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 602.—Investigated the function of hr. of light deprivation with light onset as a sensory reinforcing stimulus by using 120 White Leghorn Cockerel chicks as Ss and the disruption of a photoelectric beam as an operant. Analysis of variance for the response data yielded a significant deprivation effect. Findings are supportive of previous data for more visually oriented organisms, suggesting that light onset as a sensory reinforcer will vary under the antecedent operation of light deprivation.—*P. Hertzberg.*

10503. O'Connell, R. (San Fernando Valley State Coll.) **Spontaneous alternation of brightness?** *Psychonomic Science*, 1971(Mar), Vol. 22(5), 273-274.—Attempts to dispel misunderstanding regarding a study by R. H. O'Connell (see PA, Vol. 39:1108) which found spontaneous alternation to be affected by stimulus change but not by any tendency to alternate brightness. It is urged that the distinction between response to change and the alternation of brightness not be lost. Positive evidence for the alternation of brightness is presented. (18 ref.)—*Journal abstract.*

10504. Pratt, Linda P. (Texas Christian U.) **Odor effects in latent extinction.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6300.

10505. Price, Richard G. **Cochlear microphonic sensitivity in the rat as a function of age: Preliminary report.** U.S. Army Human Engineering Laboratories Technical Note, 1970(Jul), No. 8-70, 7 p.—Evaluated the suitability of the rat species for studying the effect of aging on the ear. Cochlear microphonic (CM) sensitivity was measured at frequencies from .1-20 kHz. in 27 1-, 13-, and 18-mo-old male albino Wistar rats. The 2 youngest groups had equally sensitive ears, but the ears of the oldest group showed large losses in CM sensitivity at all frequencies. The middle ear proved to be highly susceptible to infection. It is concluded that if the rat ear is to be used to study the effect of aging, special measures will have to be taken with respect to the problem of middle-ear infection.—*Journal abstract.*

10506. Sedláček, K. (U. Prague, Czechoslovakia)

Hearing and communication in birds: Species *Agapornis roseicollis*. *Acta Oto-Laryngologica*, 1971(Feb), Vol. 71(2-3), 194-196.—Reports the investigation of the communication process of 2 pairs of birds belonging to species *Agapornis roseicollis*. The method involved (a) correlating the melody patterns with other behavior of the birds, and (b) studying responses of the birds' cries previously registered or synthetically formed. Results suggest that there is a system of communication based upon the movement of the fundamental frequency, i.e., the pitch patterns. (French & German summaries) —*Journal abstract*.

10507. Todd, John H. **The chemical languages of fishes.** *Scientific American*, 1971(May), Vol. 224(5), 98-108.—The bullhead catfish has a remarkable sense of smell that is used for social purposes. Chemical signals, detected by the organs of smell, enable identification of the species, status, sex, and additional characteristics of other fish. The formation and maintenance of stable communities depends entirely on the members' sense of smell. Research dealing with chemical regulation of social behavior is described.—*P. Tolin*.

10508. Valciukas, Jose A. **Psychophysical studies of the optokinetic response in the normal monkey.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6962.

DEVELOPMENTAL PSYCHOLOGY

10509. Bissett, Wyatt H. (U. Maryland) **An investigation and synthesis of the literature on love, and the creation of a developmental model of love processes.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6869-6870.

10510. Gollin, Eugene S. (U. Colorado) **An organism oriented concept of development.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3), 246-252.—Comparative-developmental analysis assumes that behavior is a function of organism and environment and therefore seeks to observe behavior in many organism-environment contexts. While there is some indication of dissatisfaction with traditional behaviorism and some attempt to reenergize phenomenology, the most important feature is a relaxation of doctrinaire attitudes and a recognition of the worthiness of inquiry research. The main psychological polarity today is not that of behaviorist and nonbehaviorist. The central issue is: Are there substantive factors in addition to the parameters traditionally dealt with by learning theories, which require inclusion for an understanding of the behavior of organisms, e.g., genetic factors which restrict or expand behavior modifiability; cognitive structures which impose differential qualitative or quantitative character upon incoming stimulation? There is room for techniques, methods, comparisons, and formulations in addition to those proposed by so-called experimental analysts. The kind of experiment performed will determine to a great extent the nature of the data picture available; and unless appropriate experiments are performed, all organisms may appear to behave alike. There is no rational basis for rejecting methods which have traditionally been used by experimental psychologists.—*R. V. Hamilton*.

10511. Pufall, Harold E. (U. Southern California) **A normative study of oral sensation and perception: Two-point discrimination, form identification, tactile**

pattern recognition, and mandibular kinesthesia. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6974-6975.

10512. Sutton-Smith, Brian. (Teachers Coll., Columbia U.) **Developmental laws and the experimentalist's ontology.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3), 253-259.—The assertion that the concept of development can be dealt with within the framework of the learning technology implies that programmed learning pretty much sums up the story of human development. 2 conditions must hold if this assertion is true: (a) it must be demonstrated that learning technology alone can accomplish all kinds of developmental change, and (b) the natural world must be perceived as a vast programmed learning situation—even if an inferior one. Developmental psychology is concerned with both noncausal developmental laws, and with the causal phenomena which underlie the points along these sequences. The empiricism of the new learning-based developmental psychology actually involves a number of presuppositions with respect to developmental sequences and values, causal laws, and an experimental ontology. It is incumbent upon a scientist to make as explicit as possible the presuppositions of the language community of which he is a member. To make these presuppositions explicit is, of course, to set limits on one's truth claims and to be forced to justify oneself on grounds other than those arising from one's immediate technology. The generations of earlier developmental psychologists who made the first, if primitive, maps of developmental sequences were not devoting themselves to useless activities, even if the maps were not as detailed and representative as we would now wish them to be.—*R. V. Hamilton*.

INFANCY

10513. Ashton, Roderick & Connolly, Kevin. (U. Lagos, Psychology Div., Nigeria) **The relation of respiration rate and heart rate to sleep states in the human newborn.** *Developmental Medicine & Child Neurology*, 1971(Apr), Vol. 13(2), 180-187.—Monitoring respiration and heart rates in 22 unstimulated newborn infants right after feeding, during 3 complete sleep cycles, a significant change was found in respiration rate in successive epochs of States 1 (NREM) and 2 (REM), and a systematic heart rate change in State 1.—*P. W. Pruyser*.

10514. Bench, John & Parker, Anne. (Royal Berkshire Hosp., Reading, England) **Hyper-responsivity to sounds in the short-gestation baby.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 15-19.—Short-gestation babies were compared with full-term babies in light and deep sleep for auditory responses to noise. Full-term babies were the better sound detectors in both states; short-gestation babies tended to hyperreaction (hyperresponsivity) in light sleep.—*P. W. Pruyser*.

10515. Brown, Josephine V. (Emory U.) **The control of non-nutritive sucking of newborn human infants by consequent oral stimulation: "Towards a more delectable nipple."** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6277-6278.

10516. Caldwell, Bettye M. (Center for Early Development & Education, Little Rock, Ark.) **The effects of psychosocial deprivation on human development in infancy.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3),

260-277.—The natural logic inherent in the concept of deprivation, i.e., that an insufficiency of a particular substance or experience would lead to untoward developmental consequences, has stimulated a vast amount of fruitful research. Early studies tended to stress the effects of malnutrition on stature or brain weight—with research into its effects on mental development very current and that concerned with socioemotional development more contemplated than consummated. Research with the infant is extremely difficult to conduct, not only because of the tangles inherent in the deprivation concept but also because of a shortage of assessment techniques suited to the young child and of qualified persons to apply them. Nor has there ever been a readily available series of large numbers of potential research Ss—at least not readily available to persons interested in this area. Some of the early leads regarding psychosocial deprivation during infancy came from field studies concerned with effects of different child-rearing practices, with information occasionally offering misleads rather than heuristic clues. With human Ss, the author could not point to a truly experimental study involving deprivation. Areas of needed research are: (a) improved techniques of assessing the psychosocial environment, (b) change-sensitive measures of early child development, (c) exploring the relationship between constitutional factors and the susceptibility to the influence of deprivation, and (d) research utilization of the clinical single-case model. (59 ref.)—R. V. Hamilton. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1970, 9, 1, 1-17. [Washington, D.C., American Academy of Child and Adolescent Psychiatry.] Visual

10517. Demyer, Sandra H. (U. Washington) Visual preferences in six and twelve week old infants. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6924.

10518. Goldie, L., Svendsen-Rhodes, U., Easton, J., & Robertson, N. R. (Royal National Throat, Nose, & Ear Hosp., London, England) **The development of innate sleep rhythms in short gestation infants.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 40-50. Serial EEG and sleep rhythm studies of 24 short-gestation babies showed a regular cyclical alternation of eye movement sleep with noneye movement sleep. EEG was periodic in REM sleep up to 32/52 total age and continuous thereafter; it was always periodic in NREM sleep, becoming regular at 36 wk. —P. W. Pruyser.

W. Pruyser.
10519. Grantham-McGregor, S. M. & Back, E. H.
(University Hosp. of the West Indies, Kingston,
Jamaica) **Gross motor development in Jamaican
infants.** *Developmental Medicine & Child Neurology*,
1971(Feb), Vol. 13(1), 79-87.—300 Jamaican infants,
predominantly Negro, were checked during the 1st yr. of
life against Gesell norms, and found to be accelerated in
various gross motor and language items. Some of low
birth weight were significantly slower than the rest, but
equal to the normal white children of Gesell's schedules.
No sex or class differences were found for age of
walking.—P. W. Pruyser.

10520. **Hoversten, Gloria H. & Moncur, John P.** (U. California, Los Angeles) **Stimuli and intensity factors in testing infants.** *Journal of Speech & Hearing Research*, 1969(Dec), Vol. 12(4), 687-702.—Randomly administered sound stimuli at each of 4 hearing levels to 21 3-mo-old and 22 8-mo-old infants. Pulsed white noise, pulsed 500-Hz, pulsed 4000-Hz, pulsed voice, and music stimuli were presented in a sound-field through equidistant loudspeakers via tape. Behavioral changes were recorded by 2 Os. As predicted, percentage of response

increased with increased hearing level. In order to reach the 50% point of response, hearing levels varying from 23 db. (voice stimulus) to 72 db. (4000-Hz stimulus) above normal adult threshold were necessary. Voice generally resulted in the largest percentage of responses for both age groups at each hearing level. The 3-mo-old infants generally gave fewer responses than the 8-mo-old infants at comparable hearing levels. (16 ref.)—*Journal abstract.*
Rimé, H. (Inst. for Care of Mother &

at comparable hearing levels. (16 ref.)—*Journal of Child Psychology and Psychiatry*, 1972, 13(2), 105-121. Krulišová, H. (Inst. for Care of Mother & Child, Prague, Czechoslovakia) **Heart rate changes during conditioning in the human infant.** *Activitas Nervosa Superior*, 1970(May), Vol. 12(2), 135.—In 5 infants heart rate was analyzed during the initial and final phase of conditioning and conditional differentiation. Head turning towards the source of milk was the response to be conditioned and the sound of a bell and/or buzzer were used as conditional signals. Ss were 17 days old at the beginning of the conditioning and 3 mo. old at the beginning of the differentiation. 10 trials in 1 daily session were performed accompanied by the following measurements: heart rate, head and body movement, and respiration. In both phases of conditioning and conditional differentiation there was heart rate acceleration during CS application (with the exception of the terminal phase of differentiation). Marked differences were found among individual infants; there was, however, no significant difference between heart acceleration and head turning or heart acceleration and body movement.—H. Bruml.

CHILDHOOD

10522. Baer, Donald M. (U. Kansas) **An age-irrelevant concept of development.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3), 238-245.—1 meaning of developmental psychology may be "child psychology": the behavioral characteristics of children, the processes responsible for these characteristics, and their future consequences; however, most psychologists characterized themselves and their journals by the processes they study, rather than their usual experimental subject. The equation of developmental psychology with child psychology has other problems: the most striking of these is the heterogeneity of children such that a study of infants differs from a study of 10 yr. olds. Consequently, a new psychology emerges: "age psychology" replaces, or subsumes, child psychology. The research design of the age psychologist consequently has a single distinctive feature: the age of his Ss is an organizing variable in his studies. It is the process of development, not merely the outcome of development, which should be the subject matter for child psychologists. The age-irrelevant concept of development hence is simply a sequence-relevant, or sequence-dependent, concept of learning. Learning technology is comprehensive, powerful, flexible, and readily amenable to experimental study and to practical application. Consequently, it seems thoroughly reasonable to build a concept of development squarely upon that technology.—R. V. Hamilton.

10523. Bail, Frederick T. (Cornell U.) The relative dominance of ikonic and symbolic categorization in the first, third, and fifth grades. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6392. See also 10524, 10525, 10526, 10527, 10528, 10529, 10530, 10531, 10532, 10533, 10534, 10535, 10536, 10537, 10538, 10539, 10540, 10541, 10542, 10543, 10544, 10545, 10546, 10547, 10548, 10549, 10550, 10551, 10552, 10553, 10554, 10555, 10556, 10557, 10558, 10559, 10560, 10561, 10562, 10563, 10564, 10565, 10566, 10567, 10568, 10569, 10570, 10571, 10572, 10573, 10574, 10575, 10576, 10577, 10578, 10579, 10580, 10581, 10582, 10583, 10584, 10585, 10586, 10587, 10588, 10589, 10590, 10591, 10592, 10593, 10594, 10595, 10596, 10597, 10598, 10599, 10600, 10601, 10602, 10603, 10604, 10605, 10606, 10607, 10608, 10609, 10610, 10611, 10612, 10613, 10614, 10615, 10616, 10617, 10618, 10619, 10620, 10621, 10622, 10623, 10624, 10625, 10626, 10627, 10628, 10629, 10630, 10631, 10632, 10633, 10634, 10635, 10636, 10637, 10638, 10639, 10640, 10641, 10642, 10643, 10644, 10645, 10646, 10647, 10648, 10649, 10650, 10651, 10652, 10653, 10654, 10655, 10656, 10657, 10658, 10659, 10660, 10661, 10662, 10663, 10664, 10665, 10666, 10667, 10668, 10669, 10670, 10671, 10672, 10673, 10674, 10675, 10676, 10677, 10678, 10679, 10680, 10681, 10682, 10683, 10684, 10685, 10686, 10687, 10688, 10689, 10690, 10691, 10692, 10693, 10694, 10695, 10696, 10697, 10698, 10699, 10700, 10701, 10702, 10703, 10704, 10705, 10706, 10707, 10708, 10709, 10710, 10711, 10712, 10713, 10714, 10715, 10716, 10717, 10718, 10719, 10720, 10721, 10722, 10723, 10724, 10725, 10726, 10727, 10728, 10729, 10730, 10731, 10732, 10733, 10734, 10735, 10736, 10737, 10738, 10739, 10740, 10741, 10742, 10743, 10744, 10745, 10746, 10747, 10748, 10749, 10750, 10751, 10752, 10753, 10754, 10755, 10756, 10757, 10758, 10759, 10760, 10761, 10762, 10763, 10764, 10765, 10766, 10767, 10768, 10769, 10770, 10771, 10772, 10773, 10774, 10775, 10776, 10777, 10778, 10779, 10780, 10781, 10782, 10783, 10784, 10785, 10786, 10787, 10788, 10789, 10790, 10791, 10792, 10793, 10794, 10795, 10796, 10797, 10798, 10799, 10800, 10801, 10802, 10803, 10804, 10805, 10806, 10807, 10808, 10809, 10810, 10811, 10812, 10813, 10814, 10815, 10816, 10817, 10818, 10819, 10820, 10821, 10822, 10823, 10824, 10825, 10826, 10827, 10828, 10829, 10830, 10831, 10832, 10833, 10834, 10835, 10836, 10837, 10838, 10839, 10840, 10841, 10842, 10843, 10844, 10845, 10846, 10847, 10848, 10849, 10850, 10851, 10852, 10853, 10854, 10855, 10856, 10857, 10858, 10859, 10860, 10861, 10862, 10863, 10864, 10865, 10866, 10867, 10868, 10869, 10870, 10871, 10872, 10873, 10874, 10875, 10876, 10877, 10878, 10879, 10880, 10881, 10882, 10883, 10884, 10885, 10886, 10887, 10888, 10889, 10890, 10891, 10892, 10893, 10894, 10895, 10896, 10897, 10898, 10899, 10900, 10901, 10902, 10903, 10904, 10905, 10906, 10907, 10908, 10909, 10910, 10911, 10912, 10913, 10914, 10915, 10916, 10917, 10918, 10919, 10920, 10921, 10922, 10923, 10924, 10925, 10926, 10927, 10928, 10929, 10930, 10931, 10932, 10933, 10934, 10935, 10936, 10937, 10938, 10939, 10940, 10941, 10942, 10943, 10944, 10945, 10946, 10947, 10948, 10949, 10950, 10951, 10952, 10953, 10954, 10955, 10956, 10957, 10958, 10959, 10960, 10961, 10962, 10963, 10964, 10965, 10966, 10967, 10968, 10969, 10970, 10971, 10972, 10973, 10974, 10975, 10976, 10977, 10978, 10979, 10980, 10981, 10982, 10983, 10984, 10985, 10986, 10987, 10988, 10989, 10990, 10991, 10992, 10993, 10994, 10995, 10996, 10997, 10998, 10999, 11000, 11001, 11002, 11003, 11004, 11005, 11006, 11007, 11008, 11009, 11010, 11011, 11012, 11013, 11014, 11015, 11016, 11017, 11018, 11019, 11020, 11021, 11022, 11023, 11024, 11025, 11026, 11027, 11028, 11029, 11030, 11031, 11032, 11033, 11034, 11035, 11036, 11037, 11038, 11039, 11040, 11041, 11042, 11043, 11044, 11045, 11046, 11047, 11048, 11049, 11050, 11051, 11052, 11053, 11054, 11055, 11056, 11057, 11058, 11059, 11060, 11061, 11062, 11063, 11064, 11065, 11066, 11067, 11068, 11069, 11070, 11071, 11072, 11073, 11074, 11075, 11076, 11077, 11078, 11079, 11080, 11081, 11082, 11083, 11084, 11085, 11086, 11087, 11088, 11089, 11090, 11091, 11092, 11093, 11094, 11095, 11096, 11097, 11

10524. Beck, Helen L., et al. *American Journal of Orthopsychiatry*, 1971(Jun), Vol. 31(12-A), 6392. — Presents digests of 12 of the papers presented at the 48th annual

meeting of the American Orthopsychiatric Association in 1971. Topics covered include early childhood education; cognitive development after age 5; national advocacy system for children; reading failures and a classroom approach to dyslexia; test behavior of disadvantaged children; and continuity of short-term residential care.

10525. Fowler, W. & Leithwood, K. A. (Ontario Inst. for Studies in Education, Toronto, Canada) **Cognition and movement: Theoretical, pedagogical and measurement considerations.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 523-532.—The paucity of recent development research concerned with complex gross motor learning, particularly in the young child, can be partly attributed to lack of conceptual constructs and accompanying analytic-evaluative instruments. Such learning requires forms of cognitive mediation apparently fostered by analytic-integrative modes of teaching and learning. A theoretically based, empirically tested scheme for assessing the hierarchical complexity of gross motor tasks and sequences is elaborated in terms of both requisite cognitive involvement (structural organization) and underlying physical abilities (structural dynamics). The scheme is presented as 1 possible solution to the problem of quantifying task complexity and levels of skill to facilitate research and development in developmental psychology and education. (25 ref.)—*Journal abstract*.

10526. Garber, Howard L. (U. Wisconsin) **Indexing differential development in young children by the use of the Ivanov-Smolensky procedure.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6933.

10527. O'Reilly, Alora. (Los Angeles City Schools, Calif.) **Racial attitudes of Negro preschoolers.** *California Journal of Educational Research*, 1971(May), Vol. 22(3), 126-130.—Results indicate that while Negro preschoolers are certainly aware of sex roles and have a slight tendency to rate the Negro negatively, they are not as aware of racial differences as the children in a previous study. There was an equal association of positive with the Negro and Caucasian figures. There was more association of negative identification with the Negro, which may be the result of cultural influences. However, the difference was not great, which may be associated with the black movement trying to provide a positive identity for Negroes.—*Journal summary*.

10528. Preuett, James W. (Oklahoma State U.) **An exploratory investigation of the effect of imposing a heartbeat sound on kindergarten and first grade students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6955.

10529. Rosenbloom, L. & Horton, M. E. (U. London, England) **The maturation of fine prehension in young children.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 3-8.—The dynamic tripod is a finger posture of thumb, index, and middle fingers allowing a precision grip, as in holding a crayon. The development of this grip was studied in 60 boys and 68 girls ranging from 1.6-7 yr. old, all normal. It culminates a sequence, starting with a supinate grip, which is quickly superseded by a pronate grip.—P. W. Pruyser.

10530. Stine, Oscar C., Saratsiotis, John B., & Furno, Orlando F. (U. Maryland, Baltimore) **Children in the extremes of physical and psychological measurements.** *Journal of School Health*, 1969(Nov), Vol. 39(9), 636-641.—A study of the children in the extremes of 10 measurements made from 776 children confirmed previously identified correlations between height, weight,

and head circumference. Verbal maturity was correlated with height in the upper end of the distribution but not in the lower end. This is consistent with a group of verbally immature children whose problems are not related to their general growth.—*Journal summary*.

10531. Theron, Alexander. (Temple U.) **Children and adolescents: A bio-cultural approach to psychological development.** New York, N.Y.: Atherton Press, 1969. xvi, 365 p.—Based on the principle that "an individual's understanding of himself must begin with an understanding of his origin," and that "all human behavior is determined by both biological characteristics and the environmental characteristics of the culture into which an individual is born," the content and arrangement of the chapters have been planned to demonstrate this viewpoint.—A. M. Cawley.

10532. Vitová, Z. & Hrbek, A. (Charles U., Research Inst. for Child Development, Prague, Czechoslovakia) **Cerebral responses to repetitive photic stimulation during waking and sleep in children.** *Acta Nervosa Superior*, 1970(Nov), Vol. 12(4), 295-303. Studied photic "driving" during the waking state, drowsiness, and slow wave sleep in 144 infants (during their 1st 2 yr. of age) and 20 6-14 yr. old Ss. "Driving" was significantly less pronounced during sleep than in wakefulness in all age groups, except in the newborn period. The highest "driving" frequency and the percent time of "driving" declined in sleep; the amplitude of the "driven" rhythm and the optimal "driving" frequency were lower. Persistence of background EEG activity during stimulation and its mixture with "driving" was very prominent in sleep in comparison with the waking states. Occlusion, variation in excitability of different brain structures, or modification of afferent transmission may be possible factors underlying these changes. (Russian & Czech summaries) (25 ref.)—*Journal abstract*.

10533. Wyon, D. P. (Swedish National Inst. for Building Research, Lund) **Studies of children under imposed noise and heat stress.** *Ergonomics*, 1970(Sep), Vol. 13(5), 598-612.—Assesses moderate stress research as a field of study in which principles governing the choice of criteria of stress and strain are reviewed. Important parameters of moderate stress research are identified and placed in the context of an empirical scheme, with reference to which their interpretation and relevance are discussed. Studies by the author of 11-, 13-, and 17-yr-old children under imposed heat stress are used to illustrate the scheme and are interpreted in terms of arousal and effort. An approach to the study of noise in the moderate stress region is suggested, in which measures based on sound pressure level are unlikely to have much relevance. This view is supported by preliminary results from a study of 110 12 yr. olds under intermittent low-level noise. (French & German summaries) (29 ref.)—*Journal abstract*.

Learning

10534. Bartky, Murray S. (Arizona State U.) **The effects of mediation instructions for paired-associate learning and problem solving.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6393.

10535. Chartier, George M. (U. Oregon) **The effects of reward and punishment on identificatory learning in disadvantaged children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6253-6254.

10536. Fraisse, Paul. (U. Paris-Sorbonne, Lab. of

Experimental & Comparative Psychology. France) **La verbalisation d'un dessin facilite-t-elle son évocation par l'enfant?** [Does verbalization of the design facilitate its recall by the child?] *Année Psychologique*, 1970, Vol. 70(1), 109-122. In a free-recall task, 8-yr-old Ss remembered more drawings than verbal stimuli after 1 presentation. The effect decreased when the number of presentations increased. Further, verbalization of the content of the drawings when these were presented facilitated retention only when the drawing and its verbal description were complex. Since the verbal response was the same for both drawings and verbal stimuli, these findings indicate that the nature of the stimulus plays a greater role in retention than the response. This is interpreted on the basis of the greater short-term associative power that concrete stimuli have over verbal stimuli (19 ref.) *G. Rubin-Rabson*.

10537. Gorden, Joan C. (U. Georgia) **Children's reactions to response interruption as a function of perceived source of interruption.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6874-6875.

10538. Heckelman, Sol B. (Rutgers State U.) **Duo-process in children's free recall as a function of age, intelligence, and intralist similarity.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6934-6935.

10539. Horowitz, Frances D. (U. Kansas) **Research strategies and concepts of development and learning.** *Merrill Palmer Quarterly*, 1970(Jul), Vol. 16(3), 235-237. Presents introductory remarks to a series of papers given at a symposium on "The concepts of development and learning with implications for research strategies." On the current scene, methodological best-practices can hold widely divergent views as to the nature of development and as to the appropriate manner for the conduct of research in the quest to understand the laws which control development.—*R. V. Hamilton*.

10540. Larson, Dennis S. (U. South Dakota) **A comparison of punishment and other behavior elimination techniques with children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6942.

10541. McCowin, Janet D. (U. California, Berkeley) **Incidental free recall in children as a function of sorting instructions.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6408-6409.

10542. Murphy, Lois B., et al. (Menninger Foundation, Topeka, Kan.) **Children under three: Finding ways to stimulate development.** *Children*, 1969(Mar), Vol. 16(2), 46-62.—Discusses learning problems and the children's lack of interest in learning, resulting from the country's neglect of human needs. Problems with institutional care of children and fads in such care are noted. Criteria for use in evaluating proposals for early child care programs are suggested: adequate nutrition, handling of illness, stimulation, talking to baby, sensorimotor exercise, encouragement of skill mastery, and continuity in warm relationships. Interrelationships among these factors are discussed. Mentioned are several factors which may be instrumental in explaining the lack of curiosity and of development of creativity in underprivileged children and of the preschool activities which may aid in this development. Presented are 5 longitudinal research programs designed to provide cognitive and other stimulation to young children, some of the experiments training parents to be stimulators, and all of the research concerned with optimal environments for

adequate development. (20 ref.)—*D. T. Lekarczyk*.
10543. Nazzaro, Jean N., Rodrigues, Rachel, & Nazzaro, James R. (Chico Unified School District, Calif.) **Configuration variables in visual discrimination learning.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 45-50.—Configuration variables were examined in a 2-choice color discrimination study with 96 3rd and 4th graders. Stimuli consisted of 4 pairs of patterns varying in area, location, and contour. Fewest errors occurred when the pattern had closed contours, stimulus-response (S-R) contiguity, and a large area. Acquisition was poorest when pattern lacked both closure and S-R contiguity. The results suggest that a pattern attribute ought not to be considered as an isolated variable but should be examined in its relation to the other attributes of that pattern.—*Journal summary*.

10544. Roodin, Paul A. (Purdue U.) **Effect of relevant and irrelevant verbalization on intra-dimensional and extra-dimensional responding in kindergarten children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6300-6301.

10545. Shepp, Bryan E. & Gray, Vicky A. (Brown U.) **Some effects of variable-within and variable-between irrelevant stimuli on dimensional learning, and transfer.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 32-39.—Trained 224 kindergartners on a simultaneous discrimination with 1 visual dimension relevant and a 2nd irrelevant. The irrelevant dimension was varied either between or within trials. On the original problem, Ss were given either special training (which instructed them in the mode of solution) prior to conventional discrimination training or only discrimination training. Following the acquisition of the 1st problem, Ss were trained on either an intradimensional (ID) or an extradimensional (ED) shift. In the shift task, the irrelevant dimension was also varied either between or within trials. Results show that special training facilitated learning, but had no unique effect on performance in transfer. ID shifts were learned faster than ED shifts when the irrelevant array in shift varied within trials, but no shift difference was observed with the shift array varied between trials. Results underscore several weaknesses of current 2-stage theories of discriminative learning.—*Journal abstract*.

10546. Smothergill, Daniel W. (Syracuse U.) **Effects of temporal relationship between stimuli on children's discrimination learning.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 511-515.—Previous research indicates that temporal relations between discriminanda affect the discrimination process in children. An experiment was conducted to test 2 hypotheses: (a) simultaneous presentation of stimuli for same-different judgments results in learning the features which differentiate the stimuli; and (b) successive presentation facilitates learning a schema of the standard stimulus. A transfer of training paradigm was used with 96 6- and 7-yr-old children. Evidence of feature differentiation and schema learning was found; but both kinds of learning occurred under each of the presentation conditions. Procedural differences between this and other studies are noted as possible reasons for the discrepancies in results.—*Journal abstract*.

10547. Staats, Arthur W., Brewer, Barbara A., & Gross, Michael C. (U. Hawaii, Honolulu) **Learning and cognitive development: Representative samples, cumulative-hierarchical learning, and experimental-longitudinal methods.** *Monographs of the Society for*

Research in Child Development, 1970(Nov), Vol. 35(8), 85 p.—Reports "some of the findings of the senior author's long-extended research project on the cognitive learning of children. Although the focus is upon the research findings, especially those of the latter stages of the project, several more general areas are discussed. Thus, although the research has been conducted for its significance to the development of basic learning theory, it also involves substantive and philosophical methodological innovations, concerns theories of cognitive development, and has implications for a general conception of child development through learning."—A. Barclay.

10548. Stevenson, Harold W., Williams, Anne M., & Coleman, Edgar. (U. Minnesota) **Interrelations among learning and performance tasks in disadvantaged children.** *Journal of Educational Psychology*, 1971(Jun), Vol. 62(3), 179-184.—Administered 8 learning and 8 performance tasks to 50 4-5 yr. olds attending day care centers. Results give little support to positions positing differences in the learning processes of middle- and lower-class children. The intercorrelations were very similar to those previously obtained with middle-class children. Significant correlations were found between (a) paired-associate learning, serial memory, category sorting, and observational learning; (b) serial memory and observational learning; and (c) category sorting, serial memory, and observational learning. The only performance task with a high frequency of significant correlations with the learning tasks was instructions. The frequency of significant correlations between instructions and the learning tasks was greater than that found among the learning tasks themselves.—*Journal abstract.*

10549. Sullivan, Allen R. (Syracuse U.) **A comparative and developmental study concerning the influence of social processes and two stimulus conditions on paired-associate learning of elementary grade level Afro-American school children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6960-6961.

10550. Thomas, John W. (U. California, Berkeley) **Noun-pair learning as a function of concreteness, age, and response mode.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6418.

10551. Turpin, William B. (U. Alabama) **Intra- and extra-dimensional shifts in children as a function of old and new transfer stimuli.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6307-6308.

10552. Upadhyay, Surendra N. (Ravishankar U., Raipur, India) **Effectiveness of the differential sets in learning double alternation spatial mazes.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 26-28.—Investigated the effects of 2 differential instructions in learning the double-alternation paper-pencil mazes. Ss were 40 10-18 yr. old male school children. Equal number of Ss were assigned to positive and negative set and to RRL and LLRR sequences. Error scores were converted into Vincent scores at 25, 50, 75, and 100% levels of learning. Results using a 2-way analysis of variance showed the main and interaction effects to be significant. The positive set group showed superior learning to the negative group. With increase in trials there was a systematic progression of learning. Results suggest that not only does set play a deciding role in learning or problem-solving behavior, but differential effects of set were observed at various levels of performance.—K. C. Panda.

10553. Yang, Ellen A. (U. Washington) **Effects of sensory training procedures upon discrimination learning in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6250.

Concepts & Language

10554. Brainerd, Charles J. (Michigan State U.) **The construction of the formal operations of implication-reasoning and proportionality in children and adolescents.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6919-6920.

10555. Champagne, Audrey A. (U. Pittsburgh) **An investigation of the effectiveness of visual-motor experiences in the development of the ability to conserve mass.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6466.

10556. Denney, Douglas R. (U. Washington) **The effect of style and tempo of an adult model upon conceptualization in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6280-6281.

10557. Furby, Lita. (Yale U.) **The role of spatial visualization in verbal problem solving.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 149-150.—5th graders were examined for spatial visualization aptitude and ability to solve anagrams. The role of spatial visualization in successful anagram solution was found to depend upon the type of stimulus (word vs. nonsense anagram) presented to the S.—*Author abstract.*

10558. Griffiths, Robert H. (U. Cincinnati) **The effect of irrelevant redundancy and information regarding the rule for solution on oddity problem learning in young children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6289-6290.

10559. Hooper, Frank H. (Wayne State U.) **Plaget's conservation tasks: The logical and developmental priority of identity conservation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6936-6937.

10560. Johnston, Nancy M. (U. Toronto, Ontario, Canada) **An experimental investigation into the role of language in discrimination, memory and transfer in pre-school children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6938.

10561. Kauffman, James M., Payne, James S., & Ensminger, E. Eugene. (U. Virginia) **Quantitative judgments of culturally advantaged and disadvantaged preschool children.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 939-944.—Presented 4 quantitative judgment tasks in which psycholinguistic and motivational variables were minimized to 35 advantaged and 35 disadvantaged Ss comprising 7 age levels from 2.4 yr. through 4.7 yr. of age. Responses indicate that conservation-like cognitive operations may be affected by: (a) difficulty of the discrimination task, (b) presence of cultural disadvantages, and (c) age of advantaged Ss. (15 ref.)—*Journal abstract.*

10562. Kessel, Frank S. (U. Alberta, Center for Advanced Study in Theoretical Psychology, Edmonton, Canada) **The role of syntax in children's comprehension from ages six to twelve.** *Monographs of the Society for Research in Child Development*, 1970(Sep), Vol. 35(6), 95 p.—"3 features of recent research in language development formed the framework for this study. 1st, owing to the now common claim that syntactic development is essentially complete by the age of 5, the preschool years have commanded most research attention. 2nd, children's production of speech has been

studied more than their comprehension. 3rd. exclusion of a 3rd possible approach. To correct the balance somewhat in each case, this study focused on children's comprehension in the kindergarten and elementary school years, employing a mode of study similar to the "clinical method": used to great effect by Piaget."—A. Barclay.

10563. Lehman, Elyse J. (George Washington U.) **Age changes in attention to irrelevancy and redundancy.** *Dissertation Abstracts International*, 1971(May). Vol. 31(11-B), 6942-6943.

10564. Lesser, Harvey M. (New School for Social Research) **The development of the perception of causality in children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6878-6879.

10565. McClure, Sherman L. (Oregon State U.) **The application of cognitive dissonance theory to the acquisition of a Piagetian conservation task by selected elementary school children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6948.

10566. Miller, Patricia A. (U. Minnesota) **Attention to stimulus dimensions in the conservation of liquid quantity.** *Dissertation Abstracts International*, 1971(Apr). Vol. 31(10-B), 6297.

10567. Moskovitz, Sarah E. (Yeshiva U.) **Verbal and non-verbal pretraining as they affect sorting in pre-schoolers.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6409.

10568. Muhiar, I. S. & Jain, Uday. (U. Saugar, Saugar, India) **Development of conservation in rural urban school children: An experimental study.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 45-49.—Reports on the development of conservation of quantity in children. 60 6-7, 8 9, and 10 11 yr. olds were drawn randomly from rural and urban backgrounds, maintaining an equal number of cases within each age group. Ss were tested individually in a series of 5 experiments. Results showed that growth of conservation of quantity starts at an earlier age in urban schoolchildren. Rural and urban children do not differ in the use of perceptual cues to justify their judgments.—K. C. Panda.

10569. Schwartz, Carolyn R. (U. California, Berkeley) **Developmental aspects of class inclusion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6245-6246.

10570. Vandenplas-Holper, Christiane. (U. Louvain, Lab. of Experimental Pedagogy, Belgium) **Quelques modes d'approche du travail des écoliers: Etude de la compréhension des relations temporelles de simultanéité et de succession dans un énoncé.** [Some approaches to school work: Study of the comprehension of temporal relations of simultaneity and succession in an expression.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 48-60.—Presented, to 6-10 yr. old children taken individually, a set of sentences each consisting of 2 actions which were interconnected by either a simultaneous or a sequential relationship in order to determine the basis of understanding of these relationships. 1st- and 2nd-yr elementary schoolchildren understood these relationships intuitively. From the 3rd yr. on children started being attentive to the formal aspects made up of verbs, conjunctions, and adverbs of time, but in certain cases the formal aspects concealed the logical one although the latter seemed evident to younger children. The method of the individual interview has provided some information on a genetic (difficulties connected with the

understanding of simultaneity), a pedagogic (confusion of certain verbal forms), and an individual level (Flemish summary) (17 ref.)—*English summary*.

10571. Warner, Mary S. (U. New Mexico) **The effects of temporal variables on concept formation in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6309.

10572. Whitman, Robert N. (Wayne State U.) **Concept attainment as a function of intelligence and conceptual styles.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6885-6886.

Abilities

10573. Cacciaguerra, F. & Morabito, F. (U. Milan, Italy) **Rapporti tra sviluppo somatico e sviluppo intellettuale.** [Relationships between physical and intellectual development.] *Acta Medica Auxologica*, 1969, Vol. 1(3), 223-255.—Reports a case-series with 6-15 yr. old boys with various growth changes. A transversal and a longitudinal study were performed. From the 1st study, which considered the intellectual development in 977 boys, it was found that hypoevolutions, hyposomias, and obesities were not associated with mental delay and, were not particularly related to the intellect. Only a moderate correlation between body and mind was observed. In the 2nd study, the intellectual development in 151 Ss showing hypoevolutions, hyposomia, and leanness, under anabolic drug therapy, was examined. This therapy caused remarkable improvement in Ss with hypoevolutions, especially in those younger than 10 yr. However, no direct relationship existed between the 2 improvements. (French & German summaries) (121 ref.)—*English summary*.

10574. Chapman, Judith E. (U. Minnesota) **Mirror-image discrimination in pre-school children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6279.

10575. Feldman, David H. & Markwalder, Winston. (U. Minnesota) **Systematic scoring of ranked distractors for the assessment of Piagetian reasoning levels.** *Educational & Psychological Measurement*, 1971(Sum), Vol. 31(2), 347-362. Attempted to determine if a map reading test could be used to assess both a child's map reading skill and his level of reasoning ability according to Piaget's theory of cognitive development. The latter would be assessed by the analysis of the child's choice of distractors. A new instrument for measuring spatial reasoning was designed and validated based on conceptual analysis of a geographic map. All 25 items were designed to induce responses indicative of the 4 reasoning levels suggested by Piaget. The sample included 270 5th, 7th, and 9th graders evenly distributed across 3 different ethnic groups (black, white, and Chinese). The results tend to indicate that the instrument devised may be capable of measuring reasoning stage levels as well as map achievement. Results also show that children of different ethnic backgrounds tend to go through the same set of developmental stages and that children of specific developmental levels tend to select distractor indications of that level.—R. W. Covert.

10576. Joesting, Joan & Joesting, Robert. (North Carolina State U.) **Correlation of scores on the Picture Interpretation Test and Stanford-Binet Form L-M IQs.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 906.—Administered the Picture Interpretation Test (PIT) and the Stanford-Binet (SB) Form L-M to 27 4-13 yr.

old children. A Pearson product moment correlation of .60 ($p = .01$) was obtained between the PIT and SB IQ. The SB MA and the PIT correlated .65 ($p = .01$). After experience of educational stimulation, Ss' PIT scores improved significantly over those of a control group. Data suggest that children's IQs may be increased by exposure to the educational stimulation of a preprimary curriculum.—*Author abstract.*

10577. Kinnie, Ernest J. (Purdue U.) **The influence of nonintellective factors on the IQ scores of middle- and lower-class children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 21(10-B), 6260.

10578. Lin, Vo Ngoc R. (Southern Illinois U.) **Awareness of line relationship and its relationship with mental age.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6281.

10579. Maury, Liliane & Rogalski, Janine. (Ecole Pratique des Hautes Etudes, Paris, France) **Produit cartésien et complément: Etude génétique des conduites observées dans ces situations.** [Cartesian product and complementation: Genetic study of observed behavior in these situations.] *Année Psychologique*, 1970, Vol. 70(1), 53-71.—Compared the construction of Cartesian products and class complementation defined by the conjunction of 2 dimensions, color and form. For 48 6-10 yr. old Ss, some behavior patterns on 1 task could be used to accurately predict performance on the other. Simultaneous solutions for both tasks may appear at certain ages while differences in solution may vary as much as 1 yr. at other ages.—*G. Rubin-Rabson.*

10580. Northman, John E. (Purdue U.) **Visual and haptic-tactual information processing in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6298.

10581. Small, James F. (Duke U.) **Auditory-vocal and visual-motor language orientations in elementary school children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6268.

10582. Spitz, Herman H. & Borland, Maureen D. (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **Redundance in line drawings of familiar objects: Effects of age and intelligence.** *Cognitive Psychology*, 1971(Apr), Vol. 2(2), 196-205.—At optimum performance, line drawings of objects are approximately 50% redundant, as measured by the recognition levels maintained after varying percentages of lines have been deleted. Discriminative redundancy increases sharply up to age 8 yr., then gradually into adulthood, and is unaffected by mild mental retardation. It is inferred that, with increasing age, more aspects of familiar objects are converted into distinctive features. (31 ref.)—*Journal summary.*

10583. Tripathi, R. B. (Gorakhpur U., T. D. Coll., Jaunpur, India) **Predictive-validity of a non-verbal group test of general mental ability.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 29-31.—The predictive validity of a nonverbal group test of general mental ability was determined by administering the test to a group of 50 5th and 50 8th graders and by relating the IQ scores to their final examination marks. The coefficients of correlation were .60 (5th graders) and .58 (8th graders). The forecasting efficiency coefficients were low in both cases.—*K. C. Panda.*

10584. Weiss, A. A. (Hebrew U., Jerusalem, Israel) **Directionality in four Bender-Gestalt figures: II.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 412-414.—In an extension of a previous study by A. A. Weiss

(see PA, Vol. 44:2347), the direction of execution of 4 Bender-Gestalt figures (1, 2, 3, 6) was investigated in 168 locally educated Israeli boys and 143 girls attending Grades 3, 5, and 7. There were 279 right-handers and 32 left-handers with basic right-left reading-writing habits. Dichotomization for at least 3 as against no more than 2 left-right executions showed a stronger tendency in right-handers ($p < .01$) for left-right execution. Combination of these data and earlier data from kindergarten, 1st, and 9th grade Ss showed a marked increase of left-right executions from 48% in kindergarten to 92% in Grade 9. A plateau of 80, 78, and 81%, respectively, was observed in Grades 3-7. This may reflect the clash between the basic left-right drawing tendency emerging with increasing maturation and the right-left reading-writing habits becoming more firmly established between ages 9 and 13. Studying children with left-right reading-writing habits might confirm or disprove this interpretation of the plateau.—*Journal abstract.*

Perception

10585. Alberman, Eva D., Butler, Neville R., & Sheridan, Mary D. (National Children's Bureau, London, England) **Visual acuity of a national sample (1958 cohort) at 7 years.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 9-14.—Snellen tests on 14,197 children at age 7 showed 79% with 6/6 in both eyes; 96% with 6/9 or better in at least 1 eye. In children with glasses the proportion of those with 6/6 acuity was raised from 45-62% after correction.—*P. W. Pruyser.*

10586. Andersson, Alf L. & Ruuth, Egil. (Lund U., Sweden) **The relation between spiral aftereffect duration and Rod and Frame Test performance in early childhood.** *Psychological Research Bulletin, Lund U.*, 1971, Vol. 11(2), 14 p.—Assigned 21 female and 17 male 5-6 yr. olds to 1 of 3 groups on the basis of their spiral aftereffect durations. The group with an intermediate (initial) score was assumed to have reached a stage of relative autonomy from both extraceptive (nonself) and intraceptive (self) factors of perception. As predicted, this group was not as field dependent in the Rod and Frame Test as the other 2 groups, and did not score as extremely field independent.—*Journal abstract.*

10587. Elkins, Jane E. (U. Georgia) **Inhibition: The effects of sex on two perceptual phenomena.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6927-6928.

10588. Ihinger, Robert F. (Claremont Graduate School & University Center) **A study of interactions among various subject and stimulus attributes in determining patterns of visual selection.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6404.

10589. Kerr, Andrew S. (U. British Columbia Vancouver, Canada) **Determinants of auditory-visual integration in elementary school children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6405.

10590. Klapper, Zeldia S. & Birch, Herbert G. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Developmental course of temporal patterning in vision and audition.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 547-555.—Examined the ability to judge temporal patterns when they are presented visually and auditorily in 196 3-11 yr. old children. Ss did not make judgments at equivalent levels of accuracy for the same temporal

sequences presented visually and auditorily until they were 9 yr. of age. Competence in judging the patterns when visually presented was inferior in Ss under 9 yr. Ability to judge temporal sequences when presented in 1 sensory modality did not predict ability to make judgments of identical sequences in the other. Implications for function attaching to a differential developmental course for making temporal judgments of sequences presented in the 2 sense modalities are discussed.—*Journal abstract.*

10591. Landers, W. F., Cogan, D. C., & Hart, R. R. (Texas Technological Coll.) **Developmental changes in the perception of inverted triangular forms: Closure and order effects.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 587-592. 90 preschool and school age children judged the orientation of simple triangular forms of varying completeness presented in 1 of 3 orders: (a) increasing completeness, (b) decreasing completeness, and (c) random. Results indicate that number of correct responses varied as a function of age, degree of closure, and presentation order. A reliable Age \times Presentation Order interaction indicated that the random presentation order was more difficult for the younger Ss. Results were taken as substantial support for the perceptual development viewpoint typified by E. J. Gibson, D. O. Hebb, and J. Piaget.—*Journal abstract.*

10592. Mottola, Richard A. (U. Connecticut) **The development of auditory discrimination skills in kindergarten children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6284.

10593. Rothstein, Anne L. (Columbia U.) **Timing behavior in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6301-6302.

10594. Silverberg, Robert A. (New York U.) **The relationship of children's perceptions of parental behavior to the creativity of their children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6413-6414.

10595. Smith, Gudmund J. & Sjoeholm, Lena. (Lund U., Sweden) **Afterimage change in children following reversal of experimenter's theoretical message.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 503-509.—A previous finding by the present authors, that children's afterimages (AI) may be affected by the AI theory presented to them, was cross-validated with 29 9-10 yr. old Ss. The present study, where instructions were suddenly reversed in the middle of a series of 10 AI measurements, also showed that instruction effects were facilitated both by the S's ability to comprehend the instruction and the degree of correspondence between the "theoretical" message and the S's level of maturity.—*Journal abstract.*

10596. Visich, Eduard C. (Fordham U.) **A developmental study of dichotic listening.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6270.

10597. Wolk, Rochelle B. (Fordham U.) **The dimensions of future time perspective in black and white children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6272.

Personality

10598. Bigner, Jerry J. (Florida State U.) **The effects of sibling influence on sex-role development in young children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6093-6094.

10599. Cohen, Stewart. (U. Illinois) **Peers as mod-**

eling and normative influences in the development of aggression. *Psychological Reports*, 1971(Jun), Vol. 28(3), 995-998.—Examined the role functions of peers and adult socialization agents (mother, father, and teacher) on 2 dimensions of aggression-related experiences (modeling and norms). Ss were 108 male 4th and 6th graders. A standardized interview focusing on nonparticipatory observations of aggressive behavior and reinforcement-expectations for aggressive behavior served to provide response measures of differences among sources in providing experiences correlated with the acquisition and performance of aggressive behavior. Among sources surveyed, peer-related experiences were significantly more frequently representative of exposure to modeling and reinforcement contingencies associated with aggression, while reports of teacher behavior were least representative of these dimensions. *Journal abstract.*

10600. Corman, I. **Le thème du père nourricier dans le test projectif P.N. [The theme of the nurturing father in the Patte Noir projective test.]** *Revue de Psychologie Appliquée*, 1970, Vol. 20(4), 231-244. The Patte Noir test revealed transference of maternal roles to the father in 100 of 500 children sampled. 3 psychoanalytic hypotheses are advanced and discussed. Children seriously frustrated in their need for nourishment and love found the father a more gratifying substitute. Oedipal conflicts are further confounded in young males. The consequences of the manifest oral regression is evident in confusion of breasts and phallus, and frequent concomitance of anorexia and nocturnal enuresis. A. J. Hartman.

10601. Cummins, Shirley; Garms, Nancy, & Zusne, Leonard. (U. Tulsa) **Another note to Santa Claus.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 510.—In a replication of C. M. Solley and G. A. Haugh's study of size changes in drawings of Santa Claus in relation to the Christmas season, 222 5-9 yr. old children drew Santa Claus pictures on December 8, 16, and January 5. Statistical analysis shows only random changes in size of drawings and no age related differences.—*Author abstract.*

10602. Eska, Brunhilde E. (Purdue U.) **"Cognitive style" in young school age children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6238-6239.

10603. Marko, Július. (Research Inst. of Child Psychology & Pathopsychology, Bratislava, Czechoslovakia) **Vplyv školskej skupiny na formovanie sebavedomia. [Influence of the school group on the formation of self-consciousness.]** *Jednotná Škola*, 1971(Feb), Vol. 23(2), 145-162.—Defines self-consciousness as the image an individual has of his worth, ability, and importance in comparison with other people. Self-consciousness is considered to (a) play a central role in the formation of the individual's character, (b) be the product of the individual's contacts with his other social surroundings, and (c) have a comparatively constant character which enables the O to foresee fairly accurately the future conduct and behavior of the person observed. A study was conducted of the mutually appreciative attitudes of 254 pupils in the field of self-consciousness using a scale adapted from B. Dickey (see PA, Vol. 36:4JL16D). Ss having great and poor self-consciousness were distinguished by similarities between their self-appreciation and appreciation by their schoolmates. The influences on the formation of self-consciousness were

studied in the 2 groups with a specially arranged text. Conclusions are drawn and steps for reeducating pupils with an undesirable self-consciousness are outlined. (Russian summary)—*English summary*.

10604. Newirth, Joseph W. (U. Massachusetts) **Self-esteem and family interaction patterns: An experimental approach.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6265.

10605. Storm, Penelope A. (U. Maryland) **An investigation of self-concept, race image, and race preference in racial minority and majority children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6246-6247.

10606. Wolff, Craig M. (U. California) **Dependency, visual fixation, and electrodermal activity in the preschool child.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6311.

10607. Yarrow, Marian R., Campbell, John D., & Burton, Roger V. (National Inst. of Mental Health, Lab. of Socio-Environmental Studies, Bethesda, Md.) **Recollections of childhood: A study of the retrospective method.** *Monographs of the Society for Research in Child Development*, 1970(Aug), Vol. 35(5), 83 p.—Focuses "on retrospective reports as a source of information in the area of personality development. Retrospective reports have provided much of the substance in studies concerned with the role of early experience, child rearing, and parental functioning in personality development; and, to a very great extent, the Ss—parents and children—have been their own reporters. Endorsement of these procedures as yielding 'hard' research data is open to question on several grounds: Just how much can be observed by a participant O? How much can be retained and reported in retrospect? How much interference lies in the reporter and his involvement in the content of his recollections?"—A. Barclay.

Social Behavior

10608. Anant, Santokh S. (U. Lethridge, Alberta, Canada) **Belongingness and socialization: A developmental theory of belongingness.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 102-112.—According to psychoanalytic theory, a permissive environment would eliminate repression and conflict. The author, in his own work, found that many disturbed high school students came from permissive environments. Infants need to be cuddled and played with. Development of a feeling of belongingness is important for the emotional adjustment of the child. Importance of siblings for the development of this feeling has been demonstrated. The belongingness relationship may also be developed with parents of peers. The role of cultural-social factors in the development of belongingness is made clear by a comparison of primary and secondary group societies. The need to belong is probably innate. (36 ref.)—R. D. Nance.

10609. Bernstein, Maxine D. (Cornell U.) **Autocratic and democratic leadership in an experimental group setting: A modified replication of the experiments of Lewin, Lippitt and White, with systematic observer variation.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6712.

10610. Cohen, Harmon N. (Syracuse U.) **Imitative behavior in high and low dependent preschool children as a function of nurturance and nurturance withdrawal.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6871.

10611. Dominick, Joseph R. (Michigan State U.) **The influence of social class, the family, and exposure to television violence on the socialization of aggression.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6641.

10612. Dubner, Mary A. (U. Maryland) **Vicarious reinforcement and some personality factors in imitation learning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6895.

10613. Fischer, Robert I. (U. Massachusetts) **Interpersonal responses to stigma as a function of age.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6254-6255.

10614. Garrett, James B. (Ohio State U.) **The effects of intentionality upon children's reactions to inequity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6287.

10615. Gutman, Gloria M. (U. British Columbia, Vancouver, Canada) **Balance and agreement in children's social perception.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6714.

10616. Mutterer, Marcia L. (U. Wisconsin) **The effect of achievement and rule cues in an authority and contract context on amount, latency, and mode of deviation behavior of preadolescent boys.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6717-6718.

10617. Rehm, Jeffrey M. (U. Southern California) **The role of self-concept in the expectancy phenomenon.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6910.

10618. Schuh, James V. (U. Nebraska) **The effect of adult model nurturance and competence on preschool children's imitative behavior.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6245.

10619. Slaby, Ronald G. (U. Wisconsin) **Aggressive and helpful verbalizations as regulators of behavioral aggression and altruism in children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6958-6959.

10620. Spiegler, Michael D. (Vanderbilt U.) **The effects of commonality of modeled responses and vicarious punishment on imitative acceptance and recall.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6269.

10621. Tudor, Jeannette F. (Central Michigan U.) **The development of class awareness in children.** *Social Forces*, 1971(Mar), Vol. 49(3), 470-476.—Cognitive, behavioral, and evaluative dimensions of class awareness were related to the age, sex, intelligence, and social class backgrounds of children. 216 1st, 4th, and 6th graders of a public school system were tested with a picture test devised for this study. On the behavioral test (perception of social differences), age and sex were related to performance. On the behavioral test (recognition of behavioral correlates to cognitive cues), age, social class, and IQ were related to performance. The evaluative test (attachment of evaluations on the basis of cognitive cues), showed no significant results. Possible reasons for this are discussed.—S. Blackman.

Parent-Child & Family Relations

10622. Gordon, Edmund W. (Teachers Coll., Columbia U.) **"Parent and child centers: Their basis in the behavioral and educational sciences": An**

invited critique. *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 39-42. Critiques J. McV. Hunt's (see PA, Vol. 46:Issue 6) article in which he underlines theoretical bases for intervention in the development of young children, and also advocates intervention with parents in order to change the quality of a child's environment. The work is thought to suffer from insensitivity to political reality, not considering what might result from changes in society's maltreatment of the poor.—P. Hertzberg.

10623. Hillenbrand, Elizabeth D. (George Washington U.) **Father absence in military families.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6902-6903.

10624. Hunt, J. McV. (U. Illinois) **Parent and child centers: Their basis in the behavioral and educational sciences.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 13-38. Intervention aimed at teaching poverty mothers greater skills in child rearing can achieve gains in the measured competence of their children, and also enrich the lives of the parents. It is noted that the most obvious differences in competence exist between social classes rather than between races. Evidence from the behavioral and educational sciences is cited to support the belief (a) in the plasticity of behavioral development; (b) that a mutual interrelationship exists between lack of competence and poverty; (c) that competence does not develop automatically in genotypes of even the highest potential; and (d) that parents of poverty can be taught to become effective teachers of their young. (94 ref.)—*Journal abstract.*

10625. Sweet, June R. & Thornburg, Kathy R. (U. Missouri) **Preschoolers' self and social identity within the family structure.** *Journal of Negro Education*, 1971(Win), Vol. 40(1), 22-27.—Focused on the young child's comprehension of the family structure. The instrument was administered to 60 black and 60 white 3-5 yr. old Ss. The 1st task required that the S exhibit some ability to identify himself before he was expected to indicate his understanding of familial labels. Ss identified first with the members of the same sex and race. The findings were in agreement with previous studies. The succeeding tasks were administered and determined the S's ability to understand and verbalize his knowledge of the family. Age was a significant factor: 5-yr-old Ss scored higher than 4-yr-old Ss; and those who were 4 yr. old scored higher than 3 yr. olds. At each age level white Ss scored significantly higher than black Ss on familial tasks. There was no significant difference between boys and girls in the performance scores for this concept.—*Journal summary.*

ADOLESCENCE

10626. Adcock, Cyril J. & Martin, William A. (Victoria U., Wellington, New Zealand) **Flexibility and creativity.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 71-76.—In a study of closure factors in relation to creativity, a battery of 16 tests was administered to 188 10th graders. The resulting data plus other items of information were then subjected to a factorial analysis by computer. Of the 8 (oblique) factors which ultimately appeared, 6 were found to be germane to this study: 3 figural closure factors, 2 flexibility of closure (creativity) factors, and an academic achievement factor. These findings filled in a gap in the C. J. Adcock and M.

Webberley (see PA, Vol. 46:Issue 6) schema, and a suggested modification reducing this to a 7×2 form is presented.—*Author abstract.*

10627. Cashdan, Sheldon. (U. Massachusetts) **Social participation and sub-cultural influences in the study of adolescent creativity.** *Adolescence*, 1971(Spring), Vol. 6(21), 39-52.—Presents a synopsis of the author's views on creativity as multidimensional, with emphasis on talent and culture as 2 of these dimensions.—A. B. Warren.

10628. Crosby, John F. (Indiana U.) **The effect of family life education on the values and attitudes of adolescents.** *Family Coordinator*, 1971(Apr), Vol. 20(2), 137-140.—Attempted to determine whether attitudes held by adolescents toward themselves and their families could be changed in a positive direction as a result of participation in a 1-semester course in family life education. The 3 experimental and 3 control groups (public school girls, public school boys, and private school boys), were tested at the beginning and end of the semester. Pre- and posttests were identical: (a) a 25-item multiple-choice test designed to measure knowledge about human development, (b) a 50-item self-concept inventory designed to determine how an adolescent feels about himself, and (c) the Elias Family Opinion Survey. Results showed that students who took the family life education course achieved a greater knowledge of the concepts covered in the course curriculum, and had greatly improved self-concepts. While there was not a significant change in the adolescent's attitude toward his family, there were increasing degrees of familial acceptance and understanding.—M. W. Linn.

10629. Georis, Pol. (U. Brussels, Belgium) **Jeunesse inadaptée et intérêt professionnel.** [Job interests of maladapted youth.] *Revue Belge de Psychologie et de Pédagogie*, 1970(Jun), Vol. 32(130), 33-49.—A 210-item questionnaire covering 39 jobs, originated by R. Pasquasy and modified by the author, was given to 110 adolescents. Results were then compared with other research using the original instrument. Included are charts, tables, graphs, etc., concerning the relationship of age, IQ, and choice, as well as lists of jobs and the extent to which they were preferred. Despite the provocative results, the author cautions against the use of the results apart from a total battery of tests, and until the data have been followed up through time by means of longitudinal studies, as well as observation.—L. A. Ostlund.

10630. Hoffman, Leon J. (Illinois Inst. of Technology) **Conformity behavior of adolescents on an auditory discrimination.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6876.

10631. LaVoie, Joseph C. (U. Wisconsin) **Punishment and adolescent self control: A study of the effects of aversive stimulation, reasoning, and sex of parent.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6942.

10632. Müller, Michael. (Berlin-Kreuzberg District, School Psychological Advisory Bureau, W. Germany) **Was sich hinter einem "stillen" Kind an Problemen verbergen kann: Kasuistische Darstellung eines Schulversagens.** [Problems that can be hidden behind a "quiet" child: Case history of a school failure.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 261-265.—The school failure of a 14-yr-old high school boy seemed to be the result of tensions between the family members and within the child.

Treatment aimed at the reduction of these tensions is suggested.—H. A. Euler.

10633. Nelson, Deane D. (Moorehead State Coll.) **A study of personality adjustment among adolescent children with working and nonworking mothers.** *Journal of Educational Research*, 1971(Mar), Vol. 64(7), 328-330.—Sought to determine if there was a difference in personality adjustment as measured by the Minnesota Counseling Inventory (MCI) among 312 9th graders who were categorized according to their mothers' work history. The principal statistical model used for analyzing the differences in groups was analysis of variance—treatments by levels design. Findings reveal that (a) in all instances, the personality adjustment (as evidenced by MCI scores in 8 areas) of boys was better when the mother worked full time than if she worked part time or not at all; (b) the personality adjustment of girls did not follow a consistent pattern regarding the employment history of their mothers; and (c) on the majority of the MCI scales, girls with nonworking mothers had better adjustment scores than girls with mothers who worked either full or part time.—*Journal abstract*.

10634. Phillips, Morton. (New York U.) **Response to "double-blind" messages in relation to four dimensions of personality and to two maternal child rearing attitudes.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6299-6300.

10635. Pomp, Allan M. (Illinois Inst. of Technology) **Psychodiagnosis and psychosexual development of an adolescent population.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6266.

10636. Powell, Jay R. (Southern Illinois U.) **Some effects of positive and negative reinforcement on matching-to-sample with human subjects.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6300.

10637. Price, Joseph V. (Atlanta Adolescents Pregnancy Program, Ga.) **Adolescents/youth.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 293-306.—Presents digests of 13 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include the adolescent father; family therapy with delinquents; studies of teen-age drug users; a follow-up study of unwed mothers; family planning among pregnant black adolescents; therapeutic abortions in adolescence; and survival camp training for delinquents.

10638. Purpura, Peter A. (Fordham U.) **A study of the relations between birth-order, self-esteem and conformity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6266.

10639. Rode, Alex. (George Washington U.) **Perceptions of parental behavior among alienated adolescents.** *Adolescence*, 1971(Spr), Vol. 6(21), 19-38.—263 adolescents were given the short alienation scale and the parent behavior inventory. Correlations and factor analyses indicate that "individually alienated adolescents of both sexes perceive their parents, and particularly their mothers, as hostile, non-accepting, and as exercising control through psychological means such as the instilling of persistent anxiety. In adolescence, they tend to reject their parents—again, especially their mothers—whatever the nature of the parent-child relationship might have actually been at an earlier time."—A. B. Warren.

10640. Schiamberg, Lawrence B. (U. Illinois) **An exploratory study of adolescent alienation: An**

examination of selected theories and research. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6412-6413.

10641. Sterk, Sam. (197 North St., Buffalo, N.Y.) **Adolescent personality growth as a function of a counselor-in-training program.** *Adolescence*, 1971(Spr), Vol. 6(21), 93-106.—Studied the effects of training to be a counselor at a summer camp. The Minnesota Counseling Inventory was given before and after training to 13 boy and girl trainees. Significant differences attributable to training were found.—A. B. Warren.

10642. Thornburg, Hershel D. (U. Arizona, Coll. of Education) **Peers: Three distinct groups.** *Adolescence*, 1971(Spr), Vol. 6(21), 59-76.—Differentiates high school, noncollege, and college youth in terms of attitudes and values.—A. B. Warren.

10643. Wagner, Hilmar. (U. Texas, School of Education) **The increasing importance of the peer group during adolescence.** *Adolescence*, 1971(Spr), Vol. 6(21), 53-58.—Presents the author's ideas on the functions of the peer group in adolescence.—A. B. Warren.

10644. Weinreb, Howard R. (U. Maryland) **A comparison of the temporal perspectives and attitudes toward time of rural and urban adolescents.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6249.

10645. Welsh, George S. (U. North Carolina, Chapel Hill) **Vocational interests and intelligence in gifted adolescents.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 155-164.—Describes 4 new SVIB scales: S-1, high origence (preference for open, diffuse tasks), low intellectence (preference for the concrete); S-2, high origence, high intellectence (preference for the abstract); S-3, low origence (preference for the structured), low intellectence; and S-4, low origence, high intellectence. Ss were gifted adolescents who had participated in a prior study, receiving Terman's Concept Mastery Test and the D48 Test. Correlations were run between the ability and the interest scales. Interest scores were more highly correlated with verbal than nonverbal ability. S-1 and S-3 correlated negatively but S-2 and S-4 correlated positively with ability. Illustrative discussion of the relationships between interest and ability scales show verbal intelligence to be related to S-2, Psychology and Psychiatry scales. Other relationships suggest an interaction between ability and interest in the adolescents studied.—N. M. Chansky.

ADULTHOOD & OLD AGE

10646. Palmore, Erdman. (Ed.) (Duke U.) **Normal aging.** Durham, N.C.: Duke U. Press, 1970. xxiv, 431 p.—Presents the comprehensive report of the Duke Longitudinal Study of Aging, a 13-yr interdisciplinary project investigating the physical, mental, and social processes of aging among normal community residents. Papers by various investigator-authors, well known in the field of gerontology, cover topics of interest to researchers, academicians, professionals, and students in all aspects of the field.

10647. Postema, Leonard J. (Michigan State U.) **Reminiscing, time orientation, and self-concept in aged men.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6880-6881.

SOCIAL PSYCHOLOGY

10648. Ansbacher, Heinz L. (U. Vermont) **Individual**

psychology as ethical belief: Recognition by a Selective Service Board. *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 44-45. Reports a case in which a local Selective Service Board recognized conscientious objection which was based partly on the writings of Alfred Adler.—A. R. Howard.

10649. de Lannoy, Jacques. (U. Louvain, Belgium) *Ethologie et éthique: A propos d'un ouvrage de Wolfgang Wickler*. [Ethology and ethics: With regard to a work by Wolfgang Wickler.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 76-84.—Analyzes W. Wickler's work on the phylogenetic determinants of sexual and social relations. Implications drawn by the author for a confrontation between ethics and natural sciences are briefly discussed. (Flemish summary)—English summary.

10650. Hsu, Francis L. (Northwestern U.) *Psychosocial homeostasis and jen: Conceptual tools for advancing psychological anthropology*. *American Anthropologist*, 1971(Feb), Vol. 73(1), 23-44.—Considers that the basic importance accorded personality in psychological anthropology has obscured the understanding of how Western man lives in Western society and culture, or how any man lives in any society and culture. What is missing is the central ingredient in the human mode of existence: man's relationship with his fellow men. The concepts of psychosocial homeostasis and jen are designed to extricate psychological anthropology from this intellectual prison. The 1st describes the process whereby every human individual tends to seek certain kinds of affective involvement with some of his fellow humans. The 2nd refers to the internal and external limits of the individual's affective involvement. With the aid of 5 major hypotheses based on these concepts, a review is made of familiar facts drawn from China, the United States, and Japan. (29 ref.)—*Journal abstract*.

10651. Kallen, David J. (Michigan State U., Coll. Human Medicine) *Nutrition and society*. *JAMA: Journal of the American Medical Association*, 1971(Jan), Vol. 215(1), 94-100. Malnutrition during development leads to high infant mortality and smaller physical size. While severe malnutrition may lead to intellectual impairment, the direct relationship between moderate malnutrition and intelligence is still unknown. This is because both nutrition and intellectual development are associated with various social factors. While malnutrition is a medical problem, hunger is a social problem, complicated by the fact that the hungry are also subject to various other noxious social conditions. The negative effect of moderate malnutrition may stem from apathy in learning and other situations which relate to life success. It is noted that the persistence of hunger in the midst of affluence may well create as well as reflect attitudes and values among the affluent which are at serious variance with the values of democracy and equality. (41 ref.)—*Journal abstract*.

10652. Kline, Carl L., Rider, Katherine; Berry, Karen, & Elrod, J. McRee. (Children's Aid Society of Vancouver, British Columbia, Canada) *The young American expatriates in Canada: Alienated or self-defined?* *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 74-84.—Examines the response of increasingly large numbers of American young men to compulsory military service by emigration to Canada. Interviews were conducted on 30 military refusers and the wives of 16 who were married. There were 10 Ss in

each of the following categories: (a) draft refusers with landed immigrant status who were in Canada for more than 18 mo.; (b) draft refusers in Canada for less than 6 mo. with landed immigrant status; and (c) deserters with landed immigrant status. Viewing interaction between these men (and their wives) and their families, their society, and their new country of choice, provides insights into their commitments vs. their alienation.—*Journal abstract*.

10653. Schacht, Richard. (U. Illinois) *Alienation*. Garden City, N.Y.: Doubleday, 1970. lxx, 286 p. \$7.95.

10654. Schacht, Richard. (U. Illinois) *Erich Fromm and Karen Horney*. In R. Schacht, "Alienation." (See PA, Vol. 46:Issue 6) 115-152.

10655. Hosman, Jan & Borg, Gunnar. (U. Stockholm) *The metric structure of verbal expressions: A further investigation*. *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 12, 18 p.—The metric properties of the adverbs unusually, quite, very, pretty, rather, somewhat, and slightly were investigated by pairing them with the adjectives long and short. The subjective intensities corresponding to the verbal expressions were measured with the method of equal ratio setting using line length as matching continuum. The scale values for the verbal expressions were invariant up to a constant of proportionality under change of experimental conditions indicating that verbal expressions are measurable on a ratio scale. The variability of the individual scale values varied with experimental conditions. Results indicate that the frame of reference has a decisive influence on the degree of preciseness with which verbal expressions are used. (19 ref.)—*Journal abstract*.

CULTURE & SOCIAL PROCESSES

10656. Ekeh, Peter P. (U. California, Berkeley) *Dreams and society: A sociological analysis of Nigerian dreams*. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6713-6714.

10657. Hoffman, Gretel H. (U. Minnesota) *Life on the upper Mississippi: Social and psychological adaptations in a marginal rural area*. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 5774-5775.

10658. Johnson, Cornelia T., et al. (U. Connecticut, Health Center, Hartford) *Changing roles, laws, life styles*. *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 233-250.—Presents digests of 16 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include new mental health personnel; problems of the psychoanalyst in an evolving society; alternatives to the mental health model; abortion; and problems of special population groups, including the aged, draft dodgers, and the black woman.

10659. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) *Suicide and mutilation behaviors in non-literate societies*. *Psychological Reports*, 1971(Jun), Vol. 28(3), 801-802.—Examined a sample of nonliterate societies to determine whether there was an association between practices of mutilation and self-torture and the incidence of suicidal behavior. No association was found.—*Journal abstract*.

10660. Longres, John F. (U. Michigan) *Social conditions related to the acceptance of modern*

medicine among Puerto Rican women. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6716.

10661. Maslow, Abraham H. & Honigsmann, John J. (Eds.) **Synergy: Some notes of Ruth Benedict.** *American Anthropologist*, 1970(Apr), Vol. 72(2), 320-333.—Presents excerpts from the 1941 lectures of Ruth Benedict which call attention to the correlation between social and character structure, especially aggressiveness. Social orders characterized by high or low synergy, by a syphon or a funnel system of economic distribution, are compared for their different capacities to support or humiliate the individual, render him secure or anxious, or minimize or maximize aggression. Religion, an institution in which people apotheosize the cooperation or aggression their cultural life arouses, is described as differing between societies with high and low synergy.—*Journal abstract*.

10662. Rappaport, Julian, et al. (U. Illinois) **Class issues: Racial, social, economic.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 251-260.—Presents digests of 8 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include consultation to the poor, delinquent behavior, black-white marriages, studies of poverty children, and consultation in a black urban ghetto.

10663. Young, David E. (Stanford U.) **A socio-psychological analysis of color preference in Japan.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6396-6397.

Ethnology

10664. Blum, Zahava D. & Coleman, James S. (Johns Hopkins U., Center for Social Organization of Schools) **Longitudinal effects of education on the incomes and occupational prestige of blacks and whites.** *Center for Social Organization of Schools Report*, Johns Hopkins U., 1970(Jun), No. 70, 63 p.—Analyzed the life history data of a national sample of black and nonblack males who reached the ages of 30-39 in 1968 to examine differences in occupational growth. The lower levels of occupational growth attained by blacks in income and prestige were found to be due to lower growth rates rather than lower starting points. The relatively small continuous effect of education on income was slightly smaller for blacks than for nonblacks. For blacks, the positive effects of education were eroded by unmeasured factors which made high incomes less stable than for nonblacks. The continuing effects of educational levels on occupational prestige were somewhat larger than on income. While these effects were greater for nonblacks, the occupational prestige of blacks was more stable. The effect of education and the greater regression effect seemed to balance each other, with the result that the black and nonblack distributions of prestige remained in the same relative positions. For blacks, mother's education was of greater importance to son's educational attainment than father's education and occupation. For nonblacks, these 3 factors were of approximately equal weight. When the son's own education was controlled, these factors had minimal effect on income and prestige, except for the direct effect of mother's education on the income of blacks. (24 ref.)—*Journal abstract*.

10665. Cameron, Paul. (U. Louisville) **Personality differences between typical urban Negroes and**

whites. *Journal of Negro Education*, 1971(Win), Vol. 40(1), 66-75.—416 whites and 200 blacks were proportionally selected from census tracts. Ss were interviewed by 250 college students and asked to complete "varying combinations" of (a) the Canter short form of the Barron Ego Strength scale, (b) the Eysenck Personality Inventory, (c) the Cameron religious dimensions scale, (d) the Sarason Hostility scale, (e) the Berdie masculinity-femininity checklist, and (f) 2 rating scales using F tests. Results indicate that blacks were less neurotic, more candid, less hostile, more "claimed judged liking by the generalized other," and more religious. Results are discussed, and it is concluded that "both populations appear far more similar psychologically than different."—W. E. Sedlacek.

10666. Gue, Leslie R. (U. Alberta, Edmonton, Canada) **Value orientations in an Indian community.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 19-31.—Florence Kluckhohn's theory on method was used to examine the value orientation of several Canadian Indian groups. Among the dimensions examined were relational (lineality, collaterality, and individualism), man-nature (harmony and mastery), and activity (being and being in becoming). Contrasts were made between the children of Indians with whom the government had made treaties and those métis with whom no treaty was in existence. Among the differences noted were that métis stressed individualism more than did treaty children. Treaty children were, moreover, more indecisive. In the activity area, métis put "doing orientation" in 1st place whereas treaty children placed "being in becoming" 1st. Other findings suggest congruence between Indian and non-Indian peoples in several areas assessed in the study, suggesting potential areas of cooperation between the groups.—N. M. Chansky.

10667. Loye, David. (New School for Social Research) **Kurt Lewin and the black-and-white sickness.** *Psychology Today*, 1971(May), Vol. 4(12), 70, 73-76.—Lewin will be remembered for his conception of action research which is very relevant for contemporary social problems, e.g., (a) in the 1930s and 1940s he demonstrated how America's racial tensions could be reduced, (b) he saw that black pride was an essential ingredient in the advancement of blacks, and (c) was able to reduce prejudice against Jewish applicants to American colleges. His ideas about attitude change suggest that present national civil rights policies may permit antiblack prejudice to become as strong as in past decades.—E. J. Posavac.

Social Structure & Social Role

10668. Allen, Robert F. (Newark State Coll., Lab. of Applied Behavioral Sciences) **Keine Rolle für Unbeteiligte: Eine Erwiderung zu dem Aufsatz von Martin Lakin.** [No role for nonparticipants: A rejoinder to Martin Lakin's article.] *Gruppendynamik*, 1970(Jul), No. 3, 270-271.—In many respects M. Lakin's reasonings in his article "Training for Mississippi" are accepted. To his factors for the trainers' failure a more important and basic one is added, that is the long history of apathy of behavioral scientists in important movements for democratic changes in society. This lack of participation has led to the image of behavioral scientists as defenders of the status quo and of the existing power structure. While Lakin considers idealism and involve-

ment incompatible with trainers' task, the author pleads for identification with and action for the cause. The author believes it is insufficient to speak of democratic process and dedication to humanity. People like to have these images but lack of fighting for these ideals contradicts their beliefs. Values for which verbal commitments have been made have to be reexamined and be followed.—*M. J. Stanford.*

10669. Dixit, Ramesh C. & Sharma, Deo D. (U. Jodhpur, India) **Transformation of social and religious values of different castes.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 117-119.—Since 1947, the year of India's freedom, its society has been increasingly acknowledging the obligation to care for various types of disadvantaged persons. This concern reflects a regard for freedom and equality. The present investigation studied the transformation of caste-originated values of educated Ss. A modified Allport-Vernon-Linzey Study of Values was administered. Ss were 80 males randomly selected from the high schools and a university. The meaning and function of caste appear to be changing rapidly. Preferences and privileges granted by the government to the Sudras (untouchables) have resulted in a greater feeling of social superiority over other castes. Educated people have changed much more than the uneducated in respect to caste attitudes.—*R. D. Nance.*

10670. Gough, Harrison G. (U. California, Berkeley) **A cluster analysis of Home Index status items.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 923-929.—Examined the internal dimensionality of the Home Index, a measure of socioeconomic status. A cluster analysis of the item matrix was conducted, using 1,379 student protocols drawn from 14 high schools. 4 clusters were identified: social status, ownership, sociocivic involvement, and aesthetic involvement. Intercorrelation of clusters in new samples of 379 males and 383 females yielded coefficients ranging from .21-.38, with median of .28. Scores were also related to scholastic achievement, intellectual ability, and father's occupation. Normative data from a sample of 2,284 Ss are presented. (20 ref.)—*Journal abstract.*

10671. Han, Wan S. (Seoul National U., S. Korea) **Alienation, deviation-proneness, and perception of 2 types of barriers among rural adolescents.** *Social Forces*, 1971(Mar), Vol. 49(3), 398-413.—Accounts for rural adolescents' powerlessness alienation and deviation-proneness in terms of their perception of 2 types of limited "reality" (limited opportunity and limited ability). These perceived limitations are interpreted to be the main barriers in the pursuit of success goals in a mobile society where the ideology of success and ability-based-achievement is culturally extolled. Ss were divided into 4 types in terms of 2 independent variables, aware and not-aware of limited opportunity and aware and not-aware of limited ability. These 4 types were comparatively analyzed. The perception of opportunity limitations was treated as a symbolic variable and was assessed for its influence on powerlessness and anomie as compared with that of family status as a structural variable. Perception of limited opportunity (PLO) was a better predictor of alienation than socioeconomic status of origin (SESO). A multivariate analysis further suggests that PLO as a definition of the situation operates as an "interpretative-intervening" variable without which SESO has little effect on adolescents' alienation. The influence of PLO upon powerlessness was not greater

among those with high perception of limited ability (PLA) than among those with low PLA. *S. Blackman.*

10672. Kaley, Maureen M. (State U. New York, Downstate Medical Center, Brooklyn) **Attitudes toward the dual role of the married professional woman.** *American Psychologist*, 1971(Mar), Vol. 26(3), 301-306.—Evaluated the attitudes of professional men and women toward the married professional woman's dual role in terms of 6 variables. Data were based on 60 of 90 questionnaires sent to persons affiliated with a university research organization and a social service agency. There were significant differences within the group for the variables of sex and profession but no significant differences for education, age, race, and professional experience. Findings indicate that while married professional women had positive attitudes toward the professional woman's dual role, negative attitudes were held by the case workers and the married professional men. It is concluded that negative attitudes toward this dual role both in- and outside of the professional community may indicate why few women prepare for and pursue professional careers. (21 ref.)—*P. McMillan.*

10673. Parker, Seymour & Kleiner, Robert J. (U. Utah) **The culture of poverty: An adjustable dimension.** *American Anthropologist*, 1970(Jun), Vol. 72(3), 516-527.—Examines the D. Moynihan report on the existence of a subculture of poverty among the Negro poor. Some sociologists and anthropologists feel that much of the "deviant behavior" of this group is actually normative and transmitted in the socialization process, while others maintain that such behavior is not normative and represents merely situational responses to extreme poverty and other forms of deprivation. Interviews with 1,489 20-60 yr. old urban Negroes and 1,423 mentally ill Negroes in the same age range from the same city indicate that Negroes living in poverty hold attitudes (a) that can be characterized as a "subculture of poverty;" (b) that such attitudes represent but 1 segment of the total range of attitudes and reference values held by this population, many of which are shared by the larger society; and (c) that these attitudes serve to maintain the mental health of those living in a severely disadvantaged social situation. (21 ref.)—*Journal abstract.*

10674. Sigh, Narayan P. (Delhi U., India) **N/Ach, risk-taking and anxiety as related to age, years of schooling, job-experience and family: Commitment among progressive-traditional, successful-unsuccessful agricultural entrepreneurs of Delhi.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 113-116.—Little empirical evidence has thus far been available to describe precisely the relationship of psychological and physical variables in entrepreneurship. The present study attempts to fulfill that need. Different subgroups of agricultural entrepreneurs of Delhi were studied. 80 farmers, 1/2 successful and 1/2 unsuccessful, were drawn randomly. They came from 4 traditional and 4 progressive border villages. 3 tests were administered individually to the Ss. Of 108 correlation coefficients, 6 were significant.—*R. D. Nance.*

Religion

10675. Anderson, George C. (Academy of Religion & Mental Health, New York, N.Y.) **Maturing religion.** *Pastoral Psychology*, 1971(Apr), Vol. 22(213), 17-20.

—The mature individual is a symbol rather than a fact. A person develops or uses his religion according to his psychological needs. The nature of these needs determines the nature of one's religion. But applying mental health criteria to religion is a limited approach. The "search for meaning is what makes man religious, whether he be healthy or not."—O. Strunk.

10676. **Ansbacher, Heinz L.** (U. Vermont) **Religion and individual psychology: Introduction.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 3-9.—Depicts Alfred Adler as "an original humanistic psychologist," appreciated by clergymen of different religious persuasions.—A. R. Howard.

10677. **Broadus, Loren.** (Lexington Theological Seminary, Ky.) **A constructive approach to frustration in the practice of ministry.** *Pastoral Psychology*, 1971(Apr), Vol. 22(213), 39-44.—Defining frustration as the feeling which results when a goal is not attained or not attainable at the desired time, it is claimed that frustration blocks creativity and wastes time and energy. Effectively dealing with frustration involves (a) becoming intellectually aware of frustration as a problem, (b) identifying the cause of frustration, (c) deciding on a course of action, (d) deciding when the action will take place, and (e) acting itself.—O. Strunk.

10678. **Cassel, Russell N.** (U. Wisconsin, Milwaukee) **Psychological aspects of religion in the life of man.** *National Catholic Guidance Conference Journal*, 1971(Spr), Vol. 15(3), 205-207.—Discusses (a) the relation between religion and psychology, and (b) the union of man with God. Also discussed in relation to the latter is the expression of this movement to union as religion and its role, behavioral rewards and sanctions, conscience, and the ego ideal and its strength.—A. M. Cawley.

10679. **Davison, James E.** (Free U., Amsterdam, Netherlands) **On transference.** *Pastoral Psychology*, 1971(Apr), Vol. 22(213), 21-28.—Generally, "it would be better for pastors to be aware of transference and to be on the lookout for it, but not to attempt to foster it . . . Such knowledge of and ability to use transference will provide the pastor with 1 more means of understanding his parishioners . . . 1 more way of helping them to build more enriching roles as whole persons." (18 ref.)—O. Strunk.

10680. **Ferrell, Donald R.** (Doane Coll.) **Anxiety and the death of God.** *National Catholic Guidance Conference Journal*, 1971(Spr), Vol. 15(3), 200-205.—Attempts to use the Judeo-Christian perspective to give a theological analysis of anxiety—in the time of the death of God. Presents the difficulties involved because the precursors, Nietzsche, Freud, Marx, Blake, Buber, and Tillich, have so little common agreement as to the meaning of the claim that God has died. The aloneness in which man is left generates anxiety for the future as he projects it in the light of his value system. How do we trust in a world without God? Uncertainly, is it manifested in the drug experience, in the attempt to humanize institutions, in commitment to the here and now?—A. M. Cawley.

10681. **Hall, Robert W.** (U. Vermont) **Alfred Adler's concept of God.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 10-18.—Adler views God both "as a synthesis of Being and Value, and as a being that is to be imitated by man whereby man strives for an imitatio dei." His conception aims to further his ideal of community. "If the feeling of inferiority present in man

is complemented by the development of his tendency towards God or the societal community, the individual will attain the appropriate self-realization."—A. R. Howard.

10682. **Nelson, Marvin O.** (Rockland Community Coll.) **The concept of God and feelings toward parents.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 46-49.—Results on the Q-Test for Parent-Deity Concepts provided by 84 Ss supports Adler's view of the concept of God as "concretization and interpretation of the human recognition of greatness" rather than Freud's view of the God concept as the projection of one's attitude toward his father.—A. R. Howard.

Cross Cultural Comparison

10683. **Child, Irvin L.** (Yale U.) **The experts and the bridge of judgment that crosses every cultural gap.** *Psychology Today*, 1968(Dec), Vol. 2(7), 24-29.—A comparison of the judgments of the relative aesthetic quality of 3,133 pairs of paintings made by expert judges revealed a very large degree of agreement. Cross-cultural studies showed that: (a) the men of a Bantu tribe, Bakwele, most familiar with ritual masks, (b) Japanese potters, and (c) native artists on the Fiji Islands agreed with the judgments of Western art experts to a statistically significant degree. In some studies Western art was used and sometimes local art was used. These relationships suggest that there is some generality to aesthetic principles and that there may be personality similarities among those who do become artists regardless of culture.—E. J. Posavac.

10684. **Day, Harry R.** (Cornell U.) **A cross-national study of coalition formation: Philippines versus United States.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6713.

10685. **Dayal, Ishwar & Saiyadain, Mirza S.** (Indian Inst. of Management, Ahmedabad, India) **Cross cultural study of behaviour in groups.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 8-13.—Reports on the nature of group processes in a laboratory situation in India and provides a cross-cultural comparison with the findings from Western studies. 57 undergraduates were randomly divided into 4 groups. The study had 2 phases of group discussions, each of 40 min. duration. Results showed that effectiveness of the groups engaged in tasks depends upon a number of things, i.e., how involved are the members of the group task, how they are accepted by the group, and what kind of interaction exists in the group. Cross-cultural similarities in group processes are noted.—K. C. Panda.

10686. **Fay, Todd L.** (Northwestern U.) **Culture and sex differences in concepts of sex role and self.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6239.

10687. **Inomata, Satoru & McGinnies, Elliott.** (Shiga U., Otu-City, Japan) **Social attitudes among Japanese and American teenagers: I. Girls.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 88-101.—Since 1945, the Japanese have adopted many of the practices of American-style democracy. Japanese adolescents have grown up in this new climate. The present survey was patterned after one done with American teen-agers 11 yr. earlier. 46 prefectures were classified with respect to selected ecological variables. The final sample included 2,010 11-18 yr. old girls, and was considered to be repre-

sentative of the more than 7 million Japanese girls that age. Items covered included orientation to the future, family setting, friendship and dating, and activities and interests. Findings provide a basis for understanding the changing role of youth in Japanese society.—R. D. Nance.

10688. Mar'i, Sami K. (U. Wisconsin) **Creativity of American and Arab rural youth: A cross-cultural study.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6407.

10689. Rosenblatt, Paul C. (U. Minnesota) **Communication in the practice of love magic.** *Social Forces*, 1971(Mar), Vol. 49(3), 482-487.—In a cross-cultural study of 23 societies, evidence is presented in support of the hypothesis that love magic (magical rather than direct activity designed to win a desired sex object) is often, perhaps ordinarily, a form of indirect communication in the development of male-female bonds. Among the accomplishments of indirect communication by means of love magic are anxiety reduction and face-saving for practitioners and various things that may promote success, e.g., flattery of the victim, a disposition in the victim to reciprocate interest, and a sense of intrigue. It is also suggested that the use of go-betweens may be in part a functional alternative to love magic.—S. Blackman.

10690. Scribner, Sylvia. (New School for Social Research) **A cross-cultural study of perceptions of mental disorder.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6246.

Family

10691. Bullough, Vern L., Bullough, Bonnie; Voight, Martha, & Kluckhohn, Lucy. (San Fernando Valley State Coll.) **Birth order and achievement in eighteenth century Scotland.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 80. Finds support for the eminence of 1st-born children in a sample of 227 persons born between 1685-1785.—A. R. Howard.

10692. Dielman, Teddy E. (U. Hawaii) **A multivariate investigation of correlates of child behavior in a Hawaiian community.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6925.

10693. Goodwin, Beatrice. (New York U.) **An investigation of the relationship between psychoprophylaxis in childbirth and changes in concept of self and concept of husband.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6714.

10694. Hinkle, John E. & Moore, Marvin. (Colorado State U.) **A student couples program.** *Family Coordinator*, 1971(Apr), Vol. 20(2), 153-158.—Describes a series of workshops that have been developed at a university. The workshops are conducted for married and engaged college students who already have a healthy relationship. Focus is on the teaching of concepts and exercises for improving communication, expressing affection, and learning constructive fighting techniques. Workshop content and format are described in adequate detail, with sufficient pre- and postevaluation. Also included is feedback from the couples to show strong benefits from the workshops toward the goal of relationship enrichment.—M. W. Linn.

10695. Marsh, Kenneth F. (U. North Carolina, Chapel Hill) **Interdependence of self-concepts in marital dyads.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6907.

10696. Richardson, Charles E. (Southern Illinois U.) **Education for family planning.** *Journal of School Health*, 1969(Oct), Vol. 39(8), 537-543.—Discusses some of the major unresolved problems in the area of education for family planning.—G. S. Spitzer.

Social Change & Social Programs

10697. Abu-Laban, Baha. **Factors in modernization of Lebanese youth.** *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(1-3), 40-54.—Reports on part of a 1965 questionnaire survey of values and social behavior of 2,466 predominantly male students in 25 Lebanese secondary schools. Indicators of modernization (positive attitudes toward residential mobility and working wives) and differences in mass media exposure were related to ethnic, religious, regional, and social class variables. Modernization trends were strongest among rural, Moslem, Armenian youth.—C. Mayo.

10698. Anderson, David A., et al. (U. Rochester) **Changing structures: Social, institutional, economic.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 213-232.—Presents digests of 18 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include use of the ombudsman—a liaison between clients and administrators—in institutions, bureaucratization vs. positive organizational change in mental health institutions, change in the black community, social work training, influence of mass media on national health insurance, and mental health care.

10699. Crawford, Thomas J. (U. California, Berkeley) **Value judgments and judgments about values: A reply to Sawyer.** *Psychiatry, Washington, D.C.*, 1971(Feb), Vol. 34(1), 99-102.—Discusses J. Sawyer's critique (see PA, Vol. 46:Issue 5) of the T. J. Crawford and M. Naditch (see PA, Vol. 45:8061) article. It is stated that although Crawford and Naditch are aware of altruistic ethics among students, competitive materialistic orientations "are the prevailing mode in U.S. society."—E. M. Uprichard.

10700. Flacks, Richard. (U. Santa Barbara) **Protest oder Konformität: II. Sozialpsychologische Perspektiven der Legitimität.** [Protest or conformity: II. Sociopsychological perspectives of legitimacy.] *Gruppendynamik*, 1970(Jul), No. 3, 305-311.—The endeavor of American government to maintain her empire is irreconcilable with continuation of legitimacy. The state can no longer respond adequately to the demands of the disadvantaged. The state forces social controls that are antidemocratic. Organizational forms are kept alive which hinder the political system to give expression to cultural changes that are happening in society. The impression is that those who refuse military service and the Black Panthers are the authentic avant-garde of a new social and political order. The government may respond with repressive measures and also mobilize the population for maintaining order at the cost of freedom. The new characterological and cultural developments, however, suggest a new social system in which militarism, racism, nationalism, and imperialism become illegitimate and in which dignity and conscience of the individual and collective participation in decisions form the basis for legitimate authority. (17 ref.)—M. J. Stanford.

10701. Gross, Feliks. **Bonagente: Value structure and social change.** *Revue Internationale de Sociologie*,

1970(Dec), Vol. 6(1-3), 85-120.—Based on field research in 1957-1958, interviews were conducted on collective value goals in an Italian village community. Cultural-ecological, socioeconomic, and political social structures of the community are described. 6 shared core values were identified: work, political freedom and freedom of movement, order in public affairs, justice, equalitarian economic practices, and dignity and respect. It is suggested that these core values are most salient in periods of active social change.—C. Mayo.

10702. Hoffmann, Michel. **Vers une typologie des attitudes et des aspirations des jeunes africains face à la modernisation.** [Toward a typology of attitudes and aspirations of young Africans who are faced with modernization.] *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(1-3), 147-159.—Interview data collected in 1968 from 1,000 15-30 yr. old young Africans were organized into a typology of attitudes toward modernization. Questions dealt with current social changes, transitional difficulties, traditional customs, and the modern nation. Based on descriptions of a "successful acquaintance," 3 types emerged: those with no such model (predominantly illiterate, rural, and female), those with an agrarian village model (27%), and those with a modernized success model (43%). Within these types, subgroups were distinguished according to life satisfaction or discontent.—C. Mayo.

10703. Matejko, Aleksander. **Task versus status: The contradiction of modernization.** *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(1-3), 329-354.—Based on social systems theory, equilibrium between task and status orientations is described as critical to social change. Elitist and egalitarian models are presented for both task and status orientations, e.g., American capitalist democracy is described as a combined model, task-oriented elitist and status-oriented egalitarian. Modernization is furthered by a task orientation bolstered by the development of education and mass media and retarded by a rigid status orientation. The model is applied to underdeveloped nations including Ethiopia, China, Africa, and Cuba.—C. Mayo.

10704. Nahrendorf, Richard O. **Social change and violence.** *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(1-3), 355-390. Defines violence as the abuse of strength in an attack on that which is protected by social control, and analyzes law from philosophical, ethnological, and psychological perspectives. Individual and group violence are distinguished from group protest for social change. Based on a review of current civil strife in the United States, the causal relation of violence to social change is questioned. (33 ref.)—C. Mayo.

SEXUAL BEHAVIOR

10705. Irving, Lewis H. (U. Oklahoma) **A study of environmental factors of the unmarried mother in Oklahoma.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6722.

10706. Touhey, John C. (U. Nevada) **Birth order and virginity.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 894.—Examined the relationship between ordinal birth position and sexual experience in 78 male and 96 female unmarried undergraduates. 1st-born females were more likely than later-born females to report an incidence of premarital intercourse ($p < .01$). For males the relationship between birth order and incidence of intercourse was also positive ($p < .05$), but attained a

reduced level of confidence. Findings suggest a more rapid assumption of adult rights and privileges by 1st-born Ss.—Author abstract.

10707. Wolf, Arthur P. (Stanford U.) **Childhood association and sexual attraction: A further test of the Westermarck hypothesis.** *American Anthropologist*, 1970(Jun), Vol. 72(3), 503-515.—Studied E. Westermarck's contention that intimate childhood association promotes sexual aversion. A preliminary study of household registration records from Taiwan covering the period of 1900-1925 and information from informants support Westermarck's conclusion. Women who were forced to marry a childhood associate (a) bore fewer children, (b) were more likely to leave or divorce their husbands, and (c) were more likely to commit adultery. Evidence suggests that the incest taboo does not prohibit what men's feelings incline them to do, but is instead an expression of these feelings, socially unnecessary but psychologically inevitable.—Journal abstract.

Birth Control & Abortion

10708. Keller, Alan B., Sims, John H., Henry, William E., & Crawford, Thomas J. (Cornell U., International Population Center) **Psychological sources of "resistance" to family planning.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3), 286-302.—Using 10 Negro couples identified as "users" of contraceptives effectively in the past 2 yr. and 10 Negro couples identified as "nonusers" who continued to have or risk having children (beyond 3), the groups were matched on other variables, several psychological assessment instruments and interviews were used to measure the following variables: (a) feelings of efficacy, (b) relative need for autonomy vs. need for dependency, (c) need for achievement, (d) tendency to plan ahead, (e) need for emotional contact with others, (f) perceptions of others' perception of self, (g) feelings about sex identity, (h) perceptions of the opposite sex, (i) perceptions of children, and (j) degree of impulse control. The results were statistically analyzed by the Fisher exact probability and the chi-square tests. Multiple factors seem to bear on contraceptive behavior. Most "nonusers" seemed to manifest most of the traits thought conducive to small families. The differences in contraceptive behavior between "nonusers" and "users" appeared to be the result of differing psychological patterns each composed of many traits. It would also appear that feelings about sex identity, feelings of efficacy, and the quality of relationships with others, including the spouse, may override other factors in determining contraceptive behavior; and that in the absence of strong pressure for low fertility from the male, the psychological make-up of the female is more crucial in determining contraceptive behavior. R. V. Hamilton.

10709. Ohadike, Patrick O. **Normative and attitudinal transformation in family size values and birth control in a modernizing African community.** *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(1-3), 391-410.—Among 596 Nigerian married women interviewed in 1964, the younger, better educated, and better housed expressed less desire for large families although even this group desired an average of 5 children. Reported use of birth control methods was low (9% of sample) but support for family planning clinics was high (from 100% for college educated to 35% for uneducated). These findings are interpreted in terms of

cultural transitions accelerated by socioeconomic changes. (19 ref.)—C. Mayo.

ATTITUDES & OPINIONS

10710. Alker, Henry A. (Cornell U.) **A quasi-paranoid feature of students' extreme attitudes against colonialism.** *Behavioral Science*, 1971(May), Vol. 16(3), 218-227. Tested 3 alternative explanations concerning an apparent paranoid quality of extreme political attitudes: (a) such attitudes reflect exceptional, if embarrassing, perceptiveness by their proponents; (b) such attitudes reflect a cognitive style similar to that of paranoids without any attendant defensiveness; and (c) such attitudes represent paranoid defensiveness. Results with a selected total sample of 96 "left," "middle," and "right" undergraduates support only the 3rd hypothesis. Findings suggest that paranoid-like functioning was most prevalent in those on the extreme left. Paranoid defensiveness was indicated through an interaction with manipulated suspicion-arousal during assessment. Restrictions concerning the generalities of these results are discussed. (29 ref.)—*Journal abstract*.

10711. Calder, Bobby J. (U. North Carolina, Chapel Hill) **The effects of cognitive constraints on attitudes.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6922.

10712. Harsanyi, Suzanne. (Gaylord Rehabilitation Hosp., Wallingford, Conn.) **Social attitudes regarding aging as a disability.** *Journal of Rehabilitation*, 1970(Nov), Vol. 36(6), 24-27.—Provides a broad-scale picture of societal views on the elderly citizen and his real and potential impairment. (24 ref.)—M. A. Seidenfeld.

10713. Hogan, Robert & Dickstein, Ellen. (Johns Hopkins U., Center for Social Organization of Schools) **A dimension of maturity: Moral judgement.** *Center for Social Organization of Schools Report*, Johns Hopkins U., 1971(Mar), No. 96, 21 p.—Presents (a) a definition of values, (b) a measure of moral values which seems to have adequate conceptual and psychometric properties, and (d) evidence concerning the personological correlates of mature moral judgment. Values were defined as the standards used in moral evaluations and the criteria for choosing rules of conduct. Using a brief, semi-projective task, moral judgments were elicited from 92 male undergraduates which could be reliably ($r = .88$) scored for maturity of moral judgment. Data indicate that Ss whose moral judgments were rated as mature tended to be sensitive to injustice, well-socialized, empathic, autonomous, and based their judgments on intuitive notions of "goodness." (36 ref.)—*Journal abstract*.

10714. Hynam, Charles A. **The influence of superstition, religion and science upon anomie in a modern Western setting.** *Revue Internationale de Sociologie*, 1970(Dec), Vol. 6(13), 190-215.—Based on normative socialization theory, it was predicted that anomic individuals (as identified by a modified Srole scale) who rejected institutionalized religious and scientific beliefs would be more superstitious (assessed by the author's 30-item superstition scale). Questionnaire data from 778 American males (509 undergraduates and 229 doctoral candidates) supported the predictions. Superstition was positively related to anomie; religiousness and scientific training were negatively related. (28 ref.)—C. Mayo.

10715. Jones, James M. (U. Northern Iowa) **Attitudinal valence and semantic differential potency**

scales. *Psychological Reports*, 1971(Jun), Vol. 28(3), 991-994.—Presented 2 issues to 185 undergraduates for rating on 16 semantic differential potency scales. Ss were classified for or against the issues on the basis of their responses to 2 unmarked 9-cm lines descriptively labeled at the end points. Semantic differential data from the 4 resulting classes were factor analyzed using principal components solutions with varimax rotations. Previous research suggested that these scales might fractionate into several components of variance and that the structure would vary depending on attitudinal valence. Descriptive comparisons and comparisons employing Tucker's coefficient of congruence support the hypothesis of dissimilar fractionation.—*Journal abstract*.

10716. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Sex differences in attitudes toward death: A replication.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 754.—Replicated a 1936 study by W. Middleton (see PA, Vol. 11:1549) on sex differences in the attitudes toward death held by students. In a study of 175 male and 236 female undergraduates, it was found that male students were more likely to think about death than females, but had a less negative emotional reaction to death. Differences in the present study were less than those previously reported.—*Author abstract*.

10717. Peay, Edmund R. (U. Michigan) **Extensions of clusterability to quantitative data with an application to the cognition of political attitudes.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6718.

10718. Pheterson, Gail I., Kiesler, Sara B., & Goldberg, Philip A. (U. California, Riverside) **Evaluation of the performance of women as a function of their sex, achievement, and personal history.** *Journal of Personality & Social Psychology*, 1971(Jul), Vol. 19(1), 114-118.—Studied the conditions under which women are prejudiced against women. 120 female undergraduates evaluated 8 paintings in a $2 \times 2 \times 2$ design varying (a) sex of painter, (b) status of the painting, and (c) personal odds faced by the artist. Results indicate that Ss judged the entry paintings by men to be significantly better than identical paintings by women. Winning paintings were not evaluated differently by sex. Obstacles faced by winners or entrants had no effect on judgments. It is concluded that women who are attempting to accomplish are judged less favorably than men, but that women who have successfully accomplished are evaluated as favorably as men.—*Journal abstract*.

10719. Reich, Carol L. (U. Michigan) **The generalization of belief throughout a cognitive network.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6719.

10720. Roll, Samuel & Verinis, J. S. (U. New Mexico) **Stereotypes of scalp and facial hair as measured by the semantic differential.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 975-980.—Presented 36 male and 44 female undergraduates with a series of 15 stimuli which were designed to represent the variables of hair color, hair length, quantity of scalp hair, hair quality, and amount of facial hair. Each stimulus was rated on scales representing the Evaluative, Potency, and Activity dimensions. The proposition that stereotypes are identifiable was strongly confirmed. Of 18 specific predictions 15 were confirmed. Explanation in full of these findings is not effected.—*Journal abstract*.

10721. **Sutton, A. J.** (Macquarie U., North Ryde, New South Wales, Australia) **The use of quadratic discriminant analysis for the measurement of profile distance in social perception.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 253-260.—Reports that in many studies, the similarity between semantic differential profiles in relation to external criteria (e.g., social background) has been examined using a generalized distance index (C. E. Osgood) which assumes a particular kind of interaction between the profiles. In a study with 291 1st-yr technological college students it was demonstrated that several kinds of interaction between profiles can be obtained and described using quadratic discriminant analysis. Ss rated 12 role concepts in each of 35 bipolar 7-point adjective scales and provided information on their social and cultural backgrounds and on certain educational and occupational attitudes. Results are reported of quadratic discriminant analysis. Problems of interpretation are discussed.—*Journal abstract.*

10722. **Vavrik, Julie & Jurich, Anthony P.** (Tyrone Area School District, Pa.) **Self-concept and attitude toward acceptance of females: A note.** *Family Coordinator*, 1971(Apr), Vol. 20(2), 151-152.—The TAT was administered to 59 male upper-class and graduate students. The TAT was scored for self-concept and attitude toward wife-character. There were 3 ways in which the male could view the females in his life: (a) female is a person, (b) stereotypes female somewhat, and (c) female is a sex object. A high relationship was found between self-acceptance and acceptance of others. These findings supported earlier research, and showed that low self-esteem was highly correlated with a specific area of acceptance of others, the treatment of women as sex objects. These findings can be used by educators or counselors as an indicator: if 1 factor is present, the other factor may need attention.—*M. W. Linn.*

10723. **Wade, Kenneth & Wilson, Warner.** (U. Alabama) **Relatively low prejudice in a racially isolated group.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 871-877.—Compared the social distance scores of 84 rural high school students attending all-white high schools in an all-white section of Alabama with the scores of 214 students attending an integrated school in a small city. Ss from the all-white schools expressed more favorable attitudes toward blacks ($p < .001$). Although it was not possible to arrange a retest at the integrated school, a retest of 91 Ss at the all-white schools about 6 mo. later showed that attitudes at these schools had improved significantly ($p < .001$). Methodological weaknesses of the study are noted. (27 ref.)—*Journal abstract.*

10724. **Westler, Loretta & Chansky, Norman M.** (Temple U.) **Social desirability of the "Runner Studies of Attitude Patterns."** *Psychological Reports*, 1971(Jun), Vol. 28(3), 930.—Obtained ratings of the social desirability (SD) of 102 statements in the Runner Studies of Attitude Patterns from 119 female and 135 male entering college freshmen and item endorsements from 359 male and 444 female entering freshmen. Results reveal sex differences in both ratings and item endorsement. Findings indicate that most items were considered neutral with respect to SD. However, correlations between item endorsement and their social desirability values ranged from .29 for females to .49 for males.—*Author abstract.*

10725. **Williams, Daniel C.** (U. California, Santa Barbara) **Toward a theory of commitment.** *Dissertation*

Abstracts International, 1971(May), Vol. 31(11-B), 6964.

Formation & Change

10726. **Cowan, Gloria & Komorita, S. S.** (Wayne State U.) **The effects of forewarning and pretesting on attitude change.** *Educational & Psychological Measurement*, 1971(Sum), Vol. 31(2), 431-439.—75 undergraduates were asked to read an article on advertising. $\frac{1}{2}$ of the Ss had been pretested 2 wk. earlier on the advertising issue. Prior to reading the article, Ss had been told to evaluate the readability of the article and the author's viewpoint. After reading the article, $\frac{1}{2}$ of the Ss took an awareness measure, and 5 evaluative semantic differential scales. This order was reversed for the other group. Forewarning, pretesting, and their interaction contributed no statistically significant effect. Correlational analysis revealed correlations of different magnitude between awareness and testing depending on the order of presentation of these treatments. When posttest was administered first, correlations with awareness were close to 0; when awareness was first correlations with posttest were on the order of .6.—*N. M. Chansky.*

10727. **Kinney, Barry H.** (U. Arizona) **The effect of equated premanipulation attitudes on subsequent attitude change and recall under forced compliance versus interpersonal simulation and differential demand conditions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6877.

10728. **Silverman, Irwin & Shulman, Arthur D.** (U. Florida) **A conceptual model of artifact in attitude change studies.** *Sociometry*, 1970(Mar), Vol. 33(1), 97-107.—Considers the variety of ways in which role-related motives of the psychological S, e.g., compliance with "demand characteristics" and "evaluation apprehension," may confound the data of attitude-change studies. Recent experiments regarding these scores of artifact in attitude paradigms are reviewed and the findings are placed within a framework of 5 specific propositions. Suggestions are given for methodological modifications in future attitude studies. (4 p. ref.)—*Journal abstract.*

10729. **Swap, Walter C.** (U. Michigan) **The effects of repeated exposure of meaningful stimuli on attitude formation and change.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6720-6721.

Influence & Behavior

GROUP & INTERPERSONAL PROCESSES

10730. **Bean, Mabel G.** (U. Michigan) **Self concept and group leadership performance.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6331.

10731. **Beavin, Janet C.** (Stanford U.) **Interpersonal judgment and performance control.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6868.

10732. **Bender, Eugene I.** (U. Calgary, Alberta, Canada) **The citizen as emotional activist: An appraisal of self-help groups in North America.** *Canada's Mental Health*, 1971(Mar), Vol. 19(2), 3-7.—Describes the characteristics, history, and future role of self-help groups, groups formed to foster the spirit of individual and group self-renewal.—*P. Hertzberg.*

10733. Boller, Jon D. (Arizona State U.) **Some differential effects of two training group styles.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6394-6395.

10734. Bond, Michael H. (Stanford U.) **The effect of a "warm-cold" impression set upon behavior emitted during a subsequent interaction.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6870.

10735. Byrd, Richard E. (New York U.) **Self-actualization through creative risk taking: A new laboratory model.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6712.

10736. Codol, Jean P. (Lab. of Social Psychology, Aix, France) **Influence de la représentation d'autrui sur l'activité des membres d'un groupe expérimental.** [Influence of the representation of another person on the activity of members of the experimental group.] *Année Psychologique*, 1970, Vol. 70(1), 131-150.—10 groups of 3 Ss each (2 "naive" and 1 confederate) were told, before the experiment, that the confederate was either cooperative or competitive. In 2 situations the confederate was neither during the task session. In 2, the confederate either confirmed or disconfirmed the naive Ss' representation of his personality. Results indicate that the naive Ss' expectations concerning the behavior of the confederate determined their behavior during the task as well as their representation of the elements of the situation (task, group, other members). Where the confederate was seen as cooperative, Ss saw the task as a cooperative task and the group as a cooperative group.—G. Rubin-Rabson.

10737. Cole, Steven G. (Michigan State U.) **Uelative conflict: The effects of payoff, distribution of relative strengths, and alliance situations on the extent of cooperation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6871-6872.

10738. Combs, Arthur W., et al. (U. Florida) **Florida studies in the helping professions.** *University of Florida Monographs, Social Sciences*, 1969, No. 37, 3-78.—Reports theories and experiments from a series of studies to discover the principles governing the nature and effective practice of helping relationships. The conception of the helping relationship, based on humanistic perceptual approaches to psychological thought, was the basis for testing a program of hypotheses with teachers, students, nurses, counselors, college professors, and Episcopal priests. The report also represents an illustration of how knowledge grows and develops on a college campus as a consequence of teacher-student interaction. The theories and concepts presented are a result of continuous dialogue. P. Hertzberg.

10739. Cook, Patricia O. (Harvard U.) **Personality growth as a function of ascribed interpersonal expectancy: An experimental manipulation in a field setting.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6712.

10740. Cummins, Robert C. (Purdue U.) **An investigation of a model of leadership effectiveness.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6313-6314.

10741. Darley, John M. & Latané, Bibb. (Princeton U.) **When will people help in a crisis?** *Psychology Today*, 1968(Dec), Vol. 2(7), 54-57, 70-71.—If a person is to intervene in an emergency, 3 things must happen: he must notice that something is happening, he must interpret it as an emergency, and he must feel personal responsibility. A series of studies shows that the greater

the number of Ss present (a) the less events are noticed, (b) the less Ss interpret events as emergencies, and (c) the less Ss act to intervene even when they are convinced a state of emergency exists. Ss are not cold or indifferent but often are greatly agitated. Nevertheless, they are apparently kept from acting by the knowledge that others are present also.—E. J. Posavac.

10742. Diebold, Phoebe E. (Stanford U.) **Eye contact and gaze aversion in an aggressive encounter.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6924-6925.

10743. Doise, William. (Practical School of Higher Studies, Paris, France) **L'importance d'une dimension principale dans les jugements collectifs.** [The importance of a principal dimension in collective judgments.] *Année Psychologique*, 1970, Vol. 70(1), 151-159. Compared individual judgments of social stimuli ordered along a main dimension to group judgments of the same stimuli. As predicted by the initial hypothesis, groups tended to be more exact and less varied in their ordering of the stimuli along the given dimension.—G. Rubin-Rabson.

10744. Finch, Alfred J. (U. Alabama) **Direct and vicarious delivery of social and monetary reinforcers.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6254.

10745. Fisher, Ruth A. (U. Wisconsin) **The effects of guilt and shame on public and private helping.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6897-6898.

10746. Flint, Ronald A. (U. New Mexico) **The relative importance of structure and individual differences in determining behavior in two person games.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6932.

10747. Fuller, Carol S. (Vanderbilt U.) **An analysis of a quantitative theory of cognitive balance.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6239-6240.

10748. Geisler, John & Gillingham, William. (Central Michigan U.) **The effects of a personal growth group experience.** *National Catholic Guidance Conference Journal*, 1971(Spr), Vol. 15(3), 183-186.—Ss were 81 graduate and undergraduate students. The group experience covered 16 sessions. Conclusions on outcomes were drawn from results of a 5-item course Evaluation Questionnaire, and a 70-item Q-sort used as pre- and posttest on personal adjustment. According to these measures, adjustment score improved significantly as a result of the personal growth experience. Recommendations include control groups and longitudinal research to assess permanence of personal growth.—A. M. Cawley.

10749. Giere, Walter. **Gruppendynamik: Ein Spiel ohne Folgen: Notizen und Anmerkungen zu einem Seminar.** [Group dynamics: A play without consequences: Notes and observations on a seminar.] *Gruppendynamik*, 1970(Jul), No. 3, 282-304.—Attempts to give, on basis of notes, a picture of the group dynamic processes of a seminar and to present their analysis. A description of 13 days' happenings is given without identifying the seminars. The seminars lacked task orientation and were geared towards here-and-now situations referring to personal problems of the individuals and of the group. Gains made by individuals may also be applied at working situations. These personal experiences may be transferred to the sociopolitical

sphere only by chance and not by design. Positive relationships to others were established, although only superficially. Insights into self and judgment of others are enhanced but in the long run may be threatened because of their occurrence in an isolated atmosphere. Increased ability to perceive others is blunted because of the trainers' insistence on creating harmony in the group.—*M. J. Stanford.*

10750. Gottdiener, Arthur. (Yeshiva U.) **Risk taking in differently structured groups.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6714.

10751. Gruver, Gene G. (U. Arizona) **The use of a process measure in student development groups.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6901-6902.

10752. Johnson, Douglas F. (State U. New York, Buffalo) **The effects of deterrent vs. compellent threats and the time of the implementation of these threats on compliance.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6715.

10753. Joure, Sylvia A. (Memphis State U.) **Influence of trainer style and participant personality on T-group change.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6315.

10754. Klein, Edward B., Thomas, Claudewell S., & Bellis, Elizabeth C. (Yale U.) **When warring groups meet: The use of a group approach in police-black community relations.** *Social Psychiatry*, 1971(May), Vol. 6(2), 93-99.—Describes a sensitivity exercise, with a combined Tavistock and T group approach, led by mental health professionals for black city residents and the local police force. Many of the usual group dynamics were observed, including greater understanding of each other by most participants and the lessening of stereotypes. But powerful and militant factions in and out of the exercise used it to confirm a much-wanted temporary cease-fire rather than to bring about an end to their "war." The theoretical-derived focus on boundary maintenance proved impossible to sustain in the group exercise, which could not be walled-off from the reality of a socially explosive local situation. This reality negated the attempt to bring about peaceful change, the unspoken agenda of the professionals and most of the others involved in the program. The exercise demonstrated again the need for a firm contract and for mental health professionals to be clear about their roles and motives when they serve as consultants in social conflict situations. (French & German abstracts)—*Journal abstract.*

10755. Knops, G. M. (U. Kansas) **The influence of an experimentally transient increase in sensory awareness (tactile) upon self-disclosure, momentary anxiety and ratings of social desirability.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6906.

10756. Levine, Ned. (Brunel U., London, England) **Emotional factors in group development.** *Human Relations*, 1971(Feb), Vol. 24(1), 65-89.—Evaluated training groups by questionnaire methods to test Bion's basic assumptions about emotional factors in group process. Results are contradictory to the basic assumptions theory. The polar opposites—fight-flight and intimacy-detachment changed in opposite directions rather than together as predicted. Conflict in a group is not over emotions, but rather one of intellectual issues. Factor analysis of phase indices reveals the following dimensions: involvement-withdrawal (negative emotions

shifting over time to positive), seeking authority (high at beginning and end of group), fight-antagonism toward authority (increases but tapers toward the end), and looking to members for support (decreasing parabolic curve). Relations of these findings to a general model of small group changes are discussed. (36 ref.)—*W. W. Meissner.*

10757. MacLean, Gordon D. (United States International U., San Diego, Calif.) **Social power and parental orientation as factors influencing source behavior in a modified Prisoner's Dilemma game.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6716-6717.

10758. Martin, Roger D. (U. Saskatchewan, Saskatoon, Canada) **Videotape self-confrontation in human relations training.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 341-347.—Presented informational feedback, in the form of videotape self-confrontation, to the members of 3 separate but essentially equivalent T groups. 21 Ss were matched according to age, sex, and education. 3 male doctoral students served as trainers. Dependent variables were (a) group variance in length, and (b) frequency of individual verbal output. Maximum experimental control was achieved through the use of a time-series design, with each group serving as its own control. Changes in level and slope of the series were predicted contingent on videotape replay of past interaction to the groups. Results indicate that the effects of videotape feedback are not necessarily predictable, and may cause either beneficial or detrimental group behavior change. Videotape feedback also seems to have markedly different effects on different groups. Conclusions are presented regarding the appropriateness of time-series research designs with unique social phenomena, e.g., T groups. (16 ref.)—*Journal abstract.*

10759. McCauley, Clark R. (U. Pennsylvania) **Risk and attitude shifts after group discussion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6296-6297.

10760. Mossman, Beal M. (U. Oregon) **Acceptable rate of change and social behavior in the two channel communication task.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6243.

10761. O'Connell, Walter E. (Veterans Administration Hosp., Houston, Tex.) **Sensitivity training and Adlerian theory.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 65-72.—Contrasts sensitivity and Adlerian approaches. Found were "superficial similarities" but "strikingly" different implicit assumptions and methodologies. (17 ref.)—*A. R. Howard.*

10762. Potter, David A. (Cornell U.) **Accuracy and interpersonal attraction.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6718.

10763. Prince, George. (Synectics, Inc., Cambridge, Mass.) **Leadership for creativity and synectics meetings.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 125-137.—The problem of leadership usually is a result of a lack of rapport between the leader and the group. The responses of the members of the group to the leader are colored by various motives, possibly ranging from blind followership to unjustified hostility. Several leadership techniques are mentioned as possible means to reduce the barrier between the leader and the group. Such techniques include rotation of leadership, the use of a spectrum policy by which "every idea, however absurd or tangential, has something of value in it," not

permitting any member of the group to be put on the defensive, and giving the ideas of all the members precedence over those of the leader. A synectics meeting consists of 5-7 persons, 1 of whom is the expert in the problem area and 1 of whom is the leader. 3 major phases of such a meeting are: defining the problem, reaching an unusual perspective, and deriving a creative solution.—A. J. Ter Keurst.

10764. Rasmussen, Raymond V. (U. California, Berkeley) **Exchange and equity in the task team: Testing a model of social interaction.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6719.

10765. Rosekrans, Frank M. (U. California, Santa Barbara) **Retaliative aggression and self-aggression.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6956.

10766. Rubin, Irwin; Kolb, David; McIntyre, James, & Farris, George. (Massachusetts Inst. of Technology) **The process of joining up individuals and organizations.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 54-65.—From the viewpoint of an organization, the induction of a person into its ranks is usually not on an egalitarian or one-for-one basis but rather on how well the person "fits" into the pattern of the group. Conversely, the person constructs a "psychological contract" in his projected relations with the organization. This "contract" largely conditions the behavior of the S in his further relationships with the organization. Examples of the reconstruction of this "contract" by means of more "open" communications between the person and the organization are presented, such as the orientation sessions for the applicants for the Peace Corps and for freshmen undergraduates.—A. J. Ter Keurst.

10767. Sales, Esther G. (U. Michigan) **Sex differences in responsiveness to two classes of social approval stimuli.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6719-6720.

10768. Schmidt, Monica M. (U. Illinois) **Effects of group interaction on the self-perceptions of women in religious life.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6353.

10769. Schwendiman, Gary. (Brigham Young U.) **Machiavellianism as a predictor of success in bargaining under high and low incentive conditions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6881.

10770. Sinha, Jai B. & Pandey, J. (A.N.S. Inst. of Social Studies, Patna, India) **Strategies of high n-Ach persons.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 210-216.—Examined 2 hypotheses: (a) that high need for Achievement Ss perform better and create more resources, and (b) that altruistic need for Achievement Ss hoard less, use resources considerably, and help weaker partners more. 90 undergraduates were divided into 30 3-person groups. The task consisted of a cube construction test. A postexperimental questionnaire contained items providing measures of success of the "manipulations." The data confirm the theory that high need for Achievement Ss have greater propensity to create resources.—R. D. Nance.

10771. Smallegan, Marian. (U. North Carolina, Chapel Hill) **A comparison of two training formats for persons with varying interpersonal needs.** *Adult Education*, 1971(Spring), Vol. 21(3), 166-176.—Used 2 training formats in a group and interpersonal relations seminar to study opinion change in democratic lead-

ership. The training formats differed in their residential nature: (a) weekly, nonresidential meetings for 1 semester; and (b) the same number of meeting hours with a residential weekend for part of the seminar. Each of 108 participants responded to a pre-, posttest for opinion about democratic leadership, and to FIRO-B, a questionnaire used to determine interpersonal need. Findings indicate (a) a positive opinion change over a period of time after the course was completed, (b) little difference in opinion change for high scorers on FIRO-B regardless of format, (c) a positive opinion change for low scorers on FIRO-B who were in the partial residential sections, and (d) a negative opinion change for low scorers on FIRO-B who were in the nonresidential section.—*Journal abstract*.

10772. Thomas, M. Duane. (U. Kansas) **Developing human potential through group interaction: A study of changes in personality factors, personal attitudes, and group functioning in university students participating in human relations training.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6884.

10773. Trotter, James P. (Wisconsin State U., River Falls) **Process comparison of encounter groups and discussion groups using videotape excerpts.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 358-361.—Analyzed videotaped excerpts from 3 encounter groups and 3 discussion groups to determine if significant process differences existed between the 2 types of groups on the basis of facilitative conditions observed. 90 undergraduate volunteers served as Ss. A panel of experts rated these excerpts using the Truax scales of Accurate Empathy, Unconditional Positive Regard, Depth of Self-Exploration, and Kiser's Congruence scale. Results of a 4-factor analysis of variance indicate significant differences between the groups on the Accurate Empathy, Unconditional Positive Regard, and Depth of Self-Exploration scales. Rater reliability was moderately high to high on all scales used. Results indicate that the encounter group process is characterized by facilitative conditions and can be distinguished as a therapeutic process as such.—*Journal abstract*.

10774. Vinokur, Amiram. (U. Michigan) **Effects of group processes upon individual and group decisions involving risk.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6721-6722.

10775. Wabba, Mahmoud A. (Baruch Coll., City U. New York) **Effects of game structure, range of pay-off and strategy of the other on cooperation in mixed-motive games.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 683-689.—Conducted 2 experiments with 32 male undergraduates each to determine the effects of (a) game structure, (b) range of pay-off, and (c) strategy of the other on the frequency of cooperative responses in 2 x 2 mixed-motive games. Analysis showed significant effects for game structure, strategy of the other, and all the 2-way interaction effects ($p = .001$) but no significant effect for range of pay-off. The frequency of cooperative responses was higher in the Chicken Dilemma game (CDG) than in the Prisoner's Dilemma game (PDG). In the PDG, defective and cooperative strategy generated defection. In the CDG, defective strategy generated cooperation while cooperative strategy generated defection.—*Journal abstract*.

10776. Wang, Glenn K. (U. California, Berkeley) **The theory of two-person zero-sum multistage games.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6036.

Influence & Communication

10777. Edelman, J. David & Warner, Malcolm. (Syracuse U.) **Voting and allied systems in group decision-making: Their relationship to innovation, competition and conflict resolution.** *Human Relations*, 1971(Apr), Vol. 24(2), 179-188.—Discusses the effects of "democratic" voting systems on various outcomes. Objectives of the decision-making group can hopefully be matched with suitable systems of choice. Democratic decision processes are not clearly optimal for the outcomes studied—innovation, competition, and conflict resolution. The merits of formal systems and informal nonsystems need further evaluation, as well as whether voting and allied systems for estimating consensus can achieve the desired results.—*W. W. Meissner*.

10778. Hakmiller, Karl L. (U. Connecticut) **Inter-subject communication.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 956-958.—Interviewed a random sample of 55 ex-Ss 3 days following participation in a deception experiment. While a very large percentage recalled that they had been asked not to discuss the experiment with others or the reasons for that request, 30% of the sample reported providing a partial or complete description of the experiment to other students when requested to do so.—*Journal abstract*.

10779. Harris, Sandra L. (Rutgers State U., Douglass Coll.) **Influence of the interviewer: A note for the nonresearcher.** *Family Coordinator*, 1971(Apr), Vol. 20(2), 149-150.—Emphasizes the effects that an interviewer may have on the interviewee. Interpersonal variables such as sex, age, and race have been shown to influence research, interviewing, school, and therapy interactions. The practitioner, be he counselor, family therapist, teacher, or community worker, should be aware of this influence, both in his own work with people and in his evaluation of research by others.—*M. W. Linn*.

10780. Korte, Charles. (Vassar Coll.) **Effects of individual responsibility and group communication on help-giving in an emergency.** *Human Relations*, 1971(Apr), Vol. 24(2), 149-159.—Studied 60 students in a simulated help-giving emergency situation under conditions created by varying levels of responsibility (focused vs. diffuse) and levels of communication (no communication, minimizing communication, and true communication). Likelihood of giving help was greater under conditions of focused responsibility, but the greatest intervention occurred in the absence of any feedback. It is concluded that variations in feedback acted to define responsibility, i.e., created variations in the S's expectation that someone else would respond to the need for assistance. Without any feedback, the S had the least basis for assuming that others would render assistance. "It appears that the decision to offer assistance to some distressed person is not necessarily a first response to an emergency, but that emergencies may often produce Good Samaritans only by default. Persons will help out in a crisis, but most reliably when it seems apparent that other available sources of help are not forthcoming."—*W. W. Meissner*.

10781. Miller, Gary M. (Eastern Michigan U.) **A study of attitude change via sensitivity training groups.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(2), 47-50.—Attempted to determine the effect of 4 different sensitivity training group designs upon the attitudinal changes of partic-

ipants in the specific training groups. The 25 men and 22 women participating were randomly assigned to 1 of the 4 groups: intensive sensitivity training, extensive sensitivity training, extensive-intensive sensitivity training, or control sensitivity training. Attitude change was measured by pre- and posttest designs using 15 adjective pairs to measure 8 concepts. Both factor analysis and t test were used. Only 3 of the 8 t values computed for the concepts on the semantic differential were significant. These were sensitivity training, being praised, and as I am. This evidence only partially supports the hypothesis that sensitivity training will influence attitude change as measured by the semantic differential.—*S. M. Amatori*.

10782. Misumi, Jyujii; Seki, Fumiyasu, & Shinohara, Hirofumi. (Kyushu U., Fukuoka, Japan) **An attempt to construct rating scales for the PM functions in discussion groups.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 163-180.—Attempted to construct a set of scales for rating the performance (P) and group maintenance (M) dimensions in group discussion. In Exp. I, Ss were 54 rubber products foremen in an inservice training program. Exp. II applied the procedures used in Exp. I to 78 employees of another firm. Exp. III (N = 16 Ss) was primarily for the purpose of revising the items of the M scales. Exp. IV (N = 14 Ss), unlike the 1st 3 experiments, involved a group without a definite goal. It is concluded that the rating scales used were effective in measuring the 2 dimensions in question. (22 ref.)—*R. D. Nance*.

10783. Pastuvic, Nikola. (Workers U. "Moša Pijade," Zagreb, Yugoslavia) **Pokušaj mjerenja stupnja utjecaja članova organizacije u radu organa upravljanja poduzeća.** [A procedure for quantifying individual influence on managerial policy.] *Revija za Psihologiju*, 1970, Vol. 1(2), 79-85.—Proposes a procedure for quantification of the degree of an individual's influence in the work of a decision-making group. Metric characteristics of the procedure and validations (against the actual influence as criterion) are claimed to be satisfactory to warrant its use in research. (English abstract)—*A. Fulgosi*.

10784. Uhes, Michael J. (U. Hawaii, Center for Cross-Cultural Training & Research, Hilo) **Expression of hostility as a function of an encounter group experience.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 733-734.—Hypothesized that Ss undergoing an encounter group experience would show a decrease in covert expression of hostility and a corresponding increase in overt expression of hostility as measured by Bendig's Covert Hostility and Overt Hostility scales. 11 male and 13 female undergraduates participated in 10 encounter group exercises while a control group of 24 Ss matched for age, sex, and educational background, did not undergo the exercises. No significant difference was found between experimental and control groups' scores on the Bendig scales prior to, or upon completion of the series of encounter exercises for personal growth.—*Journal abstract*.

Social Perception & Motivation

10785. Barocas, Harvey. **The effects of defensive styles (repression-sensitization) on the perception and communication of vocal affect.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6888.

10786. Brown, Bert R. (Cornell U.) **Saving face.**

Psychology Today, 1971(May), Vol. 4(12), 55-59, 86.—A bargaining game and embarrassing performance situations were used in several experiments to study face-saving behavior. Exp. I showed that Ss were willing to endure high personal costs in order to retaliate against a stooge who had humiliated the S. In Exp. II, male Ss were unwilling to suck pacifiers even when offered a monetary reward. In Exp. III, Ss were asked to sing before various panels of judges. In general, face-saving was heightened when (a) an audience was present and gave derogatory feedback, (b) S felt incompetent, (c) the cost of retaliation could be kept private, and (d) when Ss performed before friends.—*E. J. Posavac.*

10787. Camenietzki, Schalom. (U. Kansas) **An experimental comparison of the effects of bodily contact and verbal interaction on the accuracy of interpersonal perception.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6891-6892.

10788. Forbes, Gordon B., Te Vault, R. Kent, & Gromoll, Henry F. (Millikin U.) **Willingness to help strangers as a function of liberal, conservative or Catholic church membership: A field study with the lost-letter technique.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 947-949.—Used the lost-letter technique to determine differences among members of 10 liberal, 10 conservative, and 10 Catholic churches in their willingness to help strangers. Results suggest that members of conservative churches are as willing to help strangers as are members of liberal or Catholic churches, but they are far less willing to make trivial financial sacrifices to do so.—*Journal abstract.*

10789. Fox, Mary M. (Duke U.) **Internal-external control and perceived ability as factors in the attribution of intent.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6873-6874.

10790. Harshbarger, Dwight. (U. West Virginia) **An investigation of a structural model of a small group problem solving.** *Human Relations*, 1971(Feb), Vol. 24(1), 43-63.—Studied problem solving in small groups under varying conditions of interaction and centrality. Measures of group process, time, and number of information transactions reflect the congruence of decision and interaction structures and support a structural congruence model. Problem-solving accuracy, effectiveness, and satisfaction do not support such a model. Present findings support a decentralized decision structure as providing the greatest problem-solving accuracy. Ss perceive problem-solving effectiveness to be greater in centralized structures, but these groups are less effective than groups with decentralized decision structures. A decentralized structure was found to be more satisfying. (19 ref.)—*W. W. Meissner.*

10791. Jackson, Lee A. & Mascaro, Guillermo F. (U. Florida) **Interpersonal attraction as a function of attitude similarity-dissimilarity and desire for certainty.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 856-858.—Hypothesized that persons having a high desire for certainty would be more attracted to those who agreed and less to those who disagreed than Ss exhibiting a lower need for certainty. 108 male and female undergraduates completed the Florida Political Beliefs Scale, Brim's Desire for Certainty Scale, rating scales for political beliefs reflecting varying degrees of agreement with the S, and Byrne's Interpersonal Judgment Scale. A significant main effect for attitude similarity on attraction was found. The interaction with need for certainty was not significant. It is suggested that the effect of

attitude similarity may be so powerful that individual differences among Ss may not produce any variation in attraction.—*Journal abstract.*

10792. Moore, Robert E. **How to win the image game everyone is playing.** Jericho, N.Y.: Exposition Press, 1970. 188 p. \$5.—Discusses the image factor in human relations and tells how, where, and when the image game is played. Chapters discussing how a person's image affects his relations with others and how psychological forces can establish a better image are included.

10793. Oster, Gerald F. (Indiana U.) **The relationship of male body image stereotyping to selected interpersonal-social variables: An exploratory study.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6880.

10794. Pellegrini, Robert J. (San Jose State Coll.) **Some effects of seating position on social perception.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 887-893.—Investigated the hypothesis of R. Sommer (see PA, Vol. 41:4517) that status and/or dominance may be ascribed to an individual automatically as a function of the location he occupies. 40 male and 40 female undergraduates made semantic-differential scale ratings of target individuals photographed while seated at a rectangular table. As predicted, occupancy of the head position (as opposed to side locations) was associated with higher ratings on all 6 of the following scales: (a) talkativeness, (b) persuasiveness, (c) dominance, (d) leadership, (e) self-confidence, and (f) intelligence. The occupant of the head position was also chosen significantly more often as the one who "probably contributed the most" to the group's task performance. Results are interpreted to indicate a general "halo effect" reflecting cultural standards and traditions regarding the organization of social space.—*Journal abstract.*

10795. Ratner, Carl. (State U. New York, Buffalo) **Interpersonal perception: A study in reciprocal attitude change.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6881.

10796. Rau, John H. (Rutgers State U.) **Facial expressions as referent communication.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6909-6910.

10797. Rosenblood, Loren K. (Ohio U.) **Information saliency: An explanation of the set size effect in impression formation and similarity-attraction research.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6244.

10798. Rywick, Thomas. (Southern Illinois U.) **Order effects in impression formation as a function of involvement and task variables.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6302-6303.

10799. Schiffenbauer, Allen L. (Stanford U.) **The effects of a judge's affective state upon his judgment of the emotional state of others.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6881.

10800. Schuck, Solomon Z., et al. (Monmouth Coll., N.J.) **Sex differences in aggressive behavior subsequent to listening to a radio broadcast of violence.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 931-936.—Assigned 20 male and 20 female undergraduates to be insulted or not insulted by a confederate and to listen to a violent or neutral news broadcast. Ss were then given an opportunity to shock the confederate under the guise of a learning experiment. Results indicate that male Ss gave significantly more shock than female Ss. Female Ss

who were insulted and then listened to a violent broadcast gave less shock than those who listened to the neutral broadcast. The reverse was true for noninsulted female Ss. Results are interpreted as indicating the inhibitory effect of violent cues under strong arousal and the facilitating effect of violent cues under weak arousal. (21 ref.)—*Journal abstract*.

10801. Uno, Yoshiyasu, et al. (Keio U., Tokyo, Japan) **Interpersonal expectancy effects among Japanese experimenters and subjects.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 130-134.—A growing literature suggests that the E's research hypothesis may affect the S's responses during an experiment. Most of this evidence comes from the United States and Canada. The present study attempted to determine whether these expectancy effects would also occur in Japan. 11 Es conducted an experiment in perception. Ss were 88 freshman and sophomore undergraduates (1/2 male, 1/2 female). Ss were asked to rate 10 photographs as to degree of success the person pictured had been experiencing. 4 independent variables were employed. A puzzling result was the tendency for Es to obtain data opposite to that they had been led to expect.—*R. D. Nance*.

10802. Whiteside, Mary J. (U. Texas) **Evaluation of a successful rival: An experimental investigation of jealousy.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6963-6964.

10803. Wright, Jack M. & Worthy, Morgan. **Volunteering as group spokesman as a function of task effectiveness, leader success, and task similarity.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 911-917.—Studied the frequency of adopting the job of spokesman for one's group as a function of (a) effectiveness of performance on a previous task, (b) success in influencing the behavior of other group members, and (c) task similarity. Results for 64 male undergraduates indicate that persons are most willing to function as spokesmen for the group when they have been effective on an earlier task, especially when the earlier task was similar or when Ss had been unable to influence other group members' judgments on the previous task. It is suggested that some types of leadership attempts occur more readily on the basis of feeling of adequacy on the task than on feelings of acceptance as leader (i.e., successful influence).—*Journal abstract*.

10804. Zimmerman, Jay & Krauss, Herbert H. (U. Georgia) **Source and magnitude of censure in predictions of unethical behavior.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 727-732.—Investigated the relationship of the prediction of ethical risk taking and the severity and agency of censure—self, family, peer group, and society. Ss were 45 male and 45 female undergraduates who were given a 16-item ethical-risk questionnaire developed by S. Rettig and coworkers. A significant interaction between agency and magnitude of censure was noted. With high censure, societal censure reduced risk taking most effectively; however, with low censure self-censure was most effective in inhibiting risk taking.—*Journal abstract*.

COMMUNICATION

10805. Bortz, Jürgen. (Erlangen-Nürnberg U., Inst. for Economics & Social Psychology, W. Germany) **Möglichkeiten einer exakten Kennzeichnung der Sprechstimme.** [Possibilities of exact identification of

speaking voice.] *Diagnostica*, 1971, Vol. 17(1), 3-14.—In the past, much interest has been shown to the speaking voice as an expression of human behavior. Research has been aided by technological improvement of apparatus for voice recording and reproduction. Despite extensive literature, there is little agreement on the voice as a personality indicator, due to widely differing test results. While the voice may be readily identified according to physical-acoustical values, this does not provide satisfactory data for diagnostic evaluation. The experiment called for 13 male students of different academic pursuits to recite 3 texts, categorized as lightly humorous, factual-neutral, and heavily emotional. The 39 recordings were evaluated by 9 professional psychologists according to a 32-scale profile. The ultimate goal was to discover the correlation among the 9 evaluators. After extensive tabulations and factor analysis, it is concluded that voice identification can be achieved on the basis of (a) quality of expressiveness, (b) development of a theoretical voice norm, and (c) a flexibility index evaluating the range of expression. This points to practical and diagnostic application, i.e., correlation between voice dynamics and personality factors; total voice impression input may be added as personality factor.—*H. Malki*.

10806. Darnell, Donald K. (U. Colorado) **Toward a reconceptualization of communication.** *Journal of Communication*, 1971(Mar), Vol. 21(1), 5-16.—The study of communication, as it focuses on messages or on symbolic transmission, is often challenged for being narrow. It is suggested that the communication scholar must recognize the influences of man's changing contexts, man's interdependence with his environment, man's limited ability to control for error, interaction effects in communications, and the effects of choices of communication behaviors attributed to others. Thus, communication should be defined as a study of the ways by which men affect each other and the interactions of those systems of influence.—*Journal abstract*.

10807. Dirks, Donald D. & Bower, Deborah R. (U. California, Medical School, Los Angeles) **Masking effects of speech competing messages.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 229-245.—Performed 4 experiments with a total of 21 undergraduates to determine the effect of semantic content or meaning of a competing speech message on the identification of synthetic sentence material. When the competing message was reversed and reproduced in a backward mode to eliminate its semantic content or meaning, no important differences were found between the performance-intensity functions in the forward or backward mode. The presence of a plateau or notch in the slope of the performance-intensity functions were demonstrated for English or foreign language competing messages. This plateau effect occurred primarily when (a) the same speaker delivered both messages, (b) the relative intensity levels were equal, and (c) the temporal patterns were similar. The semantic content of the competing message did not contribute to the plateau. The plateau was primarily due to the similarity of the temporal patterns of the primary and competing messages which occurred when the intensities of both messages were equal.—*Journal abstract*.

10808. Ervin, Charles R. (U. Texas) **When being close counts: The role of physical proximity, attitude similarity to a communicator, and audience self-esteem in mediating compliance.** *Dissertation Ab-*

tracts International, 1971(May), Vol. 31(11-B), 6873.

10809. **Funkhouser, G. Ray & Maccoby, Nathan.** (Pennsylvania State U., Coll. of Human Development) **Communicating specialized science information to a lay audience.** *Journal of Communication*, 1971(Mar), Vol. 21(1), 58-71.—Reports the results of an empirical, quasi-experimental study on textual variables in science writing and their effects on a lay audience. Ss were 773 college students. Strong relationships were found between textual variables, such as readability and use of example, and audience variables, such as information gain and attitude favorability toward the topic (enzymology).—*Journal abstract.*

10810. **Gardiner, James C.** (Colorado State U.) **A synthesis of experimental studies of speech communication feedback.** *Journal of Communication*, 1971(Mar), Vol. 21(1), 17-35.—Presents a summary and synthesis of experimental studies dealing with communication feedback. 2 types of studies were selected for review: (a) those focusing on communication receiver response and its effect on the communication source, and (b) those involving verbal conditioning, small group interaction, psychology of success and failure, and task performance. (55 ref.) *Journal abstract.*

10811. **Geldard, Frank A.** (Princeton U.) **Body English.** *Psychology Today*, 1968(Dec), Vol. 2(7), 43-47.—The skin is a relatively good organ for the reception of communicative signals. It can detect very short breaks in a steady pressure, it can detect the difference in frequencies of impacts below 150 impacts/sec. it can detect degrees of pressure, and there are many skin locations possible for communication. A language has been developed which people have learned and which can be decoded faster than Morse code operators can work. It may be that the blind will be able to use their skin in order to "read."—*E. J. Posavac.*

10812. **King, Charles W. & Summers, John O.** (Purdue U., Krannert Graduate School) **Attitudes and media exposure.** *Journal of Advertising Research*, 1971(Feb), Vol. 11(1), 26-32.—"The data presented here suggest the potential value of using attitudinal profiles of media audiences. Substantial differences were demonstrated among the . . . profiles for 6 broad media classes" (demonstrably not primarily a function of educational levels).—*J. C. Franklin.*

10813. **McCroskey, James C. & Wright, David W.** (Illinois State U.) **A comparison of the effects of punishment-oriented and reward-oriented messages in persuasive communication.** *Journal of Communication*, 1971(Mar), Vol. 21(1), 83-93.—Examined the effects of reward-oriented (pleasure) and punishment-oriented (fear) appeals in conjunction with initial credibility on attitude change and terminal credibility. 228 undergraduates were exposed to either a reward-oriented or a punishment-oriented message by either high- or low-credible sources. Reward and punishment appeals did not differentially affect either attitude change or perceived credibility. Both types of appeals produced substantial attitude change when presented by a high-credible source; neither produced significant change when presented by a low-credible source.—*Journal abstract.*

10814. **McGuire, Michael T.** (Massachusetts General Hosp., Stanley Cobb Lab., Boston) **Dyadic communication, verbal behavior, thinking, and understanding: I. Background problems and theory.** *Journal of Nervous & Mental Disease*, 1971(Apr), Vol. 152(4),

223-241.—Examines the general underlying assumption that "quasipermanent cognitive structures" underlie cognitive and communicative behavior. Such structures are said to effect decoding, organization, retrieval, and encoding of information. Structures are differentiated into modes and models. Modes are "aggregates of behavior rules which guide 2-person conversation." For example, jocular conversation and problem-solving conversation are different modes. They are ways of processing information. Models are clusters of "rules for content interpretation." Hypotheses and assumptions relating to the formation, disconfirmation, and interactions of models with each other and with modes are presented. (49 ref.)—*R. Denis.*

10815. **McGuire, Michael T. & Stanley, Juliet.** (Massachusetts General Hosp., Stanley Cobb Lab., Boston) **Dyadic communication, verbal behavior, thinking, and understanding: II. Four studies.** *Journal of Nervous & Mental Disease*, 1971(Apr), Vol. 152(4), 242-259. Reports on 4 studies derived from the hypotheses presented in Part I of this series (see M. T. McGuire, PA, Vol. 46:Issue 6). In Study I "model" (content) was held constant while "mode" (form) was varied. As predicted, shift of mode affected S's perception of how well he was being understood, with shared modes and nonconflicting modes producing ratings of high understanding. Studies II and III tested that the number of modes elicited by the incoming information would affect S's ability to evade. In Study II a computer asked questions of the S. In Study III, a research assistant asked the same questions. Findings were similar: open-ended questions were least effectively evaded, and forced-choice questions were most effectively evaded. Study IV examined formation and consolidation of models. The data were too complex for simple interpretation but suggested that participants could judge model rules more accurately than Os, and that testing of the model decreased with use. —*R. Denis.*

10816. **Pareek, Udai & Singh, Y. P.** (National Inst. of Health Administration & Education, New Delhi, India) **Communication nets in the sequential adoption process.** *Indian Journal of Psychology*, 1969, Vol. 44(1-4), 33-55.—Discusses communication nets as found in 1 village at the different stages of the adoption of 3 improved agricultural practices. A new pattern of sequential adoption consisting of 7 stages—need, awareness, interest, deliberation, trial, evaluation, and adoption—was used. The new pattern had 2 additional stages—need and evaluation (after trial). The evaluation stage is redesignated as deliberation, since the person deliberates (mentally weighs the pros and cons of adoption), rather than evaluating (assessing the value of the practice on the basis of evidence collected). The study was conducted in a medium-size multicaste village. The total number of included families was 94. It was observed that except for the interest and trial stages communicators increased with each advanced stage of adoption. (19 ref.)—*B. Roy.*

10817. **Rimé, Bernard.** (U. Louvain, Lab. of Industrial Psychology & Professional Psychopathology, Belgium) **Communication et processus de groupe: I. Les éléments du processus de communication.** [Communication and group process: I. Elements of the communication process.] *Revue de Psychologie et des Sciences de l'Éducation*, 1971, Vol. 6(1), 85-104.—Used Shannon's analysis of a communication process as a paradigm for within-group communication, an essential

for the existence of a group. Discusses the psychological elements of such a communication system under the headings of (a) motivation to communicate, (b) factors entering into the elaboration of the desired message, (c) transmission and distortions, (d) the reception process (perception, interpretation, integration), and (e) verification and restoration. (15 ref.)—*S. S. Marzolf.*

10818. Roslansky, John D. **Communication: A discussion at the Nobel Conference organized by Gustavus Adolphus College, St. Peter, Minnesota, 1969.** Amsterdam, Netherlands: North-Holland, 1970. ix, 131 p. \$6.95.—Presents a collection of lectures on communication which were delivered by scholars from diverse disciplines on the occasion of the 5th Nobel Conference in 1969.

10819. Shipp, Thomas & Hollien, Harry. (Veterans Administration Hosp., San Francisco, Calif.) **Perception of the aging male voice.** *Journal of Speech & Hearing Research*, 1969(Dec), Vol. 12(4), 703-710.—Investigated the effects of physiological aging upon otherwise normal healthy male voices. Data are provided for 175 adult males equally divided into 7 age categories (decades) from 20-89 yr. of age. 95 undergraduates, using 1 of 3 related perceptual procedures, estimated the ages of recorded voice stimuli. Results demonstrate that age can be systematically identified from voice samples.—*Journal abstract.*

Language

10820. Barik, Henri C. (U. North Carolina) **Some findings on simultaneous interpretation.** *Proceedings of the Annual Convention of the American Psychological Association*, 1970, Vol. 5(Pt. 1), 11-12.—(This is a corrected version of the abstract which appeared in PA, Vol. 44:17939). Simultaneous interpretation is the process of orally converting a message from 1 language into another as the message is being received. Behaviorally, this represents a complex form of activity, seemingly involving very rapid decoding and encoding operations. There is very little experimental data on the issue, which is one of considerable interest in the field of speech perception and analysis. The present study was undertaken to fill this void. 3 categories of translators were tested: professional conference, student, and amateur interpreters. Results are given for temporal characteristics of translated speech, synchronization of patterns of delivery of speaker and translator, time lag between speaker and translator, and content analysis.—*Author abstract.*

10821. Borg, Gunnar & Hosman, Jan. (U. Stockholm) **The metric properties of adverbs.** *Reports from the Institute of Applied Psychology, U. Stockholm*, 1970, No. 7, 4 p.—Investigated the ratio properties of the following verbal expressions: very long, rather long, neither long nor short, rather short, very short. 24 male and 38 female undergraduates were presented with 30 scaling tasks in randomized order. It was demonstrated that the relations between pairs of these expressions was approximately invariant with change of experimental conditions. This supports the hypothesis that adverbial intensives serve as multipliers. Results suggest the possibility of erecting ratio scales by verbal scaling methods. (16 ref.)—*Journal abstract.*

10822. Bowen, John H. (State U. New York, Albany) **Frequency of occurrence and the likeableness of trait names.** *Psychological Reports*, 1971(Jun), Vol. 28(3),

945-946.—Examined the relationship between the Likeableness (L) scale values of adjectives, as obtained by N. Anderson (see PA, Vol. 42:13734), and the frequencies of occurrence and distributions of the adjectives. The distribution was skewed, with a median at approximately 5.7 words/million (wpm) and a range from 4 words/18 million through 100+ wpm. A large number of frequency points showed a very low word density. There was a low, significant correlation (.299) between frequency and L. Methodological implications of the findings are examined.—*Journal abstract.*

10823. Field, Marsie M. (U. Georgia) **The effect of syllabic division, consonant-vowel order, and deletion position on the reconstruction of abbreviated words.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6930-6931.

10824. Jacoby, Larry L. (Southern Illinois U.) **Frequency judgments as a function of spacing and variation of repetition.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6292-6293.

10825. Lehiste, Ilse. (Ohio State U.) **Stress.** In I. Lehiste, "Suprasegmentals." (See PA, Vol. 46:Issue 6) 106-153.

10826. Lehiste, Ilse. (Ohio State U.) **Suprasegmentals.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1970. viii, 194 p. \$7.95.

10827. Loewenthal, Kate. (City U., London, England) **A study of imperfectly acquired vocabulary.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 225-233.—Conducted 3 experiments with a total of 46 male and 22 female undergraduates to examine behavior with (a) words which could be used and defined by the Ss, (b) words which were simply familiar, and (c) unknown words. Known and familiar words were recognized equally readily after brief tachistoscopic presentations. Known words elicited semantically related responses, while familiar and unknown words usually elicited phonologically related or mediated responses. In a word-selection task, Ss chose the word most similar to the stimulus, from a set of 4 words which were semantically related, phonologically related, or phonologically mediated and unrelated. For familiar words a semantically related word was more likely to be recognized in the choice task than it was to be produced in the word-association task. The same was true to a lesser extent for unknown words. A simple scheme for word-processing is proposed to fit the findings, in which there are separate stores for the surface-structure (phonological/visual) features and dictionary entries of words.—*Journal abstract.*

10828. Olshavsky, Richard W. (Indiana U.) **Prediction of the meaningfulness level of nonsense syllables via computer simulation.** *Cognitive Psychology*, 1971(Apr), Vol. 2(2), 206-211.—Tested the extent to which the relative meaningfulness level of nonsense syllables can be predicted by the formalization of certain commonplace assumptions about the underlying basis of meaningfulness. A large number of syllables (1,015), presumed to be familiar to the typical S, was stored in the computer model's memory. For each CVC to be scaled, this memory was searched 1st for the CVC in its input form and then, if that failed, for 1 of several transformed forms of the CVC corresponding to each of several feasible phonemic representations (i.e., pronunciations). Moderately high correlations between predicted and observed values were obtained.—*Journal summary.*

10829. Whiting, Gordon C. (U. Wisconsin) **Code restrictedness and opportunities for change in developing countries.** *Journal of Communication*, 1971(Mar), Vol. 21(1), 36-57.—Certain observed similarities between the orientation of peasants in developing countries and of the poor in developed nations may be traced to restricted utilization of language in organizing experience and communicating with others. Deficient encoding and decoding abilities may lessen the chances for peasants and ghetto dwellers to respond to the opportunities that a changing environment presents. Utilization of language's potentials may be requisite to the perceptual flexibility and cognitive skill with hypotheticals; these in turn may be requisite to effective voluntary change. These considerations tie into basic theories about the workings of the mind. They hold the promise of facilitating research in communications in developing nations and in underdeveloped sectors of more advanced nations. (35 ref.)—P. J. Federman.

10830. Woolum, Sandra J. (Michigan State U.) **The verbal context paradigm.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6964-6965.

Psycholinguistics

10831. Jakubowicz, Celia. (U. Paris-Sorbonne, Lab. of Experimental & Comparative Psychology, France) **Recherches récentes en psycholinguistique.** [Recent investigations in psycholinguistics.] *Année Psychologique*, 1970, Vol. 70(1), 247-293.—Reviews investigations inspired by Chomsky's transformational theories of generative grammar: (a) several conditions which generative grammar attempts to satisfy, form of grammar relation between generative grammar and psychological experiments in language; and (b) investigation introducing external variables in the competence model, study of recursives and of deep structures, recall, interpretation, computers the grammaticality of phrases. During learning, the recall and perception of phrases, S plays an active role in which he puts to work the knowledge he has of the structure of his language. (90 ref.)—G. Rubin-Rabson.

10832. Lorber, Neil M. (Newark State Coll.) **Theoretical perspectives on psycholinguistics.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 145-160.—Theoretical commentary on many basic mental operations has tended to receive relatively little emphasis. The present article attempts to explain psychological phenomena which have not in general been fully addressed by empirical research. To a pronounced degree, the dynamics of consciousness involve verbal operations. The greater one's functional vocabulary the more pronounced his ability to assimilate, organize, and evaluate incoming data. Insight represents an example of non-verbal thinking, the latter being relatively uncommon. Words are integrated into the schema of mind, and the individual loses sight of the fact that they are purely symbolic. The individual must organize and simplify his thoughts in order to communicate them.—R. D. Nance.

AESTHETICS

10833. Duncan, Elmer H. (Baylor U.) **Selective current bibliography for aesthetics and related fields, January 1, 1970-December 31, 1970.** *Journal of Aesthetics & Art Criticism*, 1971(Sum), Vol. 29(4),

577-614.—Includes a section devoted to references on psychology.—P. R. Farnsworth.

10834. Gardner, Howard. (Harvard U.) **The development of sensitivity to artistic styles.** *Journal of Aesthetics & Art Criticism*, 1971(Sum), Vol. 29(4), 515-527.—The Gibsons have assumed that "pattern recognition or discrimination learning is of a piece, with the task of classification remaining constant across varying contents." In this article the thesis is developed that "there may be different forms of sensitivity to style, which can be assessed by appropriate techniques." Thus, "ability to perceive and create distinctions in literature and music draws more heavily on rule and object sensitivity" while "sensitivity to the visual arts is more closely tied to the development of person sensitivity."—P. R. Farnsworth.

10835. Gorceix, Simone & Gorceix, Antoine. Thomas Chatterton: "Un suicide d'adolescent à Londres en 1770." [Thomas Chatterton: "An adolescent suicide in London in 1770."] *Annales Médico-Psychologiques*, 1971(Feb), Vol. 1(2), 161-184.—Reconstructs events in the life of the famous English writer who committed suicide at age 18. The biography is of psychological interest because Chatterton's literary talent was shown so early in youth, arising from the most unlikely social and educational background, and because symbols and elements present in his literary productions provide clues to the mental processes that ended in the taking of his own life.—H. E. King.

SMOKING & DRUG & ALCOHOL USE

10836. Babor, Thomas F. (U. Arizona) **Goals, expectations, and the perceived instrumentality of alcohol consumption as related to patterns of drinking behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6887-6888.

10837. Borgatta, Edgar F. & Evans, Robert R. (Eds.) (U. Wisconsin) **Smoking, health, and behavior.** Chicago, Ill.: Aldine, 1968. xii, 288 p. \$10.95.—Presents a critical review of current research and public policy on the relationship between smoking and health. Papers by various specialists in the field cover the health issue, social and psychological aspects of smoking, and implications of the smoking-health problem for society.

10838. de la Vega, Gabriel. **On glue sniffing.** *Journal of the Hillside Hospital*, 1967(Jul), Vol. 16(3 4), 219-223.—A child who sniffs glue does so in an attempt to control dreams by producing visions through artificial means. Eventually the visions become a compromise and a condensation of impotent rage, atonement for guilt, and a means of vicarious sexual gratification (utilizing many infantile part-love objects with a great deal of bound excitement). Eventually the glue-sniffing leads to 2 things: either a clear break of a psychotic nature with hallucinations replacing the "visions," or the need to resort to other forms of addiction, e.g., heroin. 2 case studies are presented. Common features with the Iskower phenomenon are discussed.—S. R. Diamond.

10839. Haag, Richard A. (U. Hawaii) **The development of a reinforcements inventory and its relation to smoking behavior.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6875.

10840. Hager, David L., Vener, Arthur M., & Stewart, Cyrrs S. (Grand Rapids Junior Coll.) **Patterns of adolescent drug use in Middle America.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 292-297.

—Asserts that effective programs for drug prevention and rehabilitation must be based on reliable data reflecting accurate rates of use. An investigation of drug use among 4,220 white, middle-American adolescents in Grades 8-12 shows that although drug use begins early, overall reported usage rates are relatively low. Marihuana is the most extensively consumed drug. Although boys reported more experience with all types of drugs, both sexes showed similar patterns of consumption. The greatest percentage of increase in the use of soft drugs occurred between 15 and 16 yr. old and their greater use was reported by respondents in higher socioeconomic schools. High correlations existed between the use of 1 drug with another. The low frequency of the use of hard drugs suggests that their consumption is not a severe problem for the population sampled.—*Journal abstract.*

10841. **Harris, Eileen M.** (Southern Illinois U.) **A measurement of alienation in college student marihuana users and non-users.** *Journal of School Health*, 1971(Mar), Vol. 41(3), 130-133.—Attempted to measure the degree of alienation of college student marihuana users and nonusers in order to test the theory that drug usage is a form of rebellion from the established society. 1,380 undergraduates were asked to respond to a questionnaire consisting of socioeconomic and demographic data, a Likert-type scale, and the MMPI Lie scale. An analysis of the data, conclusions, and recommendations are included.—*G. S. Spitzer.*

10842. **Lipscomb, Wendell R.** (Mendocino State Hosp., Calif.) **Alcohol: A drug among drugs.** *California's Health*, 1971(Feb), Vol. 28(8), 12-13, 17.

10843. **Matchett, William F.** (Indian Health Service, Navaho Area, Ft. Defiance, Ariz.) **Who uses drugs? A study in a suburban public high school.** *Journal of School Health*, 1971(Feb), Vol. 41(2), 90-93.—81 students in a suburban public high school were studied by a self-administered questionnaire in an attempt to clarify the relationship between some of their subjectively reported attitudes and behavior, and their use of drugs (marihuana, methedrine, amphetamines, or LSD). It was found that there were 2 very different categories of people who were using drugs. 1 group was using them more heavily and seemed to fit the stereotype of an individual on the fringe of society. The other group was apparently only experimenting with drugs or using them socially, and were in fact even more secure, inquisitive, and active than were their nonusing peers.—*Journal summary.*

10844. **Mattheis, Ruth.** **Konferenz über Alkohol- und Drogengebrauch—Amsterdam 7.-9. April 1970.** [Conference on alcohol and drug use—Amsterdam April 7-9, 1970.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 268-271.—Presents a summary of papers on historical developments on alcohol and drug use, the problem of adolescent drug users, psychopathological viewpoints, sociological and legal aspects, outcome studies on treatment of addiction, and biochemical and pharmacogenetical aspects of alcoholism.—*H. A. Euler.*

10845. **Russell, M. A.** (Inst. of Psychiatry, Addiction Research Unit, London, England) **Cigarette smoking: Natural history of a dependence disorder.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 1-16.—On the basis of a literature review, the case is made for considering cigarette smoking as a dependency disorder statistically linked to alcohol and drug dependency but which has a greater dependency-producing

potential than alcohol and barbiturates. The onset of smoking is related to social and psychological factors during adolescence—few start smoking after the age of 20. Reasons for continuing smoking are discussed, but the main reason appears to be dependence on the pharmacological effects of nicotine. Only about 15% of smokers are able to stop before 60 yr. of age. (3 p. ref.)—*A. C. Bower.*

10846. **Shiller, Alice.** (Public Affairs Pamphlets, New York, N.Y.) **Drug abuse and your child.** *Public Affairs Pamphlet*, 1970(May), No. 448, 28 p.—Notes the rise in drug abuse in the upper and middle classes as well as the younger age of the abuser. Signs of drug use and reasons for it are discussed. Information is given about glue-sniffing, marihuana, narcotics, amphetamines, and barbiturates. More effective ways of rehabilitating drug abusers are being sought in order to stem the tragic human cost of the drug problem. Drug maintenance programs, drug education, self-help groups as well as social and political groups involved in drug problems and rehabilitation are discussed.—*S. R. Diamond.*

10847. **Smart, R. G. & Fejer, Diane.** (Addiction Research Foundation, Toronto, Ontario, Canada) **Recent trends in illicit drug use among adolescents.** *Canada's Mental Health Supplement*, 1971(May), No. 68, 12 p.—Compared results of questionnaires on the prevalence and frequency of drug use from 6,447 7-13th graders in 1968 and 8,865 6-13th graders in 1970. The use of barbiturates, tranquilizers, and stimulants remained relatively stable, while that of alcohol, marihuana, the opiates, LSD, and other hallucinogens increased. More Ss used drugs in 1970 and used them more heavily, especially illicit drugs. Although more males than females used drugs, this ratio was reduced in 1970. Ss most likely to use drugs (a) came from Jewish or no religious backgrounds, (b) were from middle- or upper-class families, (c) had brothers or sisters who used drugs, (d) tended to do poorly in school, and (e) did not participate in school activities. Conflicting norms and overall alienation scores correlated positively with the use of all drugs. Social isolation was positively correlated with the use of alcohol, tobacco, glue, other solvents, barbiturates, and tranquilizers. Powerlessness was related to all drug use except the opiates, speed, and LSD. Parents, especially mothers, who were heavy users of psychoactive drugs were more likely to have children who used drugs. Some aspects of prevention of drug abuse in adolescents are considered.—*S. Knapp.*

10848. **Starkey, Lycorgus M.** (College Ave. United Methodist Church, Muncie, Ind.) **A clergyman looks at drug abuse.** *Journal of School Health*, 1969(Sep), Vol. 39(7), 478-486.—Discusses drug use and abuse from the theological perspective. Subtopics include: (a) damage to physical self, (b) spiritual growth, (c) personality, (d) challenging the psychochemical age, and (e) treatment.—*G. S. Spitzer.*

10849. **Snyder, Solomon H.** (Johns Hopkins U., Medical School) **Cannabis.** *Psychology Today*, 1971(May), Vol. 4(12), 39.—Provides a brief description of the plant *Cannabis sativa* and the forms of preparations made from it.—*E. J. Posavac.*

10850. **Wohlford, Paul & Giammona, Samuel T.** (U. Miami) **Personality and social variables related to the initiation of smoking cigarettes.** *Journal of School Health*, 1969(Oct), Vol. 39(8), 544-552. The initiation of smoking cigarettes appears to be neither a simple, abrupt all-or-nothing occurrence, nor a gradual,

smoothly accelerating process. Although the relationship in adults between extroversion and smoking has been replicated most often, the relationship between rebelliousness and smoking is solidly supported in longitudinal data regarding the presmoking personal dispositions.—G. S. Spitzer.

PERSONALITY

10851. Grasso, A. M., Nicoletti, F., Raffaele, R., & Falsaperla, A. (U. Catania, Clinic for Nervous & Mental Disease, Italy) **La personalità premorboza della schizofrenia in taluni aspetti neurofisiologici dell'organizzazione motoria.** [The premorbid personality of schizophrenia in some neurophysiological aspects of the motor structure.] *Acta Neurologica*, 1969(Nov), Vol. 24(6), 892-902.—Observed the electrophysiological aspects of muscular tone conditions. 50 Ss were divided into 2 groups: inert and active. In the inert group, an increase of muscle tone and an amplitude of the reflex response (T reflex) occurred. Despite an increase in the fusimotor activity, the motoneuronal alpha reflex remained unchanged. In the active group, electrophysiological data shows an increase in the amplitude of the H reflex and a decrease of the fusimotor activity (T reflex.) Results are of interest in the possibility that certain neurophysiological parameters correlate to personality models or character traits of 1 same personality model. (22 ref.)—A. M. Farfaglia.

10852. Torrance, E. Paul. (U. Georgia) **Broadening concepts of giftedness in the 70's.** *Gifted Child Quarterly*, 1970(Win), Vol. 14(4), 199-208.—Cites the present weaknesses in only concentrating on 1 criteria for judging giftedness and then developing individuals in only that area. Other qualities are outlined which are felt to be indicative of the type of talented individual who is often by-passed because his abilities lie latent or are manifested in unconventional ways. Once the broader definition of giftedness is accepted, the next step is to allow the same open-mindedness to prevail in developing the talents and to initiate highly individual programs geared toward the specific person.—S. Krippner.

PERSONALITY TRAITS & PROCESSES

10853. Alexander, Shirley M. (George Washington U.) **A study of perceptual and verbal differentiation among male college students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6887.

10854. Beck, Robert C. (Texas Technological U.) **Performance of introverts and extraverts on various tests of cognitive control.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6251-6252.

10855. Feshbach, Seymour. (U. California, Los Angeles) **Dynamics and morality of violence and aggression: Some psychological considerations.** *American Psychologist*, 1971(Mar), Vol. 26(3), 281-292.—Presents a psychological basis for evaluating aggressive behavior. Issues discussed include: instinctive vs. learned nature of aggression, origins of aggressive drive, the relationship between aggression and masculinity, the effects of inhibition of aggression upon personal adjustment, and the reduction of aggression by nonaggressive means. An examination is also made of how aggression is evaluated by the community at large as it touches on political and nonpolitical contexts. Some of the criteria for making a

moral evaluation of a violent act are presented. (47 ref.)—P. McMillan.

10856. Hill, David O. (Texas Technological U.) **Extraversion-introversion: An investigation of typological theory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6257-6258.

10857. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Maslow and the possibility of becoming healthy.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 777-778.—Discusses the possibility that A. Maslow believed that self-actualized people were innately superior to others and that not everyone is capable of self-actualization. It is suggested that, although Maslow is somewhat obscure on this point, his writings are capable of being used to support the possibility.—*Journal abstract.*

10858. Wesch, Jerry E. (U. Tennessee) **Self-actualization and the fear of death.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6270-6271.

Behavior Correlates

10859. Almgren, Per-Erik. (Lund U., Sweden) **Relations between perceptual defenses, defined by the meta-contrast technique, and adaptive patterns in two serial behavior tests.** *Psychological Research Bulletin*, Lund U., 1971, Vol. 11(3), 22 p.—Selected a repression group (n = 20) and an isolation group (n = 26) from 151 normal pregnant women. The defense mechanisms were defined by the metacontrast technique (MCT). The groups were similar in age, intelligence, neuroticism, and formal properties of their MCT behavior. Predictions were confirmed concerning the relationships between MCT defensive reactions and adaptive styles, defined by serial behavior methods (the Colour-Word Test and the Rod and Frame Test). Results support the percept-genetic model of perception and personality and may be regarded as evidence of the concurrent validity of MCT in a nonclinical group. (33 ref.)—*Journal abstract.*

10860. Andersson, Alf L. (Lund U., Sweden) **Personality as reflected in adaptive regulation of visual aftereffect perception: A review of concepts and empirical findings.** *Psychological Research Bulletin*, Lund U., 1971, Vol. 11(1), 23 p.

10861. Becker, Joseph; Doctor, Ronald M., Miranda, Manuel, & Wallace, Jean. (U. Washington) **Analytic-perceptual style and verbal conditioning.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 631-636.—Assessed relations among analytic-perceptual style, awareness, and desire for reinforcement within a Taffel-type verbal conditioning paradigm using 69 female undergraduates as Ss and controls. Witkin's Embedded-Figures Test (EFT) and M. Mayman's Rorschach form level scores were analyzed separately as indices of analytic-style. Data were analyzed by multiple linear regression with linear contrasts. EFT scores did not relate to any others. But form level interactions with awareness and desire for reinforcement and a triple interaction provided limited support for the hypothesis that an active analytic style facilitates awareness and verbal conditioning, if the reinforcer is desired. (17 ref.)—*Journal abstract.*

10862. Bhushan, L. L. (Bhagalpur U., India) **Leadership preference as a function of authoritarianism and intolerance of ambiguity.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 217-222.—Attempted to determine whether

or not authoritarianism and intolerance of ambiguity are correlates of preference for authoritarian leadership. The California F Scale, Budner's scale for intolerance of ambiguity (IA), and a leadership preference scale developed by the investigator, were the instruments used. Ss were a randomly drawn sample of 400 undergraduate males. It was hypothesized and confirmed that preference for democratic leadership would show a substantial negative relationship with authoritarianism and IA. (49 ref.)—*R. D. Nance.*

10863. Cauthen, Nelson R. & Boardman, William K. (U. Georgia) **Body boundary and stimulus enhancement.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 559-563. —Investigated the relationship between body boundary and stimulus intensity by means of lifted weights. 38 undergraduates who had been administered a Rorschach were Ss. Ss with high Barrier scores were hypothesized to judge weights as heavier than those with lower scores. A disrupting variable was introduced into the task to test the 2nd hypothesis that attention contributed to the heightened intensity of stimuli. The 1st hypothesis was supported. The 2nd was not supported as both groups were equally affected by the disrupting variable.—*Journal abstract.*

10864. Dabbs, James M. & Kirscht, John P. (Georgia State U.) **"Internal control" and the taking of influenza shots.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 959-962. —Assessed expectancies about ability to control the environment and motivation to exert control among 510 undergraduates, 259 of whom had voluntarily taken influenza inoculations. Inoculation was more likely among Ss motivated to exert control but less likely among those who expected to exert control.—*Journal abstract.*

10865. Dargel, Russell & Kirk, Roger E. (Southwest Baptist Coll.) **Manifest anxiety, field dependency, and task performance.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 383-393. —Investigated the effects of manifest anxiety and field dependency upon human perceptual motor performance. 32 female undergraduates were selected as high- or low-anxious Ss as defined by the MA scale and field-dependent or independent as defined by the Hidden Figures Test. Ss performed 5 tasks differing in difficulty level. Results indicate that manifest anxiety did not affect performance on any of the tasks nor was there an interaction of manifest anxiety and field dependency. However, there was an effect attributable to field dependency for the moderately difficult tasks. Results are discussed in terms of (a) chronic and emotional reactivity hypotheses, (b) response competition, and (c) differences in perception of field-dependent and field-independent persons. (23 ref.) *Journal abstract.*

10866. Decker, Lawrence A. (Brigham Young U.) **Self-ideal discrepancy changes of repressors, sensitizers and neutrals given positive and negative feedback under dogmatic and non-dogmatic conditions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6895.

10867. Fremont, Theodore S. (Oklahoma State U.) **Anxiety as a function of task performance feedback and introversion-extroversion.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6399.

10868. George, Robert J. (U. Missouri) **The effects of extraversion and general arousal in cue-elicited aggression.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6240.

10869. Greenberg, Roger P. & Fisher, Seymour. (State U. New York, Upstate Medical Center, Syracuse) **Some differential effects of music on projective and structured psychological tests.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 817-818. —Randomly assigned 40 female Ss to 1 of 2 groups which responded to a battery of psychological tests (Draw-A-Person Test, TAT, Bass' Famous Sayings, and the Bass-Durkee Hostility Scale) while listening to exciting or calming music. Ss' responses were more affected on projective than on structured tests. Ss listening to exciting music more frequently told hostile stories and stories with female power themes. With exciting music Ss also drew significantly taller figures on the Draw-A-Person Test and tended to show more fear of failure on Bass's Famous Sayings. The effects of ambiguity of musical stimuli and the effects of music on content and structure of test responses are discussed.—*Journal abstract.*

10870. Kilpatrick, Dean G. (U. Georgia) **Anxiety, performance of a complex intellectual task, and two GSR indices of autonomic response to psychological stress.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6905-6906.

10871. Lee, Dorothy E. & Ehrlich, Howard J. (Illinois State U.) **Beliefs about self and others: A test of the dogmatism theory.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 919-922. —Using a 29-item form of Rokeach's 40-item Dogmatism Scale the 7 propositions of Rokeach's theory of open- and closed-mind relating to beliefs about self and others were tested, using 444 undergraduates as Ss. It was hypothesized that closed-minded persons, in contrast to open-minded persons, would (a) hold negative beliefs about self and others, (b) hold contradictory self-beliefs, (c) engage in self-proselytization, (d) seek status and power, (e) report a sense of martyrdom, and (f) display moral self-righteousness. In keeping with theoretical expectations, all hypotheses were confirmed although the magnitudes of correlations between Dogmatism Scale scores and the dependent variable measures were low.—*Journal abstract.*

10872. McAdoo, William G. (Florida State U.) **The effects of success, mild failure, and strong failure feedback on A-State for subjects who differ in A-Trait.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6263.

10873. Owyang, Walter M. (U. Nebraska) **Ordinal position, frustration, and the expression of aggression.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6243.

10874. Rim, Y. (Technion-Israel Inst. of Technology, Haifa) **Values, cognitive width, external-internal control and tendency to increase performance.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 223-226. —Discusses Rokeach's views on "values." The present study is an attempt to compare the ranked importance of values and certain personality variables. 75 23-28 yr. old male students ranked Rokeach's 2 lists of instrumental and terminal values. They also were given Pettigrew's Category Width Scale, Rotter's Internal-External Control Scale, and a digit substitution test. It is concluded that Ss differing in cognitive width and in expectancy for internal or external control, as well as those differing in degree of improving performance, differ in their value systems.—*R. D. Nance.*

10875. Tucker, Ann J. (Florida State U.) **The effects**

of audience size on self-report and behavioral measures of anxiety of male and female students in a public speaking class. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6248.

10876. Willerman, Lee. (Wayne State U.) **Temporal integration of rewards and punishments as a function of delay of punishment and psychopathic tendency.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6886.

INTELLIGENCE

10877. Milan, Mikuláš. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Súčasný stav problému dedičnosti a prostredia v skúškach inteligencie.** [Present-day situation in the problem of heredity and environment in intelligence tests.] *Jednotná Škola*, 1971(Apr), Vol. 23(4), 334-350.—Reports that, although mental abilities have been tested through standard scales for 70 yr., the question of what is being measured by the ability scales has yet to be answered. Although results with monozygotic twins have been very valuable, they are equally applicable to the study of environmental influence and genotype. The Gauss curve of test results is considered to have its source in random conditions of knowledge among people as required in dealing with the test items. Graphs and tables are presented showing (a) the distribution of the results of 58,997 9th graders on a physics diagnostic test, (b) changes in the IQs of 5th graders at the end of the school year and after school vacation, and (c) the probable increase in IQ after a full year of programmed teaching in 2 subjects. It is concluded that, while ability tests have been useful in assessing the influence of environment and genotype on the effectiveness of teaching, the widespread concept of ability as an unalterable hereditary condition is the cause of nihilism and stagnation in the study of teaching. (Russian summary)—*English summary*.

10878. Wendeler, Jürgen. (German Research Inst. for International Pedagogy, Frankfurt, W. Germany) **Vergleich einiger Faktorenanalysen muttersprachlicher Leistungen.** [Comparison of several factor analyses of native verbal ability.] *Diagnostica*, 1970, Vol. 16(2), 76-94.—The accepted importance of verbal tests in all research on mental abilities prompted a restudy of previously published analyses of verbal ability. Findings as to the number and kinds of dimensions of native verbal ability are somewhat uncertain. The goal of this study was to discover greater uniformity and better overview of the results, based on selected data from Carroll, Taylor, Rogers, and Guilford and Christensen. Data were derived from highly specialized S groups (13-15 yr. old students, high school seniors, college undergraduates, and naval air cadets). The factorial study confirmed, in the final analysis, the limitations of individual diagnostic application, if factorial validity is a prerequisite. While a good certainty is present in vocabulary measurements, a method to capture the quality of language structure revealed in development and organization of oral or verbal fluency is lacking. Each of the 4 studies revealed a factor of "verbal imagination" which, however, presented interpretive difficulties because of the affect of oral vs. written test approach.—*H. Malki*.

CREATIVITY

sonality Assessment & Research, Berkeley) **The dream of art and poetry.** *Psychology Today*, 1968(Dec), Vol. 2(7), 18-23, 66.—Studies of distinguished, creative individuals reveal that persons of high creativity have IQs in the upper 10 or 5% but that within this range, IQ is not related to creativity. 3 distinct traits characterize creative people: (a) they discern more complexity than others, (b) they possess more perceptual openness and resist premature judgmental closure, and (c) they depend on intuition and hunches to a great degree. Finally, creative people seem motivated to create since they often expend a great amount of energy on their productions.—*E. J. Posavac*.

10880. Carlier, Michele. (U. Paris, Lab. of Experimental Psychology, France) **Flexibility, a dimensional analysis of a modality of divergent thinking.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 447-450.—Administered a battery of 26 verbal and nonverbal tests of flexibility to 78 boys (average age 18 yr.), and the 6 factors extracted accounted for 53% of the total variance: (a) general flexibility, (b) associative flexibility, (c) ideational flexibility, and (d) graphic flexibility. The 2 remaining factors cannot be interpreted. Analysis of the same battery for a population of 107 girls (average age 18 yr.) yielded essentially the same factorial structure.—*Journal abstract*.

10881. Koriat, Asher. (U. California, Berkeley) **Creativity and the structure of memory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6242.

10882. Rossman, Betty B. (U. Denver) **Cognitive, motivational and temperamental indicants of creativity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6301.

10883. Speedie, Stuart M., Asher, J. William, & Treffinger, Donald J. (Purdue U.) **Comment on "Fluency as a pervasive element in the measurement of creativity."** *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 125-126.—P. M. Clark and H. L. Mirels (see PA, Vol. 44:19354) reported a "correction procedure" for fluency in scoring figural divergent thinking measures, which resulted in a reduction from .40 to .20 in the average intercorrelation of scores excluding fluency. Since their correction involved shortening the tests, at least part of the reduction of the intercorrelations can be explained by the reduced reliability of the test. Estimates of the magnitude of this effect are provided. It is concluded that the "correction" reported is at best a partial correction, and that the potential merit of other procedures should be considered.—*Journal abstract*.

10884. Worthen, Blaine R. & Clark, Philip M. (U. Colorado) **Toward an improved measure of remote associational ability.** *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 113-123.—A lack of satisfaction with existing measures of creativity and the need for a more theoretically sophisticated approach to measurement in this area were identified. Mednick's remote association theory of creative behavior was reviewed, and Mednick and Mednick's operationalization of that position, the Remote Associates Test (RAT), was analyzed both logically and empirically. An alternative measure of remote associational ability, the Functionally Remote Associates Test (FRAT), was offered as a more logical extension of Mednick's theory. Empirical data are presented which suggest the superiority of FRAT to RAT as a measure of creativity. (20 ref.)—*Journal abstract*.

10879. Barron, Frank. (U. California, Inst. of Per-

PERSONALITY MEASUREMENT

10885. Baker, Frank. (Harvard Medical School, Boston, Mass.) **Measures of ego identity: A multitrait multimethod validation.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 165-174.—98% of the 715 undergraduate freshmen who had received a questionnaire including direct-answer and sentence-completion methods of measuring ego identity were Ss. Kuder-Richardson reliability coefficients of 4 measures of ego identity ranged from .23 to .48 for the direct scales and from .28 to .55 for the sentence-completion measures. Only 1 measure, inner sameness and continuity, was regarded as having discriminant validity.—N. M. Chansky.

10886. Berger, Wallace G. (U. Michigan, Highway Safety Research Inst.) **Note on emotionality of item wording as a variable in a personality scale.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 415-418.—Describes 3 forms of a personality scale, i.e., the short-form Dogmatism Scale, with each form differing in its degree of rated emotionality of wording. Items in the forms were randomized, combined, and administered to 77 college Ss. Findings indicate that although the variances, internal consistencies, and validities were not affected by emotionality of item wording, the mean endorsement scores of the forms did vary inversely with the forms' level of emotional wording. *Journal abstract.*

10887. Damarin, Fred. (U. Delaware) **A special review of Buros' Personality Tests and Reviews.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 215-241.—An analysis of the content of *Personality Tests and Reviews* reveals certain trends in the production of personality tests. Among other observations are those which show an exponential growth in the publication of personality tests. Rate of obsolescence is greater for the nonprojective tests. There is a table presenting annual references per test. Improvement of personality tests according to technical recommendations has been slow. Some projective methodologies may be abandoned in the near future. The book is lauded as a source of information concerning the validation of personality tests against real world criteria.—N. M. Chansky.

10888. Hamilton, David L. (Yale U.) **A comparative study of five methods of assessing self-esteem, dominance, and dogmatism.** *Educational & Psychological Measurement*, 1971(Sum), Vol. 31(3), 441-452.—70 fraternity members were administered a battery of personality tests comprising (a) the CPI, an empirically developed test; (b) the Rokeach Dogmatism Scale and the Janis-Field Feelings of Inadequacy scale, self-rating measures; (c) the Leary Interpersonal Check List; (d) dominant-submissiveness measured by self-rating on 3 7-point scales; and (e) peer nominations on 22 attributes. A quasi multitrait-multimethod design was used. The 4 methods of assessing dominance were highly correlated, but the several methods of assessing self-ratings performed similar to the other methods in measuring the attributes under consideration.—N. M. Chansky.

10889. Hjelle, Larry A. (State University Coll. New York, Brockport) **Social desirability as a variable in the Locus of Control Scale.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 807-816.—Conducted 3 studies with a total of 515 male and female undergraduates from Catholic institutions to explore several related questions

concerning the social-desirability variable in the Internal-External Control (I-E) scale. Results (a) indicate that a majority of the I-E items have probability of endorsement values which depart significantly from a hypothetical value of $P = .50$, both for standard and social-desirability instruction conditions; (b) demonstrate a small relationship between S's I-E score and S's tendency to agree with I-E items of high response-preference value ($r = .20$), especially for those Ss designated as internally controlled; and (c) show a significant relationship between the social-desirability scale values for I-E items and the probability of I-E item endorsements ($r = .43$). A sizeable number of internal items were rated as significantly more socially desirable than the corresponding external items. It is suggested that the I-E scale may be contaminated by social desirability and that consequently the validity of the scale as a measure of locus of control is questionable. *—Journal abstract.*

10890. Johnson, Jane C. (U. Missouri) **A comparison of two personality systems: The PAS and Wilkin's field dependence-independence.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6241-6242.

10891. Kratochvíl, Stanislav. **BOD(h): Dotazník ke kvalitatívnímu rozboru rysů osobnosti.** [BOD(h): A questionnaire on the qualitative analysis of personality features.] *Sborník Prací Filosofické Fakulty Brněnské University*, 1968, Vol. 17(13), 5-14.

10892. Kulis, Joseph C. (Northwestern U.) **General testing factors, person-item distance, and the repeated testings effect.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6260-6261.

10893. Lane, Sam H. (Texas Christian U.) **The role of differential patterns of responses in the relationship between preference and complexity.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6878.

10894. Leyens, Jacques P. (U. Louvain, Belgium) **La mesure de l'identification.** [The measurement of identification.] *Année Psychologique*, 1970, Vol. 70(1), 179-194.—Identification, or modeling the thought, feeling, or action of another, and its supposed consequences, are measurable by several techniques: projective tests, tests of masculinity-femininity, questionnaires measuring real or perceived resemblance, and the measurement of identification according to social learning. Social psychologists are concerned with variables reinforcing identification and with the modalities of reinforcement. In this search, the questionnaire of perceived resemblance and the reproduction of anecdotal behavior are the best adapted to the purpose. (47 ref.)—G. Rubin-Rabson.

10895. Pedhazur, Elazar J. (New York U.) **Factor structure of the Dogmatism Scale.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 735-740.—Studied the factor structure of the Dogmatism Scale using 309 male and 526 female graduate students and teachers as Ss. In separate analyses for males and females 5 factors emerged, which were rotated orthogonally and obliquely, resulting in very similar loadings for both rotations. Since a single common factor did not emerge and since the correlations among the 5 factors were low, with some near 0, the use of the Dogmatism Scale as a summated rating scale is questioned. The solutions for males and females, though similar, were sufficiently different to

warrant treating them separately. It is suggested that the measurement of a construct as complex as dogmatism may be enhanced by resorting to a multidimensional approach. (16 ref.)—*Journal abstract*.

10896. Reiter, Henry. (C. W. Post Coll., Long Island U.) **Relationships among four measures of anxiety.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 761-762. —Administered the MA scale, Sarason Test Anxiety Questionnaire, 16 PF, and Page Fantasy Scale to 76 male and female undergraduates. Correlations among the 4 tests were all significant. The magnitudes of the coefficients suggest that the tests measure different facets of anxiety. The 16 PF and the MA scale are considered to measure general anxiety.—*Journal abstract*.

10897. Schneewind, Klaus A. (Erlangen-Nürnberg U., Inst. of Psychology, W. Germany) **Wie universell sind Cattell's objektive Persönlichkeitsfaktoren?** [How universal are Cattell's objective personality factors?] *Diagnostica*, 1970, Vol. 16(2), 94-97.—Examines the "salient variables" similarity index developed by Hundleby, Pawlik, and Cattell and finds that median values decrease with increasing usage frequency. From this it is concluded that proof of the universality of these personality factors has not been satisfactorily presented. While not ruling out completely the feasibility of establishing such universal personality factors, for more rigorous reliability the following are recommended: (a) increasingly heterogeneous test groups, (b) control of overlapping variables, (c) greater attention to psychometric qualities, (d) control of situational affects of test procedure, and (e) employment of analytic rotation techniques.—H. Malki.

Inventories

10898. Palmer, Warren H. (U. Alabama) **Actuarial MMPI interpretation: A replication and extension.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6265-6266.

10899. Timm, Ulrich. (U. Freiburg, Inst. of Psychology, W. Germany) **Eigenschaftsratings als Validitätskriterien eines Persönlichkeitsfragebogens: Ein Beitrag zur Validierung des FPI.** [Ratings of traits as validity criteria of a personality questionnaire: An attempt to validate the FPI.] *Diagnostica*, 1971, Vol. 17(1), 26-45.—The Freiburg Personality Inventory (FPI) is a recently published multidimensional personality questionnaire which stands in contrast to other tests based on German translations of Anglo-American tests. The FPI represents an independent development of the Freiburg Institute of Psychology to satisfy recent criticism of usage of literal translation of foreign language tests. Several years of research produced 12 scales which measure a broad spectrum of personality dimensions. Based on the data from a sample of 100 Ss, a profile of 37 items was correlated to the 12 FPI scales. Despite manifold computational approaches, the insufficiency of the sample is criticized, and the experiment is considered successful only to the extent of partial validation of the FPI.—H. Malki.

Projective Techniques

10900. Lavit, Ronald J. (Oklahoma State U.) **Effects of levels of anxiety on Holtzman Inkblot responses.**

Dissertation Abstracts International, 1971(Apr), Vol. 31(10-B), 6261.

Rorschach Test

10901. Dudek, Stephanie Z. (U. Montreal, Quebec, Canada) **Portrait of the artist as a Rorschach reader.** *Psychology Today*, 1971(May), Vol. 4(12), 46-47, 78-84.—The Rorschach responses of 60 artists were compared to those of 22 creative nonartists and 21 non-creative nonartists. The artists saw much more in the forms than the others and often their responses were quite bizarre. While this type of response fits the stereotype of the artist as personally abnormal and/or tortured, it does not reveal the artists' close association with their work. A work-attitude questionnaire was administered to 30 painters and 30 successful professionals. It revealed that the painters felt that they could not have chosen a different occupation while this was not true of the professionals.—E. J. Posavac.

CLINICAL PSYCHOLOGY

10902. Bender, Henry E. (New York U.) **Emotional components of value orientations: A study of relationships between emotion dimensions and value orientations as a function of maladjustment.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6888-6889.

10903. Carpenter, William T., Tamarkin, Norman R., & Raskin, David E. (National Inst. of Mental Health, Bethesda, Md.) **Emergency psychiatric treatment during a mass rally: The March on Washington.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1327-1332.—Presents a rationale for establishing emergency psychiatric facilities during mass demonstrations. Special aspects or attributes, e.g., trust, confidentiality, the authoritarian role of the physician, legal complications, the management of potentially violent patients, and the evaluation of thought processes are discussed. The low incidence of psychiatric casualties and the relative rarity of adverse drug reactions during the November 1969 march on Washington are documented: the majority of the most disturbed patients came to Washington for idiosyncratic reasons and did not regard themselves as antiwar protestors.—*Journal abstract*.

10904. Committee on Preventive Psychiatry. **The dimensions of community psychiatry.** *GAP Report*, 1968(Apr), Vol. 6(69), 877-908.—Presents an overview of community psychiatry designed to help psychiatrists and other professionals to plan and develop effective programs. The psychiatrist's roles as therapist, teacher, investigator, or all of these, are described. 5 approaches to his roles and role shifts in community settings are presented and illustrated. Examples of community approaches include psychiatric participation in the Peace Corps, community action programs, and epidemiological studies. (75 ref.)—P. McMillan.

10905. Courtney, G. R. (Central State Hosp., Milledgeville, Ga.) **Refractive errors in institutionalized mentally retarded and emotionally disturbed children.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1971(Jun), Vol. 48(6), 492-496.—Screened 106 institutionalized emotionally disturbed (ED), 40 trainable mentally retarded (TMR), and 69 educable mentally retarded (EMR) children in a school of special education for refractive errors. As

individual classes and as a single retarded group. IMR and EMR Ss showed significantly more hyperopia than FD Ss and Ss of comparable age from the normal classroom. IMR Ss did not differ significantly from EMR Ss. *Journal abstract.*

10906. Ellsworth, Robert B. (Veterans Administration Hosp., Roseburg, Ore.) **Evaluating and applying information about treatment outcome.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 115-117. Discusses the difficulties of determining outcomes of psychiatric treatment. Since generalizations concerning a patient's behavior in a clinical setting cannot be extended to a community setting, a study of the validity of family ratings was conducted. It was found that there was considerable consensus between family and staff ratings. It was hypothesized that knowledge of the results would enable members of a therapeutic team to identify the effectiveness of their treatments with certain patients and improve their strategies. A pilot program was conducted in which male psychiatric patients were assigned to 1 of 3 hospital teams. Feedback on the patients was obtained from community informants and compared with prehospitalization assessments. Preliminary results indicate that feedback has no impact, unless the therapeutic team can 1st (a) identify the strategy which works best for them, and (b) adopt the approaches which are most promising. It is concluded that the procedure utilized may be effective for any mental health agency in upgrading its effectiveness. —S. Knapp.

10907. Frevhan, Fritz A. (St. Vincent's Hosp. & Medical Center, New York, N.Y.) **The psychopathologist: What man of science?** *Comprehensive Psychiatry*, 1970(Sept), Vol. 11(8), 391-402. Considers the development of the American Psychopathological Association. Jaspers' concept of psychopathology in relation to science, and some recent problems and questions. The future of psychopathology appears more promising than at any time in the past. —H. Prager.

10908. Greenberg, Bernard G., Abernathy, James R., & Horvitz, Daniel C. **A new survey technique and its application in the field of public health.** *Mitbank Memorial Fund Quarterly*, 1970(Oct), Vol. 48(4), Pt. 2, 30-38. Reports results of a survey made in 5 metropolitan areas of North Carolina using the randomized response procedure in obtaining data on induced abortion, oral contraceptive use, emotional problems, and opinions of respondents toward the interviewing technique.

10909. Greenblatt, David J., & Shader, Richard I. (Montefiore Hosp., New York, N.Y.) **Meprobamate: A study of irrational drug use.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(4), 1297-1303. The history of the use of meprobamate illustrates how physicians' other than scientific evidence may determine and justify an attitude of general optimism and uncritical studies with favorable results combined to elevate meprobamate to the position of America's magical calmative tranquilizer. This drug remains in wide use despite a large body of sound scientific data that question its efficacy. Today even pharmacologic solutions to the stresses and tensions of life are often sought in place of more effective forms of mastery. This trend, which may not be a healthy one, is fostered by physicians who prescribe tranquilizers indiscriminantly. (72 ref.) *Journal abstract.*

10910. Houck, Robert L., & Mefferd, Roy B. (Houston) **Perceptual categorization: Factors influencing identification and reproduction of visual and auditory stimuli.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 519-522. Used a near threshold auditory and 3 visual tasks with 12 volunteer patients receiving phenothiazine therapy. It was demonstrated that the more cues available for perceptual categorization, the fewer the errors made in reproductions of stimuli. Stimuli were 5-10 item lists of nonsyllabic combinations of 2 consonants and 2 vowels. *Journal abstract.*

10911. Kulj, L., & Malmquist, A. (U. Lund, Malmö, Sweden) **Motherhood and childlessness in monozygous twins: I. Early relationships.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 17-21. As the 1st step in a larger study that assesses the effects of motherhood on physical and mental health of the mother, 52 mothers were compared to their identical twins who had not produced children (age range = 40-60 yr. of age). The mothers were older at 1st pregnancies than the general population and in more cases enjoyed their own mothers' preference compared to the childless sisters. Childless twins were more often serious minded and introverted in early temperament and more often intrapair dominant. Ideal control Ss are far from identical as far as psychological factors are concerned. (16 ref.) —R. L. Sulzer.

10912. Kolb, Lawrence C. (New York State Psychiatric Inst., New York) **The institutes of psychiatry: Growth, development and future.** *Psychiatric Medicine*, 1971(Nov), Vol. 1(1), 86-95. Discusses the concept of the institution and its evolution and growth as part of the Western institutional development. The New York State Psychiatric Institute, the 1st established institute in the specialty, and the history of its beginnings are documented. Discussions of the conflicts of the aims of the institute of related universities, governmental agencies and private supporters are included. The problem of bridging the gap between the different agencies in forming a multidisciplinary institution to function in an interdisciplinary manner is pointed out. Theoretical and administrative techniques valuable in settling the disharmony are included. (43 ref.) *Journal abstract.*

10913. Lewis, Aubrey. (Inst. of Psychiatry, London, England) **Paranoia and paranoid: A historical perspective.** *Psychological Medicine*, 1970(Nov), Vol. 1(4), 2-12. The terms paranoia and paranoid are viewed with a historical perspective from early Greek times to the present with special emphasis on German waters and the much disputed "paranoia question." Change of the conceptual meaning and the usage of these words are developed. Kraepelin is discussed as the "last word in central opinion" along with Heurich, Kretschmer, Kretschmer and Freud, and a historical view of the French, British, and American contemporary perspectives are included. (86 ref.) —H. Rutter.

10914. Lindenthal, Jacob J., Myers, Jerome A., Pepper, Max P., & Stern, Maxine S. (Yale U.) **Mental status and religious behavior.** *Journal for the Scientific Study of Religion*, 1970(Spring), Vol. 9(2), 143-149. Interviewed 908 adults twice in a 2-yr period to assess their degree of psychopathology, religious participation, the occurrence of specific life events, and the religious response to such events. Ss completed a modified form of the Health Opinion

ancey and were classified as very impaired, moderately impaired, or unimpaired. As the degree of impairment increased, it was found that (a) general participation in organized religious activity decreased, (b) church attendance was reduced in time of crisis, and (c) prayer increased in times of crisis. It is concluded that: "The severely impaired do not seem to use the religious institution to cope with reality, as commonly believed, nor do they turn to its organized activities for help in times of crisis." S. Knapp

10915. Malmquist, A. & Kaij, L. (U. Lund, Malmö, Sweden) **Motherhood and childlessness in monozygous twins: II. The influence of motherhood on health.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 22-28.—Before the 1st birth, twin sisters who later produced children were not different in psychiatric, somatic, or gynecological symptoms when compared to their later childless twin sisters. After birth the probands exhibited significantly higher psychiatric, somatic, and total morbidity compared with their co-twins. Older primiparas are known to have higher risk of complications, and this factor plus a possible adverse effect of parity itself appear to be the most important influences on the results. Psychiatric overmorbidity was highest for mothers of 2 children and absent for higher parity. Hence, the pathogenic effect of parity is not additive. —R. L. Sulzer.

10916. Mariátegui, Javier. **Asistencia psiquiátrica y realidad sociocultural: Sobre la utilización de recursos en países en desarrollo.** [Psychiatric aid and sociocultural reality: Concerning the utilization of resources in developing countries.] *Revista de Neuropsiquiatria*, 1970(Jun), Vol. 33(2), 102-113.—Reviews some aspects of culturally traditional procedures for integrating a wide program of psychiatric resources in developing countries in order to increase in a multiplicative manner the effectiveness of current and future facilities. The limitations of modern resources are considered in these procedures. The following aspects are examined: (a) the problems of internal migration, (b) the mental health problems resulting from poverty, and (c) the positive aspects of folk medicine. Each of these points is discussed in terms of its present-day significance as well as its implications for the future. (English, French, & German summaries) (23 ref.) —L. M. Luosa.

10917. Monro, A. B. (Long Grove Hosp., Epsom, Eng.) **The role of the hospital in psychiatric research.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 1-6.—At one time research was done in the hospitals because that's where the patients were. Now the center of gravity for psychiatric research is in major units or teaching centers. Research now is a cooperative venture without the former exaggerated emphasis on the importance of the clinician's role. The modern psychiatric hospital provides 1 pole of a complicated nexus of relationships between clinicians and research workers. —R. L. Sulzer.

10918. Ollendorff, Robert H. & Adams, Paul L. (U. Pennsylvania) **Psychiatry and the draft.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 85-90.—Discusses the minor influence the military draft in the United States has had on the attitudes and emotions of the middle class youth. Old and young exhibit a draft-related disaffection with established values, and the young are further corroded by draft-related psychopathology. The profiles of 2 types of undergraduates—the disaffected and the mentally ill—who become

enmeshed in draft problems are presented. This predicament of the middle class is shared by the psychiatrist, whose counseling and diagnosis can be contradicted arbitrarily by the needs of an implacable system.—*Journal abstract.*

10919. Polonio, P. (U. Lisbon, Portugal) **Body-mind problems from an empirical point of view.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 7-10.—Psychiatric schemata of description and classification are as imperfect as all the theories that claim to explain human psychopathology. These theories—constitutional, psychoanalytical, and social—lend much in the way of medieval charm to psychiatry, but are little if at all better than the ancient doctrines of the humors. Prerational thinking should be superseded by placing psychiatry on a solid, wholly empirical basis. The common ground for union of psychotherapy and somatic therapy must be service to the patient.—R. L. Sulzer.

10920. Postel, J., Postel, M., & Pivat, P. H. (Maison-Blanche Psychiatric Hosp., Neuilly-sur Marne, France) **Les deux introductions au "Traité-philosophique" de P. Pinel.** [The two introductions to Pinel's "Traité Médico-Philosophique."] *Annales Médico-Psychologiques*, 1971(Jan), Vol. 1(1), 15-48.—Compares the introductions written for the 1801 and 1809 editions of Pinel's historic treatise as a way of evaluating the growth and change in his outlook during this critical period of his thinking. Because of the historic importance of the writings of the man who first "struck the chains" from the mental patient and reformed Western civilization's attitude toward mental disorder, the 2 introductions are reproduced here in detail with a coded reference made to all additions, subtractions, and reformulations between the 2. Stylistic changes, as well as altered content, bear witness to the considerable evolution of Pinel's thought in less than a decade. While the 1st edition of his work can be regarded primarily as a monograph on mania, the 2nd edition is truly a "Treatise on Mental Alienation" in which mania finds its proportionate place among the descriptions given of the several forms of mental disorder.—H. E. King.

10921. Rao, B. S. (All-India Inst. of Mental Health, Bangalore) **Sialic acid (N-acetyl neuraminic acid, NANA) levels in cerebro-spinal fluid of patients with psychiatric and neurological disorders.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 35-38.—Determined total and free sialic acid levels in cerebro-spinal fluid (CSF) by the method of Papadopoulos and Hess with samples from 198 patients with psychiatric and neurological disorders. Samples of CSF were obtained from 8 Ss who were undergoing spinal anesthesia and served as controls. A significant increase of both fractions was noted in patients with TB meningitis and spinal cord tumors. The increase in sialic acid level was always associated with elevation in the protein content of CSF.—*Journal summary.*

10922. Redjinski, John. (Menninger Foundation, Topeka, Kan.) **The Utica crib.** *Bulletin of the Menninger Clinic*, 1971(May), Vol. 35(3), 202-206.—Reviews, for historical interest, the "Utica crib," a covered bedstead, used mostly for mental patients as a restraint from rising but allowing some freedom of motion. The 1st mention of this restraining device was noted as November 1845.—J. Z. Elias.

10923. Seménov, S. F., Chuprikov, A. P., & Shapiro, F. Ya. (Moscow Research Inst. of Psychiatry, USSR) **Issledovanie razlichnykh tipov antitel k DNK u**

bol'nykh epilepsiei, shizofreniei i psikhicheskoi zdorovykh lits. [Study of different types of anti-DNA antibodies in epileptics, schizophrenics and the mentally normal.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 248-253. —Blood samples were taken from 55 epileptics, 44 schizophrenics, and 116 normal controls in a comparative study of different types of antibodies to DNA: F-DNA (boiling and formaldehyde treatment), D-DNA (denatured by boiling), and N-DNA (native). As compared to normal donors, epileptics displayed an increase in frequency of anti-DNA antibodies—a difference which was also qualitative, in that along with antibodies to F-DNA there were those to D-DNA, providing evidence of the degree and duration of the processes of DNA autoimmunization. Relationships were disclosed between the presence of anti-DNA antibodies and age, sex, clinical state, and type of course of the epileptic process. In schizophrenics the presence of antibodies to F-DNA did not exceed in frequency that in normal donors. However, antibodies to D-DNA appeared more frequently in schizophrenics and in epileptics (in the former less than in the latter). Antibodies to N-DNA were not observed anywhere. It is concluded that mental diseases may be accompanied by disturbances of DNA metabolism. (English summary) (15 ref.).—*J. D. London*.

10924. **Tucker, Robert C., et al.** (Yale U.) **Training, treatment, therapy.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 261-274.—Presents digests of 13 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include consumer oriented consultation; residential treatment and "living in"; family approach and community-oriented educational programs for emotionally disturbed and fatherless boys; female mental patients; responses to a fatally ill child; and abortion in psychological perspective.

10925. **Turner, R. Edward.** (Clark Inst. of Psychiatry, Toronto, Ontario, Canada) **Kenneth George Gray, M.D., 1905-1970.** *Canada's Mental Health*, 1971(Mar), Vol. 19(2), 27-28.—Summarizes the life and work of K. G. Gray, noting his contributions to forensic psychiatry.—*P. Hertzberg*.

PERSONNEL

10926. **Balbaky, Yasin.** (State Dept. of Mental Health, Boston, Mass.) **Community involvement alters psychiatrist's roles.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 168-169.

10927. **Critchley, Deane L.** (New York U.) **The relationship between the induced set of psychiatric diagnostic labels and closed-mindedness on the perception of child behavior among baccalaureate students in nursing.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11), 6712-6713.

10928. **De Rosier, Helen A.** (4625 Douglas Ave., Bronx, N.Y.) **Supervision of the first-year psychiatric resident: I. "Accentuate the positive."** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 435-442.—Considers the fact that the most severely ill psychiatric patients are usually treated by the most inexperienced psychiatrists, usually without damage and in many cases to the benefit of the patients. The optimism and enthusiasm of the 1st yr. resident are discussed as contributing to this effect. It is recommended that the resident in supervisory sessions be cautioned against (a) the direct and undiluted

application of analytic theory and techniques to these patients, and (b) engaging the patient in lengthy discussions of his pathology. Techniques which the resident might use to determine and emphasize the patient's areas of strength are discussed. It is suggested that such a procedure may allow the resident to be of maximum help in a short time period in returning the patient to his former level of functioning.—*S. Knapp*.

10929. **Eysenck, Hans J.** (U. London, Inst. of Psychiatry, England) **Relation between intelligence and personality.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 637-638.—Administered 398 trainee male nurses 2 intelligence tests and a personality inventory, the Mill Hill Vocabulary Scale, the Progressive Matrices test, and the P.E.N. Test. Ss were found more extraverted and less neurotic than the general population. Intelligence was independent of extraversion and neuroticism but correlated negatively with the Lie scale.—*Journal abstract*.

10930. **Golding, Stephen L.** (U. Oregon) **"Illusory" correlation in the learning of clinical judgment.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6256-6257.

10931. **Jason, Hilliard, et al.** (Michigan State U., College of Human Medicine) **New approaches to teaching basic interview skills to medical students.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1404-1407.

10932. **Kalisch, Beatrice J.** (U. Maryland) **An experiment in the development of interactive and predictive empathy in nursing students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6715.

10933. **Kreinik, Phyllis S. & Colarelli, Nick J.** (Ft. Logan Mental Health Center, Denver, Colo.) **Managerial grid human relations training for mental hospital personnel.** *Human Relations*, 1971(Feb), Vol. 24(1), 91-104.—Discusses the effects of a Blake-Mouton grid orientation training program on a state hospital staff. Commitment to more candid interpersonal exchange and to group problem-solving was achieved, with neutrality and compromise regarded as less desirable and potent ways of dealing with organizational problems. These effects were preserved for at least 3 mo. after the laboratory program. The staff was also better able to identify organizational problems as emerging from their own common efforts, and, thus, more collectively aware of their ability and resources for solving problems. As a consequence of more critical self-evaluation and greater awareness of intraorganizational issues, there was a concomitant increase in critical attitudes toward the organization with less willingness to exonerate it by an appeal to external influences.—*W. W. Meissner*.

10934. **Libby, Bruce C.** (U. Minnesota) **The AB dimension in a counseling analogue.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6262-6263.

10935. **Monke, Robert H.** (Fresno State Coll., School of Education) **Effect of systematic desensitization on the training of counselors.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 320-323.—Attempted to determine whether the technique of desensitization would reduce the initial anxiety experienced by the beginning counselor trainee before and during his 1st counseling session. 30 counselor trainees in a National Defense Education Act Elementary Counseling and Guidance Institute were randomly assigned to either an experimental or control group. The treatment consisted

of 2 sessions of relaxation and 5 of desensitization. The criterion measures employed included (a) physiological measures using heart rate and skin resistance, (b) tape evaluations, and (c) self-reports. Analyses of the data reveal significantly less self-reported anxiety in the experimental group. No differences were found in heart rate, skin resistance, and tape-evaluation measures.—*Journal abstract.*

10936. Nash, Helen T. (U. Wisconsin) **Perception of vocal expression of emotion by hospital staff and patients.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6264-6265.

10937. Perlman, Gerald. **Growth and change in personality characteristics of beginning psychotherapists.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6909.

10938. Quarrick, Eugene A., Jacobs, Marion, & Trick, O. Lee. (West Virginia U., Medical School, Morgantown) **A new role for psychology students in a medical setting.** *American Psychologist*, 1971(Mar), Vol. 26(3), 317-319.—Describes a 3-wk project in which psychology practicum students assumed primary responsibility for patient care on the psychiatric unit of a large medical center hospital. The project had interesting implications for issues related to clinical training and professional relationships. The pace was intense and demanding and students became totally involved in treating the patients and learning about themselves. Each student worked with about 7 patients primarily through group therapy and family counseling. It is felt that this training model was more likely to test the student's commitment to psychology and to solidify a professional identity than more traditional programs. The project was unique in that the only doctor-patient relationship that the patients had was with the psychology student. 2 physicians were available for medical consultation. Informal observations and analysis of rating scales filled out by the patients indicate that they valued highly the contribution of the students. It is concluded that current trends in medicine toward comprehensive care and family practice necessitate the physician's relinquishment of his exclusive relationship with the patient and to bring in nonmedical specialists on a peer basis.—*E. A. Quarrick.*

10939. Rowe, Dorothy. (Whiteley Wood Clinic, Sheffield, England) **An examination of a psychiatrist's predictions of a patient's constructs.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 231-234.—Repertory grids of 20 elements and 15 constructs sorted by a patient and the patient's psychiatrist showed differences related to errors on the psychiatrist's predictions about 1 construct and 1 element. This suggests that the repertory grid can be used to examine interpersonal perceptions.—*R. L. Sulzer.*

10940. Siller, Jerome. (New York U.) **The psychopathology of status.** *Rehabilitation Counseling Bulletin*, 1970(Dec), Vol. 14(2), 102-107.—Status differentials are learned by direct experiences and less directly but probably no less effectively by imitation and modeling. Destructive differential situations develop within the context of transference distortions. Consequently the teacher or doctor should learn the differences between rational and irrational authority or authoritative vs. authoritarian procedures. Status differential is viewed as a prerequisite for the development of independence and maturity.—*A. J. Ter Keurst.*

10941. Tuckman, Gary. (New York U.) **Interdis-**

ciplinary competition and role performance in the psychotherapy helping professions. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6721.

PSYCHOTHERAPY & ANALYSIS

10942. Abramson, Harold A. (South Oaks Research Foundation, Amityville, N.Y.) **Reassociation of dreams: I. Repetitive analysis of the first dream to induce regression, resolve a negative transference, and assess improvement.** *Journal of Asthma Research*, 1971(Mar), Vol. 8(3), 115-150.—Discusses data from psychoanalytic interviews with a female patient with severe eczema and asthma. The 1st dream of the patient entering psychoanalytic therapy is considered the chief complaint of the unconscious. Relating the 1st dream is a tacit acknowledgment by the patient of the analysis and state. A verbatim recording of the patient's 1st dream was reassociated during 3 yr. of analysis. Verbatim recordings of Interviews 4, 81, 292, and 410 are presented and discussed from the viewpoints of chief complaint of the unconscious, regression, negative transference, and termination of the analysis. An assessment index of improvement is presented based on the material available in all 4 interviews. The patient, 15 yr. after the termination of therapy, still retains the improvement in adaptive ego revealed in Interview 410.—*Journal abstract.*

10943. Andronico, Michael P., et al. (Hunterdon Medical Center, Flemington, N.J.) **Case conference: A psychotherapeutic aide in a Headstart program: I. Theory and practice. II. Commentary.** *Children*, 1969(Jan), Vol. 16(1), 14-22.—6 emotionally disturbed children were treated by a nonprofessional neighborhood worker trained in the principles of Rogerian play therapy; behaviors ranged from uncontrollable to withdrawn. Each child was seen twice weekly for 16 wk. for 30-min therapy sessions. All 6 showed improvement, informally measured. An illustrative case of a withdrawn 4-yr-old girl, along with follow-up report, is presented. Discussants mention the necessity of investigating organic difficulties prior to initiating therapy and mention other problems and cautions regarding therapy. Much of the commentary deals with a debate of "filial therapy" (mothers treat own children in play situations), and the framework used for training the neighborhood worker mentioned above. Criticized also is the lack of an adequate theoretical base for the therapy used, and the lack of a continuous training program and of on-the-job supervision provided the worker. It is noted that play therapy is not always best for disturbed, disadvantaged children from urban ghettos. It is suggested that this article should be used as stimulation for thinking about using lay workers in Head Start programs, rather than as model for their use.—*D. T. Lekarczyk.*

10944. Boucher, Michael L. (Syracuse U.) **Effects of non-verbal communication on attraction and disclosure in a psychotherapy analogue.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6891.

10945. Brandon, Sydney. (U. Manchester, England) **Crisis theory and possibilities of therapeutic intervention.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(54), 627-633.—Crisis theory holds that personality is a dynamic equilibrium, with coping mechanisms adaptable to most life situations. Potentially insoluble challenge disturbs the balance, produces fluidity and disorganization, and increases the potential for change,

patients with reactions. Informed consent, screening, setting and follow-up were lacking in many cases, and the professional affiliations of the group leaders were uncertain. It is concluded that these data suggest that patients should be cautioned about participation in T groups.—*Journal abstract.*

10959 Kay, D. W., Fahy, Thomas, & Garside, R. F. (Royal Victoria Infirmary, Newcastle upon Tyne, England) A seven-month double-blind trial of amitriptyline and diazepam in ECT-treated depressive patients. *British Journal of Psychiatry*, 1968(Dec), Vol. 117(541), 667-671.—In a trial with 132 depressives advantages of using amitriptyline rather than diazepam were shown on rating scales, and in fewer suicides, less requirement for continued shock therapy, and fewer failures to improve. However, side effects were unpleasant.—*R. L. Sulzer.*

10960. Kubie, Lawrence S. (Sheppard & Enoch Pratt Hosp. Towson Md.) The destructive potential of humor in psychotherapy. *American Journal of Psychiatry*, 1970(Jan), Vol. 127(7), 861-866.—Asserts that the use of humor by the psychiatrist is potentially destructive to the psychotherapeutic relationship. Sometimes experienced therapists can use humor without doing harm, but beginning therapists who imitate them may do irreparable damage. Too often the patient's stream of feeling and thought is diverted from spontaneous channels by the therapist's humor; it may even be arrested and blocked. Toward the end of successful therapy, as a patient gradually achieves a progressively deeper self-understanding, gentle and sympathetic humor can sometimes help him to mobilize a determination to utilize his new insights so that he can limit, control, and guide the symptomatic expression of what remains of the neurotic process.—*Journal abstract.*

10961. Marks, Isaac. (Bethlem Royal & Maudsley Hosp. London, England) The future of the psychotherapies. *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 69-73.—Current trends include the application of different psychotherapeutic techniques to selected kinds of problems, refinement into more specific terms of research questions, more attention being paid to the relative therapeutic ingredients of each technique, and a shift from single general theories about psychiatric disorder to multiple lower order ones. Future training should be more efficient, perhaps employing intensive brief training in sensitivity-type groups in place of long analyses, and training will be more broad based than the psychiatrist knowledge of allied disciplines such as ethology and clinical psychology. (19 ref.)—*R. L. Sulzer.*

10962. Meissner, W. W. (Massachusetts Mental Health Center, Boston) Notes on identification: II. Clarification of related concepts. *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 211-302.—Attempts "to clarify some of the concepts involved in the understanding of identification processes. [It considered are] related concepts of internalization externalization, imitation, identification, introjection projection, as well as the concept of identification." The distinctiveness of these processes and their interrelationships are discussed.—*J. L. Hill.*

10963. Möller-Küppers, Manfred. (U. Heidelberg, Psychiatrische Klinik W. Germany) Kriminelle Aggression und neurotische Ideologie. [Criminal aggression and neurotic ideology.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1971(Jan), Vol. 20(1), 3-8.—Presents

the case study of an antisocial male adolescent with aggressive, rebellious, and anti-Semitic behaviors and the resulting legal and psychotherapeutic problems.—*H. A. Euler.*

10964. Olsen, Edward H. (Marquette U., Medical School) The marriage: A basic unit for psychotherapy. *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 945-948.—Marriage is a basic system in which most adults attempt to satisfy their needs for unification and autonomy. The psychotherapist is believed to be more effective working with an existing system than establishing a competing dyadic relationship with 1 of the spouses. He can help each individual differentiate and also facilitate the couple's capacity for a productive, satisfying intimacy. A case report is included. *Journal abstract.*

10965. Porter, Ruth. (Ed.) The role of learning in psychotherapy: A Ciba Foundation symposium. Boston, Mass.: Little, Brown, 1968, xi, 340 p. Presents a series of papers delivered at the 1968 Ciba Foundation symposium on the role of learning in psychotherapy. Topics covered include ethology, validation of results of psychotherapy, learning techniques in education and treatment, and prospects for the future. Discussions following presentation of each paper are included.

10966. Rhodes, Roy G. (Indiana U.) Measuring change in short-term psychotherapy using the Sixteen Personality Factor Questionnaire as the instrument. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6412.

10967. Roberts, F. J. (U. Bristol, England) Conjoint marital therapy and the Prisoner's Dilemma. *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 67-73.—Presents the case of a couple successfully treated by conjoint marital therapy. An attempt is made to apply games theory to marriage, and more particularly the Prisoner's Dilemma game to communications between marital partners.—*A. C. Bower.*

10968. Rozhnov, V. E. Spetsial'nye voprosy psikhoterapii. [Special problems in psychotherapy.] In A. I. Biblin (Ed.), "Pervaya Vsesoyuznaya konferentsiya po problemam meditsinskoi deontologii." (See PA, Vol. 46 Issue 5) 41-50.—Discusses (a) hetero- and auto-suggestive factors in the therapeutic effect of "rational therapy, activating methods, suggestion in the awake state and in hypnosis, autogenic training or the relaxation method, etc." (b) problems in hypnotherapy, (c) psychotherapy in medical psychology, and (d) training in psychotherapy among the medical personnel.—*J. D. London.*

10969. Schildeberg, Melitta. (199 Gloucester Place, London, England) A contribution to the history of the psycho-analytic movement in Britain. *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 61-68.—From 30 yr. of the closest possible contact with the world's leading psychoanalytic centers, the author feels that there is something fundamentally wrong with analysis and analysis. The history of the various analytical societies shows the splits, disillusionment and friction among the analysts just as objective recording of therapeutic success reveals far too many bad stories. Even in the United States the trend may be away from once glamorous psychoanalysis and toward recognition of the greater importance of the therapist's positive personality, intuition and warm concern for the patient, as opposed to some special theory and training.—*R. L. Sulzer.*

10970. Silverman, Martin A. (State U. New York, Downstate Medical Center, Brooklyn) **The growth of logical thinking: Piaget's contribution to ego psychology.** *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 317-341.—Reviews the contributions of Piaget in the study of the development of logical thinking in the child. "Although Piaget does not address himself to the conflict situations that are the psychoanalyst's main concern, he has conducted careful research into an area of ego development that is of great theoretical and clinical import. His precise mapping out of the epigenetic sequences in the development of thought and cognition has made available to the psychoanalyst a collection of very valuable developmental data that deserves serious attention... it can be said that the painstaking researches of Piaget and his co-workers have yielded data of inestimable value to the psychoanalytic investigator."—J. Z. Elias.

10971. Socarides, Charles W. (Albert Einstein Coll. of Medicine, Yeshiva U.) **On disillusionment: The desire to remain disappointed.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 35-44.—Presents theoretical and clinical data relating to the affect of disillusionment in order to further develop the psychoanalytic theory of affect. (26 ref.)—A. C. Bower.

10972. Stevens, Barbara. **The psychotherapist and women's liberation.** *Social Work*, 1971(Jul), Vol. 16(3), 12-18.—Analyzes the role of women in this society and the problems that stem from the oppressive division of sex roles. Insight into the sociopolitical roots of these problems is presented. The existence of inborn causes is denied. Implications for psychotherapy are discussed, with emphasis on the therapist's values and attitudes toward female patients. The case history of a young woman recently separated from her alcoholic husband is presented to illustrate issues discussed.—*Journal abstract*.

10973. Stone, Leo. **Reflections on the psychoanalytic concept of aggression.** *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 195-244.—Views "the phenomenon of aggression, and its psychological functions and representations, as the aggregate of diverse acts, having diverse origins, and bound together, sometimes loosely, by the nature of their impact on objects rather than by a demonstrably common and unitary drive. In psychic development, the indispensable components of wish, intention, or purpose are secondarily assimilated to the consequences. This does not mean that certain elements of aggression do not have an instinctual origin or affiliation; nor... [is] the existence of a latent drive to die (pragmatically considered) [denied], even if... [this] view of such a drive and its relationship to aggression differs from that proposed by Freud." (91 ref.)—J. Z. Elias.

10974. Szasz, Thomas S. (State U. New York, Upstate Medical Center, Syracuse) **Justice in the therapeutic state.** *Comprehensive Psychiatry*, 1970(Sep), Vol. 11(5), 433-444.—The writings of Benjamin Rush articulate the principles of the therapeutic state in which the citizen-patient's conduct is governed by the clinical judgment of the medical despot. The goal of the therapeutic state is unfailing relief from suffering. Conflict is removed by therapy imposed by the state, using force if necessary. The behavioral technologist seeks the destruction of law and justice and their replacement by science and therapy. In the therapeutic state, justice will cease to exist or be redefined as treatment. (22 ref.)—D. Prager.

10975. Toussieng, Povl W. (U. Oklahoma, Medical School, Oklahoma City) **Child psychotherapy in a new era.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 58-64.—The goals and techniques of the industrial era are quickly becoming anachronisms in the computer era. It is insensible to still use the standards from the now defunct industrial era to weigh and appraise the effectiveness of a child's psychological make-up and functioning in the computer era. It is suggested that current models of "the mentally healthy child" be dispensed with, and children be actively involved in setting the goals for any therapeutic intervention on their behalf—even to letting them decide whether any help is needed at all.—*Journal abstract*.

10976. Work, Henry H. & Anderson, Hans. (U. California, Medical School, Los Angeles) **Studies in adoption: Requests for psychiatric treatment.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 948-950.—Observes that parents of adopted children frequently seek psychiatric treatment for them. A study of 419 children at a neuropsychiatric institute confirms this finding. It is proposed that certain patterns of child rearing among adoptive parents contribute to their adopted children's difficulties.—*Journal abstract*.

10977. Zetzel, Elizabeth R. **A developmental approach to the borderline patient.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 867-871.—Proposes that the diagnosis of the borderline patient involves distinctions between (a) unresolved intrapsychic conflict, (b) regressive changes attributable to a period of serious developmental or situational stress, and (c) significant failure to establish certain basic ego functions. Treatment involves considerable activity and structure by the therapist to help the patient utilize a realistic doctor-patient relationship. Borderline patients are seldom capable of tolerating the painful affect integral to the emergence of regressive transference reactions. Despite this and other limitations, many borderline patients are capable of maintaining a high degree of adaptation, provided the therapist remains available to them in a limited manner for an indefinite period.—*Journal abstract*.

Therapeutic Process

10978. Angel, Klaus. **Unanalyzability and narcissistic transference disturbances.** *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 264-276.—Discusses the problems involved in the psychoanalysis of certain patients who fight transference. "Examples are given of 5 patients with widely different symptomatology and character. They have in common certain manifestations of the primal transference, leading to a transference resistance; they insist on being cured by receiving real love from an omnipotent analyst. This primal transference resistance is thought to be unanalyzable if there is loss of the transference illusion. The question is raised whether unanalyzability in general is due to an unanalyzable primal transference."—J. Z. Elias.

10979. Crowder, James E. (Michigan State U.) **Transference, transference dissipation, and identification in successful vs. unsuccessful psychotherapy.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6894-6895.

10980. Gurman, Alan S. (Teachers Coll., Columbia U.) **Rating of therapeutic warmth and genuineness by untrained judges.** *Psychological Reports*, 1971(Jun),

Vol. 28(3), 711-714.—Presented typescripts of therapy segments representative of the Truax Warmth and Genuineness scales to 20 female elementary school teachers for rank ordering on the dimensions of acceptance-rejection and genuineness-falseness. Correlations between rankings and the Truax criteria for warmth were generally positive and moderately high, with an over-all positive r , whereas r with genuineness was generally low and negative, with an over-all low positive value. Vocal cues influenced ratings of genuineness more than those of warmth, and verbal style influenced judgments of warmth more than those of genuineness. Comparisons are made with previous studies of naive judges' ratings of empathy. Implications for therapeutic practice are discussed.—*Journal abstract.*

10981. Kawakami, Norio. (Kyoto U., Japan) **GSR and plethysmographic changes during different modes of reference to experiencing: An experimental approach to psychotherapeutic process.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Sep), Vol. 13(2-3), 121-129.—Recent studies have emphasized the feeling process as a common phenomenon during psychotherapy. Most theories, however, describe the phenomenon only metaphorically. The present study investigated the relation between experimentally produced degrees of reference to experiencing and degrees of physiological tension. It was intended that the significance of experiencing theory for psychotherapy be clarified. Ss were 32 male and female students. Photoplethysmographic and GSR changes were recorded under 8 different types of instructions. Possible conditions to elicit the different results obtained are suggested. (15 ref.)—*R. D. Nance.*

10982. Sandler, J., Dare, C., & Holder, A. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: IX. Working through.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 617-621.—For Freud, working through represented the work entailed in overcoming resistances to change due to the tendency for the instinctual drives to cling to accustomed patterns of discharge. After uncovering conflicts and resistances, analytic work called working through was required to pass from mere intellectual insight to actual change. The concept is descriptive of a clinical process but not the only factor determining whether or not change follows interpretation or insight. Reinforcement and reward are necessary to accomplish learning but are seen to occur best after the therapeutic process labeled working through. (29 ref.)—*R. L. Sulzer.*

10983. Sandler, J., Dare, C., & Holder, A. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: X. Interpretations and other interventions.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 53-59.—The analyst invites the patient to talk to him, listens, and through largely unconscious perceptual processes, comes to understand the deeper meaning of the patient's material. Interpretation includes comments and other verbal interventions which have the aim of making the patient aware of some aspect of his psychological functioning of which he was not previously conscious. Therapeutic change as a consequence of analysis depends, to a large degree, on provision of a structured and organized conceptual and affective framework within which the patient can place his growing understanding of himself and his subjective experience of himself and others. (40 ref.)—*R. L. Sulzer.*

10984. Simon, Justin; Fink, Geraldine, & Endicott,

Noble A. (State U. New York, Downstate Medical Center, Brooklyn) **A study of silence in a recorded analysis.** *Journal of the Hillside Hospital*, 1967(Jul), Vol. 16(3-4), 224-233.—Presents a preliminary report of research on a recorded psychoanalysis. The analysis of an obsessional woman is being conducted utilizing classical technique, and the sessions are audio-recorded. The report concerns the manifestation of certain speech disruptions and silence measured under different conditions of resistance. Data support the hypothesis that shifts in the balance of resistance forces are meaningfully reflected in shifts of speech disruption measured as silence. There is suggestive confirmation of the hypothesis that speech disruption is a preferred manifestation of resistance arising from conflicts which are mobilized in the transference neurosis. (27 ref.)—*S. R. Diamond.*

Group Therapy

10985. Abroms, Gene M., Fellner, Carl H., & Whitaker, Carl A. (U. Wisconsin, Medical School) **The family enters the hospital.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1363-1370.—Presents a preliminary report of 18-mo full-time inpatient treatment of 100 patients and their families. Although a therapeutic impasse dictated most family admissions, the index Ss improved as much as nonfamily-patient controls. The fact of family admission was a powerful therapeutic act in itself. Because the program was intense and short-term, it gave little opportunity for Ss to regress. A discussion of results is meant to be only suggestive and preparatory to an adequately controlled investigation. More use of this type of treatment and less of the customary "dilute" outpatient care is recommended.—*Journal abstract.*

10986. Aponte, Joseph F. (U. Kentucky) **Group systematic desensitization: A test of the counter-conditioning hypothesis with cognitive and emotional modes of test anxiety.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6251.

10987. Bell, Robert L. (Veterans Administration Hosp., Houston, Tex.) **Practical applications of psychodrama: Systematic role-playing teaches social skills.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 189-191.—Describes a technique in which systematic role-playing was used to give patients experience in appropriate social behavior. No rigid or standardized procedures were employed, but several helpful procedures are suggested. Some of these include (a) consideration of the types of social skills a patient needs to develop most, (b) informal meetings to facilitate socialization, (c) little concern for patient dynamics, (d) role-reversal techniques, (e) homework tasks, (f) limiting the group to 12 members, and (g) choosing staff members who feel comfortable with role-playing.—*P. Hertzberg.*

10988. Bernstein, Norman R. & Tinkham, Caroline B. (Harvard Medical School, Boston, Mass.) **Group therapy following abortion.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 303-314.—Describes the authors' experiences in forming and conducting "short-term group therapy with single and married women who had obtained therapeutic abortions." Issues discussed included their own attitudes and those of professionals toward abortions, sex, guilt, and women's rights. "The groups served to reduce guilt, to enhance assimilation of the experience, and helped put the

experience into proportion for its members." It is suggested that groups of this type can be of value for both therapy and research. (24 ref.)—*R. Denis.*

10989. **Dean, Stanley R.** (U. Florida, Medical School) **The role of self-conducted group therapy in psychorehabilitation: A look at Recovery, Inc.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 934-937.—Self-conducted therapeutic clubs fill a need in psychorehabilitation. The emotional climate of the group, its contagiousness, and the opportunity to share with and help others are constructive forces. Against these must be weighed the disadvantages, i.e., the lack of records and adequate follow-up, inadequate screening of new members, limited leadership training, risk of delay in treating serious illness, high dropout rates, and lack of professional or legal regulatory restraints. As a practicing psychiatrist, the author has referred approximately 200 patients over a 20-yr period to Recovery, Inc. for assistance concurrent with his own treatment. He reports that these patients have shown better progress than those who did not participate. (19 ref.)—*Journal abstract.*

10990. **Goldstein, Steven R.** (Temple U.) **Differential effects of physical and nonphysical encounter group techniques on dimensions of self-esteem, interpersonal relations and defense.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6257.

10991. **Grosz, Hanus J. & Wagoner, Robert.** (Indiana U., Medical Center, Indianapolis) **MMPI and EPPS profiles of high and low verbal interactors in therapy groups.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 951-955.—Recorded the frequency of verbal interactions between 184 male psychiatric patients in 4 open therapy groups. Frequency was negatively correlated with scores on the MMPI L and K scales and the EPPS Order scale, and positively correlated with the MMPI Ma scale and the EPPS Aggression scale. Results indicate (a) that patients who score high on defensiveness are unlikely to interact with other group members as often as patients who score low; and (b) patients whose test results show them to be forceful, vigorous, aggressive, and candid are likely to interact with other group members more often than are patients who score low on these personality traits. Findings are discussed in the light of previous investigations and with reference to their possible practical usefulness to group therapists. (17 ref.)—*Journal abstract.*

10992. **Hanson, Philip G., Rothaus, Paul; O'Connell, Walter, & Wiggins, George E.** (Veterans Administration Hosp., Houston, Tex.) **Some basic concepts in human relations training for patients.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 137-143.—Describes the goals and experiences of a human relations training laboratory in operation for 8 yr. whose purpose is to make patients examine their own relationships and develop self-awareness. Candidates are any kind of psychiatric patient with sufficient motivation. The laboratory involves 2 basic processes: learning (change) and democratic milieu (participative involvement). The former takes place on 2 levels—thinking and feeling—while 2 mental mechanisms that influence Ss to learn and change have been identified—identification and internalization. Experience with approximately 1500 Ss showed improvement on a variety of measures, but the improvements were attenuated in a 9-mo follow-up.—*P. Hertzberg.*

10993. **Williams, Robert L. & Gasdick, Jane M.** (Jefferson Barracks, Veterans Administration Hosp., St.

Louis, Mo.) **Practical applications of psychodrama: An action therapy for chronic patients.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 187-189.—Describes the use of psychodrama as part of a multidimensional rehabilitation program for long-term patients, especially designed to teach Ss with a low level of functioning. 20 men and women who had been hospitalized for an average of 10 yr. took part in a 9-mo psychodrama session. Experiences, problems, and useful techniques are related. As Ss developed scene and role-played, the responsibility for handling delusional material presented by a protagonist was given to the group. 10 Ss were placed on terminal level for 1-10 mo. following the therapy. Psychodramatic techniques are believed to facilitate the learning of new attitudes and behaviors.—*P. Hertzberg.*

Behavior & Conditioning Therapy

10994. **Boer, Arend P.** (U. South Dakota) **Toward preventive psychotherapy: Experimental reduction of psychophysiological stress through prior behavior therapy training.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6890.

10995. **Brown, Herbert A.** (State U. New York, Stony Brook) **Systematic desensitization: Counterconditioning or expectancy manipulation?** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6253.

10996. **Calef, Ruth A.** (Southern Illinois U.) **The role of hierarchy, relaxation, and focussing variables in the modification of test anxiety.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6253.

10997. **Cautela, Joseph R. & Wisocki, Patricia A.** (Boston Coll.) **Covert sensitization for the treatment of sexual deviations.** *Psychological Record*, 1971(Win), Vol. 21(1), 37-48.—Presents a detailed procedural description of covert sensitization applied to the treatment of various maladaptive sexual behaviors. Covert sensitization is described to the patient as an aversive conditioning technique in which he, in imagination, pairs the pleasurable object within a noxious setting with the image of himself vomiting on himself, the sexual object, and every aspect of the stimulus situation. Empirical support for the technique is reported. The use of other procedures in conjunction with covert sensitization, the providing of alternate modes of behavior, and the possibility of aversion generalization are discussed. (60 ref.)—*Journal abstract.*

10998. **Connor, William H.** (U. Wisconsin) **Counterconditioning of state anxiety by brief muscle relaxation training: A psychophysiological study.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6893.

10999. **Edelman, Robert I.** (Florida Technological U., Orlando) **Operant conditioning treatment of encopresis.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 71-73.—Treated a 12-yr-old girl with a history of chronic encopresis by periods of isolation as a punishment for fecal soiling, and later, in addition, by relieving her of dishwashing when she did not soil. The undesirable behavior virtually ceased after 41 wk. of this management in the home situation. There was no evidence of symptom substitution, and there were indications of enhanced academic and interpersonal performance. At a 3-mo follow-up the improvement was reported to have been maintained.—*Journal abstract.*

11000. Fishman, Steven T. (U. Missouri) **Systematic desensitization of interpersonal social anxiety and the effects of suggestion upon its outcome.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6255.

11001. Friedman, D. E. & Lipsedge, M. S. (St. Bartholomew's Hosp., London, England) **Treatment of phobic anxiety and psychogenic impotence by systematic desensitization employing methohexitone-induced relaxation.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 87-90.—Reports the results of behavior therapy using systematic desensitization with methohexitone-induced relaxation in 124 patients with phobic anxiety states. The disorders included social anxieties, monosymptomatic and heterosexual phobias, and the agoraphobic syndrome. After a mean period of 19.4 mo. (range 6 mo. to 5 yr.), 47 patients (38%) were symptom free, 63 (51%) were improved, and only 14 (11%) showed no change. (15 ref.)—*Journal summary*.

11002. Johnson, James M. (State University Coll. New York, Plattsburgh) **Using parents as contingency managers.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 703-710.—Instructed the parents of a 9-yr-old boy and an 11-yr-old girl on how to eliminate the disturbing behaviors of their children during the dinner meal. A combination of extinction and avoidance procedures was used to reduce the noisy responses by the children, and, subsequently, a fading technique was used to adjust the food preferences. The program was carried out entirely by the parents; the children were never seen by E. The target behaviors were modified after 20 sessions under the 2 contingencies. Problems encountered while instructing the parents in behavioral techniques are discussed.—*Journal abstract*.

11003. Lane, Robert G. & Domrath, Richard P. (Wisconsin State U., Oshkosh) **Behavior therapy: A case history.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 150-153.—Describes the case of a 33-yr-old self-mutilating, mentally retarded male to illustrate a constructive approach using positive behavior-modification procedures. Coffee was used as a positive reinforcer in fixed and random interval schedules to eliminate an undesirable behavior (pulling out fingernails). Problems encountered in initiating a behavior-modification program and the attitudes of hospital personnel are discussed.—P. Hertzberg.

11004. Layne, Carl C. (Southern Illinois U.) **The effect of suggestion in implosive therapy for fear of rats.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6261-6262.

11005. Leaf, William B. & Gaarder, Kenneth R. (Prototypes, Inc., Kensington, Md.) **A simplified electromyograph feedback apparatus for relaxation training.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 39-43.—Describes external electronic feedback techniques which provide the closing link in a control loop enabling an S to alter his own psychophysiological variables. Control of muscle tension with the feedback EMG gives an improved method of achieving deep relaxation for behavior therapies. Design alternatives involving input coupling, noise level, display method, sensory modality to be stimulated, scoring methods, and safety features are considered in trying to arrive at an optimal instrument. (15 ref.)—*Journal abstract*.

11006. McCallum, Robert N. (U. Missouri) **The modification of cigarette smoking behavior: A com-**

parison of treatment techniques. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6264.

11007. McGlynn, F. Dudley; Reynolds, E. Joyce, & Linder, Lowell H. (Mississippi State U.) **Experimental desensitization following therapeutically oriented and physiologically oriented instructions.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 13-18.—Assigned 39 female undergraduates with a fear of mice (selected by scores on the Behavioral Avoidance Test) to 1 of 4 groups and instructed them that they were (a) studying a form of therapy (Group A), (b) studying the relationship of heart rate to fear (Group B), and (c) studying the relationship of heart rate to various mental images (Group C). Group D received no treatment. Groups A, B, and C received relaxation training, while Groups A and B received identical analogue desensitization training. Groups A and B showed significant ($p < .01$) improvement over Groups C and D. No significant differences were found between the 2 treatment groups or between the 2 control groups. Results do not support the concept of a "therapeutic set" found in previous studies.—S. Knapp.

11008. Riebold, Floyd E. (Texas Technological U.) **The effectiveness of programmed material as a method for assisting parents in regulating consummatory behavior in children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6267-6268.

11009. Sopina, Mary V. (U. Arizona) **Self concept changes in adolescents following behavior modification.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6268-6269.

11010. Stark, James E. (U. Georgia) **The comparative efficacy of three behavior modification techniques in the treatment of interpersonal anxiety.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6914.

11011. Stedman, James M., Peterson, Travis L., & Cardarelle, James. (U. Texas, Medical School, San Antonio) **Application of a token system in a pre-adolescent boys' group.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 23-29.—Describes group therapy with preadolescents as presenting an excellent opportunity to employ operant conditioning principles. Procedures used in establishing an operant approach in a group of 8 10-12 yr. old hostile-aggressive boys are described. Quantitative data and qualitative observation indicate that operant techniques are successful in increasing the rate of prosocial responses and decreasing deviant behavior.—*Journal abstract*.

11012. Stephen, Louis S. (U. New Mexico) **Subject-experimenter relationship influence on habit modification.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6306.

11013. Stuart, Richard B. (U. Michigan) **Behavioral contracting within the families of delinquents.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 1-11.—Describes the use of behavioral contracting to strengthen the control of family and school over the behavior of delinquents. A behavioral contract is defined as a means of scheduling the exchange of positive reinforcements among 2 or more persons. The use of these contracts is predicated upon 4 assumptions: (a) receipt of positive reinforcements in interpersonal exchanges is a privilege rather than a right; (b) effective interpersonal agreements are governed by the norm of reciprocity; (c) the value of an interpersonal

exchange is a direct function of the range, rate, and magnitude of the positive reinforcements mediated by that exchange; and (d) rules create freedom in interpersonal exchanges. The use of a behavioral contract with a 16-yr-old delinquent girl is described and analyzed using Markovian methods. (25 ref.)—*Journal abstract*.

11014. Tenbrunsel, Thomas W., Lottman, Thomas J., Coby, William F., & Oziel, Leon J. (Capitol Area Comprehensive Health Planning Assoc., Lansing, Mich.) **A group token program for the education of the mentally ill.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 743-746.—Established a group token program to increase motivation, participation, and involvement within the framework of an activities therapy adult education program. The structure of the program consisted of 4 semiautonomous groups of 8-10 mental patients within a token economy system. Pre- and posttreatment measures of group problem solving and social interaction were taken, using the Group Task Puzzles and the Social Activity Scale. Significant differences in amount of communication in both situations were found between the pre- and posttreatment groups. No significant differences in rate of group problem solving were noted. Implications for future research in program development are discussed.—*Journal abstract*.

11015. Tyler, John D. (U. Texas) **Fear extinction using a reciprocal inhibition technique.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6914-6915.

11016. Wark, David M. (U. Minnesota) **An inexpensive apparatus for desensitization by recorded tape.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 37-38.—Describes the use of portable cassette tape recorders for desensitization. The apparatus consists of 2 tape recorders, tapes of hierarchy scenes and relaxation instructions, and remote control switches. Several uses for the equipment are outlined.—*Journal abstract*.

11017. Wolpe, Joseph & Theriault, Norman. (Temple U., Medical School) **Francois Leuret: A progenitor of behavior therapy.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 19-21.—Discusses Francois Leuret, a French physician. During the 1st half of the 19th century without the benefit of experimental models, this doctor treated psychiatric patients by directly attempting to change their habits. His viewpoint is expressed in excerpts from his writings, and some of his therapeutic methods are delineated.—*Journal abstract*.

Special & Adjunctive Therapy

11018. Bartlett, Esther E. (181 Adams St., Quincy, Mass.) **The use of hypnotic techniques without hypnosis per se for temporary stress.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 273-278.—Hypnotic techniques utilize normal, simple, natural methods to modify or control inappropriate behavior by suggestion, without the formal induction of hypnosis. They are uniquely suitable for any patient's needs in any type of temporary stress.—*M. V. Kline*.

11019. Bigelow, Newton & Ruben, Peter. (Marcy State Hosp., N.Y.) **Music and milieu.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 502-515.—Considers that music should be the main force in milieu treatment of the mentally ill. The use of lullabies and martial music to

symbolically represent mother-love and aggression to a 51-yr-old catatonic woman and the beneficial effects on the patient are noted. The combination of music and painting in the treatment of an 8-yr-old boy with feelings of rejection and abandonment is described. A music program which utilizes staff and patients in a state hospital is outlined. Case histories of a 28- and a 29-yr-old woman are presented to indicate the benefits of such a program. An appendix is included which lists the basic instrumentation and repertoire for a concert band, a stage band, a combo, and a chorus.—*S. Knapp*.

11020. Golan, Harold P. (77 Bay State Rd., Boston, Mass.) **Control of fear reaction in dental patients by hypnosis: Three case reports.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 279-284.—Fear is 1 of the 4 basic drives in humans. Various case histories illustrate how hypnosis can aid in alleviating fear and ameliorating difficult operative situations.—*M. V. Kline*.

11021. Johnston, Edwin & Donoghue, John R. (U. Portland) **Hypnosis and smoking: A review of the literature.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 265-272.—Reviews the use of hypnosis in the treatment of smoking. Although there are many clinical reports available, there is almost no good research evidence attesting to the effectiveness of hypnosis in the elimination of smoking behavior.—*M. V. Kline*.

11022. McAmmond, Diane M., Davidson, Park O., & Kovitz, David M. (U. Calgary, Alberta, Canada) **A comparison of the effects of hypnosis and relaxation training on stress reactions in a dental situation.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 233-242.—Skin conductance and self-report anxiety of frightened dental patients were measured during a pain tolerance test and an anesthetic injection procedure. On the skin conductance measure, relaxation and hypnosis were more effective than control for highly aroused Ss.—*M. V. Kline*.

11023. Menapace, Robert H. & Lana, Robert E. (Temple U.) **Physical rehabilitation and attitudes of CVA and pulmonary patients.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 763-768.—Examined 28 cerebrovascular accident (CVA) inpatients and 28 pulmonary outpatients for attitudes toward hospital personnel and procedures, self, and sociopolitical issues. GSR records were taken during testing. The ensuing 4-6 wk. of rehabilitation therapy was conceived to be the attitude-influencing procedure. Ss were again given the attitude questions, and GSR recordings were taken. Results indicate that (a) the physical rehabilitation process did a better job in changing attitudes in a desirable direction regarding self-perception for CVA inpatients than the pulmonary outpatients; and (b) CVA inpatients became more skeptical than the pulmonary outpatients about hospital procedure and personnel, though the latter displayed a reduction in tension about the attitude assessment.—*Journal abstract*.

11024. Patch, Vernon D. & Refsnes, Carolyn C. (Harvard Medical School, Boston, Mass.) **An art class in a psychiatric ward.** *Bulletin of Art Therapy*, 1968(Oct), Vol. 8(1), 13-24.—Describes a weekly art class for psychiatric day care and hospital patients at a metropolitan city hospital. Illustrations of the patients' art work are presented, and their use in diagnosis and treatment discussed. Problems of integrating a new therapy into an existing therapeutic program are con-

sidered. It is suggested that benefits from art therapy can include (a) the provision of an organized group activity, (b) help for patients with problems of self-control through a structured class situation, and (c) the opportunity to identify patients who would benefit from individual art therapy. A discussion by Elinor Ulman is also presented.—*P. McMillan.*

11025. Perkins, Kenneth A. & Reyher, Joseph. (Minneapolis Clinic of Psychiatry & Neurology, Minn.) **Repression, psychopathology and drive representation: An experimental hypnotic investigation of impulse inhibition.** *American Journal of Clinical Hypnosis*, 1971(Apr), Vol. 13(4), 249-258. A hypnotically induced paramnesia involving hostile impulses was activated posthypnotically at 3 levels of conflict intensity by the tachistoscopic presentation of words related to the paramnesia.—*M. V. Kline.*

11026. Pflug, B. & Tölle, R. (U. Tübingen, Neuro-clinic, W. Germany) **Therapie endogener Depressionen durch Schlafentzug.** [Therapy for endogenous depression by means of sleep deprivation.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 117-124. Sleep deprivation for 1 night was administered to 23 endogenous depressives, 11 neurotic depressives, and 23 normal Ss. For the endogenous depressives a significant therapeutic effect was obtained whose duration varied. For the neurotic depressives this effect was more weakly pronounced in that it occurred more irregularly. In 1 case a worsening was observed. Examination of circulation showed a rise in the systolic blood pressure of the ophthalmic artery after sleep deprivation for endogenous depressives but not for neurotic depressives and normal Ss. Sleep deprivation is recommended as a treatment for endogenous depression in its beginning stages as well as for thymoleptica resistance. The consequences for the treatment of depressive sleep disturbances and the meaning of the 24-hr rhythm for endogenous depression are discussed.—*E. R. Wist.*

11027. Pilowsky, I. & McGrath, M. D. (U. Sydney, New South Wales, Australia) **Effect of ECT on responses to a depression questionnaire: Implications for taxonomy.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 685-688. Administered to 45 depressives, a 57-item questionnaire produced evidence for the validity of depressive classes. The effect of ECT appeared, with responses to items considered related to endogenous depression, the most likely to change after treatment.—*R. L. Sulzer.*

11028. Vidart, Lionel. **Vers un thermalisme institutionnel en psychiatrie.** [Toward an institutional thermalism in psychiatry.] *Annales Médico-Psychologiques*, 1971(Jan), Vol. 1(1), 1-13.—Reviews the ancient and still useful "water cures" as they apply to the psychiatric patient. Treatment at a medically oriented spa consists of more than the hydrotherapy on which it is based, it is almost always combined with psychotherapy and training in relaxation methods by skilled instructors. Relaxation is regarded not as a panacea nor a simple byproduct of physical treatment methods, but more a discipline which must be acquired gradually. Many patients begin to benefit simply by removal to a thermal institution, away from perturbing family and occupational stress. Each must be prepared psychologically for the active steps to follow this interruption if he is to find himself again, taking as the point of departure the rediscovery of his own body and physical existence. The most successful treatment results are obtained with those

forms of anxiety which take a concrete form of the neurovegetative variety.—*H. E. King.*

Drug Therapy

11029. Aisa, Pilar & Díaz, Ana M. (San Francisco Xavier Psychiatric Hosp., Navarre, Spain) **Tratamiento endovenoso de las depresiones.** [Intravenous treatment of depressions.] *Archivos de Neurobiología*, 1969(Apr), Vol. 32(2), 209-217. Studied 38 Ss who were treated iv for various types of depression: (a) psychotic manic-depression, (b) periodic depression, (c) neurotic depression, (d) depression in schizophrenics, (e) reactive depression, (f) involuntary depression, and (g) psychorganic depression in the retarded. It is concluded that the results obtained with chlorimipramine are superior to all other antidepressants. It has an intense activity over all depressive symptoms, especially inhibition, anxiety, and anguish. There is a greater number of remissions when compared to other antidepressants. It is well tolerated and can be applied to different types of depression. Also, it is noted that chlorimipramine can replace electroshock therapy.—*A. M. Farlagha.*

11030. Bahr, F., Llanos, R., & Matusek, N. (Max Planck Inst., Munich, W. Germany) **Análisis clínico cuantitativo del efecto de la fenetilina (captagon) sobre los niños hiperquinéticos.** [Quantitative clinical analysis of the effect of fenetylillin (captagon) on hyperkinetic children.] *Revista de Neuro-Psiquiatria*, 1970(Sep), Vol. 33(3), 233-242. —10 hyperkinetic children were treated in a double-blind study with fenetylillin (captagon). The effect of the treatment was quantitatively estimated with a time recorder, a movement recorder, and a rating scale. The daily dosage was 50-150 mg. (1-3 tablets) except for 1 S who received a 205-mg dosage. During the hospitalization 6 Ss showed a substantial to very good improvement, 3 Ss were improved only in some aspects, and 1 S was found to be deteriorated. In addition to a decrease in motor activity, aggressive behavior also decreased. Furthermore, more patience, endurance, and emotional stability were observed. A too large dosage of fenetylillin led to loss of appetite and weeping. In 3 cases in which after a successful treatment the Ss were sent home, the therapeutic effects remained stable. (French & German summaries) (17 ref.)—*English summary.*

11031. Benady, D. R. (Child Guidance Clinic Shrewsbury, England) **Cyproheptadine hydrochloride (peractin) and anorexia nervosa: A case report.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 681-682.—A 12-yr-old girl with slow progressive weight loss, anorexia before onset of menstruation, and presence in the family of disturbed relatives showed improvement with cyproheptadine hydrochloride. No side effects were seen.—*R. L. Sulzer.*

11032. Benešová, O. (Charles U., Inst. of Pharmacology, Prague, Czechoslovakia) **Neurophysiological and biochemical aspects in the action of antidepressant drugs.** *Activitas Nervosa Superior*, 1970(Aug), Vol. 12(3), 226-234.—A review of the literature points to evidence that the monoamines play an important role in the treatment and in the pathogenesis of depression. A significant factor may be the ratio between single monoamines rather than the absolute value of any one of them. The significance of indolealkylamines (5-hydroxytryptamine) and their metabolism seems to increase. The interferences of

thymoleptics with the cholinergic transmission is still to be studied in detail. (47 ref.)—*H. Bruml.*

11033. **Bornstein, S., et al.** *Intérêt thérapeutique de l'hydrosarpan 711 dans les états dépressifs et la pathologie psychiatrique du présénium.* [Therapeutic interest of hydrosarpan 711 in depressive states and psychiatric pathology of the presenium.] *Annales Médico-Psychologiques*, 1970(Oct), Vol. 2(3), 433-444.—The problems brought about by insufficient cerebral circulation, which can appear well before a patient may be considered geriatric, have been treated by a variety of new drugs notable among which is hydrosarpan 711. This study reports its use with 73 patients, both hospitalized and ambulatory. Its efficacy for deficit states related to senility were confirmed and treatment was extended to patients with depressive, melancholic, or psychotic states in which classic therapies were contraindicated because of vascular problems. Progress was followed by clinical observation and psychometric testing (intelligence, memory, perceptual structure, and personality). A favorable result (86%) confirms the clinical findings reported by others. Particularly encouraging were the effects on ambulatory patients classed as presenile depressives with marked psychic weakness. Especially among overly driven responsible persons hydrosarpan 711 was found to exert a curative and sometimes preventive action.—*H. E. King.*

11034. **Brill, Leon & Chambers, Carl D.** (New York State Narcotic Addiction Control Commission, New York) *A multimodality approach to methadone treatment of narcotic addicts.* *Social Work*, 1971(Jul), Vol. 16(3), 39-51.—Describes a multimodality treatment program for narcotic addicts which is primarily geared to the goal of abstinence. The psychotherapeutic continuum serves to help those addicts who can benefit at a particular level and to screen those in need of more intensive treatment. Treatment includes inpatient or ambulatory detoxification, low-dose methadone, high-level variable dose methadone maintenance, and residential center living with methadone maintenance. Each level is described and a case example presented to illustrate various principles. It is concluded that such a multimodality approach makes a definite contribution to the rehabilitation of addicts who might not otherwise be reached by more limited programs.—*S. Knapp.*

11035. **Bunney, William E., Brodie, H. Keith; Murphy, Dennis L., & Goodwin, Frederick K.** (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) *Studies of alpha-methyl-para-tyrosine, L-dopa, and L-tryptophan in depression and mania.* *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 872-881.—Administered L-dopa and L-tryptophan, metabolic precursors of norepinephrine and serotonin, respectively, and alpha-methyl-para-tyrosine (α MPT), a blocker of catecholamine synthesis, to 34 depressed and manic Ss in an attempt to decrease their psychopathology and test the monoamine theory of affective disorders. L-dopa and α MPT clearly altered mood and thought patterns in some Ss, while L-tryptophan was less active. Analysis of urinary and cerebrospinal fluid amine metabolites documented the metabolic effects of the compounds during periods of behavioral change. (52 ref.)—*Journal abstract.*

11036. **Cramer, Bertrand.** (Medico-Pedagogical Center, Geneva, Switzerland) *Delusion of pregnancy in a girl with drug-induced lactation.* *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 960-963.—Presents

the case of a 15-yr-old psychotic girl who developed galactorrhea and a delusion of pregnancy while taking chlorpromazine. The delusion developed as a result of the interaction of the side effects of chlorpromazine and the psychological makeup characteristic of pseudocyesis patients. Galactorrhea and breast changes are often found among patients taking high doses of chlorpromazine and conflicts about pregnancy are frequent; thus delusions of pregnancy may often occur among female institutionalized patients treated with chlorpromazine. (20 ref.)—*Journal abstract.*

11037. **Crane, George E.** (Spring Grove State Hosp., Baltimore, Md.) *Persistence of neurological symptoms due to neuroleptic drugs.* *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1407-1410.

11038. **Dole, Vincent P., et al.** (Rockefeller U.) *Methadone poisoning: Diagnosis and treatment.* *New York State Journal of Medicine*, 1971(Mar), Vol. 71(5), 541-543.—The history of narcotic intake is important in establishing a diagnosis of methadone poisoning since the symptoms, apnea and coma, are nonspecific. Artificial respiration by the best means immediately available should be started without delay. Antidote of choice is naloxone hydrochloride (narcant), .01 mg/kg iv.; nalorphine hydrochloride (nalline), .1 mg/kg, is also an effective antidote. The patient should be continuously observed for 24 hr. and further im injections of antidote administered as necessary to maintain respiration. Lavage, dialysis, and CNS stimulants are contraindicated. The importance of secure custody of methadone must be emphasized by prescribing physicians.—*Journal abstract.*

11039. **Fouks, L.** *Les effets secondaires du moditen-retard.* [The secondary effects of Moditen-Retard.] *Psychopharmacologie*, 1970(Mar), 14-18.—Discusses secondary effects of the long-acting preparation fluphenazine enanthate. Effects include dysleptic effects from overdosage, e.g., passivity, obtundation, and depressive or confusional-oniric states. The drug can also produce neurological effects, e.g., the akinetic syndrome, or hypertonic and dyskinetic syndromes. Characteristics and management of these effects are discussed.—*W. W. Meissner.*

11040. **Gardiner, A. Quentin & Hall, David J.** (U. Aberdeen, Scotland) *Drug monitoring in a psychiatric unit.* *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 185-193.—For 307 patients, adverse effects such as skin rash, headache, vomiting, sweating, hypotension, confusion, memory loss, diarrhea, or laryngeal spasm, were most frequent with treatment by electroplexy, antidepressant drugs, and phenothiazines. Incidence of untoward events increased with the number of drugs administered, and women experienced more events than men. (17 ref.)—*R. L. Sulzer.*

11041. **Gayral, L.** *Conduite de la cure en milieu hospitalier.* [Management in the hospital setting.] *Psychopharmacologie*, 1970(Mar), 19-25.—Discusses principles of drug management and dosage scheduling in use of long-acting fluphenazine enanthate in the in-hospital treatment of psychotic patients. Effects of the drug on the course of symptoms in classical schizophrenia are described. Posthospitalization treatment is usually indefinite with a maximum remission of 3 yr.—*W. W. Meissner.*

11042. **Glick, Ira D., Hauptman, Bruce, & Klein, Donald F.** (U. California, Medical School, Berkeley) *Pseudopregnancy: Treatment of periodic psychiatric illness: A pilot study.* *Psychiatric Quarterly*, 1970(Jul),

Vol. 44(3), 403-407.—Conducted a pilot study on the use of high dosages of norethynodrel with mestranol (enovid) to produce a pseudopregnant state in treating the female patients with periodic psychiatric illness. "The rationale was to produce a kind of pseudopregnant state in the expectation that when treatment was stopped, fertility might be enhanced by the operation of compensatory mechanisms." 4 female 18-54 yr. old Ss received 10-mg enovid for 1 wk., with weekly increments of 10 mg. until 40 mg. was reached. The drug was then discontinued for a 2-wk period while Ss received a placebo and were observed for 1 mo. 2 Ss showed slight improvement, and 2 Ss were unchanged, with no increase in depression.—S. Knapp.

11043. Goldfield, Michael & Weinstein, Morton R. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Lithium in pregnancy: A review with recommendations.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 888-893.—Reviews studies on the teratogenicity of lithium salts during pregnancy which reveal conflicting evidence. It is proposed that lithium therapy should be initiated during pregnancy only in severely manic women who are unresponsive to other therapy and for whom continuing manic behavior would jeopardize their own or their babies' lives. 6 cautions in the use of lithium during pregnancy are offered, including avoidance of diuretics and of salt restriction. In addition, the formation of an American Registry of Lithium Babies is announced. (22 ref.)—*Journal abstract*.

11044. Helmchen, H. & Kanowski, S. (Free U., Psychiatric & Neurological Clinic, Berlin, W. Germany) **EEG-Veränderungen unter Lithium-Therapie.** [EEG changes under lithium therapy.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 144-148.—It is asserted that under lithium treatment the EEG is very frequently impressively and variously modified. The changes correspond qualitatively in large part to those phenomena observed under therapy with other psychopharmacological drugs. The finding raises a series of questions whose answers surmise that the practical difficulties of the method can be overcome in the future.—E. R. Wist.

11045. Jerí, F. R. (National U. of San Marcos, Lima, Peru) **El uso de haloperidol en la esquizofrenia residual y en los estados paranoides.** [The use of haloperidol in schizophrenic residual and paranoid conditions.] *Revista de Neuro-Psiquiatria*, 1970(Jun), Vol. 33(2), 114-122.—The odorless, colorless, and tasteless haloperidol concentrate was given to 7 patients, 6 schizophrenic and 1 paranoid. 6 Ss would not take any antipsychotic medication or accept ECS treatment. In 6 Ss haloperidol produced a complete social remission. In 1 it failed to avoid a relapse or to eliminate troublesome hallucinations. (French & German summaries) (16 ref.)—*English summary*.

11046. Jirgl, M., Drtil, J., & Čepelák, J. (Research Inst. of Penology, Prague, Czechoslovakia) **The influence of propericiazine on the behavior of difficult delinquents.** *Activitas Nervosa Superior*, 1970(May), Vol. 12(2), 134-135.—14 difficult delinquents were administered propericiazine (a form of neuleptil). Conspicuous improvement was observed as far as hostility, depression, and aggression were concerned, and moderate improvement was observed in emotional lability and thinking. There was a somnolence at the beginning of the treatment, in 2 patients there was also muscle rigidity and even cramps. Compared with other drugs which were tried before (phenothiazines, bromides, barbitu-

rates) the propericiazine was the most effective; the dosage was simpler and was more easily tolerated.—H. Bruml.

11047. Kondraschenko, V. T., Glants, B. R., & Maerovich, I. M. **Giperbaricheskaya oksigenoterapiya gipoksicheskikh sostoyanii pri ostrykh cherepno-mozgovykh travmakh i ostrykh ékzogenykh psikhózakh.** [Hyperbaric oxygenotherapy of hypoxic states in acute craniocerebral injuries and acute exogenic psychoses.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 271-277.—Studied the effectiveness of oxygen therapy under high-pressure in acute cases of craniocerebral injury and exogenic psychosis, utilizing observations on 124 19-34 yr. old patients (63 with II-III degree concussion of the brain and 61 with acute psychoses of exogenic origin, i.e., CO poisoning and alcoholic psychoses), 29 of whom were treated with hyperbaric oxygen, 50 with oxygen under normal pressure, and 50 with oxygen in combination with other methods. Hyperbaric oxygen therapy was shown to be much more effective than mere inhalation in dealing with hypoxic states and is recommended for the treatment of psychoses accompanied by symptoms of hypoxia. (English summary) (28 ref.)—I. D. London.

11048. Kullander, N. E. (Central Hosp., Women's Clinic, Kristianstad, Sweden) **A double-blind clinical trial of a new sleep-inducing combination of methaqualone and etodroxizine compared with nitrazepam and placebo.** *Arzneimittel-Forschung*, 1969(Sep), Vol. 19(9), 1530-1532.—Isonox, a new sleep-inducing drug combination of methaqualone and 8-[4-(p-chloro-benzhydryl)-piperazin-1-yl]-3,6-dioxaoctan-1-ol (etodroxizine) was investigated in comparison with nitrazepam and placebo. The clinical value of isonox was shown with the double-blind method. Results are discussed and represented in a table and the sequential graphs. Ss consisted of 30 women from a gynecological ward, average age being 47.8 yr. Isonox proved to be significantly better than both placebo and nitrazepam. 2 Ss spontaneously expressed their view that this was the best sleep-inducing preparation they had ever tried. For 3 Ss it was too strong in the given dosage, indicating that in future clinical use 1 capsule might be tried instead of 2. Isonox has several advantages and is recommended for clinical use, especially when other therapy has failed. (23 ref.)—*Journal summary*.

11049. Lambert, P. A. & Marcou, G. **L'oenanthate de fluphenazine en traitement post-hospitalier.** [Fluphenazine enanthate in post-hospital treatment.] *Psychopharmacologie*, 1970(Mar), 26-32.—Presents details of administration and advantages of using the long-acting preparation of fluphenazine enanthate in the management of patients after discharge from the hospital for psychotic illness. Injections are given on biweekly basis. This involves ease of administration and better control over dosage, and the assurance that the medicine is being received by the patient. Parkinsonian-like side effects are seen in 20% of patients but are easily controlled with artane.—W. W. Meissner.

11050. Lewis, Wade H. (Santa Rosa Medical Center, San Antonio, Tex.) **Iatrogenic psychotic depressive reaction in hypertensive patients.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1416-1417.

11051. Malleon, Nicolas. (U. London, Research Unit for Student Problems, England) **Acute adverse reactions to LSD in clinical and experimental use in the United Kingdom.** *British Journal of Psychiatry*,

1971(Feb), Vol. 118(543), 229-230.—Surveyed experience with 49,500 LSD treatment sessions on 4,300 patients. Attendant suicide rate was .7/1,000, accident rate 2.3/1,000, and brief psychosis rate 9/1,000 patients. It is concluded that with adequate psychiatric supervision the incidence of such reactions is not prohibitive.—R. L. Sulzer.

11052. Mariátegui, J., Chávez, H., Butler, A., & Oballe, J. El clormetiazol en el tratamiento de síndromes ansiosos. [Chlormethiazole in the treatment of anxious syndromes.] *Revista de Neuro-Psiquiatria*, 1969(Dec), Vol. 32(4), 307-316.—Studied by clinical and statistical methods the effects of chlormethiazole, a derivative of thiamine on 20 male and female 18-60 yr. olds. 13 Ss suffered from anxious reaction, 4 from neurosis, and 3 from anxious-phobic reaction. After 4 wk. of treatment there was great improvement in 6 Ss, average improvement in 10, and minimum improvement in 4. Side effects were minimal and consisted of nasal congestion and dryness of mouth, drowsiness, weakness, and less frequently restlessness, and tension. It is concluded that chlormethiazole can be very useful where the predominant syndrome is anxiety. (English, French, & German summaries)—A. M. Farfaglia.

11053. Moffatt, W. R., Siddiqui, A. R., & MacKay, D. N. The use of sulthiame with disturbed mentally subnormal patients. *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 673-678.—A double-blind, crossover trial with 42 severely abnormal patients showed sulthiame to be an effective tranquilizer in reducing the incidence of disturbed behavior. The drug was effective with patients unimproved in previous administrations of pericyazine and chlorpromazine. No side effects appeared.—R. L. Sulzer.

11054. Muller, Yu. L. & Rabinovich, M. M. (Bekhterev Psychoneurological Inst., Leningrad, USSR) Sravnitel'naya otsenka deistviya uglekislogo litiya, galoperidola i preparata IB-503 pri lechenii maniaki i n'ykh sostoyaniy. [Comparative assessment of the action of lithium carbonate, haloperidol and the preparation IB-503 in the treatment of manic states.] *Zhurnal Nevropatologii i Psikologii*, 1971(Feb), Vol. 71(2), 277-283.—50 19-75 yr. old manic-depressives in the manic phase were Ss in a comparative study of the therapeutic action of the antimanic preparations: lithium carbonate, haloperidol, and IB-503 [4-(3-di-methylaminopropyliden, 1(9,10)dihydro-4H benzo(4,5)cycloheptate (1,2b) thiophen], which possesses a strong sedative and hypnotic action. 23 Ss were treated with lithium carbonate, 17 with haloperidol (6 in subsequent combination with lithium carbonate), and 10 with IB-503. Ratings of effectiveness were undertaken by the use of graduated scales of judged degree of various disturbances. Lithium carbonate produced an almost uniform reduction of all components of the manic syndrome; haloperidol had a stronger effect on motor activity and irritability, and a somewhat lesser effect on mood and rapidity of thought processes; and IB-503 exerted an effect primarily on motor activity. The action of lithium carbonate was assessed to be the most specifically antimanic. (English summary) (21 ref.)—I. D. London.

11055. Pan, Lynn; Shoenberg, Elisabeth, & Joyce, C. R. (Box 242, Jesselton, Sabah, Malaysia) Relationship between taste threshold for drugs and clinical progress in a mixed group of psychiatric patients. *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541),

653-659.—Studied the relationships between taste threshold for 4 psychotropic drugs—fluphenazine, trifluoperazine, amitriptyline and imipramine—and clinical outcome in 40 psychiatric patients. Results indicate that Ss showed higher taste thresholds than did 20 controls, and thresholds were reduced as clinical state improved. Relative threshold for an individual patient failed to predict the degree of success in use of that drug.—R. L. Sulzer.

11056. Pilipenko, V. Z., Chistov, A. G., & Trubnikov, A. M. (Provincial Psychiatric Hosp., Voronezh, USSR) Nekotorye pokazateli svértyvayushchei i protivosvértyvayushchei sistemy krovi pri khronicheskom alkoholizme i dinamika ikh pod vliyaniem antabusoterapii. [Some indices of the blood coagulatory and anticoagulatory system in chronic alcoholism and their dynamics under the influence of antabus therapy.] *Zhurnal Nevropatologii i Psikhiatrii*, 1971(Feb), Vol. 71(2), 268-271.—Studied a number of indices of the blood coagulatory system in 75 25-58 yr. old males suffering from chronic alcoholism of 1-10 yr. duration without prior liver pathology. The properties of the coagulatory system in untreated chronic alcoholism are described. Under the influence of antabus therapy an activation of the blood anticoagulatory system was detected, providing evidence for (a) a decrease in plasmic tolerance to heparin, and (b) an increase in fibrinolytic activity of the blood. Some increase of fibrinogen was also noted. (English summary)—I. D. London.

11057. Rickels, Karl, et al. (Philadelphia General Hosp., Pa.) Hydroxyzine and chlordiazepoxide in anxious neurotic outpatients: A collaborative controlled study. *Comprehensive Psychiatry*, 1970(Sep), Vol. 11(5), 457-474.—400 mg/day hydroxyzine was compared to chlordiazepoxide and placebo in a double-blind study conducted with 61 anxious and anxious-depressed neurotic outpatients and 69 general practice anxious neurotic patients. Hydroxyzine showed significant superiority over placebo. Hydroxyzine appeared as effective as chlordiazepoxide in the symptomatic treatment of neurotic anxiety. Differential dropout rates and differential reporting of side effects observed clearly favored chlordiazepoxide over hydroxyzine. There is need for further research to determine whether a dosage can be found at which hydroxyzine produces significantly more clinical improvement than placebo without causing the relatively large number of side effects observed in the present.—D. Prager.

11058. Ryšánek, K. (Purkyně U., Clinic for Internal & Infectious Diseases, Brno, Czechoslovakia) Vztah monoaminů k psychickým poruchám. [Monoamines and mental diseases.] *Activitas Nervosa Superior*, 1970(May), Vol. 12(2), 97-108.—Presents a review of international literature. (134 ref.)—H. Bruml.

11059. Tansella, Michele & Dello Russo, Giovanni. (U. Bari, Italy) Il problema della valutazione preclinica dei nuovi farmaci psicotropi. [The problem of preclinical evaluation of the new psychotropic drugs.] *Acta Neurologica*, 1969(Nov), Vol. 24(6), 877-891.—Made a preliminary study on a new psychotherapeutic drug AF 1161 (chlorophenil-piperazine-propyl-triazol-pirindine HCl) which has a sedating effect on behavior and reduces reaction toward negative stimuli. 36 17-63 yr. old Ss suffering from neurotic, depressive, and schizophrenic syndromes were treated. The effects of the drug were evaluated especially in relation to some primary symptoms, e.g., anxiety, asthenia, insomnia, etc. The

drug was ineffective in the neurotic and dissociative syndromes during the productive phase. Satisfactory results were obtained in the depressive syndromes and in 6 cases of schizophrenic defect. The best results were obtained from Ss in which a strong anxious component was not present. It is concluded that AF 1161 is a drug of difficult classification, which joins a certain antidepressive action with a socializing action. (31 ref.)—*A. M. Farfaglia*.

11060. Thiel, E. (District Hosp., Ansbach, W. Germany) **Ein Vorschlag zu einer konsequenten Nacht-Therapie psychisch Kranker: Zugleich ein kasuistischer Beitrag zu einer Tag-Nacht-Therapie depressiver Erkrankungen mit Psychopharmaka.** [A suggestion concerning consistent night therapy of the mentally ill: Also, a contribution to day-night therapy of depressive illnesses with psychopharmacological drugs.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 157-161.—A day therapy combined with a night therapy is suggested for the treatment of endogenous psychoses. It was attempted to reproduce pharmacologically the 2 different physiologically basic forms of sleep, i.e., delta deep sleep with its restoring and anabolic effects and REM sleep with its effect of affective abreaction and important amnesia of dream occurrences. This procedure was to achieve a bodily improvement as well as a change in the emotional standpoint of the patient with regard to his depressive experience. An exact demonstration of such a therapy requires an EEG registration, and since a corresponding sleep EEG was not available, this contribution can only be a stimulus for a corresponding exact scientific demonstration. On the basis of the results, drugs in sleep research ought to be administered only after the termination of a REM phase.—*E. R. Wist*.

11061. Vallade, L. **Avantages et indications du moditen-retard.** [Advantages and indications for Moditen-Retard.] *Psychopharmacologie*, 1970(Mar), 10-13.—Proposes the indications for use of the long-acting preparation of fluphenazine, particularly in the management of chronically psychotic patients. This preparation can be used in the hospital, but its greatest value is in aftercare since it facilitates continued treatment for indefinite periods.—*W. W. Meissner*.

11062. Vovina, E. N. & Vovin, R. Ya. **Sravnitel'noe izucheniye effektivnosti lecheniya galoperidolom manikal'nykh sostoyanii v zavisimosti ot srokov nachala terapii.** [Comparative study of the effectiveness of haloperidol treatment of manic states in relation to time of beginning the therapy.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 283-286.—Studied 2 groups of 24 manic-depressives in the manic state, differing only in phase of their condition, and corresponding degree of development of clinical symptomatology, in order to determine the effectiveness of haloperidol treatment of manic states as a function of time of initiation of therapy. Group I consisted of 13 Ss whose treatment began early after onset of the manic phase; Group II consisted of 11 Ss whose treatment began when the psychopathological symptoms presented a picture of the psychosis in full development. The greatest therapeutic effect was attained with earlier initiated treatment. In 6 cases it was possible to prevent further development of the manic phase, and in the remaining 7, to shorten it. In Group II it was not possible to arrest the manic phase. However, reduction of primarily motor disinhibition was possible without any accompanying reduction of the affective disturbances

and disorders of the thought processes (English summary)—*J. D. London*.

11063. Zall, Harry. (Philadelphia Naval Hosp. Pa.) **Lithium carbonate and isocarboxazid: An effective drug approach in severe depressions.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1400-1403.

11064. Zeidenberg, Phillip, et al. (New York State Psychiatric Inst., New York) **Clinical and metabolic studies with imipramine in man.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1321-1326.—6 out of 7 severely depressed patients improved rapidly on very high doses of imipramine. Clinical improvement correlated well with drug blood levels, which varied greatly in each patient and were characteristic of individuals rather than of dose. 3 out of 5 of the same Ss receiving a combination of presumptive inhibitors of drug metabolizing enzymes and imipramine had drug blood levels comparable to those of 2 Ss receiving high doses of imipramine alone.—*Journal abstract*.

HOSPITAL CARE & INSTITUTIONALIZATION

11065. Ananth, J. V., Ban, T. A., Lehmann, H. E., & Rizvi, F. A. (McGill U., Montreal, Quebec, Canada) **An adverse reaction unit: Results and functions.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1339-1344. Reviewed adverse reactions defined as "any effect of the drug other than its intended action"—reported among patients in a 1,552-bed psychiatric hospital during 1 yr. Most commonly encountered were neurological, psychiatric, and gastrointestinal reactions. The function of the adverse reaction unit has been extended from epidemiological surveys to various areas of psychopharmacological practice, and the unit is also being utilized increasingly for teaching and for consultation.—*Journal abstract*.

11066. Barahal, Hyman S. (Hempstead Psychiatric Hosp., Long Island, N.Y.) **The Hempstead unitization experience.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 443-460.—Presents the historical background of the movement to improve treatment for the mentally ill in the 19th and 20th centuries. The unitization plan in the state of New York is described as an effort to alleviate some of the problems associated with the large and remote mental hospitals. The unitization plan calls for patients to be hospitalized in small hospitals close to their home areas. The Hempstead Psychiatric Hospital is one of the units which has been created. The catchment area, the physical structure of the hospital, the staff organization, the screening process, individual treatment programs, and community relations and interaction of the hospital are described.—*S. Knapp*.

11067. Beigel, Allan & Feder, Samuel L. (National Inst. of Mental Health, Bethesda, Md.) **A night hospital program.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 146-149.—Describes a night hospital program which provides intensive treatment for up to 90 days in a more informal setting. Patients are encouraged to deal with daily events in a way that is therapeutically useful for the present and future. When 95 night-care patients were compared with 91 day-care patients regarding their diagnoses and characteristics, the "proportions of psychotic and nonpsychotic patients in the 2 groups were not significantly different, nor were the proportions of acute and chronic symptoms."—*P. Hertzberg*.

11068. Conway, Barbara. (9651 S.W. 77th Ave., Miami, Fla.) **The effect of hospitalization on adolescence.** *Adolescence*, 1971(Spring), Vol. 6(21), 77-92.—Presents advice directed to nurses to help adolescents cope with hospitalization.—A. B. Warren.

11069. Crary, William G. & Johnson, C. Warner. (U. Southern California, Medical Center, Los Angeles) **Attitude therapy in a crisis-intervention program.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 165-168.—Describes a crisis therapy program which emphasizes immediate intervention and is oriented toward preventing long-term hospitalization. Goals in a ward which used milieu therapy and medical students in their psychiatric inpatient clerkship were (a) to return each patient to his prehospital level of emotional and social equilibrium, or (b) to a minimally socially acceptable level of control behavior. Patients were grouped into categories (a) with symptoms of personality disorganization, (b) with impaired reality testing, (c) with greatly externalized problems, (d) with low self-esteem, (e) with primary depressive reactions of the situational, neurotic, or psychotic type, and (f) with character disorders.—P. Hertzberg.

11070. Depp, Frederick C. (National Inst. of Mental Health, Washington, D.C.) **The dissociation of patient social status characteristics from psychiatric treatment, 1955-1965.** *Social Psychiatry*, 1971(May), Vol. 6(2), 73-79.—A study of psychotic 1st admissions to a large psychiatric hospital during the 1950s found decreasing association over time between social status characteristics of patients and assignments to convalescent leave and discharge during the 12 mo. after admission. The present study, using similar patient data gathered 10 yr. later, hypothesized a further tendency towards status dissociation due to increased resources for patient care that reduce the level of competition for these resources. It was suggested that reduced competition among those of differential influence would produce more comparable treatment sequences. This hypothesis was confirmed, with all patient status measures displaying reduced differences. 4 status measures: social class, education, race, and occupation level were dissociated from tenure and release indices employed, while 10 yr. earlier the latter 3 had been significantly linked to an indicator of hospital course. Both sex and marital status continued to demonstrate significant relationships with tenure and release processes. An interpretation of these shifts is offered emphasizing organizational resource level increases and considering the plausibility of alternative explanations. (French & German abstracts) (19 ref.).—*Journal abstract*.

11071. Grimberg, Moises & Franzen, Lincoln. (Westboro State Hosp., Talbot Habilitation Center, Mass.) **A program of simulated community living.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 192-193.—Describes a program called Surrogate Society in which a patient earned everything from bed and board to treatment, thereby making him aware that his living conditions were determined by his own abilities and ambitions. The program had a small department store, a bank, and a monetary system. Working conditions resembled those in the community. A central feature was the patient government which held the primary responsibility for maintaining order. Initial experience with 234 Ss showed that the program is effective in helping patients return to and remain in the competitive life of the community.—P. Hertzberg.

11072. Harshbarger, Dwight. (Harvard Medical School, Boston, Mass.) **High priests of hospitaldom.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 156-159.—Discusses the factors and roles involved in the status system in the mental hospital. 4 samples representing the problems and opportunities of the expert in the mental hospital are considered: social workers, general physicians, psychologists, and psychiatrists. The role of the organizational consultant is also discussed.—P. Hertzberg.

11073. Herz, Marvin K., Endicott, Jean; Spitzer, Robert L., & Mesnikoff, Alvin. (New York State Psychiatric Inst., Washington Heights Community Service, New York) **Day versus inpatient hospitalization: A controlled study.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1371-1382.—Reports the results of a controlled study to compare the efficacy of day vs. inpatient hospitalization for those patients for whom both treatments are equally feasible clinically. A total of 424 patients was evaluated. Newly admitted inpatients from the catchment area were randomly assigned to either day or inpatient care. Outcome evaluations, including measures of psychopathology and role function, were conducted at various follow-up intervals. Evidence of the superiority of day treatment on every measure used to evaluate outcome was found.—*Journal abstract*.

11074. Ittelson, William H., Proshansky, Harold M., & Rivlin, Leanne G. **A study of bedroom use on two psychiatric wards.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 177-180.—Studied the influence of the number of patients assigned to a bedroom on the observable behavior of a patient. 2 wards—a recuperative ward with 13 males and 19 females and an admission ward with 7 males and 16 females—were observed every 15 min. over a 3-wk period. A total of 216 separate observations of each room or living area was obtained. Bedroom behavior was classified into 3 categories: isolated passive, isolated active, and social. Findings reveal (a) a marked preference of Ss in single rooms on the recuperative ward for isolated active behavior; (b) a stronger need for privacy among women; (c) all Ss seek privacy in their bedrooms; and (d) sharp differences in the distribution of activities among Ss in single and multiple-occupancy rooms. Data indicate that the multiple-occupancy rooms seem to foster patient withdrawal.—P. Hertzberg.

11075. Jones, Miriam L. (Veterans Administration Hosp., Topeka, Kan.) **Why locked doors?** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 143-145.—Describes the change from a locked to open door plan on a ward for seriously disturbed or dangerous psychiatric patients, unable to function without a rigidly structured environment. Patients were given personal responsibility and appropriate conduct was reinforced under the new program. Treatment responsibilities were decentralized, causing more patient movement. The plan was considered to be very successful.—P. Hertzberg.

11076. Langsley, Donald G., Machotka, Pavel, & Flomenhaft, Kalman. (U. California, Medical School, Davis) **Avoiding mental hospital admission: A follow-up study.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1391-1394.—300 patients requiring immediate hospitalization were randomly assigned to outpatient family crisis therapy (FCT) or were admitted to a university psychiatric hospital. Posttreatment 18-mo follow-up showed that Ss treated

without admission were less likely to be hospitalized after treatment and that their hospitalization was significantly shorter. At both 6 and 18 mo., FCT Ss were doing as well as the hospitalized Ss on 2 measures of social adaptation and were managing crises more efficiently.—*Journal abstract.*

11077. Lucero, Rubel J. & Vail, David J. (Hazelden Foundation, Center City, Minn.) **A comparison of three types of residential treatment programs for adolescents.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 181-182. Compared the effectiveness of adolescent treatment programs which included (a) the traditional (adolescents housed with adults and participating in the same treatment); (b) the isolated (adolescents housed and treated separately); and (c) the integrated (adolescents in adult wards, but in different programs). A 2-yr follow-up was conducted on 288 adolescents who had been 1st treated in Minnesota's 7 state mental hospitals between October 1, 1960 and September 30, 1966. Results were analyzed by comparing the 3 types of programs regardless of hospital, and by comparing the hospitals regardless of programs. It was found that (a) all 3 programs are equally effective; (b) Ss in all programs tended to be similar regarding illness; and (c) the hospitals, regardless of program, were doing a good job in treating adolescents.—*P. Hertzberg.*

11078. Magaro, Peter A. & Giardina, Paul. (U. Maine) **Comparing custodial and democratic treatment programs.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 118-119.—Examined the discharge rates of female patients assigned to a democratic or custodial treatment team in a state psychiatric hospital. The democratic team started with 70 patients and 119 more were admitted during the study. The custodial team began with 80 patients and treated 109 more during the study. Differences in discharge rates were not significant. However, when the patients discharged were divided into long-term (1 yr. or more) and short-term (less than 1 yr.) patients, significant differences did appear. The democratic team discharged more long-term patients, while the custodial team discharged more short-term patients. It is suggested that the social interaction emphasis in the democratic team may have been most helpful with the long-term patients, while the increased time spent with new patients by the custodial team and the use of spontaneous remission accounted for the effectiveness of that team with short-term patients.—*S. Knapp.*

11079. Meyer, Margrit. (Michigan State U.) **Family ties and the institutional child.** *Children*, 1969(Nov), Vol. 16(6), 226-231.—Describes the program at a small, private, Midwestern children's home for emotionally disturbed children and adolescents. It is stressed that child placement agencies should involve the child and the parents in preplacement planning, schedule regular family conferences after placement, permit the child home visits if he and the family desire, place children with their siblings, and provide follow-up family interviews with a caseworker. The home's methods of foster and visiting parent placement are described. The need for continuity in staff relationships with emotionally disturbed children is emphasized.—*D. T. Lekarczyk.*

11080. Moudgil, Virat K. (All-India Inst. of Mental Health, Bangalore) **The utility of a reception ward in mental hospital.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 19-21.—Attempted to determine the possibility of shortening the period of hospitalization and improving the standards of patient

care by the formation of a separate reception ward. The method adopted for a 7-mo period was that every new admitted patient to the unit was intensively treated in a 10-bed reception ward housed in a semidetached room. If the patient's condition improved, then he was discharged; otherwise after a period of intensive treatment, he was transferred to the general ward. Results show that the duration of hospitalization was significantly shortened by 11.7 days/patient.—*S. R. Dhamand.*

11081. Pasewark, Richard A., Fitzgerald, Bernard J., Dunlap, Ralph L., & Spear, Paul S. (U. Wyoming) **Social class and disposition in a rural mental hospital.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 120-121.—Examined the influence of social class on the inpatient dispositions of 271 patients admitted to a state psychiatric hospital. Social class was rated according to the patient's primary occupation, and hospital records were examined for correlations with type of admission, diagnosis, ward assignments and transfers, treatment, privileges, and disposition. Results for this rural hospital were generally contrary to those found for urban areas. Only 2 significant ($p < .01$) correlations were found: (a) middle-class women were less likely to receive antidepressants, and (b) women of higher social classes tended to be selected for the more desirable work assignments. It is suggested that the minimum staff at this hospital and the character of the state may have contributed to the nonpreferential treatment given. It is concluded that social class influence is dependent on the cultural, environmental, and population characteristics of the area.—*S. Knapp.*

11082. Rawls, James R. (Vanderbilt U.) **Toward the identification of readmissions and non-readmissions to mental hospitals.** *Social Psychiatry*, 1971(May), Vol. 6(2), 58-61.—Constructed a 200-item biographical information blank to determine discriminating characteristics in the life history antecedents of readmissions and nonreadmissions to mental hospitals. The S population ($N = 240$) was composed of 60 readmissions and 60 nonreadmissions from 2 state mental institutions. A chi-square analysis was utilized to determine those items that discriminated between patients who had been readmitted to the hospitals and those who had not. A total of 143 items were significant in 1 hospital, while 114 were significant in the other. 63 items had 1 or more options that were significant in the same direction in both hospitals. (French & German abstracts)—*Journal abstract.*

11083. Rhine, Mark W. & Mayerson, Peter. (U. Colorado, Medical School, Denver) **Crisis hospitalization within a psychiatric emergency service.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1386-1391.—Describes the expansion of an emergency psychiatric service to include the use of short-term hospitalization as an integral part of crisis therapy. Experience during the 1st yr. of operation, when 200 patients were treated, is summarized. 3 case histories are presented. It is believed that a small hospital unit, integrated within an emergency psychiatric service, can greatly enhance the scope and efficacy of crisis intervention.—*Journal abstract.*

11084. Soskis, David A. (U. Rochester, Medical & Dental School) **A brief follow-up rating.** *Comprehensive Psychiatry*, 1970(Sep), Vol. 11(5), 445-449.—The Brief Follow-Up Rating (BFR) is an economical method for evaluating posthospital adjustment in former psychiatric patients. The BFR score correlated significantly with 2 of

the Katz' Adjustment Scales (S-2, Level of Performance of Socially Expected Activities, and S-4, Level of Free-Time Activities), scales well validated but considerably more complex measures of posthospital adjustment.—*D. Prager.*

PSYCHOANALYTIC INTERPRETATION

11085. **Corsa, Helen S.** (Wellesley Coll.) **A fair but frozen maid: A study of Jane Austen's *Emma*.** *Literature & Psychology*, 1969, Vol. 19(2), 101-123.—Analyzes the character of Emma in Jane Austen's novel *Emma*. The novel concerns marriage. Emma avoids marriage while devoting her time to arranging marriages for others. "As the action of the novel proceeds, Emma's many attempts to deny she has 'a heart'—which can justly here be considered an euphemism for 'sexual needs'—are, one by one, proved ineffectual until she is confronted, in the last climactic moment with a frightening recognition that the 'frozen' has thawed: she was most sorrowfully indignant; ashamed of every sensation but the one revealed to her—her affection for Mr. Knightley." The process by which Emma eventually attains a greater degree of psychological maturity is described. (28 ref.)—*B. A. Stanton.*

11086. **Nass, Martin L.** (Brooklyn Coll., City U. New York) **Some considerations of a psychoanalytic interpretation of music.** *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 303-316.—Attempts to outline some of the salient issues relating to an extension of the psychoanalysis of music and musical-auditory experience to the sphere of ego psychology. In so doing it relates the meaning of the musical experience to early hearing experiences and to the adaptive use of the exposure to sound. The musical experience is presented as facilitating the emergence of less structured, ambiguous cognitive states and their concomitant drive organization. These phenomena are presented as early modes of ego organization whose presence does not necessitate the postulation of a regressive process and which bears a strong resemblance to the listening and hearing experiences in psychoanalysis.—*Journal summary.*

11087. **Olgvie, Daniel M.** (Harvard U.) **The Icarus complex.** *Psychology Today*, 1968(Dec), Vol. 2(7), 30-34, 67.—The personalities of the artist Marc Chagall and the In Cold Blood murderer Perry Smith are similar to the Icarus complex described by Henry Murray. Both men, for example, often fantasied about flying and seemed to be fixated at the urethral-phallic stage. Icarusians seem to wish to remain children, "are anxious and confused about genital development, and they show an underlying fear of women." Basically, Icarusians fear that they are in danger of being destroyed.—*E. J. Posavac.*

11088. **Wilson, F. A.** (112 Beaufort Street, London, S.W. 3, England) **Swinburne's "dearest cousin": The character of Mary Gordon.** *Literature & Psychology*, 1969, Vol. 19(2), 89-99.—Attempts to correlate the psychopathology of Swinburne and his cousin, Mary Gordon, as evidenced in Swinburne's poetry and Mary Gordon's novels. Swinburne's desire to marry his cousin is interpreted as an attempt to progress beyond his fixation on flagellation. The poem "Anactoria" is used to depict evidence of Swinburne's association of lesbianism with sadism. It is noted that if in the poem "Kirklowe's

Fragment" the character of Helen Harewood—described as the cruel sister who presides over Regie's (Swinburne's) boyhood represents Mary Gordon, then, Swinburne viewed his cousin in sadistic terms. The novels of Mary Gordon (e.g., *The Children of the Chapel*) which concerns flagellation, demonstrate her mental preoccupations at a time when she and Swinburne were in daily proximity.—*B. A. Stanton.*

PSYCHODIAGNOSIS

11089. **Benton, A. L. & Ellis, E. E.** (U. Iowa, Neurosensory Center) **Test de Praxie constructive tri-dimensionnelle. Observations normatives concernant la performance au test lorsque les stimuli sont des photographies de constructions-modèles.** [Three-dimensional constructional praxis test: Observations concerning norms of performance when the stimuli are photographs of the model constructions.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(4), 255-258.—Discusses the influence of age, sex, and cultural level on results of Benton's 3-dimensional performance test. Inability to construct 3-dimensional structures after viewing 2-dimensional representations was established in previous research to be positively symptomatic of cerebral lesion.—*K. J. Hartman.*

11090. **Blum, Donna M.** (Carleton U., Ottawa, Ontario, Canada) **Educational and diagnostic MMPI characteristics of a private hospital population.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 724-726.—Examined the educational and diagnostic differences of private hospital psychiatric patients on the MMPI. The distributions of MMPI T scores and standard deviations for 4 female and 5 male educational groups and for 3 diagnostic groups of both sexes within a randomly selected group of 363 female and 542 male patients in a private psychiatric hospital were studied. Results suggest that MMPI personality patterns should not be considered independently of the individual testee but that private psychiatric hospital patients do not produce MMPI profiles significantly different from those in state or provincial institutions.—*Journal abstract.*

11091. **Brenner, David L.** (Northwestern U.) **Clinical judgment as a function of experience and information.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6252.

11092. **Cooper, John.** (Inst. of Psychiatry, London, England) **The Leyton Obsessional Inventory.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 48-64.—Discusses the procedure in administering the Leyton Obsessional Inventory, along with its development and content. The "yes" scores are explained for the obsessional symptoms and personality traits together with scores indicating degree of resistance on the part of the S to the symptoms, and interference with other activities. In order to reduce administrative bias, the administrator must adhere to a set of standard instructions. 60 women were tested and their results explained, as well as data on test-retest reliability. It cannot be expected to find a "clear-cut definition" with personality traits and obsessional symptoms from a questionnaire procedure. This procedure intends to give only subjective results of feelings and behavior. (23 ref.)—*H. Reiter.*

11093. **Dohrenwend, Bruce P., Egri, Gladys, &**

Mendelsohn, Frederick S. (Columbia U., Coll. of Physicians & Surgeons) **Psychiatric disorder in general populations: A study of the problem of clinical judgment.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1304-1312. —In most attempts to study the prevalence of psychiatric disorder, cases have been defined by applying clinical judgment to symptom data. In some of these, e.g., the Midtown and Stirling County studies, this has involved assessments of written records, consisting for the most part of data collected by lay interviewers. Findings from the present study with Ss representing 67 community leaders, 257 adult heads of families, 117 psychiatric outpatients, 48 inpatients, and 24 convicts (in the Washington Heights section of New York City) indicate that respondents from the general population are less likely to be rated cases on the basis of actual interviews by psychiatrists than on the basis of interview protocols. Moreover, this difference varies with the type of interview and with the social status of the respondent. (20 ref.)—*Journal abstract.*

11094. Fiondo, John P. (Wayne State U.) **Toward the development of an economical, valid test battery for the identification of emotional disturbance in children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6897.

11095. Flanagan, John C. (American Inst. for Research, Palo Alto, Calif.) **Evaluation and validation of research data in primary prevention.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 117-123. —Reviews some problems that often arise in interpreting research data in primary prevention studies, and summarizes the procedures that must be followed if the results are to be accepted as valid evidence of relationships. Valid research findings require (a) a random or representative sample of sufficient size; (b) a statement of the experimental treatment and the anticipated effect of the treatment; (c) criteria representative of the ultimate objective of reduced incidence rates; (d) simple, easily understood statistical techniques with replication as the best test of significance; and (e) an interpretation that summarizes not only the findings but their practical significance for various situations.—*Journal abstract.*

11096. Garnezy, Norman. (U. Minnesota) **Vulnerability research and the issue of primary prevention.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 101-116. —The goal of primary prevention of psychiatric disorder is a laudatory one, which unfortunately can not be realized in the absence of scientific knowledge about etiology. An emergent strategy is presented for acquiring such knowledge: the study of children who are vulnerable to the development of psychopathology in adulthood. (41 ref.)—*Journal abstract.*

11097. Hayden, Benjamin S., Talmadge, Max; Hall, Marjory, & Schiff, Donald. (Astor Home for Children, Rhinebeck, N.Y.) **Diagnosing minimal brain damage in children: A comparison of two Bender scoring systems.** *Merrill-Palmer Quarterly*, 1970(Jul), Vol. 16(3), 278-285. —48 residential emotionally disturbed children were divided into 2 groups: the neurologically impaired group and the nonimpaired group. The mean age of each group and the mean WISC Full Scale IQ were statistically equivalent (approximately 129 mo. and 91, respectively). Based on scores in a pediatric neurological examination (reliability $r = .88$), 17 Ss were in the

neurological group. Comparison of 2 Bender procedures, Koppitz Developmental Bender Scoring System and Canter Background Interference Procedure, with the neurological data revealed a high degree of relationship between the Background Interference Procedure and the neurological findings but the relationship between neurological findings and the Developmental Bender Scoring System was insignificant. The findings suggest that the Canter Background Interference Procedure is a more sensitive method in diagnosing minimal brain damage in emotionally disturbed children.—*R. V. Hamilton.*

11098. Hilf, Franklin D., et al. (Stanford U.) **Machine-mediated interviewing.** *Journal of Nervous & Mental Disease*, 1971(Apr), Vol. 152(4), 278-288. —Machine-mediated interviewing is a technique of psychiatric interviewing in which patient and interviewer communicate by means of remotely located teletypes. Messages are transmitted from 1 teletype to another via a computer. Advantages of nonverbal communication in the study of the psychiatric interview and in the development of a computer program designed to conduct psychiatric interviews are discussed. Excerpts from representative interviews with different patients are reproduced; 7 of the interviews were conducted with a hospitalized mute patient who, after the 5th interview, began to use spoken language for communication. This novel technique is suggested for patients who are unable to participate in the usual vis-à-vis interview.—*Journal abstract.*

11099. Kehrer, H. E. & Neugebauer, U. (Westfälische Wilhelms U., Münster, W. Germany) **Ein klinischer Diagnoseschlüssel für die Kinder- und Jugendpsychiatrie.** [A key for clinical diagnosis in child and adolescent psychiatry.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1971(Jan), Vol. 20(1), 8-13. —The key for clinical diagnosis presented is part of a comprehensive key for use in neuropsychiatry. It is tailored for the needs of an independent child and adolescent psychiatric department within a university mental hospital. Primarily it is to be used in practical documentation. (17 ref.)—*H. A. Euler.*

11100. Lakshminarayan, C. S., Satyavathi, K., & Murthy, H. N. (Government Mental Hospital, Bangalore, India) **Towards the development of the psychopathic deviate scale.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 81-86. —In pursuance of the 3 other scales developed by H. N. Murthy and H. N. Murthy and C. S. Lakshminarayan the same questionnaire consisting of 100 statements, was employed. 50 male prison inmates who were recidivists served as Ss and were matched with a normal population for age and sex. 34 items appeared to differentiate the prison population significantly at .01 or higher levels from normals.—*S. R. Diamond.*

11101. Lessing, Elise E. & Zagorin, Susan W. (Inst. for Juvenile Research, Chicago, Ill.) **Dimensions of psychopathology in middle childhood as evaluated by three symptom checklists.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 175-198. —Mothers of 102 10-13 yr. old psychiatrically examined children completed the Peterson Problem Checklist (PPC) and the Wichita Guidance Center Checklist (WGCC). The psychiatrist summarized the mother's responses on the Institute for Juvenile Research (IJR) checklist of 36 symptoms. Interitem correlations were

factor analyzed for each measure. Factor scores on each of the rotated factors were computed by the ideal variables method and a congruence matrix was constructed. 4 factors were extracted explaining 41% of the PPC variance; 4 factors, explaining 48% of the WGCC; and 3 factors, explaining 43% of the IJR. Canonical variate analysis of 2 checklists at a time revealed correspondences between the factor structures of the several checklists. In general, however, there was little significant improvement over the description of the factor structures when the canonicals were used.—N. M. Chansky.

11102. Notz, Irmgard. (School Psychological Council of the Berlin-Zehlendorf Precinct, W. Germany) **Die "Wörterliste" als psychodiagnostisches Hilfsmittel.** [The "word check list" as a psychodiagnostic instrument.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1971(Jan), Vol. 20(1), 27-29. Presents a word checklist for 9-12 yr. olds, covering family, school, hobbies, and social behaviors. The child is instructed to underline the things he likes, and cross out the things he dislikes. 3 examples are given.—H. A. Euler.

11103. Philip, Alistair E. & Cay, Lorna. (U. Edinburgh, Research Council Unit for Epidemiological Studies in Psychiatry, Scotland) **The reliability and utility of a clinical rating of personality.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 85-89.—Investigated a clinician's use of a global rating of personality. The reliability of the rating proved to be very high and an examination of the clinician's personal construct system showed that the rating was the most global of a number of evaluative constructs. Patients rated on this global concept differed on a number of personality measures. On the 16 PF there were differences on 2nd-order anxiety as well as on several of that factor's primary constituents. On the Hostility and Direction of Hostility Questionnaire those rated of poor personality were more intropunitive and also more extrapunitive than the others. Provided that some knowledge of their reliability and validity is available, it is clear that clinical appraisals of personality are useful in a variety of situations.—*Journal summary*.

11104. Rogers, Michael G. (Reading County Borough Health Dept., England) **The early recognition of handicapping disorders in childhood.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 88-101.

11105. Schwartz, Melvin L. & Dennerll, Raymond D. (Wayne State U.) **Neuropsychological assessment of children with, without, and with questionable epileptogenic dysfunction.** *Perceptual & Motor Skills*, 1970(Feb), Vol. 30(1), 111-121.—Reports neuropsychological assessment of 140 9-15 yr. old children with, without, and with questionable epilepsy, using the WISC, Minnesota Percepto-Diagnostic Test, and Bender recall tests. The major finding was the presence of a continuum of neuropsychological deficit which was absent or minimal in those Ss without epilepsy, somewhat more obvious in the questionable cases, and of considerable prominence in Ss with confirmed diagnoses of epilepsy. Interrelationships among the measures were explored. Some sex and seizure-type differences in test scores did emerge in the epilepsy group; however, handedness did not produce any significant results.—*Journal abstract*.

11106. Uecker, Albert E. (Veterans Administration

Hosp., Ft. Meade, S.D.) **Differentiating male alcoholic from other psychiatric inpatients: Validity of the MacAndrew scale.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 379-383.—The sample of alcoholics consisted of 111 male war veterans admitted to the Fort Meade treatment unit for alcoholics. The nonalcoholic sample consisted of 56 veterans admitted to the regular psychiatric units of the hospital during approximately the same time period. The booklet form of the MMPI was administered to alcoholics 1 mo. after admission to the hospital and to nonalcoholics shortly after admission or as otherwise referred. Means and standard deviations of each sample were calculated for MacAndrew's 49-item scale. The significance of the difference between the 2 means was assessed by the t test for uncorrelated means. The scale significantly differentiated the alcoholic and nonalcoholic samples. 84.7% of the alcoholics were correctly diagnosed, but 69.5% of the nonalcoholic controls were misdiagnosed. Results suggest that the high efficiency of the MacAndrew scale may be quite specific to outpatient settings and that considerable discriminative efficiency is lost when the scale is used in other settings.—S. R. Diamond.

11107. Ullman, Elinor & Levy, Bernard I. (George Washington U.) **An experimental approach to the judgment of psychopathology from paintings.** *Bulletin of Art Therapy*, 1968(Oct), Vol. 8(1), 3-12.—Obtained paintings from 2 groups: (a) 51 acutely ill hospitalized patients; and (b) 54 normals (hospital staff, vocational rehabilitation clients, and students of health professions). Judges consisted of 56 mental health professionals and student workers, and 28 persons with no mental health experience who were asked to identify the group membership of Ss based on an examination of their paintings alone. Results show that judges could most efficiently judge paintings by Ss whose IQs fell in the dull-average to bright-average range. Paintings by Ss with high or low IQs were more likely to be misjudged. It is suggested that emphasizing form more than content in paintings may lead to greater reliability in their use as a diagnostic technique. Illustrations of some of the paintings used in the study are included.—P. McMillan.

11108. Velez-Diaz, Angel G. (Florida State U.) **The Holtzman Inkblot Technique and the assessment of organic brain damage.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6915.

11109. Wiggins, Nancy. (U. Illinois) **Individual differences in diagnostic judgments of psychosis and neurosis from the MMPI.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 199-214.—Judgmental variables of 29 clinicians who had examined 861 MMPI profiles were available. Among these were validity coefficient, linear predictability, reliability, validity of the judge's model, linear component of the judge's accuracy, nonlinear component, incremental validity, and relationship with composite. Ratings and demographic data were also available. A principal components analysis of the cross products of the judges across the MMPI profiles revealed 3 unrotated components: a general one based primarily on the judge's relationship with the composite, validity and likability, and unreliability. Upon rotation, 3 types of idealized judges were hypothesized.—N. M. Chansky.

11110. Wing, Lorna. (Inst. of Psychiatry, Medical Research Council, Social Psychiatry Unit, London, England) **Observations on the psychiatric section of**

the "International Classification of Diseases" and the "British Glossary of Mental Disorders." *Psychological Medicine*, 1970(Nov), Vol. 1(1), 79-85.—Comments on Section V in *Psychiatric Diagnosis: The Eighth Revision of the International Classification of Diseases* and discusses some of the problems arising from the use of categories. Difficulty in using the *British Glossary of Mental Disorders* arises because of anomalies in the definition of syndromes and ambiguities in classifying them. Some of the problems discussed concern the classifications of psychosis associated with organic conditions, neurosis, personality disorders, affective psychosis, and schizophrenia. Suggestions for future classifications on furnishing data to answer questions concerning groups of cases, and for gaining feedback of information concerning patients showing certain syndromes for purposes of research are made. A system for diagnostic coding is described. (15 ref.)—H. Reiter.

BEHAVIOR DISORDER

11111. Cowan, Lawrence. (Wayne State U.) **A picture-preference test to measure the trait of addictiveness in personality.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6894.

11112. Guze, Samuel B., Woodruff, Robert A., & Clayton, Paula J. (Washington U., Medical School) **Hysteria and antisocial behavior: Further evidence of an association.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 957-960.—Reports a controlled comparison of 30 women with hysteria and 33 with anxiety neurosis, seen at a university psychiatric clinic, that confirms other work. Results show that personal and family history items dealing with delinquency and antisocial behavior were more frequently found in the case histories of the hysterics than in those of the anxiety neurotics. It is suggested that there is a significant clinical and familial association between hysteria and antisocial behavior or sociopathy.—*Journal abstract*.

11113. Hamilton, James W. (U. Cincinnati, Medical School) **The rear-end collision: A specific form of acting out.** *Journal of the Hillside Hospital*, 1967(Jul), Vol. 16(3-4), 187-204.—Presents a study of 3 cases, all young males, who had been involved in frequent automobile accidents specifically rear-end collisions. There were marked similarities in their developmental histories which led to poorly internalized controls, extreme difficulties in dealing with aggressive impulses, chaotic sexual identities, as well as intense castration anxiety and latent homosexual fears. The automobile was highly valued by them, primarily as a phallic, narcissistic extension of themselves. The rear-end collision can be seen as an attempt to master the fear of anal rape by the father, via identification with the aggressor, in the striking of another car from behind. (21 ref.)—*Journal summary*.

11114. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Suicide and homicide: Bias in the examination of the relationship between suicide and homicide rates.** *Social Psychiatry*, 1971(May), Vol. 6(2), 80-82.—Examined the relationship between the incidence of suicide and homicide by correlations over time, locale, and status categories. The resulting correlations differed greatly. Correlation coefficients were computed for different sex-by-race subgroups of the

population, and the magnitude and direction of the associations were found to vary greatly for the different subgroups. It is noted that previous investigators of the relationship between suicide and homicide have presented only certain of the correlations illustrated here and thus their presentation of data may be biased. It is concluded that no available theory can explain the complex pattern of correlations found. It is suggested that a more fruitful approach would be a socio-psychological study of the individuals concerned. (French & German abstracts)—*Journal abstract*.

11115. McNeil, Thomas F. & Wiegink, Ronald. (Lafayette Clinic, Detroit, Mich.) **Behavioral patterns and pregnancy and birth complication histories in psychologically disturbed children.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 315-323.—Examined the relationship between pregnancy and birth complications and the occurrence of later childhood behavioral disorders. Behavioral disturbances were classified as "psychotic withdrawal," "acting-out aggression," and "organic signs." In general "psychotic withdrawal" and "acting-out aggression" were found to be mutually exclusive, although either appeared to be compatible with findings of "organic signs." No pregnancy-birth complication, including premature birth, was found to be related to a specific behavioral disorder. A significant relationship was found between mother's marital status at time of the infant's birth and later manifestation of "acting-out aggression." Children of unwed mothers were found to be more likely to "act-out." (25 ref.)—R. Denis.

Drug Addiction

11116. Cernozubov, Katarina. (U. Hawaii) **Substance abuse.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6253.

11117. Dole, Vincent P. (Rockefeller U.) **Methadone maintenance treatment for 25,000 heroin addicts.** *JAMA: Journal of the American Medical Association*, 1971(Feb), Vol. 215(7), 1131-1134.—Methadone maintenance programs in the United States and Canada are now treating about 9,000 former heroin addicts. Data from these studies amply document the safety of this medication and its efficacy in stopping heroin addiction when it is given under strict medical control. Detailed statistics have been collected in New York City by the Central Data Office and made available to an independent evaluation committee. This committee has recommended continued support and expansion of the maintenance programs to assume a caseload of 25,000 addicts. The evolution of methadone treatment in New York is reviewed to learn what can be done about the administrative problems involved in expansion. There is a serious danger that treatment programs will become subordinated to power struggles. In addition, simple dispensation of methadone does not provide the necessary rehabilitation.—S. Diamond.

11118. Lentchner, Lawrence H. (Morris County Coll., Dover, N.J.) **Rehabilitation and civil commitments of addicts.** *Journal of Rehabilitation*, 1970(Nov), Vol. 36(6), 28-29.—Makes a plea for the need to look upon addicts as potential rehabilitants rather than as sick individuals. Research using rehabilitation criteria rather than medical or legal principles is called for so that use may be made

of these in establishing the capacity of addicts to profit from rehabilitation techniques and to establish his potential for responding to such procedures in contrast to the medical or legal approach. The developments of research to establish diagnostic procedures that will permit the determination of the type of rehabilitation program that is most effective in restoring the addict to life as a free and independent person appears to be essential.—*M. A. Seidenfeld.*

11119. **Petri, Horst.** (Free U., Psychiatric & Neurologic Clinic, W. Germany) **Haschisch und Suchtentwicklung bei einem 17 jährigen Mädchen.** [Hashish and the development of addiction in a 17 year old girl.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 242-245.—Presents a case study in which the apparent addiction to hashish is explained by the client's neurotic personality structure. The assumption is presented that depending upon a person's emotional lability hashish is potentially addictive and can lead to stronger drugs.—*H. A. Euler.*

11120. **Votava, Z.** (Inst. of Pharmacology, Medical Faculty of Hygiene, Prague, Czechoslovakia) **Pharmacological problems of drug dependence.** *Acta Nervosa Superior*, 1970(May), Vol. 12(2), 136.

Alcoholism

11121. **Chess, Stephen B., Neuringer, Charles, & Goldstein, Gerald.** (U. Kansas) **Arousal and field dependency in alcoholics.** *Journal of General Psychology*, 1971(Jul), Vol. 85(1), 93-102.—Attempted to ascertain the relationship between field dependency, as measured by the Rod and Frame Test (RFT), and arousal level in alcoholic and nonalcoholic Ss. Ss were tested serially with RFT and a number of electrophysiological measures and objective tests. It was found that level of field dependency decreased in the alcoholics but not in the nonalcoholics. The decreased field dependency was not associated with increased arousal, as was hypothesized, except in 1 aspect. It was associated with an increasing number of responses on the Rotter Internal-External Locus of Control Scale indicating internal locus of control. (15 ref.)—*Author abstract.*

11122. **Claeson, Lars E. & Carlsson, Carl.** (Lillhagen Hosp., Hisings Backa, Sweden) **Cerebral dysfunction in alcoholics: A psychometric investigation.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 317-323.—20 men were admitted to a department for alcoholism and classified as gamma alcoholics. The men were given a battery of 9 tests. An attempt was made "to assess the intellectual performance of the Ss at the time of the test and to assess the severity of symptoms of cerebral dysfunctions." 3 of the Ss had no signs of cerebral dysfunctioning, 7 had signs of mild dysfunctioning, 5 moderate dysfunctioning, and 5 severe. Therefore results suggest that alcoholism can lead to cerebral dysfunction. (17 ref.)—*S. R. Diamond.*

11123. **Cutter, Henry S., Schwaab, Eugene L., & Nathan, Peter E.** (Brockton Veterans Administration Hosp., Mass.) **Effects of alcohol on its utility for alcoholics and nonalcoholics.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 369-378.—The hypothesis to be tested is the fairly widespread belief that alcoholics respond with positive feedback to alcohol, "so that 1 drink leads to the craving and consumption of many more." Male alcoholic patients and male nonalcoholic staff at a Veterans Administration Hospital were used as Ss. The Ss worked on a

task to earn points that could be directly translated into differing amounts of 100-proof bourbon whiskey. "A 4-way analysis of variance of the strategy scores, independent on 3 dimensions and correlated on 1, was employed to test the hypothesis." The hypothesis that alcoholics fear an initial drink but crave a 2nd is not supported.—*S. R. Diamond.*

11124. **Ditman, Keith S., et al.** (Brain Research Inst., Los Angeles, Calif.) **Characteristics of alcoholics volunteering for lysergide treatment.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 414-422.—During a 1½-yr period male residents of an alcoholic rehabilitation center were screened by a group of psychiatrists and psychologists to determine their suitability for participation in a drug study designed to compare the therapeutic effect of an iv injection of either lysergide, methylphenidate, or chlordazepoxide. Ss were given personal interviews as well as a battery of psychological tests including the MMPI, Shipley-Hartford, and Bender-Gestalt. Ss within the 3 groups varied in demographic variables. However, the volunteers seemed to see themselves as more troubled, insecure and insignificant; they were willing to try an experimental treatment for the relief of their more painful situation than their non-volunteer counterparts.—*S. R. Diamond.*

11125. **DuHamel, Thomas R.** (U. Massachusetts) **The interpersonal perceptions, interactions, and marital adjustment of hospitalized alcoholic males and their wives.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6254.

11126. **Emrick, Chad D.** (U. Colorado, Medical Center, Denver) **Abstinence and time perception of alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 384-393.—32 male alcoholics in the treatment program of the Bowery Mission in the New York City Skid Row served as Ss. Each S was given 3 tests: Time Competence, 4 Story Completion Items, and 4 TAT cards. Summations of results suggest a picture of the alcoholic with a short period of abstinence: He is unable to live meaningfully in the present but may live in a limited and, to some extent, unpleasant past. In contrast, the alcoholic with longer abstinence lives more meaningfully in the present, or experiences a longer past, or both. (15 ref.)—*S. R. Diamond.*

11127. **Gorwitz, Kurt; Bahn, Anita; Warthen, Frances J., & Cooper, Myles.** (Maryland Dept. of Mental Hygiene, Baltimore) **Some epidemiological data on alcoholism in Maryland: Based on admissions to psychiatric facilities.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 423-443.—Focuses on longitudinal trends, patterns of care as related to population characteristics, and selected mortality information relating to alcoholics. During a 3-yr period ending 30 June 1964 6,432 persons were reported to the Register as having been under care in a participating facility with a psychiatric diagnosis of alcoholism. 18% of the alcoholics had 1 or more treatment episodes in which they received another psychiatric diagnosis. A total of 357 deaths were reported. The educational level of the alcoholics was strikingly similar to that of Maryland's general population aged 14 yr. or older.—*S. R. Diamond.*

11128. **Johnson, Nancy.** **What is Al-Anon?** *National Catholic Guidance Conference Journal*, 1971(Spring), Vol. 15(3), 188-191. Discusses Al-Anon—the national organization for the relatives of alcoholics—in terms of the "encounter group."—*A. M. Cawley.*

11129. **Kennedy, Dennis L.** (U. North Carolina,

(Chapel Hill) **An exploratory study of the relationship of alcoholics and their spouses in a simulation game situation.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6905.

11130. Knapstein, John W. (Texas Technological U.) **A cross-cultural study of certain personality features of tuberculous alcoholic patients.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6260.

11131. Meeks, Donald E. & Kelly, Colleen. (U. Toronto, Ontario, Canada) **Family therapy with the families of recovering alcoholics.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 399-413. —Conducted a clinical investigation over a 1-yr period employing a sample of 5 families in the Day Treatment Unit of the Ontario Alcoholism and Drug Addiction Research Foundation. The Unit offered an intensive 7-wk program of individual and group psychotherapy for alcoholic patients, followed by an aftercare program. In general, all the families involved showed evidence of improved relating, healthier communication, and increased mutual support. 2 of the men were able to remain abstinent during the entire course of the family therapy; the other 2 men and a woman patient showed substantial improvement. It is concluded that family therapy can help the alcoholic by assisting the entire family to openly confront and deal with their problems. —S. R. Diamond.

11132. Reiner, Elliott R. (Worcester State Hosp., Mass.) **Clinical pastoral orientation in alcoholism.** *Pastoral Psychology*, 1971(Apr), Vol. 22(213), 29-38. —"Effective pastoral counseling for alcoholics requires a climate of collaboration within an interfaith organizational structure as well as with the various agencies, clinics, and religious institutions in the community." Describes, assesses, and discusses 2 programs, and reproduces the assessment questionnaire utilized in evaluating the program.—O. Strunk.

11133. Ritson, B. (Maperley Hosp., Sheffield Region Addiction Unit, Nottingham, England) **Personality and prognosis in alcoholism.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 79-82. 100 alcohol addicts were studied clinically and with objective psychological tests. Both approaches demonstrated the poor prognosis of the hostile alcohol addict who has poor impulse control. Conscience structure was not a valid prognostic indicator.—*Journal summary*.

11134. Rosenbarger, Maxine. (Southern Illinois U.) **An investigation of selected community alcoholism resources and facilities and their relationship to post-hospitalization adjustment of male alcoholics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6092.

11135. Ross, Christopher F. (Bexley Hosp., England) **Comparison of hospital and prison alcoholics.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 75-78. —Prison and hospital groups did not differ on 3 standard personality inventories—the Hostility and Direction of Hostility Questionnaire, the Symptom Sign Inventory, and the 16 PF—but the prison group was older, drank more, drank cheap wine as opposed to liquor, spent more time drinking, and showed more loss of control features. Large social class differences suggest confirmation of factors such as being single, having no home or steady job, and a record of arrests as more important than the type of treatment, as reported by C. McCance and P. F. McCance (see PA, Vol. 43:13084). —R. L. Sulzer.

11136. Rothstein, Emil & Clancy, David D. (Brockton Veterans Administration Hosp., Mass.) **Combined use of disulfiram and metronidazole in treatment of alcoholism.** *Quarterly Journal of Studies on Alcohol*, 1970(Jun), Vol. 31(2-A), 446-447. —Ss were 58 non-psychotic men hospitalized in the alcoholism unit. Their psychiatric diagnoses included character disorders and neuroses; all with long histories of alcoholism. Each received 500-mg disulfiram once daily for 30 days, then 250 mg. daily. $\frac{1}{2}$ were also given 750 mg. of metronidazole daily and $\frac{1}{2}$ an identical placebo. Results reveal no evidence that metronidazole in any way aided the treatment of the patients.—S. R. Diamond.

11137. Williams, Thomas K. (Western Michigan U.) **The ethanol-induced loss of control concept in alcoholism.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6073-6074.

Suicide

11138. Amberg, William F. (Brigham Young U.) **A cross indexed study of suicide intervention programs and analysis of current models.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6887.

11139. Birtchnell, John & Alarcon, Jose. **The motivation and emotional state of 91 cases of attempted suicide.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 45-52. —Investigated 91 consecutive cases of attempted suicide in Aberdeen, Scotland, in order to determine the patients' feelings and intentions at the time of the attempt. Females (22 teen-agers) outnumbered males by a ratio of 2.4:1. 89 patients had taken overdoses. Men appeared to think about suicide longer and dwell more on the past than women. Only 46.2% admitted to wanting to die at the time of attempt. Few patients checked retaliation as a motive. The issue of the significance of the attempt and the difficulty of determining the extent to which the patient truly wants to die is discussed. (21 ref.)—A. C. Bower.

11140. Feuerlein, Wilhelm. (Max Planck Inst. for Psychiatry, Munich, W. Germany) **Selbstmordversuch oder parasuicidale Handlung?** [Attempted suicide or parasuicidal treatment?] *Nervenarzt*, 1971(Mar), Vol. 42(3), 127-130. —Proceeding from the work of Stengel who next to the autoaggressive tendency of persons who attempt suicide stressed the appeal character of such attempts, a 3rd tendency, the wish for an interruption of the way of life, is described. In most attempted suicides, these 3 tendencies exist simultaneously even though of varying strength. In extreme cases where 1 of these 3 tendencies is overweighted, there exists a special form of attempted suicide: autoaggression (unsuccessful suicide), appeal (gesture), interruption (pause). If appeal or interruption tendencies are predominant, one should not speak about attempted suicide, but rather about parasuicidal treatment. The extreme form of the parasuicidal pause which until now was little known, is more closely described.—E. R. Wist.

11141. Furlong, Paul T. (U. Utah) **Psychological assessment of potentially suicidal patients at the Community Mental Health Center, Salt Lake City, Utah.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6899-6900.

11142. Hitchcock, John. (U. Pittsburgh, Medical School) **Comments on "The suicide prevention contribution to mental health" by David Lester.**

Psychological Reports, 1971(Jun), Vol. 28(3), 986.—Presents comments on the defense of suicide prevention centers by D. Lester (see PA, Vol. 46:Issue 6). It is argued that the purpose of the earlier article by J. Hitchcock and J. Wolford (see PA, Vol. 44:16950) was to point up the interrelatedness of behavior at various levels, and construct community mental health programs most likely to provide service to persons in need, regardless of the form in which that need was communicated.—*Author abstract*.

11143. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **The suicide prevention contribution to mental health.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 903-905.—Describes the kinds of activities in which suicide prevention centers are currently engaged. It is noted that these activities are often not limited only to the narrow focus of suicide prevention. Suicide prevention centers engage in activities (such as counseling the relatives of suicides) that other agencies do not engage in and for which the staff of suicide prevention centers are adequately trained. It is argued that the recent attack by J. Hitchcock and J. Wolford (see PA, Vol. 44:16950) on the suicide prevention center's contribution to mental health has failed to take cognizance of recent developments in suicide prevention and has been less constructive than desirable.—*Journal abstract*.

11144. **Nelson, Scott H. & Grunebaum, Henry.** (Health Services & Mental Health Administration, Rockville, Md.) **A follow-up study of wrist slashers.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1345-1349.—More than 1/2 the patients in this sample of 19 wrist slashers were well, or at least improved, 5-6 yr. after their initial hospital contacts. Data were gathered by speaking to individuals, their psychotherapists, or by indirect means, e.g., contact with rehabilitation counselors, municipal officers, and various social agencies. The improvement is attributed to an increased ability to verbalize feelings, the use of constructive action at times of emotional crisis, and the control of psychotic delusions through psychiatric follow-up and medication.—*Journal abstract*.

11145. **Resnik, H. L. & Dizmag, Larry H.** (National Inst. of Mental Health, Center for Studies of Suicide Prevention, Chevy Chase, Md.) **Observations on suicidal behavior among American Indians.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 882-887.—Discusses the sociocultural factors that have produced suicide rates on some Indian reservations that are significantly higher than the national average. Among the most important of these factors are the breakdown of traditional values and patterns of behavior resulting from enforced residence on reservations, geographical isolation, widespread unemployment, and a high incidence of alcoholism. It is suggested that suicide is not a unique symptom but is reflective of collective helplessness and hopelessness.—*Journal abstract*.

11146. **Santo-Domingo, Joaquín; Carrasco, Juan J., & León, Gerardo.** **Contribución al estudio epidemiológico de las tentativas de suicidio en España.** [Contribution to the study of epidemiology of attempts to commit suicide in Spain.] *Archivos de Neurobiología*, 1979(Apr), Vol. 32(2), 191-208.—Analyzed 50 cases of attempted suicide in Spain in an attempt to delineate epidemiological patterns. All Ss presented themselves to a general hospital for treatment. The following variables were investigated: sex, age, marital status, family

integration, psychopathological personality manifestations, the time of day during which the suicidal attempt was made, history of previous suicidal attempt, and seriousness of Ss' intentions. (French & English summaries)—*B. A. Stanton*.

Crime

11147. ———. **Offender therapy in the community.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 12-15.—By and large psychiatry has done little towards preventing crime and rehabilitating offenders. The difficulties of treating the offender patient are due to the psychology of the patient and the fact that society cannot afford the tolerance it bestows on neurotics. It is difficult to treat patients in court clinics and institutions because of the distrust of the offender for anyone connected with authority and the artificiality and isolation of prison life. The most desirable way of treating offenders is in the community. Criminal behavior is a failure of socialization and the patient must be in a position to experiment with social abilities and test his emotions in social situations. *M. Pearlman*.

11148. **Bean, Philip.** (Graylingwell Hosp., Clinical Psychiatry Unit, Chichester, England) **Social aspects of drug abuse: A study of London drug offenders.** *Journal of Criminal Law, Criminology & Police Science*, 1971(Mar), Vol. 62(1), 80-86.—Attempted to gain factual information about aspects of the social background of the offenders and the predominant patterns of their drug abuse. 100 consecutive drug offenders who were charged and found guilty were interviewed. 7 popular and widely used drugs were studied: heroin, phsyseptone, cocaine, cannabis, LSD, methedrine, dexedrine, and drinamyl. "Over 1/2 of the men had taken 5 or more of the drugs, and 1/4 had taken all 7. Only 5 said they had taken 1 drug, a further 5 denied drug taking at all. In addition 99% had taken alcohol. The move from 'soft' to 'hard' drugs is clearly seen when we compare the order in which cannabis and heroin were taken." 85% of Ss were single, 30 came from broken homes. A comparison between the social class of this population and social class distribution of the Registrar General's classification for England and Wales shows the drug offenders to be "overweighted in the higher professional, management and other professional, and unskilled manual classes. But not too much [emphasis] should be attached to this finding as the sample is so small." Only 21 out of the 92 not receiving full-time education were working at the time of their arrest. Over 1/2 had worked for less than 10 wk. in the last 26. 18 had been unemployed for a yr. and 9 for at least 3 yr. —*R. Gumer*

11149. **Blackburn, R.** (Broadmoor Hosp., Crowthorne, England) **Personality types among abnormal homicides.** *British Journal of Criminology*, 1971(Jan), Vol. 11(1), 14-31.—The main personality types occurring among abnormal homicides were determined by means of a cluster analysis of MMPI profiles of 56... patients. The analysis yielded 4 independent profile types, by which it was possible to classify 1/4 of the sample: (a) an over-controlled-repressor type characterized by an absence of reported disturbance, but a marked tendency to make use of denial and avoidance mechanisms; (b) a paranoid-aggressive type showing severe and widespread psychopathology and poor impulse control; (c) a depressed-inhibited type who reveal subjective depression, social withdrawal and

inhibition; (d) a psychopathic group who are extraverted, extrapunitive and impulsive, but who do not reveal any significant subjective distress. Significant differences were found between the groups on background variables, suggesting that the typology is meaningful. It was suggested that Types a and c on the one hand, and b and d on the other represent broad categories of over-controlled and under-controlled personalities. The presence of a substantial number of over-controlled personalities is consistent with a theory linking instigation and personality type to extreme aggression."—*R. Gunter.*

11150. Brown, Barry S., DuPont, Robert L., & Kozel, Nicholas J. (Narcotics Treatment Administration, Washington, D.C.) **Staff and client views of the role of the correctional client: Conflict and its implications for treatment.** *Social Psychiatry*, 1971(May), Vol. 6(2), 83-88.—Compared staff and inmate conceptions of the inmate role in 2 correctional settings differing in orientation toward custody as opposed to rehabilitation. There were 25 inmates and 101 staff members from a rehabilitative setting and 37 inmates and 44 staff members from a custodial setting. With the exception of staff treatment at the custodial setting, it was found that each institutional staff viewed the average inmate as significantly more aggressive, dependent, and less socially responsible than did the institution's clients. In an effort to make use of the clients' felt capacity for greater responsibility-taking, a program is suggested which would couple graduated demands for the client's prosocial adjustment with increases in his freedom of action. The custodial institution's treatment staff viewed the client as significantly more capable of responsibility-taking than did the client himself. The clients at the 2 settings also differed significantly. Clients at the rehabilitative setting attributed greater activism to the average inmate than clients at the custodial setting. It is hypothesized that this difference is a function of the greater freedom of action permitted at the rehabilitative setting. (French & German abstracts)—*Journal abstract.*

11151. Chwast, Jacob. (30 5th Ave., New York, N.Y.) **Special problems in treating female offenders: Socio-psychological aspects.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 24-27.—The problems of female offenders are not only a function of intrapsychic stresses but also of the social matrix. For a woman in our society to commit a crime the pressures towards deviance must be great indeed because, until recently, the generally accepted role of a woman is one of conforming and submission. Women, especially the younger generation, have been getting "bugged" and in the lower classes delinquency with prostitution are likely solutions. Anxiety and anger are aroused when the perception of the female role is confused. It is a major task of therapists to both help patients clarify their self-perceptions and also to pinpoint the reasons why patients vary in their ability to utilize the social opportunities available to them.—*Journal summary.*

11152. Cochrane, R. (Michigan State U.) **Research and methodology: The structure of value systems in male and female prisoners.** *British Journal of Criminology*, 1971(Jan), Vol. 11(1), 73-87.—Attempts "to relate a cognitively orientated value theory to criminal behaviour. In this study direct comparisons were made between the value systems of convicted criminals in prison and the value systems of a matched control group drawn from the general population. The instrument used to obtain an objective measure of value systems was

Rokeach's Value Survey. It was found that: (a) There are important differences between the value systems of prisoners and non-prisoners. (b) Prisoners appear to have a shorter time perspective and value those things which have immediate and personal relevance. (c) Prisoners value the characteristics of 'wisdom' and 'self-controlled' relatively highly, possibly because they see these as lacking in their lives. (d) Female prisoners exhibit a more "masculine" value system than do female non-prisoners. (e) A knowledge of individual prisoners value systems could be used for counseling and rehabilitation purposes."—*R. Gunter.*

11153. Eysenck, S. & Eysenck, H. J. (U. London, Inst. of Psychiatry, England) **Crime and personality: Item analysis of questionnaire responses.** *British Journal of Criminology*, 1971(Jan), Vol. 11(1), 49-62.—S. Eysenck and H. J. Eysenck, in an earlier article "outlined the 3-factor theory linking personality and criminal behaviour, and have published evidence in support of the hypothesis that criminals, in comparison with non-criminals, are characterised by high scores on psychoticism (P), extraversion (E), and neuroticism (N) scales of a new questionnaire constructed, validated and standardised by the writers. . . . This paper has provided evidence that the differentiation between personality features of criminals and controls is possible, even when both groups are left completely undifferentiated with respect to such factors as specific crimes committed. The evidence further suggests that existing scales of personality types, such as P, E and N, may be too broad to give maximum differentiation between groups, and that detailed item analyses may succeed in separating out component lower-order factors within these higher-order concepts which produce greater differentiation between groups. Such differentiation may also be helpful theoretically, and suggests further experimental and analytical work; the suggestion that the impulsivity rather than the sociability aspects of extraversion are involved with criminality, and the consequent discovery that a similar distinction obtains with respect to eye-blink conditioning, may be quoted as 1 example of such mutual interdependence."—*R. Gunter.*

11154. Fox, Richard G. (U. Toronto, Centre of Criminology, Ontario, Canada) **The XYY offender: A modern myth?** *Journal of Criminal Law, Criminology & Police Science*, 1971(Mar), Vol. 62(1), 59-73.—In a recent study there were 4 ways in which the XYY male differed importantly from the controls. First, even though the patients in the 2 groups had criminal records of comparable length, the XYY patients displayed, in their criminal behavior, less violence against persons than did control patients. Thus, of the 210 occasions on which the 18 control males had been convicted, 46 (21.9%) had been for crimes against the person while 132 (62.9%) had been for crimes against property. Conversely, the 9 XYY males had been convicted on a total of 92 occasions, but only 8 (8.7%) of these convictions had been for crimes against the person whereas 81 (88%) had been for crimes against property. This finding substantially demolished the original hypothesis that an extra Y chromosome predisposed its carrier to unusually aggressive behavior. The 2nd main finding in the group of XYY patients was that, although their records included considerably fewer crimes of violence against persons, they began their criminal activities at a very young age (on an average, 5 yr. earlier than the control patients).—*R. Gunter.*

11155. Gault, Robert H. (504 Lee St., Evanston, Ill.) **The therapeutic value of challenge.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 11-12.—Treatment of offenders requires challenges. A therapist's readiness to see offenders in his private office rather than in institution clinics is a challenge to offenders to accept therapy.—*M. Pearlman.*
11156. Gendreau, Paul & Suboski, Milton D. (Trent U., Peterborough, Ontario, Canada) **Intelligence and age in discrimination conditioning of the eyelid response.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 379-382.—Assigned male prison inmates to low-IQ ($n = 28$), high-IQ ($n = 14$), low-age ($n = 38$), and high-age ($n = 25$) groups. Ss were compared on classical discrimination eyelid conditioning. The high-IQ group (a) was superior to the low-IQ group in discrimination, largely as a result of lower levels of responding to CS-; (b) had significantly higher CR/UCR response slope ratios; and (c) contained a significantly higher proportion of classified voluntary-form responses. The low-age group was slightly more responsive than the high-age group, but the groups discriminated equally well and did not differ in response topography.—*Journal abstract.*
11157. Gibbens, T. C. & Silberman, M. (Inst. of Psychiatry, London, England) **Alcoholism among prisoners.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 73-78.—Attempted to determine the characteristics of heavy drinkers among the criminal population. From interviews, 404 prisoners or ex-prisoners from 3 contrasted London prisons could be categorized into 4 classes: (a) those with previous convictions for drunkenness (22%), (b) those who admitted to excessive drinking that interfered with social adjustment (18%), (c) those with no drinking problem (51%), and (d) a group in which information was uncertain (9%). Seemingly, about $\frac{1}{2}$ of those in prison had excessive drinking problems. Ethnic background, age groups, and age of conviction are discussed. Historical and social status seem to be the criteria in discussing the difference between excessive drinkers and the rest of the population.—*H. Reiter.*
11158. Langner, Herman P. (664 N. Michigan Ave., Chicago, Ill.) **The making of a murderer.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 950-953.—Proposes that inadequately expressed anger and aggression are largely responsible for atrocities committed by American soldiers in Vietnam. The case of a young man in late adolescence who attempted suicide after being involved in an incident like the My Lai massacre is described. It is concluded that immaturity, basic personality problems, and the frustrating circumstances of combat in Vietnam contribute to willful killing and the subsequent reactions to it.—*Journal abstract.*
11159. Lernell, Leszek. **Refleksje na temat trzech zagadnień metodologicznych etiologii kryminalnej.** [Reflections about 3 methodological problems of criminal etiology.] *Przegląd Penitencjarny*, 1970, Vol. 8(4), 3-16.—Discusses the (a) reasons for the use of a causal category in criminal etiology; (b) search for scientifically substantiated criteria which could be used in delineating criminogenic factors for establishing the bases of criminal etiology; and (c) search for a criminogenic factor which could be used for interpreting not only the genesis of particular types and groups of crimes, but also of crime as a phenomenon. The current state of knowledge concerning the causality and cause structure, leading to the commitment of a crime, is reviewed. It is argued that it is very difficult to find a connection between the cause and the criminal act in an individual case. Some criminogenic factors can be delineated statistically, but it is questionable which factors should be regarded as primary and which as secondary factors. An effort should be made to find a general criminal factor whose existence should not be excluded a priori.—*P. von Toal.*
11160. Lewin, Gertrud W. (203 Lexington Ave., Cambridge, Mass.) **Social work in the psychiatric court clinic.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 52-58.—The task of mental health workers is to understand and help people while the task of the judiciary is to control lawbreakers. Cooperation between these 2 groups depends upon mutual understanding of respective terminologies, concepts, and priorities. The social worker in the court clinic provides support and understanding to the delinquent's family and cooperates with the probation officer and psychiatrist.—*M. Pearlman.*
11161. Marcus, A. M. & Conway, C. (U. British Columbia, Vancouver, Canada) **A Canadian group approach study of dangerous sexual offenders.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 59-66.—Sex offenders, like all inmates, suffer from loss of freedom and responsibility but in addition face ostracism and hostility from the other inmates. A project with sex offenders, a group process not dominated by therapeutic efforts, was undertaken with 7 men and 2 leaders. It was felt that traditional therapy groups have several pitfalls including restricted communication because of the inmate social code, use of technical terms and emphasis on criminal activities to the exclusion of more normal activities. To circumvent these pitfalls a nontherapeutic group process was instituted, to evaluate in depth offenders' natural life style, with no intention of change. The format was a continuing dialogue with 2 participant leaders. Communication was undistorted by assessment anxiety and the leaders, by not focusing on a problem to be cured, were able to recognize strengths and attributes.—*M. Pearlman.*
11162. Martimor, E. (25 Blvd. Alexandre III, Cannes, France) **Les délits de jeu.** [The game of offenses.] *Annales Médico-Psychologiques*, 1971(Jan), Vol. 1(1), 49-56. Games provide a motivation for certain everyday human behaviors, i.e., they account for physical and mental activities entered into not for utilitarian ends but rather for the sake of competition, demonstration of mastery, social dominance, etc. Less is known of the game-like qualities that can motivate offenses against society. Forensic psychiatrists have occasion to observe how infractions of the law often derive from a game-like mechanism. Fire-setting, for example, is commonly engaged in for the "excitement" and feelings of importance it may bring from the signs of human alarm provoked. 6 cases are described of varied misdemeanors committed by persons without any obvious psychopathology. These can best be understood as a game played against society in which the perpetrator conceives himself to be something other than he is. The offense represents a concretized reverie, e.g., the bomb threat phoned proves his power over others. Dispelling feelings of inferiority or mild depression, or even a simple search for strong emotion, can be found among the offenders. Recidivism is not usually a problem, the shame and intimidation of being caught serves to prevent recurrence.—*H. E. King.*

11163. McDonald, William F. (U. California, Berkeley) **The victim: A social psychological study of criminal victimization.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6746.

11164. Miller, Alan R., et al. (California State Coll., Los Angeles) **Psychopathology and perception of physiques.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 475-478. —49 male prisoners, forming 4 diagnostic groups (normals, schizophrenics, passive-aggressives, and sociopaths) defined by actuarial MMPI tables, served as Ss. Diagnostic groups differed significantly in the consistency with which they stereotyped male physiques on the following concepts: child molester, follower, policeman, self, and criminal. 7 physiques were selected from W. H. Sheldon's *Atlas of Men* so that 1 was normal and the other represented extremities in endomorphy, ectomorphy, and mesomorphy.—*Journal abstract.*

11165. Milstein, Fanny. (58 Lincoln Ave., White Plains, N.Y.) **Special problems in treating female offenders: Clarifying the patient's sense of identity.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 16-20.—Offenders' concepts of themselves are confused and they lack planning ability and mental organization. To initiate therapy it is necessary to help the patient to formulate her goals and mobilize internal resources to plan her life. An example is the case of Alice who was a prostitute and found a new identity in being a mother.—*M. Pearlman*

11166. Payne, I. Reed; Howell, Robert J., & Roe, Allan V. (Brigham Young U.) **Marital status of prison inmates as a diagnostic index of personal characteristics and personality traits.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 859-862.—Selected 39 single, 39 married, and 22 divorced prison inmates matched for age. Ss were compared on a 15-trait personality test and 32 other personal variables. Only between the currently married and single groups were there a sufficient number of significant differences. The currently married inmates were significantly less deviant on 4 dimensions of the personality test. There were significant differences on 4 of the 32 personal characteristics. The currently married appeared to be better adjusted than the single inmates.—*Journal abstract.*

11167. Sherby, Linda B. (U. Kansas) **Length of incarceration, race and arbitrariness as instigators of aggression.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6913-6914.

11168. Skobejko, Roman. **Sędzia penitencjarny a polityka nagród i kar.** [Criminal judges and the policy of rewards and punishments.] *Przegląd Penitencjarny*, 1969, Vol. 7(4), 42-55.—Discusses the criteria to be applied in rewarding or punishing prisoners from the viewpoint of their social reeducation. The highest reward provided by the penal code is a permission to leave the prison for 5 days, a privilege granted only after the prisoner has served 1/2 of his sentence. The most severe punishment is placing a prisoner in isolated confinement for a 1-6 mon. period. It is the judge's responsibility to control, accept, or modify the different rewards and punishments granted or imposed by the wardens. Taking into consideration (a) the intellectual level of the prisoners, (b) cases of mentally handicapped inmates, and (c) pregnant women, the effects of this policy on the social reeducation of the individual prisoners and on the prison community are discussed.—*P. von Toal.*

11169. Totman, Jane M. (U. California, Berkeley) **The murderer: A psychosocial study of the process**

of criminal homicide. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6726.

Juvenile Delinquency

11170. Anderson, Dennis B. (U. Nebraska) **Relationship between characteristics and attitudes of training school parolees and recidivism.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6235-6236.

11171. Felsenburg, Rosa. (4021 N. Adams St., Indianapolis, Ind.) **Special problems in treating female offenders: "Unfeminine" delinquent girls.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 21-23.—Many girls' delinquencies are in the area of violence and assault. These girls differ from others in that they do not want to assume the role of women. It is important to help these girls want to be and to act as women. Among the factors which cause or maintain delinquent pathology are the girls' relationship to their mothers. In therapy the patients should trade their dependence on their mothers for a temporary dependence on the therapists so that undesirable values will be replaced by healthier ones. Treatment also involves a full explanation of the present and past, abreaction, support, insight, concern, practical judgment, and a little intuition.—*M. Pearlman.*

11172. Hart, Tom F. (Cumberlow Lodge, London, England) **The changing function of the London girls' remand home: Crisis—intervention and classification.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 35-47.—Remand homes provide a place of detention for alleged offenders not allowed bail and for nondelinquents defined by the juvenile courts as being in need of care, protection, and control. Those in remand stay for a brief period and are observed in order that information and recommendations can be prepared for the juvenile court. An increasing number of girls come from the lower middle and upper working classes, are drug takers, and have histories of violence. A family and paternalistic atmosphere prevails in the home and involves full-time concern, the giving of valid reassurance, and the encouragement of personal skills. The staff like their jobs because they are involved in responsible personal contact with the girls and are free to express their opinions. Control in the home comes from the mutual respect between the girls and the staff.—*M. Pearlman.*

11173. Hayashi, Katsuzo & Ichitani, Tsuyoshi. (Otsu Classification Center of Juvenile Delinquents, Japan) **Factorial patterns of the Rosenzweig P-F Study.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 181-191.—In 1950, Rosenzweig advocated 3 norms in psychology: the individual, the group, and the universal. The present paper reports 2 studies. Exp. I used normal 5th, 7th, & 9th graders. An attempt was made to relate the factorial personality types derived from Rosenzweig's Picture-Frustration Study to the personality types of Eysenck's MPI. In Exp. II, Ss were 186 juvenile delinquent boys. An additional group of 160 delinquent boys was also used. The factorial technique may be a keystone between the nomothetic mind and the idiographic mind.—*R. D. Nance.*

11174. Hooke, James F. (Virginia Commonwealth U., Richmond) **Correlates of delinquent behavior.** *Psy-*

chological Reports, 1971(Jun), Vol. 28(3), 795-800. —Attempted to develop an objective method for discriminating delinquent from nondelinquent adolescents and to describe personal and social differences between the 2 groups. 254 delinquent and 239 control adolescents were tested. A discriminant function using variables from the Color Pyramid Test, the Jr.-Sr. High School Personality Questionnaire, and some academic and demographic variables achieved statistically significant discrimination approximating the "hit" rates of other studies. However, the proportion of false positives rendered the technique impractical for general use. The delinquents generally showed less control over their behavior and tended to come from poorer family situations. A new approach to delinquency prediction research is proposed. (20 ref.)—*Journal abstract*.

11175. Jeżewski, Zygmunt. **Psychologiczna analiza niepowodzeń w nauce młodocianych przestępców.** [Psychological analysis of educational failures of delinquents.] *Przegląd Penitencjarny*, 1970, Vol. 8(3), 38-48.—Studied the effects of intelligence, neurosis, and motivation of young delinquents in learning a profession in a special prison. 2 groups of 20 Ss each were questioned. The 1st group consisted of Ss having earned unsatisfactory marks during 2 school periods, while the 2nd group included students with fair marks. Ss were queried about their past ambitions and the possibilities of the future regarding school and a profession. It was found that the educational achievements of the students were mainly affected by their motivation. Prisoners with neuroses had a higher percentage of failures than prisoners without a neurosis. A high IQ proved to be insufficient for good study achievements. A mediocre intelligence combined with a serious neurosis resulted mostly in an educational failure. A careful selection of educational candidates is suggested.—*P. von Toal*.

11176. Kahn, Michael D. (U. North Carolina, Chapel Hill) **Verbal mediation and the cognitive control of impulsivity.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6904-6905.

11177. Kahn, R. (U. California, Counseling Center, Berkeley) **The delinquent's ability to use information to modify his goals.** *British Journal of Criminology*, 1971(Jan), Vol. 11(1), 63-72.—Attempted to determine whether "learning from what happens to others" can be an effective way of communicating with delinquents in terms of their own hierarchy of needs. At present, in the United States at least, management of delinquents and selection of their placement settings do not differentiate their approaches to the 2 possibly different types of delinquent: "character disorder" and "neurotic." Perhaps the major significance of the present study is its implication that the "character disorder" delinquent, who has so often seemed "unreachable," can indeed modify his aspirations when the material presented to him is deemed relevant by him, within his own psychological framework, i.e., pertains to him and not to others. "The modification of goals is a first step in the modification of behaviour."—*R. Gunter*.

11178. Kalman, Barbara A. (Ball State U.) **Differences in the emotional adjustment and self concepts among institutionalized delinquent girls relative to the kinship system and homosexuality.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6259.

11179. Krueger, Doris E. (U. Miami) **Operant group therapy with delinquent boys using therapist's**

versus peer's reinforcement. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6877-6878.

11180. Leelavathi, K. V. & Murthy, H. N. (All-India Inst. of Mental Health, Bangalore) **Factors affecting rehabilitation of delinquents.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 75-79.—Investigated 7 paroled delinquents who were unable to adjust and 10 paroled delinquents who adjusted well in relation to 3 areas, personality, intrafamilial factors, and the social milieu. Data were obtained by the ratings of (a) the training school superintendent, (b) parents, and (c) the investigator after visits to the homes and neighborhoods of the Ss. Personality traits, e.g., evasiveness, obstructiveness, lacking frustration tolerance, marked interest in opposite sex, and impulsive attempts at injuring self or others, seem to present more markedly in the nonadjusted. Cheerfulness, gregariousness, and assertiveness helps as indicative of adjustment potential. The nonadjusted delinquent finds parental rejection, inconsistent punishment by mother, a very lenient father, and a family with 7 or more children. The adjustable ones seem to markedly feel that they hurt their parents by their behavior. The social milieu seems to be inadequate with respect to marital adjustment in family, poor education, and vocational status as well as poor living conditions in overcrowded places in the town.—*Journal summary*.

11181. Morawski, Jacek. **Z badań skuteczności resozjalizacji młodocianych w rygorze obostrzonym.** [Study of the resocialization effectiveness of more rigorous restrictions on young criminals subjected to them.] *Przegląd Penitencjarny*, 1969, Vol. 7(4), 25-41.—Under the 1958 Polish penal law, more rigorous restrictions are imposed on young delinquents, prohibiting them to (a) use their own underwear, (b) purchase supplementary food during the 1st 3 mo. of their confinement, and (c) smoke. Their salary for work done was reduced up to 20%. The effectiveness of these restrictions was studied by questioning 241 delinquents sentenced to them. Ss answered a series of questions, giving their opinion on rowdy behavior, on the effects of these restrictions, and on their willingness to obey the laws after their release from prison. It was found that the effectiveness of such restrictions differs greatly when applied to young delinquents punished for the 1st time. It is suggested that a more careful selection be made of young delinquents to be subject to these rigorous restrictions. The degree of their demoralization should be considered and the more rigorous restrictions should be reserved for more serious cases. (29 ref.)—*P. von Toal*.

11182. Mortola, Doris S. (Fordham U.) **Aspects of the self-concept in delinquent girls: Maternal identification, sexual identification, and body-concept.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6242-6243.

11183. Rubin, Jerome. (U. Maryland) **Change in self-concept during institutional confinement.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6911.

11184. Schmeideberg, Melitta. (199 Gloucester Pl., London, England) **Special problems in treating female offenders: Promiscuous and rootless girls.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 28-33.—Modern "permissive" parents often refrain from advising their teen-age children about the dangers and difficulties they will encounter. The refusal of "progressive" parents to take responsibility invites

many real dangers as well as being a cause of emotional frustration.—*M. Pearlman.*

Homosexuality & Sexual Deviation

11185. Goldstein, Alan. (Temple U., Medical School) **Case conference: Conflict in a case of frigidity.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 51-59.—Traces the case of a 24-yr-old woman, initially presenting frigidity as her only problem, from beginning to end of treatment. It developed that crucial factors contributing to the problem were fears of the expression of her own anger and the anger of others, and misconceptions concerning the role of wife and mother. The interconnections of the various areas of disturbance and the resulting therapeutic measures are discussed.—*Journal abstract.*

11186. James, William H. (University Coll., Galton Lab., London, England) **Sex ratios of half-sibs of male homosexuals.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 93-94.—Gives an explanation for the earlier reports based on the data of T. Lang and of K. Jensch that homosexuals have odd ratios of half-sibs. Perhaps the tendency is for offspring of a disrupted marriage to live with the same sex parent. Further, half-sibs not living in the same house may be unaware of each other. Reporting errors could then be the source of bias.—*R. L. Sulzer.*

11187. MacCulloch, M. J., Williams, C., & Birtles, C. J. (U. Birmingham, England) **The successful application of aversion therapy to an adolescent exhibitionist.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 61-66.—Describes a 12-yr-old male referred to a clinic for treatment of exhibitionism. Preliminary treatment of his behavior problem employed a conventional psychotherapeutic approach, but impending police action following a further act of exhibiting himself, called for a more rapid resolution. The method of anticipatory avoidance aversion therapy for homosexuality was modified for use in this case. There was a successful reduction in the patient's exhibitionistic behavior, deviant masturbatory phantasy, and sexual orientation towards older women, following 18 20-min treatment sessions. Follow-up at 5 mo. found recovery in all respects maintained. (17 ref.)—*Journal abstract.*

11188. Reitz, Willard E. & Keil, William E. (U. Western Ontario, London, Canada) **Behavioral treatment of an exhibitionist.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1971(Mar), Vol. 2(1), 67-69.—Describes the behavioral treatment of a 36-yr-old male with a 25-yr history of exhibitionism. Treatment involved having the patient exhibit himself under office conditions witnessed by nurses. He reacted with shame, guilt, and embarrassment. After 19 mo. the patient had not again exhibited himself.—*Journal abstract.*

11189. Russell, Donald H. (7 Colchester St., Brookline, Mass.) **On the psychopathology of boy prostitutes.** *International Journal of Offender Therapy*, 1971, Vol. 15(1), 49-52.—Homosexual activity results from a combination of disturbed psychosexual development, social, and psychosocial factors. A preponderance of boy prostitutes had their capacity for a satisfactory relation seriously impaired by early maternal deprivation. With many boy prostitutes the problem is less of sexuality than of pathology evoked in social situations that demand homosexual compliance. Pros-

titution may be a phase that does not preclude eventual maturity.—*M. Pearlman.*

11190. Shore, Miles F., Clifton, Anne; Zelin, Martin, & Myerson, Paul G. **Patterns of masochism: An empirical study.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 59-66.—Questionnaire and interview techniques were used to study 26 highly masochistic Ss. 2 groups of masochists were identified (victims and doers) which differed clearly in terms of character traits, attitudes, object relationships, and life history. Clusterings of answers on the questionnaire designed to reflect masochistic attitudes also revealed significant group differences. A 3rd group, the somatizers, was less distinct. The 11 patients who were not readily classified were taken to be in a transitional state along a kind of continuum.—*A. C. Bower.*

11191. Warner, Gloria M. & Lahn, Marion. **A case of female transsexualism.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 476-487.—Presents a case history of a 28-yr-old South American, white, Catholic homosexual woman. "Factors which may have increased and fostered conscious male gender identity in this biologically normal female patient include the father's wish for a boy, early identification with father, rejection by and longing for mother who favored the patient's brother with whom the patient identified as an aggressor and of whom she was afraid, early fear of heterosexuality and smothering as well as a frightening primal scene experience. The patient first consciously wished to be a boy after her brother returned home when she was 8 and demonstrated physical closeness to mother. Heterosexuality, danger, and death are further related by memories of sister's surgery, grandmother's death, and her own appendectomy with fear of mutilation, all occurring within a 6-mo period." Results from the WAIS, TAT, Rorschach and MMPI administered on admission, 1 mo. later on the 1st day of menses, and 2 yr. later after bilateral mastectomy and hormonal treatment are reported. The literature is briefly reviewed and salient features discussed. (28 ref.)—*S. Knapp.*

MENTAL DISORDER

11192. Brandon, S., McClelland, H. A., & Protheroe, C. (U. Manchester, England) **A study of facial dyskinesia in a mental hospital population.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 171-184.—15.3% of the male (n = 426) and 30.5% the female (n = 484) patients showed constant or recurrent chewing, champing, or swallowing movements. In rare cases dyskinesia appeared to be caused by phenothiazine exposure, but age and constitutional factors were more important. Under age 50 the disorder was rare without brain damage. (15 ref.)—*R. L. Sulzer.*

11193. Certcov, Daniel. (Jose M. Penna Municipal Hosp., Buenos Aires, Argentina.) **La personnalité psychopathique comme maladie mentale chronique.** [Psychopathic personality as a chronic mental disease.] *Annales Médico-Psychologiques*, 1971(Feb), Vol. 1(2), 215-221.—Exception is taken to the classic view that the psychopath differs from the normal in his behavior in only a quantitative sense, causing suffering to himself and to society thereby. It is held that quantitative variations of the personality are not necessarily maladaptive, and that even hysterical or obsessional traits, for example, are flexible enough to allow an adaptive integration of the individual to his general social environment. On the contrary, the psychopathic person

has lost the capacity to control the deviant traits of his personality. They represent a permanent, qualitative change in reactive behavior beyond the will of the individual which renders him incapable of adapting to fluctuations in the social milieu in which he finds himself. They represent, in this sense, a chronic mental disorder. Morbid psychopathic personalities are as unable to adapt to the special environment of the neuropsychiatric hospital, unfortunately, as they are to the demands of the greater world outside.—H. E. King.

11194. Criddle, William D. (Kings County Hosp., Brooklyn, N.Y.) **One-way screen observation of psychiatric patients.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 918—9 male and 7 female psychiatric inpatients verbally answered the items of the Edwards Social Desirability (SD) Scale and completed 2 anxiety inventories. Response latencies and durations to the items of the SD scale were measured. Ss were seen twice, with 1/2 the sessions held in front of identified Os seated behind a 1-way screen. No effects attributable to observation were found. Response latencies and durations were shorter and anxiety levels lower in the 2nd interview.—*Author abstract.*

11195. Darley, P. J. & Kenny, W. T. (Community Mental Health Services, Massachusetts Mental Health Center, Boston) **Community care and the "Queequeg syndrome": A phenomenological evaluation of methods of rehabilitation for psychotic patients.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1333-1338.—An English day center for psychiatric patients, especially psychotics and chronic schizophrenics, had a low success rate when run traditionally. The theory is presented that former psychiatric hospital patients are generally not accepted by the community as recovered, but are given the new and damaging role of citizen-on-probation. It is demonstrated that changes in the structure and program of the day center point toward new methods of rehabilitation aimed at helping patients combat the "Queequeg syndrome."—*Journal abstract.*

11196. Evans, Philip. (National Hosp. for Nervous Diseases, London, England) **Failed leucotomy with misplaced cuts: A clinico-anatomical study of two cases.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 165-170.—2 patients submitted to leucotomy failed to improve, and both committed suicide, 1 3 yr., the other 5 yr. after the operation. Anatomical study of their brains showed that the thalamo-frontal radiations had not been severed. The cases are discussed in the light of previous reports, and the point is stressed that failure to improve after leucotomy does not necessarily imply poor case selection.—*Journal summary.*

11197. Flanagan, Thomas A., Goodwin, Donald W., & Alderson, Philip. (Washington U., Medical School) **Psychiatric illness in a large family with familial hyperparathyroidism.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 693-698.—8 of 10 members of a family exhibiting hyperparathyroidism, vs. 1 member of a control group, experienced major psychiatric symptoms. This confirms findings on a family studied by R. E. Cutler, E. Reiss, and L. V. Ackerman, although there is still no clear explanation of the basis of the association.—R. L. Sulzer.

11198. Hudgens, Richard W., Robins, Eli, & Delong, W. Bradford. (Washington U., Medical School) **The reporting of recent stress in the lives of psychiatric patients: A study of 80 hospitalized patients and 103**

informants reporting the presence or absence of specified types of stress. *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 635-643.—There was a low rate of agreement between patients and family informants as to whether a type of stress had occurred and whether a specific event had occurred. In relating causes and effects patients and informants differed even more greatly. The more events reported, the greater was the disagreement. Retrospective studies which purport to demonstrate relations between stressful events and psychiatric states may, then, be of dubious validity.—R. L. Sulzer.

11199. Jathar, V. S., et al. (Seth G.S. Medical Coll., Bombay, India) **Serum vitamin B₁₂ levels in Indian psychiatric patients.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 699-704.—A study of 152 patients in Bombay, both vegetarians and meat eaters, failed to identify specific psychiatric symptoms attributable to vitamin B₁₂ deficiency. (15 ref.)—R. L. Sulzer.

11200. Kass, Walter; Preiser, Gary, & Jenkins, Adelbert H. (New York U., Medical Center) **Inter-relationship of hallucinations and dreams in spontaneously hallucinating patients.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 488-499.—Studied the dreams and hallucinations of 4 male and 3 female 19-44 yr. old patients in a city psychiatric hospital. 5 Ss experienced spontaneous auditory and visual hallucinations, 1 somesthetic hallucinations, and 1 amphetamine-induced hallucinations. All Ss recalled their dreams with varying vividness. 4 Ss reported being awakened by their hallucinations, while the only S to report that the hallucination had entered his dreams was the amphetamine abuser. It is concluded that: "Hallucinators maintain distinction between their dreams and hallucinations, but do not definitely differentiate the latter from their normal perceptions. Although hallucinations may interrupt sleep and wake the dreamer, dreams are not pervaded by hallucinations. The possibility that dreams may partake of the hallucinatory content requires further investigation. Hallucinogenic drugs may potentiate penetration of dreams by waking-state hallucinations as part of the day residue."—S. Knapp.

11201. Mathis, Harold I. (George Washington U.) **Emotional responsiveness in the antisocial personality.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6907-6908.

11202. McGuire, Michael T. (Massachusetts General Hosp., Stanley Cobb Lab., Boston) **Dyadic communication, verbal behavior, thinking, and understanding: III. Clinical considerations.** *Journal of Nervous & Mental Disease*, 1971(Apr), Vol. 152(4), 260-277.—Attempts to relate a theory presented in Part I and the research findings of Part II in this series (see M. T. McGuire, PA, Vol. 46:Issue 6) to common observations in clinical psychiatry. In addition, the original theory is expanded to take into account the influence of affects and motives on thinking, understanding, and 2-person communication with the aim of developing a more inclusive general clinical theory. (35 ref.)—*Journal abstract.*

11203. Nagalakshmi, S. V. & Murthy, H. N. (All-India Inst. of Mental Health, Bangalore) **Relation of conditioned response strength to anxiety in normals, neurotics and psychotics.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 65-73.—20 normals, 20 neurotics, and 20 psychotics served as Ss.

Anxiety was measured with the anxiety score of the Multiphasic questionnaire. An eye-blink conditioning experiment was administered, as well as a verbal conditioning paired associate learning task, and the 16 PF questionnaire. Blood pressure and pulse rate was determined. The psychotic group was higher in conditioning (eye-blink performance) than neurotics and neurotics higher than normals. On the verbal conditioning test normals showed superiority over the others.—S. R. Diamond.

11204. Naylor, G. J., McNamee, H. B., & Moody, J. P. (Royal Dundee Liff Hosp., Scotland) **Changes in erythrocyte sodium and potassium on recovery from a depressive illness.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 219-223.—Venous blood of psychotic but not neurotic depressives showed a significant decrease in erythrocyte sodium on recovery, while no change in erythrocyte potassium concentration occurred. Relationship with depressive symptoms is uncertain, but an increase in neuronal intracellular sodium would decrease the action potential of a nerve.—R. L. Sulzer.

11205. Prabhu, G. G., Agrawal, A. K., & Teja, J. S. (All India Inst. of Medical Sciences, New Delhi) **Effect of anxiety and depression on time estimation and judgment.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 16-21.—32 anxiety neurotics, 32 psychotic depressives, and 18 normal controls matched for age, education, and sex were tested individually on a time production (counting) test, and a time reproduction test (tapping). Subjective feelings about passage of time and an estimation of the total time of testing were also obtained individually. No significant intergroup differences occurred in any of the time estimation measures. 47% of the anxiety neurotics felt that time did not pass normally and 1% of the depressives felt that it was moving slowly. On recovery 71% of the depressives felt that it was passing normally. The difference in the subjective feeling during depression and recovery was significant. (30 ref.)—K. C. Panda.

11206. Ramchandran, S. & Dwivedi, S. D. **Social stratification of psychiatric cases in a military hospital.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 32-36.—930 psychiatric patients admitted to an army hospital in India were classified on the basis of age, length of service, rank, and types of illness, following the criteria set by the World Health Organization. The results, based on percentage analyses, showed that incidence of neuroticism was higher (71.1%) than schizophrenia (14.2%). Up to age 36, the incidence of anxiety neurosis was high, and hysteria was most common between 18-24 yr. Psychoneurosis was more common among persons under 30 yr. of age. Incidence of illness was high during the 1st 3 yr. of service life and among the lowest ranked personnel (77.45%).—K. C. Panda.

11207. Rogers, David P. (Duke U.) **Comparisons of experiences of individuals from differing personality syndromes: An experiment in social phenomenology.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6243-6244.

11208. Sanders, George M. (George Washington U.) **Conformity responses to social pressures in individuals with life patterns of social conflict.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6912.

11209. Sarbin, Theodore R., Juhasz, Joseph B., & Todd, Peyton. (U. California, Santa Cruz) **The social psychology of "hallucinations."** *Psychological Record*, 1971(Win), Vol. 21(1), 87-93.—Investigated the frequency of false perceptions, "hallucinations," in samples of psychiatric and normal Ss. In Exp. I, 14 hallucinating and 14 nonhallucinating mental patients and 14 undergraduates were led to expect the taste of salt in distilled water. Significantly more normals thought they tasted salt than mental patients ($p < .01$). In Exp. II, 9 hallucinating and 13 nonhallucinating acute schizophrenics were compared to 22 medical patients in a test in which the Ss were led to expect a sound to occur. Results were not significant, but were in the same direction as those found in Exp. I. It is argued that these results could not be predicted by psychophysics or psychiatry, but can be understood in terms of the meaning of the social situation in which the actions occurred.—*Journal abstract*.

11210. Sreedhar, Krishna P. & Murthy, Vinoda N. (All-India Inst. of Mental Health, Bangalore) **Drive level and learning.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 43-49.—Explored the relationship between drive level and learning among 15 chronic schizophrenics, 15 neurotics, and 15 normals using a double criterion of drive—psychiatric diagnosis and manifest anxiety score on a modified Indian adaptation of the MA scale. Learning measures were a step maze to represent motor learning, and a paired associates test taken from Wechsler Memory Scale to represent verbal learning. Results were subjected to analysis of variance for the variables time, trial, and errors. Results indicate that drive level is related to motor learning and not verbal learning. (16 ref.)—S. R. Diamond.

11211. Ström-Olsen, Rolf & Carlisle, Sheila. (Brook General Hosp., Neurosurgical Unit, London, England) **Bi-frontal stereotactic tractotomy: A follow-up study of its effects on 210 patients.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 141-154.— $\frac{1}{2}$ of the S population was essentially cured and another large fraction improved after tracts of the orbital cortex were destroyed by implantation of radioactive seeds. Best results were obtained on depressions and obsessional neuroses. None of the schizophrenics did well. No patient showed a gross frontal lobe syndrome post-operatively, side effects were minimal, and working capacity and normal enjoyment were not affected. This operation avoids unnecessary destruction of brain tissue between the cortex and target area. (29 ref.)—R. L. Sulzer.

11212. Vaernet, K. & Madsen, Anna. (Rigs Hosp., Copenhagen, Denmark) **Stereotaxic amygdalotomy and basofrontal tractotomy in psychotics with aggressive behaviour.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Dec), Vol. 33(6), 858-863.—Treated 12 patients with personality disorders or chronic schizophrenia in whom aggressive-destructive behavior was a prominent feature by bilateral stereotaxic electrocoagulation of the amygdala. In 2 Ss a cingulectomy and in 5 Ss a frontal lobotomy had been performed several years previously without effect. In 11 of the Ss the amygdalotomy resulted in disappearance of, or marked reduction in, their aggressive episodes. In 2 Ss with frequent self-mutilations and reactive psychotic episodes, these symptoms disappeared after an additional

basofrontal tractotomy by G. Knight's method. (19 ref.)—*Journal abstract*.

Neurosis & Emotional Disorder

11213. Chinnian, R. Rawlin & Murthy, Vinoda N. (All-India Inst. of Mental Health, Bangalore) **Persistence and personality.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 51-58.—Administered a battery of 4 persistence tests, 2 for physical persistence—leg persistence and dynamometer persistence and 2 for ideational persistence—problem solving and continuous addition test. 10 normal extroverts and 10 normal introverts, 10 neurotic extroverts and 10 neurotic introverts served as Ss. The relationship between persistence and personality in the Ss was studied. Personality grouping was based on the concurrence of results in at least 2 of the 3 personality tests—Neymann Kohlstedt introversion-extroversion questionnaire and Hysteroid-Obsessoid questionnaire, and an objective test, Spiral aftereffect. Normal introverts are significantly more persistent than normal extroverts. Neurotics as a group are not significantly different from the normals, though the neurotics had lower mean scores in the physical persistence tests. Within the neurotic group, neurotic introverts are significantly more persistent than the neurotic extroverts. (29 ref.)—*Journal summary*.
11214. de Natale, L. & Lamponi, S. (U. Naples, Clinic for Nervous & Mental Disease, Italy) **Differente azione dei colori nel processi percettivi di integrazione e di presa del significato nei normali e nei nevrotici.** [Significant differences in the action of the process of perceptive integration and comprehension of colors in normal and neurotic subjects.] *Acta Neurologica*, 1969(Nov), Vol. 24(6), 862-869.—Examined color interference and perceptive integration of color in 25 normal and 25 neurotic Ss using an adaptation of a test devised by A. Rubino and R. Santanelli. Results reveal that normal Ss displayed fast perceptive integration of reds and greens in early stages, while neurotic Ss demonstrated comprehension facility only with green shades. In further stages, comprehension of normal and neurotic Ss was similar. Results are attributed to diencephalic alterations present in neurotic Ss. (English summary) (41 ref.)—*B. A. Stanton*.
11215. Göppert, Hans. (29 Rotackerstr., Freiburg im Breisgau, W. Germany) **Die Rolle des Kindheitstraumas für Genese und Therapie der Neurosen.** [The role of traumatic childhood experiences for the development and therapy of neuroses.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1971(Jan), Vol. 20(1), 14-20.—Spontaneous neuroses, like traumatic neuroses, represent fixations to earlier experiences. Since children show transference in play situations, the conflicts of an 11-yr-old boy are shown in a series of plays with the Sceno test. In a spontaneous process the child's conflicts are persistently worked over in the play series and maturational processes begin. Similar processes can be observed in dreams. However, the hypothesis of childhood trauma has only limited validity since each conflict points to the total maturational development. 2 ways of analytical therapy are possible: the therapist starts with the central conflict and finds its various branches, or the analysis is restricted to a more or less adventitious terrain.—*H. A. Euler*.
11216. Hart, James D. (U. Wisconsin) **Physiological responses of anxiety neurotics and normal controls to simple signal and non-signal stimuli.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6902.
11217. Kellner, R. & Sheffield, B. F. (U. New Mexico, Medical School) **The relief of distress following attendance at a clinic.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 195-198.—15 neurotics showed a decrease in Symptom Rating Test scores during a waiting period preceding initial psychotherapy, but not during subsequent waiting periods. This accords with other findings that there is an initial decrease in distress scores following attendance at a clinic without treatment. Perhaps drug trials or controlled tests of psychotherapy should be preceded by a period of testing and placebo treatment.—*R. L. Sulzer*.
11218. Kendell, R. E. & Discipio, W. J. (Inst. of Psychiatry, London, England) **Obsessional symptoms and obsessional personality traits in patients with depressive illnesses.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 65-72.—The Leyton Obsessional Inventory was given to patients with severe depressive illnesses, during their illness and after their recovery. Results and changes in the 2 different administrations were analyzed and correlated with other variables. Results showed that obsessional symptoms were typical manifestations and seem to be aggressive in nature. The tendency for the symptoms to worsen during depressive periods was common. Strikingly different were the scores between normal adults and depressives. Depressives' scores, even after recovery, were almost twice as high. Obsessional symptoms were equally common in psychosis and neurosis, however, they were more pronounced in severe depression than in mild depression. These symptoms were generally nonexistent in mania.—*H. Reiter*.
11219. Khan, M. Masud. **Infantile neurosis as a false-self organization.** *Psychoanalytic Quarterly*, 1971, Vol. 40(2), 245-263.—3 types of infantile neuroses are distinguished, the 3rd type of which is discussed. "Here the ego of the child has prematurely and precociously brought the traumata of early childhood under its omnipotence and created an intrapsychic structure in the nature of infantile neurosis which is a false-self organization, and which will henceforth set up a rigidity of split-existence and defensive exploitation of pregenital instincts and archaic mental functioning, most commonly met with in obsessional neurosis." A case history of an adult patient with an obsession illness is presented.—*J. Z. Elias*.
11220. Lienert, G. A. & Matussek, P. (U. Düsseldorf, Inst. of Psychology, W. Germany) **Der statistische Zusammenhang einiger Initialsymptome bei unbehandelten Fällen endogener Depression.** [The statistical relationship between several initial symptoms in untreated cases of endogenous depression.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 124-127.—The symptoms of the 1st phase of 66 untreated cases of endogenous depression were subjected to a configuration frequency analysis. 3 subsyndromes resulted: (a) 10 patients with the symptoms guilt feelings, inhibitions, and anxiety, without psychosomatic sensations and agitation; (b) 5 patients with the symptoms psychosomatic sensations, agitation, inhibitions, and anxiety without guilt feelings; and (c) patients with the symptoms psychosomatic sensations and inhibitions without anxiety, agitation, and guilt feelings. The symptoms of Subgroup a as opposed to b and c correspond to separation of the symptoms of endogenous depression described by von Saltes and Hertich and empirically confirmed by Matussek, et al.

The suggested terms "away from me" and "close to me" symptoms bring to expression the idea that the structure of the ego and its defense mechanisms must be made corresponsable for the symptoms choice.—E. R. Wist.

11221. Mayo, P. R., Walton, H. J., & Littmann, S. K. (U. Sussex, Brighton, England) **Relevance of repression-sensitization to neurotic patients in milieu treatment.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 794.—30 female neurotic inpatients on admission completed Byrne's Repression-Sensitization (R-S) scale, a Symptom-Sign Inventory, and a Hostility Questionnaire. 2 psychiatrists independently rated these Ss on a series of measures relating to ward behavior and response to treatment. Sensitizers reported more symptoms, gave higher total hostility and intropunitiveness scores, and were prescribed more drugs. However, no relation was found between any of the psychiatrists' ratings, including patients' condition at discharge, and R-S. *Journal abstract.*

11222. McCranie, E. James. (Medical Coll. of Georgia, Atlanta) **The neurotic process.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 422-434.—Presents a paradigm of neurotic illness, labeled "the neurotic process," that has proven useful in teaching and practice. The difficulties and inadequacies of the psychoanalytic model of neurosis based on traumatic childhood experiences, repression, and anxiety are discussed. A psychodynamic model is proposed to explain the neurotic process. Secondary symptoms are regarded as reactions or defenses against emotional arousal which consists of hurt, fear, anger, or combinations of these emotions. These in turn are reactions to stimulus situations, especially the frustration of needs, which are the result of inadequate and maladaptive behavior patterns and attitudes. These patterns of behavior and attitudes are considered to have been learned in the childhood experiences. It is suggested that this model provides a practical and theoretically satisfying basis for interviewing the patient and conducting psychotherapy. An interview with a 47-yr-old woman is presented with an analysis according to the model.—S. Knapp.

11223. Murphy, Solbritt; Nickols, Jackson; Eddy, Roger, & Umphress, Agnes. (U. Washington, Child Development & Mental Retardation Center) **Behavioral characteristics of adolescent enuretics.** *Adolescence*, 1971(Spring), Vol. 6(21), 1-18.—26 enuretic adolescent clinic patients were compared with 2 matched control groups for behavior symptomatology, psychiatric classification, and character traits (defined by Bell Adjustment Inventory). Results lend some support to existing theories attributing passivity, submissiveness, immaturity, and suppressed aggression to enuretics.—A. B. Warren.

11224. Rutchik, Allen I. (U. Miami) **Aspiration strategies in competitive and non-competitive situations in depression.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6911-6912.

11225. Slater, Eliot; Maxwell, Joyce, & Price, John S. (Bethlem Royal & Maudsley Hosp., London, England) **Distribution of ancestral secondary cases in bipolar affective disorders.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 215-218.—Out of 193 cases of bipolar affective disorder, 26 had 2 or more secondary cases of abnormality among family members. The data suggest polygenic transmission rather than major gene inheritance. Possible sources of bias are discussed.—R. L. Sulzer.

11226. Smail, D. J. (Saxondale Hosp., Nottingham Area Psychological Service, Radcliffe-on-Trent, England) **Neurotic symptoms, personality and personal constructs.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 645-648.—Foulds' Symptom-Sign-Inventories and Caine's Direction of Interest Questionnaire applied to 21 patients supported the hypothesis that neurotics complaining of somatic symptoms tend toward extroversion while psychic symptoms correlate with introverted thinking. The individual's conception of himself, of his interpersonal environment, and of his experience of stress may have an underlying homogeneity. Hence, patients may have personality-based preferences for the types of neurotic symptoms they develop.—R. L. Sulzer.

11227. Tan, E., Marks, I. M., & Marset, P. (General Hosp., Penang, Malaysia) **Bimodal leucotomy in obsessive-compulsive neurosis: A controlled serial enquiry.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 155-164.—24 patients who had had prefrontal brain operations were compared to matched controls over a 5-yr follow-up. Obsessions and general anxiety were reduced and work adjustment improved while personality changes were minimal. The findings with regard to obsessions and general anxiety are similar to those in a previous study on severe agoraphobia (see I. M. Marks, J. L. Birley, & M. G. Gelder, PA, Vol. 40:12953). (22 ref.)—R. L. Sulzer.

11228. Teichman, Meir. (Center for Research in Social Behavior, Columbia, Mo.) **Antithetical apperception of family members by neurotics.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 73-75.—20 undergraduates were administered Landfield's revision of Kelly's Role Construct Repertory Test. Consistent with Adler's view of the antithetical mode of apperception in neurotics, Ss differed significantly from their well-adjusted controls in differentiating between family members.—A. R. Howard.

11229. Tigay, Barry & Kempler, Hyman L. (Wayne State U.) **Stability of WISC scores of children hospitalized for emotional disturbance.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 487-490.—Obtained test-retest data on the WISC for 25 children who had been hospitalized with emotional disturbances. An analysis of the reliability coefficients and difference between means showed stability on verbal subtests is as high or higher than reliabilities reported for non-disturbed Ss using test-retest methods. 1 exception is the Comprehension subtest on which emotionally disturbed Ss show considerably less stability than nondisturbed Ss. Stability on performance subtests is considerably lower for emotionally disturbed Ss than for nondisturbed in test-retest studies with the exception of Picture Arrangement which is more reliable than the test-retest data for normals. Performance and Full Scale IQ increases significantly on retesting.—*Journal abstract.*

11230. Wakeling, A. & Russell, G. F. (Inst. of Psychiatry, London, England) **Disturbances in the regulation of body temperature in anorexia nervosa.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 30-39.—11 14-34 yr. old female patients with anorexia nervosa and a control group of 11 18-25 yr. old females were studied in relation to body temperature regulation. Patients were tested in a malnourished state and after eating, in reference to the temperature of the oral and peripheral skin in response to a heat stimulus and a standard meal. Malnourished patients showed malfunctioning of the

temperature-regulating mechanism, abnormality of resting oral temperature, and reduced sensitivity of the central heat regulating mechanism. It is suggested that abnormalities may be indicative of defect in temperature regulation in anorexia nervosa which is linked with the feeding disorder peculiar to this illness. (32 ref.)—H. Reiter.

Psychosis

11231. Behrends, K., et al. (Free U. Berlin, Psychiatric & Neurological Clinic, W. Germany) **Quantifizierung psychotischer Symptome unter transkulturellen Aspekten.** [Quantification of psychotic symptoms according to transcultural aspects.] *Social Psychiatry*, 1971(May), Vol. 6(2), 66-72.—Describes the German part of a cross-cultural study of hospitalized patients diagnosed psychotic. Ss were studied from admission on the Inpatient Multidimensional Psychiatric Scale (IMPS). Computer-derived results show that in the German sample the same cluster of psychotic factors and syndromes prevailed as in the United States sample. It is therefore possible to compare types and degrees of psychotic behavior in different cultures through the IMPS independent of diagnostic classifications. (French abstract) (24 ref.)—English abstract.

11232. Brown, Jennifer. (Northern Illinois U.) **The cure and feeding of windigos: A critique.** *American Anthropologist*, 1971(Feb), Vol. 73(1), 20-22.—Suggests that, contrary to the view of V. Rohrl (see PA, Vol. 46:3424), the usual treatment of windigo psychosis is not nutritional in nature. When ingestion is involved (which is rare) its sequel (vomiting to expel the windigo heart of ice) is given more curative importance, challenging the view that the northern Algonquians somehow "grasped" the idea of a nutritive cure for windigos. There is no evidence, at this point, for clear nutritional causes for windigo.—Journal abstract.

11233. Goldberg, Arnold & Rubin, Bernard. **A method of pacification of the psychotic excited state: The use of the hospital as a transitional object.** *Comprehensive Psychiatry*, 1970(Sep), Vol. 11(5), 450-456.—Investigated excited psychotic patients in order to determine persistence of modes of childhood pacification. Hospitals were examined as to their making modes of pacification available and the patients' utilization of the hospital. Data showed that the hospital can be thought of as utilized by some patients as a transitional object, i.e., an unchanging, consistent, shared thing used for comfort and soothing. Further consideration of effectiveness of psychiatric hospitals are discussed. (30 ref.)—Journal summary.

11234. Hay, Thomas H. (U. Missouri, St. Louis) **The windigo psychosis: Psychodynamics, cultural, and social factors in aberrant behavior.** *American Anthropologist*, 1971(Feb), Vol. 73(1), 1-19.—Presents a brief survey of the nature of windigo psychosis, a form of cannibalism unique to the northern Algonquians. The psychodynamics of the disorder are considered to be essentially similar to those which produce cannibalism in other societies. The differential occurrence in the Algonquians is explained by the emphasis in that group on following inner impulses and the absence of cultural alternatives. It is suggested that the outcome for the individual experiencing heightened cannibalistic urges is a consequence of the relative control which those around him have over their own impulses: (a) if those around him are in good control, they can aid the windigo in

regaining control; (b) if their control is limited, they may become frightened and kill the windigo; and (c) if they are close to losing control themselves, they may unconsciously encourage the windigo and join him in cannibalistic acts. (35 ref.)—Journal abstract.

11235. Jönsson, L. E. & Sjöström, K. (U. Uppsala, Psychiatric Research Center, Sweden) **A rating scale for evaluation of the clinical course and symptomatology in amphetamine psychosis.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 661-665.—A rating scale consisting of 15 behavioral factors was used with 15 (13 males and 2 females, 18-35 yr. of age) cases of amphetamine psychosis. Agreement between raters obtained for each variable, and lack of concentration, delusions of persecution, increased motor activity, disorganization of thoughts, lack of insight, hallucinatory behavior, anxiety/fear, and suspiciousness characterized the 1st 2 days.—R. L. Sulzer.

11236. Krauss, P. (10 Silcherstr., Göppingen, W. Germany) **Über die in der Rehabilitationsabteilung der Privatklinik Christophsbad gemachten psychiatrischen Erfahrungen.** [Concerning psychiatric experiences in the rehabilitation department of the Christophsbad private clinic.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 130-139.—Describes 5 yr. of experience with psychiatric patients in a small 10-bed private clinic for the treatment of psychoses. Criteria for the judgment of the readiness of a patient to assume the responsibility of a job outside the clinic, the nature of the continued contact with such patients, descriptions of the various sorts of behaviors exhibited by patients, and how they react to individual and group therapy as well as to the clinic environment are described in some detail. Evidence for the slow but significant improvement in the condition of patients with serious psychoses is stressed. Physicians who need quick success, have difficulty waiting, and who cannot be pleased with progress in small increments are asserted to be not properly oriented for the treatment of chronic mental illness.—E. R. Wist.

11237. Ödegård, Örnulv. (U. Oslo, Gaustad Psychiatric Hosp., Norway) **Hospitalized psychoses in Norway: Time trends 1926-1965.** *Social Psychiatry*, 1971(May), Vol. 6(2), 53-58.—Examined a case register comprising all admissions to psychiatric hospitals in Norway since 1916 for possible time trends during this period. Only minor changes were found to have occurred in the total incidence of psychoses and in their marital, occupational, and geographic patterns of distribution. This reflects a corresponding stability in socioeconomic conditions and in the development of mental health care in the country. (French & German abstracts)—Journal abstract.

11238. Perris, Carlo. (Umea U., Sweden) **Abnormality on paternal and maternal sides: Observations in bipolar (manic-depressive) and unipolar depressive psychoses.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 207-210.—Investigation of family records of 277 depressive psychotics produced a distribution of cases compatible with a polygenic genetical basis. This accords with previous findings that neither a single dominant nor a single recessive transmission can be held responsible for affective psychoses.—R. L. Sulzer.

Schizophrenia

11239. Bohn, Suzanne E. (Washington U.) **Temporal perspective, inner responsivity, and external re-**

sponsivity in schizophrenics and normals. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6890.

11240. Cancro, Robert. (U. Connecticut) **Sophistication of body concept in process-reactive schizophrenia. Perceptual & Motor Skills**, 1971(Apr), Vol. 32(2), 567-570.—Hypothesized that there would be a linear relationship between the degree of differentiation of the body concept and the adequacy of the patients' premorbid sexual and social adjustment. The underlying basis for the process-reactive classification is unclear, although some authors offer differences in psychological differentiation as an explanation. The relationship between the degree of differentiation of the body concept and the process-reactive continuum was measured by the Prognostic Rating Scale and the subsequent total number of nights of hospitalization over a 3-yr period for 51 consecutive male admissions to psychiatric wards. There was no significant relationship—linear or curvilinear—between these variables in this sample of acute schizophrenics in whom drug ingestion, chronicity, and length of current hospitalization were controlled. (15 ref.)—*Journal abstract*.

11241. Duke, Marshall P. (Emory U.) **Reaction time and normetanephrine-metanephrine excretion under intense stimulation in chronic schizophrenics, nonpsychotics, and normals. Perceptual & Motor Skills**, 1971(Apr), Vol. 32(2), 579-586.—Examined differential predictions stemming from opposing arousal theories of chronic schizophrenia in terms of RT performance and metanephrine-normetanephrine excretion in arousing situations. Ss were 40 chronic schizophrenics, 25 nonpsychotic hospitalized patients, and 24 normal controls. All Ss were 25-40 yr. old males. It was found that schizophrenics and nonpsychotics both manifested behavioral deficit; schizophrenics' normetanephrine level was lower than that of other groups; reactivity of schizophrenics and normals, both behavioral and biochemical, was similar; nonpsychotics demonstrated a tendency toward no behavioral reactivity to intense stimulation but manifested a biochemical response not different from other groups. A theoretical conceptualization of behavioral and biochemical change in response to increasingly intense stimulation was developed utilizing 2 hypothesized cumulative reactivity functions.—*Journal abstract*.

11242. Fischer, Margit. (U. Aarhus, State Hosp., Risskov, Denmark) **Psychoses in the offspring of schizophrenic monozygotic twins and their normal co-twins. British Journal of Psychiatry**, 1971(Jan), Vol. 118(542), 43-52.—Since morbidity risk was not strongly different for a group raised by a schizophrenic parent as compared to a group raised by the normal twin of a psychotic, the results give no support to the hypothesis that environmental factors cause schizophrenia. The hereditary factor appears the most likely explanation. (35 ref.)—R. L. Sulzer.

11243. Greenspan, Barney. (Michigan State U.) **Differences in self-concept identification by a schizophrenic and non-schizophrenic prison population. Dissertation Abstracts International**, 1971(May), Vol. 31(11-B), 6901.

11244. Hawks, D. V. & Marshall, W. L. (Inst. of Psychiatry, Addiction Research Unit, London, England) **A parsimonious theory of overinclusive thinking and retardation in schizophrenia. British Journal of Medical Psychology**, 1971(Mar), Vol. 44(1), 75-83.—It was

hypothesized that in order to cope with information overload some schizophrenics decrease their rate of information processing but do not appear overinclusive, while others who do not learn to retard their rate appear overinclusive. 20 schizophrenics were classified as overinclusive or nonoverinclusive on the basis of the Chapman Card Sorting Test and the Babcock Digit Substitution Test. The card-sorting task was readministered under instructions to increase or decrease response rate. As predicted, the overinclusive schizophrenics were significantly less overinclusive and the nonoverinclusive schizophrenics more overinclusive on the 2nd trial of the card-sorting task. (1 p. ref.)—A. C. Bower.

11245. Hussar, A. E., Cradle, J. L., & Beiser, S. M. (Franklin Delano Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **A study of the immunologic and allergic responsiveness of chronic schizophrenics. British Journal of Psychiatry**, 1971(Jan), Vol. 118(542), 91-92.—Immunization with diphtheria toxoid and subsequent quantification of the antibody response provided no evidence of an altered response by 21 schizophrenics vs. 15 controls.—R. L. Sulzer.

11246. Kahan, I. J. **Experiment in combatting a disease. Canada's Mental Health**, 1971(Mar), Vol. 19(2), 21-24.—Describes the goals, organization and structure, funding and membership, and organizational program of the Canadian Schizophrenia Foundation. The need for more effective treatment and rehabilitation, and a change in general attitude toward schizophrenia is emphasized.—P. Hertzberg.

11247. Kolyaskina, G. I. & Kushner, S. G. (Inst. of Psychiatry, Moscow, USSR) **O roli nasledstvennykh faktorov v vozniknovenii immunopatologicheskikh fenomenov pri shizofrenii.** [On the role of hereditary factors in the emergence of immunopathological developments in schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1971(Feb), Vol. 71(2), 245-248.—Investigated the presence of complement-fixating anticerebral antibodies in blood serum in 104 parents and siblings of 69 schizophrenics in order to determine whether hereditary factors are involved in the formation of immunopathological processes in schizophrenia. The data showed that among these family members, including those without manifest signs of the psychosis, a concentration of individuals with anticerebral antibodies existed. In support of this finding, the following hypotheses are tendered: (a) The enhanced permeability of the membranes of cerebral nerve elements may be genetically involved, so that in response to the usual stresses conditions are created for the direct contact of lymphoid tissue with nerve tissue. (b) A special clump of lymphoid cells with enhanced sensitivity exists, for whose immunological activation a small number of cerebral antigens, entering the blood stream as a result of cerebral dissimulation, is sufficient. (English summary)—I. D. London.

11248. Mosher, Loren R., Pollin, William, & Stabenau, James R. (National Inst. of Mental Health, Chevy Chase, Md.) **Families with identical twins discordant for schizophrenia: Some relationships between identification, thinking styles, psychopathology and dominance-submissiveness. British Journal of Psychiatry**, 1971(Jan), Vol. 118(542), 29-42.—To explain the very different life courses of 2 genetically identical individuals raised in the "same" environment, patterns of identification, cognitive style,

psychopathology, and dominance-submissiveness in the family were investigated. Results show a clear pattern of the schizophrenic twin's identification being with the psychologically less healthy parent, most often the mother. Psychotic twins were also more global in cognitive style and were rated as identified with the more global parent. Schizophrenic twins were most often submissive. Mothers in these families tended to be dominant. A possible pattern is that an initially different twin, e.g., one with lower birth weight, may be differentially treated by an unhealthy parent. (33 ref.)—R. L. Sulzer.

11249. **Mukundan, C. R. & Murthy, H. N.** (All-India Inst. of Mental Health, Bangalore) **Skin potential in chronic schizophrenics: An assessment of level of arousal.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 59-64.—The sample consisted of 18 male chronic schizophrenics of different subgroups with more than a 2-yr stay in a mental hospital. 8 normals served as controls. The 2 groups are compared on the basal level of skin potential and changes in the potential during anticipatory sound stimulus period, sound stimuli, anticipatory electric shock period and electric shock. Results show chronic schizophrenics do not differ from normals on the basal level of skin potential. Chronic schizophrenics do show less responsiveness than normals.—S. R. Diamond.

11250. **Muntz, Hilary J. & Power, R. P.** (Purdysburn Hosp., Belfast, Ireland) **Thought disorder in the parents of thought disordered schizophrenics.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 707-708.—Following D. Romney's (see PA, Vol. 44:10875) failure to confirm a hypothesized relation between thought disorder in schizophrenics and in their relatives, the Bannister Repertory Grid Test and the Mill Hill Vocabulary Scale were given to 32 parents of schizophrenics and matched controls. The expected positive relationship was demonstrated suggesting that parents may play some role in the creation or presence of thought disorder in their offspring, or vice versa.—R. L. Sulzer.

11251. **Nachmani, Gilead.** (Rutgers State U.) **An experimental study of the schizophrenic speaker process.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6908.

11252. **Neale, John M., Davis, Dan, & Cromwell, Rue L.** (State U. New York, Stony Brook) **Size estimation in schizophrenia: Some additional controls.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 363-367.—Studied size estimation in 14 hospital aides and the following groups of 14 male schizophrenics: (a) acute good premorbid paranoid, (b) acute poor premorbid non-paranoid, (c) chronic good premorbid paranoid, and (d) chronic poor premorbid nonparanoid. Unlike previous studies: (a) Ss were at optical infinity from the stimuli to eliminate possible micropsia or macropsia, and (b) stimuli were viewed with an artificial pupil. Contrary to previous findings, no significant differences occurred among the groups in level of size estimation. As in previous studies, the thematic content of the stimuli influenced size-estimation levels but this variable did not interact with S classification.—*Journal abstract.*

11253. **Nideffer, Robert M., et al.** (Vanderbilt U., Medical School) **The relationship of alpha activity to attentional sets in schizophrenia.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 346-352.—Auditory RTs were gathered for 11 hospitalized schizo-

phrenic males and 10 normal males in both an eyes-open and an eyes-closed condition. RT stimuli were presented in both alpha and nonalpha states (as determined by EEG readings). There were "no overall group differences on the RT task," but schizophrenics had better RTs in the eyes-closed condition while normals had better RTs in the eyes-open condition. The eyes-open or -closed condition was shown to be a greater determinant of alpha state for schizophrenics than for normals. RT was best with a preparatory interval of 1 sec. for schizophrenics and 2 sec. for normals. (17 ref.)—R. Denis.

11254. **Oppenheimer, Hans.** (State U. New York, Downstate Medical Center, Brooklyn) **A hypothesis concerning the nature of schizophrenic dementia: A contribution to the psychopathology of the conflict-free ego sphere.** *Journal of the Hillside Hospital*, 1967(Jul), Vol. 16(3-4), 267-284.—Presents aspects in the language and thought pathology of dementia praecox which are usually called "formal." Desymbolization of the word, semantic shift, metonymic distortion, neologisms, asyndesis, system shifting, and sham language are discussed. The thought disorder of organic dementia differs from that of schizophrenia in that it is more in the nature of an orderly retreat than a disorganized rout. It has been suggested that the formal thought and language pathology in dementia praecox may spring from dynamic sources and aim at social goals, either by widening the gulf in communication for the sake of safety, or by narrowing it through the supposedly magical and restitutive quality of autistic verbal idioms. (17 ref.)—S. R. Diamond.

11255. **Parker, David A.** (U. California, Los Angeles) **The orienting response and performance in psychotic and normal children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6953.

11256. **Pitt, Brice & Pollitt, Norman.** (Princess Alexandra Hosp., Churchill Clinic, Harlow, England) **Ascorbic acid and chronic schizophrenia.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 227-228.—Compared vitamin C levels in schizophrenics and controls to test previous reports of an association between psychosis and ascorbic acid depletion. No evidence of subclinical scurvy was obtained.—R. L. Sulzer.

11257. **Reed, J. L.** (St. Bartholomew's Hosp., London, England) **Schizophrenic thought disorder: A review and hypothesis.** *Comprehensive Psychiatry*, 1970(Sept), Vol. 11(5), 403-432.—Much of what is found in schizophrenic thought, speech, and writing occurs also in normal people. What is observed as schizophrenic thought disorder is not due to a qualitatively abnormal mechanism but rather to the use of normal ones in a quantitatively abnormal way. Diverse psychologic and neurophysiologic findings may be explained in terms of a filtering defect of both internal and external stimuli. This results in faulty judgments of the environment, leading to a failure in the formation of average associations, concepts, and constructs. This filtering failure also shows as a failure of differentiation of personal identity which is the basis of symptoms considered pathognomonic of schizophrenia whether expressed as delusions of passivity and influence or as failure to maintain ego boundaries. (161 ref.)—D. Prager.

11258. **Rieger, Norbert I. & Leiken, Stanley J.** (Camarillo State Hosp., Calif.) **Psychotic children attend community nursery schools.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 122-123.

—Describes a program in which 50 severely regressed schizophrenic 4-10 yr. olds attended 1 of 5 community nursery schools for at least 1 1/2 day/wk. Each child received individual attention from teachers and volunteer assistants. Improvements in their ability to relate to peers and adults are noted. It is concluded that: "The community nursery school program has been enriching and educational not only for the children, but also for the hospital and nursery school staff members."—S. Knapp.

11259. **Resenthal, David.** (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) **A program of research on heredity in schizophrenia.** *Behavioral Science*, 1971(May), Vol. 16(3), 191-201. Describes a series of studies that purport to elucidate the possible role of hereditary factors in the etiology of schizophrenic disorders. The focus is on the design of experiments rather than findings, but some findings are reported which strongly support the role of heredity in such disorders. The studies described primarily use naturally occurring adoptions to examine the genetic and family-rearing variables. The design of 1 study is presented which is specifically intended to uncover heredity-environment interactions. (16 ref.)—*Journal abstract.*

11260. **Rutt, C. N. & Offord, D. R.** (Pennsylvania State U., Milton S. Hershey Medical Center) **Prenatal and perinatal complications in childhood schizophrenics and their siblings.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 324-331.—Reviews previous studies relating prenatal and perinatal complications with childhood schizophrenia. Relevant data, in which siblings were used as controls, are presented and analyzed. No relationships between prenatal complications and childhood schizophrenia were found. However, findings show a significant correlation ($p < .01$) between perinatal complications and childhood schizophrenia. A significant correlation ($p < .001$) is reported between ego development, IQ, and age of hospital admission of childhood schizophrenics. (22 ref.)—*R. Denis.*

11261. **Schooler, Carmi & Silverman, Julian.** (National Inst. of Mental Health, Bethesda, Md.) **Differences between correlates of perceptual style and Petrie task performance in chronic and acute schizophrenics.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 595-601.—15 17-57 yr. old acute schizophrenics open to perceptual stimuli were receptive to emotional stimuli and intellectually able. Conversely, 35 chronics in the same age range maintaining active internal lives were inattentive to external stimuli. The Petrie procedure appeared uncorrelated with the Silverman kinesthetic figural aftereffect. Results show that overestimation after Petrie large-stimulus interpolation relates to passive behavior; overestimation after small-stimulus interpolation relates to good intellectual and psychological functioning among all, and among chronics to behavioral and conceptual expansiveness. —*Journal abstract.*

11262. **Silverman, Lloyd H.** (New York Veterans Administration Hosp., N.Y.) **An experimental technique for the study of unconscious conflict.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 17-25.—Discusses a series of studies using subliminal stimuli. 10 experiments with schizophrenics were found to intensify pathological thinking, pathological non-verbal behavior, or both, but usually as a delayed effect (2nd task). Long-term patients showed stronger effects.

Hospital employees "primed" for aggression produced pathological manifestations as well. Other studies revealed that supraliminal presentations are not effective. It is concluded that this technique can help the researcher elucidate the kind of dynamic interplay between underlying conflict and manifest behavior hypothesized by psychoanalytic theory. (1 p. ref.)—*A. C. Bower.*

11263. **Smith, Gudmund J., Ruuth, Egil; Franzén, Göran, & Sjöholm, Lena.** **Intermittent regressions in a serial afterimage experiment as signs of schizophrenia.** *Psychological Research Bulletin, Lund U.*, 1971, Vol. 11(4), 13 p. Tested 35 16-35 yr. old patients suspected of schizophrenia, 20 patient controls, and 31 undergraduates in a serial afterimage (AI) experiment. Ss were also rated on a psychiatric mental status scale. Ss with high psychotic scores showed 1 or more regressions to immature (size-constant, positive, physiognomic) images in their AI serials, images typical of children who cannot clearly distinguish their AIs as subjective phenomena distinct from the outside world. It is concluded that the AI test indicates schizophrenics to be characterized by intermittent withdrawal into a world where the self and nonself are not clearly distinguished. Regressions were rare in the 2 control groups. (17 ref.)—*Journal abstract.*

11264. **Stowens, Daniel; Sammon, John W., & Proctor, Albert.** **Dermatoglyphics in female schizophrenia.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 516-532.—Studied the dermatoglyphics of 82 white female schizophrenics in a state mental hospital and compared them with those of 295 white, normal females. The palmar triradii and main lines, the location of the axial triradius, the determination of palmar patterns, fingerprints, and palmar creases were examined. Discriminant analysis indicated that the dermatoglyphic patterns were able to separate the 2 groups of Ss at the 82% level. The most important features in the patterns of the schizophrenics were (a) abnormal creases, (b) increased frequency in the number of arches on the fingers, (c) an increased number of Ss with 1 or more arches, (d) deficiency of the main line C of some degree, and (e) a decreased frequency of radial loops on the index finger. An ongoing validity study which will examine the prints from 600 patients at a state mental hospital is noted. (18 ref.)—*S. Knapp.*

11265. **Taylor, John F.** (Kent State U.) **Effects of interference upon the performance of process and reactive schizophrenics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6269.

11266. **Torre, M., Vergani, E., & Gaia, S.** (U. Torino, Inst. of Clinical Psychiatry, Italy) **Livelli ematici di serotonina piastrinica in schizofrenici.** [Blood level of platelet serotonin in schizophrenics.] *Acta Neurologica*, 1970(Nov), Vol. 25(6), 740-746.—Examined the content of platelet serotonin by the spectrophotofluorimetry method in schizophrenics at the beginning of illness and in chronic cases of more than 10-yr duration and in institutions for more than 4 yr. In the cases of early stage schizophrenics, the values were not statistically significantly different from those in a control group. The chronic cases, however, had significantly higher values than those of 2 control groups, 1 of which was composed of normal Ss of equal age, and the other 1 of chronic cases of nonschizophrenics in the same institution and suffering from various mental illnesses. (21 ref.)—*English summary.*

11267. Tryon, Warren W. (Kent State U.) **A comparison of two models of behavior disorder: Social adaptation vs. anxiety-pathology.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6270.
11268. Tsuang, Ming-tso. (National Taiwan University Hosp., Taipei) **Abnormality on paternal and maternal sides in Chinese schizophrenics.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 211-214.—A family history search revealed 23 schizophrenics with 2 or more abnormal but not necessarily schizophrenic relatives. Analysis of the data shows a significant deviation to the unilateral distribution, supporting the hypothesis of a single dominant major gene in schizophrenic inheritance, as reported by E. Slater and M. T. Tsuang.—R. L. Sulzer.
11269. Tyler, Mary P. (U. Texas) **Schizophrenics' memory for semantic and syntactic aspects of sentences occurring in connected discourse.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6915.
11270. Williams, Jon E. (U. Maryland) **Effects of interpersonal and impersonal praise and censure on stimulus generalization in process and reactive schizophrenics and controls under response contingent conditions.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6916.
11271. Wood, Douglas D. (Illinois Inst. of Technology) **Parental identification in thought, feeling, and action in schizophrenic males.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6272-6273.
11272. Wright, David M. (U. Minnesota) **Impairment in abstract conceptualization in the parents of poor-premord male schizophrenics.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6273.
11273. Yarnell, Thomas D. (U. Southern Mississippi) **Purpose-in-Life Test: Further correlates.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 76-79.—Examines the construct validity of the Purpose-in-Life (PIL) Test. Correlation coefficients between PIL scores and several other test measures derived from normal and schizophrenic Ss are presented.—A. R. Howard.
- group activities for 17 discharged young adult schizophrenic patients and their parents helped the expatients avoid rehospitalization by encouraging growth toward greater ego strength and improved socialization patterns. Problems which the group leader can expect to encounter in such a program are discussed and include the stigma of psychiatric hospitalization, the assertion of young adult independence, conflicting parent-child vocational or educational expectations, and intrafamilial communication difficulties.—*Journal abstract*.
11277. May, Philip R. (U. California, Neuropsychiatric Inst., Los Angeles) **Cost efficiency of treatments for the schizophrenic patient.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1382-1385.—Findings of a controlled experiment in which 5 treatment methods were compared by both clinical and cost criteria indicate that, for most schizophrenics, milieu care alone is both expensive and relatively ineffective. 228 1st-admission schizophrenics were assigned to (a) individual psychotherapy, (b) ataractic drug, (c) individual psychotherapy plus ataractic drug, (d) ECS, or (e) milieu, a control receiving none of the other treatments. In terms of cost/patient released and cost/case treated, it is far less expensive to provide the most effective available treatment than to merely provide a good level of milieu care without special additional treatment.—*Journal abstract*.
11278. Morris, P. A., MacKenzie, D. H., & Masheter, H. C. (Kingsway Hosp., Derby, England) **A comparative double blind trial of pimozide and fluphenazine in chronic schizophrenia.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 683-684.—With a sample of 30 male chronic schizophrenics, neither bis-para-fluorophenyl-butyl-piperidine (pimozide) nor fluphenazine was effective. Parkinsonian symptoms were less marked in patients taking pimozide.—R. L. Sulzer.
11279. Pentony, Joseph F. (U. Texas) **A comparison of two techniques of behavior therapy.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6909.
11280. Sachs, Lisbeth J. & Titievsky, Jaime. (New York Medical Coll., N.Y.) **Electroconvulsive treatment and the homosexual aspect of schizophrenia: A psychodynamic consideration.** *Journal of the Hillside Hospital*, 1967(Jul), Vol. 16(3-4), 205-218.—Presents a case study of the influence of shock treatment on the homosexual problems of the schizophrenic. The patient is a college student who throughout his life had been withdrawn, secluded, friendless, and overly attached to his mother. 6 mo. after admission electroconvulsive therapy (ECT) was instituted, and he received 13 treatments. The clinical improvement with ECT was spectacular in that after ECT homosexual drives were discharged. This case further documents the fact that discharge of homosexual drives can lead to marked improvement.—S. R. Diamond.

Schizophrenia Treatment

11274. Aleksandrowicz, Dov R. & Gaye, Zaphira. (Menninger Foundation, Topeka, Kan.) **A therapeutic club for schizophrenic adolescents.** *Bulletin of the Menninger Clinic*, 1971(May), Vol. 35(3), 199-202.—Recounts the experiences of a club approach as distinguished from a group therapy program. In "the club many of the youngsters became better organized in their activities, freer in their movements, more expressive and more interested in their peers. Some formed friendships, some became attached to 1 of the therapists, others seemed attached to the club itself. The group identification fluctuated, but eventually became well established."—J. Z. Elias.
11275. Dudley, Harold K., Williams, Jack D., & Guinn, Terry J. (Rusk State Hosp., Tex.) **Treating inpatients as day patients.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 160-161.
11276. Lurie, Abraham & Ron, Harold. (Hillside Hosp., Glen Oaks, N.Y.) **Multiple family group counseling of discharged schizophrenic young adults and their parents.** *Social Psychiatry*, 1971(May), Vol. 6(2), 88-92.—Reports that the 1st yr. of an after-care project involving multiple family group counseling and
11281. Vovin, R. Ya., Vol'ner, M. I., & Malakhov, B. B. (Bekhterev Psychoneurological Inst., Leningrad, USSR) **O reaktsiyakh na izmenenie trudovoi situatsii pri shizofrenicheskikh remissiyakh.** [On reactions to change in the work situation in schizophrenic remissions.] *Zhurnal Nevropatologii i Psikhiatrii*, 1971(Feb), Vol. 71(2), 262-268.—Studied the reactions of 40 schizophrenics with remissions of different types (20 paranoid, 15 apatho-abulic, and 5 psychopathoform) to a temporary change in ambulatory work therapy involving displacement to less skilled forms of activity, disliked by the Ss. Psychopathological changes were noted, and tests

of general biological reactivity were conducted. The character of the observed changes (intensification of symptoms, emergence of new disturbances) and their correlation with biological indices are described. The data confirmed (a) the great influence of work on mental state, and (b) the relationship between features of the work situation, on the 1 hand, and psychopathological and biological changes, on the other. (English summary) (17 ref.)—*I. D. London.*

PSYCHOSOMATIC DISORDER

CASE HISTORY

11282. **Däuner, I. & Remschmidt, H.** (Philipps U., Children's Clinic, Marburg, W. Germany) **Symptomwahl und Symptomenwandel bei einem Fall von psychogenem Schreibkrampf.** [Choice of symptom and symptom substitution in a case of psychogenic writer's cramp.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 246-252.—Presents a short literature survey on development and treatment methods of psychogenic writer's cramp, and the case of a 12-yr-old boy who suffered from the cramp since 2nd grade. After unsuccessful applications of several treatment methods the boy was punished with electroshock to the right hand contingent upon appearance of the cramp. After 1 treatment session the cramp disappeared. Symptom substitution appeared temporarily in that the boy responded to stress in school with nausea and vomiting. Since the disappearance of the cramp the boy underwent a positive personality development. (26 ref.)—*H. A. Euler.*

11283. **Dietrich, Heinz.** (U. Munich, Neurochic, W. Germany) **Analyse eines Falles von "Délire des négations" (Cotard) bei einem Nervenarzt.** [Analysis of a case of "delire" des negations" (Cotard), in a neurologist.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 140-143.—Analyzes a case of "delire" des negations" leading to suicide from the nosological, phenomenological, psychoanalytic, and existential viewpoints. At the center of this illness are the negations, psychosomatic and hypochondriacal delusions, autopsychic "madness of opposition," and aggressivity which indicate nihilism. Nosologically only a hypochondriacal involutional psychosis is involved, but consideration from several perspectives allows the richness of mental phenomena in this illness to be recognized.—*E. R. Wist.*

11284. **Goodwin, Donald W., Freeman, Frank; Ianzito, Benjamin M., & Othmer, Ekkehard.** (Washington U., Medical School) **Alcohol and narcolepsy.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 705-706.—A moderate amount of alcohol produced a coma-like state in a 24-yr-old man with narcolepsy. This response differed from a typical narcoleptic sleep attack. S could not be fully awakened for a several-hr period and electrophysiological data obtained during the episode were uncharacteristic of narcolepsy, showing slow-wave sleep and absence of REMs. It is unknown whether this represents a common response of narcoleptics to alcohol.—*Journal summary.*

11285. **Hanna, S. M.** (U. Sheffield, England) **Hypopituitarism (Sheehan's syndrome) presenting with organic psychosis.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Apr), Vol. 33(2), 192-193.—Described a 55-yr-old woman with hypopituitarism

presenting as an organic psychosis which lasted for nearly 2 yr. She slowly deteriorated and went into the precoma of hypopituitarism. When the diagnosis was made there was a dramatic response to treatment with hydrocortisone resulting in an apparently complete return to normality within 8 wk.—*Journal summary.*

11286. **Haynal, André.** (U. Geneva, Medical School, Switzerland) **Le médecin et sa patiente erotomaniaque: Contribution à la notion de "guérison dans le transfert."** [The physician and his erotomaniac patient: A contribution to the notion of recovery through transference.] *Annales Médico Psychologiques*, 1971(Jan), Vol. 11(1), 57-64. Describes a delusional patient who believed herself loved by her physician. Sleepless and agitated, she was seen as an ambulatory patient and during a brief hospitalization in a psychiatric clinic. The patient then transferred her delusions to the treating physician. This made it possible to identify the faults in thinking and begin restoration of the abnormal personality. The erotomaniac S is oral and avid, searching, as might an addict, for any object which can help. The "professional interest" expressed by the doctor is misinterpreted as a love he dares not declare. In treatment the physician must recognize the situation clearly and accept that the patient can have strong positive sentiments toward him. He must verbalize this acceptance but at the same time show that he cannot enter into the exaggerated and unreal demands made by the patient's weakened ego. In an atmosphere of response to the patient's most basic dependency needs, under transfer, he may lead her to discover the unconscious origins of her amorous sentiment.—*H. E. King.*

11287. **Hossain, M.** (General Infirmary, Medical Research Council Mineral Metabolism Unit, Leeds, England) **Neurological and psychiatric manifestations in idiopathic hypoparathyroidism: Response to treatment.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Apr), Vol. 33(2), 153-156. Describes 2 patients (a 54-yr-old female and 16-yr-old male) with idiopathic hypoparathyroidism who developed symptoms of dementia and chorea (Case 1), and epilepsy (Case 2) only when their serum calcium was low. The symptoms more or less disappeared when their serum calcium was maintained in the normal range. (17 ref.)—*Journal summary.*

11288. **Jablensky, A., Janota, L., & Shepherd, Michael.** (Inst. of Psychiatry, London, England) **Neuropsychiatric illness and neuropathological findings in a case of Klinefelter's syndrome.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 18-29.—Presents the case of a male with Klinefelter's syndrome with XXY karyotype and neuropsychiatric illness linked with the degeneration of cerebral white matter and cortical atrophy. Patients with Klinefelter's syndrome usually reveal a form of personality disorder and degrees of mental retardation. Hambert's electroencephalic findings are reported. The possibility of genetic abnormalities and disordered function and structure of the brain is seen in reference to clinical and pathological observations. (42 ref.)—*H. Reiter.*

11289. **Kleu, G. & Schulte, D.** (U. Marburg, Neurochic, W. Germany) **Verlaufsgestalt und Substitutionstherapie bei akuter Myxödem-Halluzinose: Ein Beitrag zur mehrdimensionalen psychopathologischen Funktionsdiagnostik.** [Developmental configuration and substitution therapy in acute myxedemic

hallucinosi: A contribution to multidimensional psychopathological functions diagnosis.] *Nervenarzt*, 1971(Mar), Vol. 42(3), 148-152.—Investigated the influence of substitution therapy with thybon (a drug distributed by Hoechst) on the developmental course of myxedemic hallucinosis with an acute onset over a 5-yr observation period. It was shown that during treatment-free intervals crisis with peaking of hallucinations and productive psychotic symptoms increased, while during long-duration consistent hormone substitution, symptoms of unreality and distance predominated. Periodic irritability and paranoid excitement states which also increased after the dying away of the grosser mental disturbances can be evaluated as extraendocrine, constitutional factors which have their origin in "primary defective" personality. The many leveled pathogenic and pathoplastic relationships can only be judged from a multidimensionally oriented perspective.—*E. R. Wist.*

11290. Lyle, J. G. (U. Sydney, New South Wales, Australia) **Cognitive dysfunction in childhood and adult psychosis.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 53-58.—Describes the case of a boy diagnosed as autistic and dysphasic in childhood. Although he staged a good recovery, he suffered a psychotic breakdown in adolescence. Hypotheses that long-standing difficulties in the processing of speech may lead to thought disorder are considered within this context. Aspects of his psychotic behavior in childhood and of his later schizophrenic-like behavior are considered as reactions and adaptations to his earlier cognitive dysfunctions and to his consequent social isolation.—*Journal summary.*

11291. Martin, Marian. (U. Arizona) **Acquisition of intelligible speech by a six year old twin.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6947.

MENTAL HEALTH & REHABILITATION

11292. Bindman, Arthur J. & Spiegel, Allen D. (Eds.) **Perspectives in community mental health.** Chicago, Ill.: Aldine, 1969. 5, 718 p. \$15.—Presents 55 articles examining historical theories, contemporary viewpoints, and future prospects in the field of mental health. Topics covered include (a) the meaning of community mental health; (b) elements of planning and development; (c) techniques and methods; (d) tasks, roles, and training of professional and nonprofessional mental health workers; and (e) research and evaluation.

11293. Goldensohn, Sidney S., Fink, Raymond, & Shapiro, Sam. (Queens-Nassau Mental Health Service of the Health Insurance Plan of Greater New York, Jamaica, N.Y.) **The delivery of mental health services to children in a prepaid medical care program.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1357-1362.—Describes a New York prepaid group practice plan which offered mental health services to children under 15 yr. of age during a 24-mo demonstration period. On an annualized rate basis, the psychiatric consultation rate was 12.6/1,000 enrollees and the treatment start rate was 8.6/1,000. The average number of services/patient during the 1st 12 mo. was 14.5. Among the children receiving treatment, 39% had another family member who was also in treatment. The case history of a 12-yr-old Negro boy with disruptive behavior in school is presented.—*Journal abstract.*

11294. Joshi, Purushottam. (U. Laval, Montreal, Quebec, Canada) **La santé mentale dans une per-**

spective historique. [Mental health in a historical perspective.] *Annales Medico-Psychologiques*, 1971(Feb), Vol. 1(2), 185-214.—Reviews the ways in which mental disorder has been described in different eras of Western history, from the Middle Ages to the present. The methods of cure or treatment available to a period can be seen to affect the very definition of the problem. Thus, the strong religious emphasis of the Middle Ages gave rise to a concept of possession by demons as the cause of aberrations in behavior. Later, in the 19th century, the successful treatment of other human ills by physical medicine altered prevailing notions on the origins of peculiar behavior to place its likely beginnings within the body; by reason of the faulty operation of physiological mechanisms. When effective psychological treatment methods became available, at the turn of the century, ideas on the etiology of mental disorder shifted yet again to insist on their psychological origin. Most recently, the potential for deliberately effecting social change has begun to modify once more our concepts of the causation of disordered behavior, this time centering on group value systems, social influence and pressures, etc. (61 ref.)—*H. E. King.*

11295. Lawlis, G. Frank. (Texas Technological U.) **A psychological view of the chronically unemployed: Personality and motivation.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 838. Compared 75 chronically unemployed Ss with a matched group of 75 stably employed Ss on motivational and personality variables assessed by the Motivational Analysis Test and 16 PF. The chronically unemployed showed significantly less assertiveness, less expressed self-sentiment, more career conflict, less total motivation, more total conflict, less self-concept control, and more emotionality and apprehensiveness than their employed counterparts.—*Author abstract.*

11296. Talbott, John A. & Talbott, Susan W. (St. Luke's Hosp. Center, Div. of Community Psychiatry, New York, N.Y.) **Training police in community relations and urban problems.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 894-900.—Describes a training program in community relations and urban problems involving 32 17-20 yr. old police trainees in New York City. The program enabled them to function effectively as bridges between the police and community youth. A typical weekly course schedule is included. The expansion of such programs reflects the realization that the policeman is the primary service agent for most urban residents, that community service is a vital part of police work, and that efforts to improve community mental health must involve all purveyors of service in the community. (27 ref.)—*Journal abstract.*

11297. Walls, Richard T., Miller, John J., & Cox, Janet. (West Virginia U.) **Delay of reinforcement and training choice behavior for rehabilitation clients.** *Rehabilitation Counseling Bulletin*, 1970(Dec), Vol. 14(2), 69-77.—Investigated the correlates of voluntary delay of gratification among 132 clients in vocational rehabilitation. 3 conditions were studied: (a) certainty of job, (b) levels of immediate salary, and (c) length of training duration. Analyses of variance indicated that Conditions a and c were significant at the .01 level, but Condition b was insignificant. This indicates that when the client is uncertain of obtaining a job for which he trains and when the time spent in training is lengthened, his motivation for increasing his training diminishes. The relationship of delay of job gratification was also studied

with respect to (a) control of expectancy, (b) anxiety, and (c) need achievement. These variables were measured by Rotter's Locus of Control Scale, Taylor's Manifest Anxiety scale, and Edwards' need for Achievement scale. Chi-squares indicate that a was significant at the .01 level. The clients with internal control expectancy preferred a short training period with gainful employment rather than receiving welfare grants. Those with external control preferred the converse.—A. J. Ter Keurst.

COUNSELING & GUIDANCE

11298. Blatt, Martin R. (Temple U.) **An investigation of intervention as it relates to motivation for counseling.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6889.

11299. Booth, Dorothy J. (North Texas State U.) **Receptivity to dissonant or consonant information via taped media with self-esteem as a variable in counseling classes.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6276-6277.

11300. Chen, Tyzz-lang. (Ohio State U.) **Smoking behavior change and its correlates in a selected group of middle aged men: A brief smoking counseling program adaptable to various health settings.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6089.

11301. Cottle, William C. & Downie, N. M. (Boston Coll.) **Preparation for counseling.** (2nd ed.) Englewood Cliffs, N.J.: Prentice-Hall, 1970. x, 420 p. \$8.95.

11302. Hart, Joseph L. **Pastoral counseling and individual psychology.** *Journal of Individual Psychology*, 1971(May), Vol. 27(1), 36-43.—Illustrates the usefulness of Adler's individual psychology for the pastoral counselor in general and the Roman Catholic priest in particular. (24 ref.)—A. R. Howard.

11303. Ingwell, Richard H. (U. Missouri) **The relationship between perceived empathy, genuineness, and warmth, and conditions of charisma, and external counseling conditions.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6258.

11304. Janofsky, Annelies I. (U. Oregon) **A study of affective self-references in telephone vs. face to face interviews.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6258-6259.

11305. Sieka, F., Taylor, D., Thomason, B., & Muthard, J. (U. Florida) **A critique of "Effectiveness of counselors and counselor aides."** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 362-364. —Presents arguments to refute the findings by C. Truax and J. Listar (see PA, Vol. 44:21344), that aides working alone were most successful in rehabilitating patients, while MA-level counselors working with aides were least effective. It is maintained that (a) the generalizations were not based on empirical data, (b) the criteria of treatment effectiveness were not adequate, (c) there was a lack of control for contamination of the criteria ratings, (d) the alpha level in the analyses of variance was not controlled, (e) other factors in the rehabilitative process were not controlled, and (f) there was a negative attitude towards students and MA-level counselors. S. Knapp.

11306. Stone, Le Roy A., Coles, Gary J., Sennett, E. Robert, & Sherman, Gail L. (U. North Dakota) **Multi-dimensional scaling used to evaluate students residing in a rehabilitation unit.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 879-886.—Applied the Stone-

Coles revision of Ekman's "content" model of multi-dimensional similarity analysis to judgments of person similarity made by 4 mental health professionals. The person-stimuli evaluated were 9 disturbed college student clients and 6 normal volunteers. 2 students in the latter category also served as judges. All judges appeared to share a common frame of reference, as only 1 fact emerged from a factor analysis of interjudge correlations. The factor analysis of a matrix of correlational similarities calculated from a matrix of mean similarities yielded 4 factors. These factors were 1st interpreted using clinical judgment and subsequently these interpretations were checked by correlations with MMPI variables. The 1st 3 factors were labeled: (a) action-oriented vs. overcontrolled, (b) sex, and (c) severity of disturbance. A small 4th factor was uninterpretable. (17 ref.) *Journal abstract*.

11307. Thoresen, Carl E. (Stanford U.) **The systems approach and counselor education: Basic features and implications.** *Counselor Education & Supervision*, 1969(Fal), Vol. 9(1), 3-17. —Postulates that counseling viewed as a complex of social-psychological processes—as an applied behavioral science—needs the framework provided by a "systems approach." A system in viewed as a structure which functions as a whole due to the interdependence of its parts. A systems approach in counselor education emphasizes how specific training components can be combined most effectively to produce outcomes stated in terms of trainee behaviors (performance). Basic characteristics of a systems approach include: (a) behaviorally stated performance objectives; (b) careful attention to relation of components; (c) information flow and feedback mechanisms; and (d) man-machine combinations. Models such as flow charts and simulation techniques are also typically involved. It is suggested that a systems approach will encourage the asking of more relevant and answerable questions, and holds the promise of more effectively preparing counselors for contemporary clients. (41 ref.)—*Journal abstract*.

11308. Truax, Charles B. (U. Calgary, Alberta, Canada) **"Effectiveness of counselor and counselor aides": A rejoinder.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 365-367. —Replies to the criticisms offered by F. Sieka, D. Taylor, B. Thomason, and J. Muthard (see PA, Vol. 46:Issue 6). It is maintained that (a) any rater bias by vocational instructors would have been against the aides; (b) repeated measures analysis yielded results significant at the .01 level; (c) the criteria were those used by a state rehabilitation agency and had been validated by administrators, field counselors, and job placement records; and (d) the study critiqued was 1 of a long series which have shown similar results. It is concluded that nonprofessionals are being employed by most state agencies in increasing numbers because they believe them to be effective by their own criteria.—S. Knapp.

Marriage & Family

11309. de Elejalde, Fernando. (Menninger Foundation, Topeka, Kan.) **Inadequate mothering: Patterns and treatment.** *Bulletin of the Menninger Clinic*, 1971(May), Vol. 35(3), 182-198.—Focuses "on those inadequate mothers who, by virtue of their circumstances, come to the attention of any social agency in any community. Their numbers are legion, and they

participate in that troublesome problem referred to by most social agencies as 'the multi-problem family.' The patterns of inadequate mothering are discussed and treatment approaches outlined.—J. Z. Elias.

Social Casework

11310. Atherton, Charles R., Mitchell, Sandra T., & Schein, Edna B. (U. Illinois, Jane Addams Graduate School of Social Work) **Using points for intervention.** *Social Casework*, 1971(Apr), Vol. 52(4), 223-233.—Uses the concepts of social roles and social systems to provide an intervention scheme for social workers in dealing with presenting problems. A chart which designates points for intervention, worker's role, and appropriate activity is presented. It is concluded that specification of a client's problems in these terms allows a more precise focus for effort; that limited designations of the roles in the role set help the worker to organize his efforts.—M. W. Linn.

11311. Crawford, Blaine. (Utah State Hosp., Youth Center, Provo) **Use of color charts in supervision.** *Social Casework*, 1971(Apr), Vol. 52(4), 220-222.—The color chart has also been found to be effective in helping students recognize and evaluate their own participation within an interview. It seems to work well with the student who is somewhat threatened by supervision. Having one's weaknesses or mistakes pointed out by colors on a piece of paper appears less painful and dilutes the personal threats that certain students experience with supervisors.—M. W. Linn.

11312. Crystal, David & Gold, Irwin H. (Jewish Family Service Agency, San Francisco, Calif.) **A social work mission to hippieland.** *Children*, 1969(Jan), Vol. 16(1), 28-32.—Describes the origin and history of a participant O and attendant services, such as location of runaways, provided in 1967 to the Haight-Ashbury hippie community. The section, its population, and behaviors are elaborated. The purposes were to (a) assess the proportion of Jewish youth involved, (b) cooperate with existing service programs, (c) report hippie needs to the San Francisco community, (d) determine variables leading to hippie membership, and (e) encourage youth to return to traditional community life. Problems encountered and frustrations in carrying out many of the programs are discussed. Several conclusions are drawn about individuals in the hippie movement.—D. T. Lekarczyk.

11313. Harder, Hans. (Social Science Inst., Hamburg, W. Germany) **Jugendfürsorgeliche Arbeit mit einem sechzehnjährigen Verwahrlosten.** [Youth welfare work with a sixteen-year-old neglected boy.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1971(Jan), Vol. 20(1), 20-27.—Presents the case study of a truant and work-shy boy, including 2 interviews given verbatim, and the interpretation by the social worker.—H. A. Euler.

PHYSICAL HANDICAP

11314. Kerr, Nancy. (Arizona State U.) **Staff expectations for disabled persons: Helpful or harmful.** *Rehabilitation Counseling Bulletin*, 1970(Dec), Vol. 14(2), 85-94.—Recounts some of the experiences of a paraplegic confined to a wheelchair in her employment as a clinical psychologist in a hospital. Some of the problems of the handicapped are discussed from the viewpoints of being a 2nd-class citizen, whether or not such a person can be independent in her physical movements, and

whether or not she is capable of being a wage earner. Problems for research include the social structure of a hospital that can reinforce or frustrate the psychological progress of a patient, the quality of the physical and social restrictions placed on the patient, and the psychological adjustment of the patient to his own illness.—A. J. Ter Keurst.

11315. Paradowski, William & Ginzburg, Mele. **Mirror writing and hemiplegia.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 617-618.—A survey of 41 hemiplegics in a rehabilitation service showed only 1 case of frank mirror writing by a right-handed S with right hemiplegia. This proportion is considerably lower than others reported in the literature. S was also dyslexic, which supports M. Critchley's original hypothesis concerning the pathogenesis of mirror writing.—*Journal abstract.*

11316. Rider, Barbara A. (Capper Foundation for Crippled Children, Topeka, Kan.) **Effects of neuromuscular facilitation on cross transfer.** *American Journal of Occupational Therapy*, 1971(Mar), Vol. 25(2), 84-89.—Discusses an experimental study of the Rood techniques of neuromuscular facilitation with particular regard to their effects on the strength of contraction of elbow extensors. Ss were 16 children enrolled in the Capper Foundation for Crippled Children. 8 of the Ss had normal upper extremities and 8 were spastic bilaterally. Ss were facilitated only on 1 limb, 1/2 on the preferred side and 1/2 on the nonpreferred side. A 2-wk period of daily treatment using the Rood techniques resulted in an increase in strength of the facilitated muscle to a significant degree in both groups of Ss. The presence of cross-transfer was observed in the opposite, nonfacilitated limb. When facilitation was withdrawn for 2 wk., strength decreased to the nonfacilitation levels except in those Ss facilitated on the preferred side. It is concluded that the Rood techniques, used in a regular, daily treatment program result in an increase in strength of the muscle groups facilitated.—M. A. Seidenfeld.

Blindness & Visual Disorder

11317. Cole, Francis C. (Florida State U.) **Contact as a determinant of sighted persons' attitudes toward the blind.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6892-6893.

11318. Davidson, Phillip W. (George Washington U.) **Haptic judgments of curvature in blind and sighted humans: A study of the role of exploratory activity in perception.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6923-6924.

11319. de M. Klich, Beatriz & Wierig, George J. (Veterans Administration Hosp., Hines, Ill.) **Social interaction and emotional adjustment among the blind.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 516-518.—Tested the hypothesis that the level of a blind person's adjustment to his handicap is positively related to his involvement with a group of other blind persons. 41 blind veterans attending a rehabilitation program for the visually handicapped were rated by the staff psychologist and the director of mobility training as satisfactorily, fairly, or poorly adjusted to their blindness. Each S completed a questionnaire concerning his choice of friends from within the program and was designated as either having or not having membership in a group. Group members did have the highest level of judged adjustment.—*Journal abstract.*

11320. Freyberger, Patricia E. (State U. New York, Upstate Medical Center, Syracuse) **Comparative methods in teaching cooking to the congenitally vs. the adventitiously blind adult.** *New Outlook for the Blind*, 1971(May), Vol. 65(5), 149-151. —Because in home-making manuals distinction rarely exists between the congenitally blind and the adventitiously blind, suggestions are made concerning "habilitation" and "rehabilitation" in cooking activities. The congenitally blind have multiple perceptual problems, and therefore the approach has to be basic; the adventitiously blind only have to relearn known skills. Abstract terms should be avoided with the 1st group, and every verbal step in an activity demonstrated. The 2nd group needs only limited instructions. Almost pathological fears stemming from overprotective homes have to be overcome in the congenitally blind while the adventitiously blind have to cope with insecurities. Special adaptive cooking aids should be used; appropriate teaching levels should be established; brief intake interviews should be held concerning social background, prior rehabilitation training, and own evaluation of kitchen capabilities, and observations made about performances in routine kitchen activities. 3 test activities are described.—M. J. Stanford.

11321. Hintz, J. M. & Nelson, T. M. (U. Alberta, Edmonton, Canada) **Haptic aesthetic value of the golden section.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 217-223. —Presented 14 rectangles, having width-length ratios ranging from .1-1, to sex and age matched groups of (a) 20 congenitally blind Ss, (b) 20 late blind Ss, (c) 40 blindfolded normal sighted undergraduates and university employees, and (d) 20 unblindfolded Ss from population c. While rectangular preferences of congenitally blind Ss questioned the existence of the golden section as a haptically satisfying figure, the preferences of late blind and sighted Ss generally confirmed the haptic aesthetic value of the golden section. Results indicate that the haptic perception of the golden rectangle as aesthetically pleasing is contingent on contact with the visual world. (25 ref.)—*Journal abstract*.

11322. Kim, Yoon H. (East Carolina U.) **The community of the blind: Applying the theory of community formation.** *American Foundation for the Blind, Research Series*, 1970, No. 22, 151 p. —Defined blindness functionally and tested hypotheses related to the theory that the blind form an internally polarized subcommunity. The theoretical base presented holds the relation of the blind to the sighted community as sociologically similar to the relation of other minority groups (racial, cultural) to the major community. 85 blind Ss were tested with 6 scales (perceived attitudes, group identification, community status, socialization, social control, economic orientation). The "results lend substantial support to the theory that the social life of blind persons is subject to the principles of community formation." (188 ref.)—W. E. Collins.

11323. McGuire, Lenore L. & Meyers, C. E. (California State Dept. of Mental Hygiene, Pacific State Hosp., Pomona) **Early personality in the congenitally blind child.** *New Outlook for the Blind*, 1971(May), Vol. 65(5), 137-143. —Studied 27 totally blind children of whom 12 were hospitalized in a state facility for the retarded in order to further information and theory of personality development of the congenitally blind. Limited literature on the subject exists. Ss were followed

for at least 1 yr. and up to 8 yr. with supplemental information covering histories from birth to about 4 yr. of age. Observation of Ss, home visit interviews with children and parents, information from therapy sessions, and from agencies', hospital, and school records form bases for study. Because of little difference in behavior of institutionalized and noninstitutionalized children, results were combined. Results indicate that: (a) most congenitally blind children are in the high risk category for personality problems, (b) these behavior disturbances have a psychogenic basis, and (c) they do not seem to be related to biochemical etiology of blindness. (16 ref.) —M. J. Stanford.

Deafness & Hearing Disorder

11324. Burke, Kenneth S. & Nilges, Thomas C. (Walter Reed Army Medical Center, Army Audiology & Speech Center, Washington, D.C.) **A comparison of three middle ear impedance norms as predictors of otosclerosis.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 52-58. —18 normal and 18 otosclerotic ears were compared to 3 previously published ranges of normal middle ear impedance. Differences were found in the way the 3 norms classified Ss as either normal or abnormal. Compliance measurements were found to be more predictive than resistance measurements when compared to normal ranges. However, otosclerotic ears regularly showed a greater resistance difference between low and high frequencies than did normal ears.—*Journal summary*.

11325. Clayton, Lawrence G. & Rose, Darrell E. (Zenith Hearing Aid Sales Corp., Audiological Services, Chicago, Ill.) **Auditorily evoked cortical responses in normal and recruiting ears.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 79-81. —Auditorily evoked response audiometry (ERA) was performed at 4 keps on 8 patients with unilateral hearing loss exhibiting complete recruitment. The normal ear was stimulated and ERA performed at 20- and 40-db sensation levels and at 85-95 db. SPL, whereas the recruiting ear was stimulated with equally loud tones as determined by actual balancing. A trend for the louder tone bursts to yield larger amplitudes of components N_1 , P_1 , and of P_1 , N_2 , may have been present in both types of ear, but was not statistically significant. Recruiting ears did not yield amplitudes different from normal ears within any level. Mean latency of any component N_1 , P_1 , N_2 , did not distinguish type of ear within any level, but for all components and for both types of ear the louder levels yielded shorter latencies in most comparisons. It is concluded that the data show that the condition of recruitment does not materially affect the response of an ear in ERA.—*Journal summary*.

11326. Conrad, R. (Nuffield Hearing & Speech Center, London, England) **The effect of vocalizing on comprehension in the profoundly deaf.** *British Journal of Psychology*, 1971(May), Vol. 62(2), 147-150. —Tested 12 normal hearing and 23 profoundly deaf schoolchildren for comprehension after reading prose passages either silently or aloud. The deaf Ss were known, from previously published studies, to comprise (a) a subgroup ($N = 12$) who primarily relied on articulatory coding to memorize verbal material, and (b) another subgroup ($N = 11$) who seemed more to rely on a visual code. Neither the hearing nor the deaf articulators showed a significant effect of reading mode. The visualizers

comprehended significantly less when they read aloud than when they read silently. Although the 2 deaf groups performed equally well after silent reading, after reading aloud the comprehension difference was significant at better than the .001 level.—*Journal abstract.*

11327. **Gengel, Roy W.** (Central Inst. for the Deaf, St. Louis, Mo.) **Practice effects in frequency discrimination by hearing impaired children.** *Journal of Speech & Hearing Research*, 1969(Dec), Vol. 12(4), 847-856.—Measured the DLs for frequency (DLF) at 250 and 500 Hz. of 23 10-17 yr. old deaf, 21 10-15 yr. old hard of hearing, and 7 10-12 yr. old normal hearing children. DLF was measured in 3 practice sessions in which conditions included both fixed amplitude, where loudness could be confounded with pitch, and variable amplitude, where loudness and pitch varied independently. Results indicate (a) significant decreases in size of the DLF over the 3 test sessions, in all conditions for the deaf Ss, and in the 500-Hz condition for the hard of hearing Ss; (b) asymptotic performance for normal Ss in the 1st test session; (c) a moderate correlation between hearing level and size of DLF at 500 but not at 250 Hz.; and (d) significant differences in performance between the fixed- and variable-amplitude conditions. The reliability and validity of the results are discussed. Some implications for teachers of the deaf are noted.—*Journal abstract.*

11328. **Hodgson, William R.** (Illinois State U.) **Misdiagnosis of children with hearing loss.** *Journal of School Health*, 1969(Oct), Vol. 39(8), 570-575.—Suggests that children with peripheral hearing loss are sometimes incorrectly diagnosed. Through a presentation of cases of hearing impaired children who were incorrectly diagnosed, the types of hearing loss that are likely to be evaluated erroneously are discussed.—*G. S. Spitzer.*

11329. **Locke, John L. & Locke, Virginia L.** (U. Illinois, Children's Research Center) **Deaf children's phonetic, visual, and dactylic coding in a grapheme recall task.** *Journal of Experimental Psychology*, 1971(Jul), Vol. 89(1), 142-146.—Administered lists of letters paired on the basis of phonetic, visual, or dactylic similarity to 56 deaf 14-20 yr. olds and 26 normal 10-14 yr. olds for recall. Analysis showed that the groups recalled at essentially similar levels, but confusion errors markedly differentiated the groups. Hearing controls (HCs) committed the most errors explainable on the basis of phonetic similarity, followed by deaf Ss with intelligible oral language (ID) and the unintelligible deaf group (UD). Visually and dactylically similar confusions were most apparent in UD Ss, followed by ID and HC Ss. While both groups of deaf Ss coded phonetically and/or dactylically in approximately equal (and small) numbers, more UD Ss rehearsed dactylically, and a higher proportion of ID Ss showed no rehearsal activity. Nearly all HC Ss coded phonetically. Deaf children's communication capabilities and their apparent coding strategies in short-term memory seem to agree rather closely. (17 ref.)—*Journal abstract.*

11330. **Martin, Frederick N. & Wofford, Martha J.** (U. Texas) **Temporal summation of brief tones in normal and cochlear-impaired ears.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 82-86.—12 normal-hearing and 12 cochlear-impaired adults traced fixed-frequency Békésy thresholds to pure-tone pulses at octaves of .25-8 kcps using stimulus durations of 20 and 500 msec., with 10-msec rise-fall time and 500-msec off-time. Differences in db. were computed between

thresholds at the 2 durations. The purpose was to standardize as simply as possible a test of temporal summation which could be introduced into the usual audiologic clinic, and partially to validate it on 1 class of auditory disorder. Mean data separated the 2 populations clearly but the inter-S variability was such that data for the 2 populations overlapped to some extent and differences did not quite reach formal significance at 25 and 1 kcps. Ss exhibited significant and markedly smaller threshold differences at the higher vs. lower frequencies, probably as a function of the greater losses at higher frequencies. 10 of the 12 Ss yielded differences smaller than the normal average at at least 2 of the 3 highest frequencies. It is concluded that use of this particular test is limited because of the overlap; and that the full diagnostic significance of brief-tone audiometry is yet to be completely explored.—*Journal summary.*

11331. **Olsen, Richard H.** (U. Denver) **The effect of rise time on the difference limen for intensity increments in normal and impaired ears.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6298-6299.

11332. **Schmitz, Henry D.** (Audiology Center of Redlands, Calif.) **Loudness discomfort level modification.** *Journal of Speech & Hearing Research*, 1969(Dec), Vol. 12(4), 807-817.—Investigated 3 assumptions involved in the rationale for loudness tolerance modification: (a) that an abnormal loudness discomfort level (LDL) is modifiable by sub-LDL stimulation, (b) that a relationship exists between abnormal LDL and reduced speech discrimination ability, and (c) that an improved LDL will result in better speech discrimination. 20 26-63 yr. old Ss with functional evidence of bilateral cochlear hearing loss were divided into 4 groups: 3 groups received a different type of sound exposure and 1 group served as a control. 20 21-43 yr. old normal hearing Ss served as a comparison group. LDLs were determined before, interjacent to, and after exposure. Results do not support the assumptions. The rationale for LDL modification therapy to improve speech discrimination appears to be unwarranted. Abnormal loudness discomfort improvement may involve adjustment problems more responsive to behavioral modification approaches. (32 ref.)—*Journal abstract.*

11333. **Thomas, Ian B. & Sparks, David W.** (U. Massachusetts, Speech Communications Lab.) **Discrimination of filtered/clipped speech by hearing-impaired subjects.** *Journal of the Acoustical Society of America*, 1971(Jun), Vol. 49(6, Pt. 2), 1881-1887.—A form of preprocessed speech known to be highly intelligible to normal listeners was heard by a group of 16 16-76 yr. old hearing-impaired Ss. The preprocessing technique involved high-pass filtering (cutoff 1100 Hz., slope 12 db/oct) and infinite amplitude clipping. Ss heard both unmodified and filtered/clipped word lists at 40-, 30-, and 20-db sensation levels. Discrimination scores for 13 out of 17 cases were significantly higher at 20- and 30-db sensation levels for filtered/clipped speech than for unmodified speech. (21 ref.)—*Journal abstract.*

11334. **Young, I. M. & Harbert, F.** (Jefferson Medical Coll., Philadelphia, Pa.) **Effects of direction of frequency sweep on Békésy audiometry.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 65-71.—Sweep-frequency Békésy audiometric tracings from pulsed or continuous tones were compared for threshold level and for peak-to-peak amplitude between upward and down-

of 100 male nonstutterers with those given by a matched criterion group of 50 male stutterers. A scale of communication attitudes (S-scale) was empirically derived on the basis of item responses that differentiated Ss. This scale was further refined by eliminating items that, in 2 additional groups of 70 stutterers and 44 nonstutterers, failed to demonstrate significant correlation with the dichotomy of stutterer vs. nonstutterer. Observed relationships between S-scale scores and (a) self- and clinician-ratings of stuttering severity, (b) self-ratings of improvement since beginning therapy, and (c) self-ratings and self-descriptions of reactions to social conversation suggest that the S-scale does provide information about attitudes of stutterers toward interpersonal communication. The scores obtained on this scale are related to other criterion measures of interest to the speech pathologist. (29 ref.)—*Journal abstract.*

11344. Peterson, Harold A. (U. Tennessee) **Affective meaning of words as rated by stuttering and nonstuttering readers.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 337-343. —Compared semantic differential ratings on evaluative and anxiety scales for a set of most- and least-stuttered words for 9 stuttering and 5 nonstuttering readers, all of whom stuttered while talking. No differences in word values were noted as a function of the instance of stuttering. Significant differences were noted between the 2 groups, however. Nonstuttering Ss assigned significantly lower affective meanings than either the stuttering Ss or 50 normal high school students. The consistency of word value ratings within both groups does not support a prediction of individual word stuttering as a function of word meaningfulness. —*Journal abstract.*

11345. Poppen, Roger, et al. (Stanford U., Medical School, Palo Alto, Calif.) **Visual sequencing performance of aphasic children.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 288-300. —Conducted 4 experiments with 5-12 yr. old aphasics (N = 15) and 7-11 yr. old normals (N = 9) to investigate the visual sequencing abilities of aphasic children. It was found that aphasic Ss (a) averaged about 75% correct on a task requiring them to press 3 panels in the same order that light flashed on the panels, (b) made more errors than normals when a time delay was introduced between the flashes and the opportunity for response, and (c) did worse on a variety of standardized sequencing tasks than normals. Dextroamphetamine sulfate improved the performance of some aphasic Ss on the delayed sequencing tasks. Significant correlations were obtained between the tasks for both aphasic and normal groups. Results suggest a general sequencing ability in which aphasic children are deficient. (15 ref.)—*Journal abstract.*

11346. Quarrington, Bruce; Seligman, Judy, & Kosower, Eleanor. (York U., Downsview, Ontario, Canada) **Goal setting behavior of parents of beginning stutterers and parents of nonstuttering children.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 435-442. —Studied the parents of young beginning stutterers and parents of nonstutterers to determine whether they differ in the goals they set for their children on a nonverbal task. 28 children in whom the stuttering duration did not exceed 8 mo. were compared to 28 nonstuttering controls matched for age, sex, and family occupation level. Parents were each placed in separate sound treated rooms from which they observed their child. After each set of 5 trials on the

Rotter board and child's score was reported to the parents, who then were required to estimate the child's subsequent performance score. Reporting of the child's score was controlled so that each parent was exposed to a standard schedule of fixed degrees of success and failures. The 2 groups of mothers differed significantly on 3 of the 4 measures considered, with the mothers of stutterers setting significantly lower goals for their children. The 2 groups of fathers did not differ significantly on the same 4 measures. Theoretical implications are considered briefly.—*Journal abstract.*

11347. Schuell, Hildred; Shaw, Robert, & Brewer, William. (U. Minnesota, Medical School) **A psycholinguistic approach to study of the language deficit in aphasia.** *Journal of Speech & Hearing Research*, 1969(Dec), Vol. 12(4), 794-806. —Intensively studied 3 protocols from 2 male aphasic Ss in the framework of generative linguistics. Each protocol contained more than 300 utterances elicited by instructing the S to read a word and use it in a sentence. These protocols, and protocols from 12 nonaphasic Ss, were compared over a number of syntactic and semantic dimensions. Aphasic Ss (a) showed restricted use of vocabulary and sentence types, (b) used fewer optional transformations, and (c) never elected a transformation that added words to the sentence. The frequency of double-based transformations used by aphasics was less than $\frac{1}{3}$ that of controls. Syntactically correct sentences produced by aphasics showed reduced semantic specificity. Results show that aphasic Ss have reduced lexical and semantic options, and operate under restrictions of length of unit that can be processed.—*Journal abstract.*

11348. Snyder, Lynn S. (Carmel Guild Hearing & Speech Diagnostic Center, Newark, N.J.) **Language impairment in children with perceptual-motor dysfunction.** *American Journal of Occupational Therapy*, 1971(Mar), Vol. 25(2), 105-108. —Offers a revised conceptualization of the relationships involved in language acquisition, auditory perception, and language differences with specific regard to the child who has both language and perceptual-motor impairments and the area of interaction between these 2 functions. Research suggests that language acquisition is a generative rather than imitative process and that auditory perception depends largely upon 3 factors: (a) intact temporal perception; (b) intact tactile and kinesthetic perception; and (c) intact memory. The child's comprehension of language spoken to him may be affected by differences in the language or by an impairment in any of the perceptual areas involved. This places stress upon the importance of the diagnostic assessment by the speech pathologist and the occupational therapist of the child with both perceptual-motor and language impairments. This in turn emphasizes the need to communicate with the child at a linguistic level that is meaningful to him.—*M. A. Seidenfeld.*

11349. Williams, Dean E., Silverman, Franklin H., & Kools, Joseph A. (U. Iowa) **Disfluency behavior of elementary-school stutterers and nonstutterers: The consistency effect.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 301-307. —Administered a speech task 2 times consecutively to 92 kindergarten through 6th grade stutterers and 92 matched nonstutterers. The kindergartners and 1st graders repeated a series of sentences, and the 2nd 6th graders read a passage. The consistency effect was observed in both groups, but by a higher percentage of the stutterers than

of nonstutterers. This difference could be at least partially accounted for by the fact that the stutterers' median frequency of disfluency on the 1st performance of the task was much higher than that of the nonstutterers.—*Journal abstract.*

11350. Williams, Dean E., Silverman, Franklin H., & Kools, Joseph A. (U. Iowa) **Disfluency behavior of elementary-school stutterers and non-stutterers: Loci of instances of disfluency.** *Journal of Speech & Hearing Research*, 1969(Jun), Vol. 12(2), 308-318.—Administered a speech task to 76 kindergarten through 6th grade stutterers and 76 nonstutterers. The kindergartners and 1st graders repeated 10 sentences after the E, and the 2nd-6th graders read a passage. All words judged to have been spoken disfluently were analyzed for the presence of each of S. Brown's (see PA, Vol. 20:128) 4 word attributes: initial phoneme, grammatical function, sentence position, and word length. Disfluencies were not randomly distributed. For both stutterers and nonstutterers, disfluencies occurred most frequently on words possessing the same attributes as those reported by Brown to be troublesome for adult stutterers. Findings demonstrate the essential similarity in the loci of instances of disfluency in the speech of (a) children and adults, and (b) stutterers and nonstutterers.—*Journal abstract.*

NEUROLOGICAL DISORDER

11351. Beteta, Edmundo; Gonzáles-Portillo, M. A., & Voto Bernales, J. (Peruvian U. Cayetano Heredia, Lima, Peru) **Primeras experiencias con la levodopa en el tratamiento del síndrome Parkinsoniano.** [First experiences with levodopa in the treatment of the parkinsonian syndrome.] *Revista de Neuro-Psiquiatría*, 1970(Jun), Vol. 33(2), 136-145.—Reviews the biochemical and pharmacological bases of research concerning the etiology and patogenia of the dopaminergic disturbance-syndromes. 16 parkinsonian patients of differential etiology and symptom severity were treated with L-dopa during a 6-mo evaluative period. Results of this study confirm previous reports that small doses of L-dopa fail to show encouraging results, although the incidence of side effects is reduced. It appears that 2-3 gm. of L-dopa combined with an anticholinergic agent and/or Ansejo's stereotaxicotomy is an effective treatment for both rigidity and tremor. It is suggested that L-dopa without side effects will be the best future medication for morbus Parkinson. (English, French, & German summaries) (35 ref.)—*L. M. Laosa.*

11352. Brotsky, Suellen. (Hackensack Hosp., N.J.) **Auditory figure: Ground perception in neurologically impaired children.** *Journal of Auditory Research*, 1970(Jan), Vol. 10(1), 5-10.—35 5-10 yr. old neurologically impaired children were compared with 35 matched normals in auditory figure-ground perception (spondee words in meaningful noises). A significant difference appeared between groups in error scores. Although the degree of complexity of the background stimulus did not significantly influence the individual performance, there appeared to be a trend in this direction.—*Journal summary.*

11353. Davis, Leo J., Osborne, David; Siemens, Peter J., & Brown, Joe R. (Mayo Clinic, Section of Clinical Psychology, Rochester, Minn.) **MMPI correlates with disability in multiple sclerosis.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 700-702.—Related the Hy-Pt

index, an MMPI-derived index of "repressive defenses," to independent ratings of disability in 58 cases of multiple sclerosis. Those Ss with Hy greater than Pt were more likely to show significant disability than were Ss with Pt greater than Hy. This was true for both vocational and general disability. Possible reasons for the above findings are discussed.—*Journal abstract.*

11354. Dehant, André & Albert, Francis. (U. Louvain, Lab. of Experimental Pedagogy, Belgium) **Étude de la mémoire du dyslexique.** [Study of the memory of the dyslexic.] *Revue de Psychologie et des Sciences de l'Éducation*, 1971, Vol. 6(1), 61-66. Tested whether the memory, considered as the persistence of the effects of a previous experience, is deficient in the case of a dyslexic subject, i.e., whether the observed mnemonic deficiencies are only the result of difficulties specific to the trouble by virtue of the functional relationship of memory with perception and intelligence. A series of 6 visual, auditory, and verbal tests consisting of 14 subtests by A. Rey, were applied to a group of dyslexic and normal Ss. As for the memory, considered as the simple persistence of the effects of a previous experience, the dyslexic Ss were no less handicapped than other children of the same age. But if the memory of a dyslexic S was affected, troubles appeared at the level of his functional dynamism in close relationship with intelligence and perception. (Flemish summary)—*English summary.*

11355. Dimitrijević, M. R. & Nathan, P. W. (U. Ljubljani, Yugoslavia) **Studies of spasticity in man: IV. Changes in flexion reflex with repetitive cutaneous stimulation in spinal man.** *Brain*, 1970, Vol. 93(4), 743-768.—Studied the flexion response to repeated stimulation to the skin of the leg in patients with the spinal cord divided and in normal Ss. The responses formed a pattern, with phases of build-up, fluctuation, diminution, and (in most cases) cessation. After habituation, stimulation of skin only 4 cm. away from the previous site reinstated a full response, which, however, habituated more rapidly than if there had been no prior stimulation of the 1st site. It is concluded that habituation occurs within interneuronal pathways in the cord somewhere near the afferent limb of the response, and that it may be due to changes in presynaptic inhibition.—*W. A. Wilson.*

11356. Fedio, Paul & Onmaya, Ayub K. (National Inst. of Neurological Diseases & Stroke, Bethesda, Md.) **Bilateral cingulum lesions and stimulation in man with lateralized impairment in short-term verbal memory.** *Experimental Neurology*, 1970(Oct), Vol. 29(1), 84-91.—Examined 3 male and 2 female patients undergoing bilateral cingulotomy for the relief of pain on standard clinical tests of intelligence and memory. Prior to therapeutic coagulation, performance on a short-term memory test was monitored during electrical stimulation with electrodes chronically implanted in the cinguli. A severe impairment in recall for verbal memoranda accompanied left, but not right, cingulum stimulation. In contrast, psychometric observations after bilateral cingulotomy failed to show comparable deficits in memory and intelligence achievement. This apparent dissociation in the presence of clinical improvement (a) adds support to the role of the cingulum as a modulator of emotional responsiveness, and (b) implicates more distal limbic mechanisms for memory function. (27 ref.)—*Journal abstract.*

11357. Jasnós, Theodore M. (U. Connecticut) **Some effects of lesion level, stimulus potency, and sit-**

uational cue on affective behavior in spinal cord patients. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6715.

11358. **Mindham, R. H.** (Inst. of Psychiatry, London, England) **Psychiatric symptoms in parkinsonism.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1970(Apr), Vol. 33(2), 188-191.—Describes a retrospective clinical study of 89 cases of parkinsonism treated in a hospital for mental illness. A high incidence of affective symptoms was found, with depression in 90% of Ss. The frequency of depressive symptoms was similar in the main etiological types and generally followed the onset of symptoms. Impairment of intellectual function was found in 1/3 of Ss. This was much more common in the index than in the control group. Cases of paralysis agitans and arteriosclerotic parkinsonism showed intellectual impairment with equal frequency, but it was less common in the postencephalitic group. Depressive symptoms often responded to treatment without an accompanying improvement in the physical state. It is suggested that changes in mood should be sought in all cases of parkinsonism as they are likely to respond to antidepressant treatment.—*Journal summary*.

11359. **Oller Daurella, L. & Márquez, J.** **El nexo de unión entre las crisis generalizadas no convulsivas y las crisis hemigeneralizadas: un caso de status de ausencias con crisis hemiclónicas aparecidas en el curso del mismo. Tratamiento por nitrobenzodiacepina intravenosa.** [The nexus of union between generalized nonconclusive crisis and hemigeneralized crisis: A case of absence status with hemiclonic crisis. Treatment with intravenous nitrobenzodiacepine.] *Archivos de Neurobiología*, 1969(Apr), Vol. 32(2), 219-232.—Studied a 4-yr-old S with status of absences characterized on the EEG by bilateral spikes and waves. S showed a left hemiconvulsive crisis and the same characteristics on the other side. After treating the S with mogadon, the crisis was terminated. It appears that the case corresponds to a form of the Lennox syndrome—without apparent cause, cryptogenic, and somewhat delayed. Interest lies in the following: (a) the establishment of 1 patient with generalized nonconvulsive crisis and hemigeneralized crisis, and the observation of the latter in the course of the status of absences; (b) the possibility of treating both types of crises by means of iv administration of nitrobenzodiacepine; (c) that the above cases can be considered another form of the Lennox syndrome; and (d) the possibility of a precocious treatment of the Lennox syndrome.—*A. M. Farfaglia*.

11360. **Wender, Paul H., Epstein, Richard S., Kopin, Irwin J., & Gordon, Edna K.** (National Inst. of Mental Health, Bethesda, Md.) **Urinary monoamine metabolites in children with minimal brain dysfunction.** *American Journal of Psychiatry*, 1971(Apr), Vol. 127(10), 1411-1415.

Brain Damage

11361. **Belmont, Ira & Handler, Alan.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **Delayed information processing and judgment of temporal order following cerebral damage.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 353-361.—The view that damage to part of the CNS leads to a delay in information processing by the injured portion was tested by requiring left hemiplegic patients and normal controls to judge the temporal order of 2 successively presented

auditory stimuli when 1 ear and then the other was stimulated first. The inertia hypothesis was confirmed by the finding that while normal individuals were accurate in their judgments of order of stimulation, the hemiplegic patients tended to report that the ear related to the affected hemisphere was stimulated last, independent of the objective order of stimulation.—*Journal abstract*.

11362. **Pendergrass, Virginia E.** (Veterans Administration Hosp., Miami, Fla.) **Effects of length of time-out from positive reinforcement and schedule of application in suppression of aggressive behavior.** *Psychological Record*, 1971(Win), Vol. 21(1), 75-80.—Utilized a procedure of temporary isolation (time-out from positive reinforcement) as a punishment contingent on aggressive behavior in a 5-yr-old brain-damaged girl. It was found that a long time-out period administered on an intermittent schedule was relatively ineffective in controlling the undesirable behavior, while a short time-out administered consistently produced substantial suppression. Spontaneous recovery of suppression at the beginning of each experimental extinction day indicated that retention of learning may persist over many days.—*Journal abstract*.

11363. **Turdiu-Simunc, Jelena.** (Neuropsychiatric Clinic of Medical Faculty, Zagreb, Yugoslavia) **Ispitivanje minimalnih cerebralnih distunkcija kod djece.** [An investigation of minimal cerebral dysfunctions in children.] *Revija za Psihologiju*, 1970, Vol. 1(2), 31-36.—Attempted to determine if there were any of the several psychological tests used that could serve as an indicator for "minimal cerebral dysfunction" in children—children who show no clear neurologic signs of cerebral lesions. For the same purpose a qualitative analyses of drawings and writings of the same children were made. Results demonstrate that for such evaluation a single psychological test is insufficient. Qualitative analyses of drawings and writings as well as qualitative analysis of responses obtained on different tests were more indicative of suspected lesion than quantitative data. (English abstract)—*A. Fulgosi*.

11364. **Woo-Sam, James; Zimmerman, Irla L., & Rogal, Richard.** (Rancho Los Amigos Hosp., Downey, Calif.) **Location of injury and Wechsler indices of mental deterioration.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 407-411.—Application of 4 Wechsler indices of mental deterioration to 95 cases of known head-injured Ss indicates that there are between-index differences, but that except for the Wechsler Revised index, locus of injury does not affect the efficiency of the indices. Ss were administered the Saunders index, the Allen index, and scores were obtained for the original Wechsler as well as the the revised Wechsler index. Findings were explained on the basis that trauma to the head results in 2 broad and measurable psychological effects: (a) generalized impairment of concentration and attention; and (b) depending upon locus of injury, additional impairments of selective coping skills. A mixed parietal injury appears associated with deficient conceptualization skills either verbal or motor. (15 ref.)—*Journal abstract*.

Epilepsy

11365. **Ikonoff, Stoyan Iv.** (District Hosp., Neurology Div., Westerstede, W. Germany) **Anticholinesterase drugs and epileptic seizures.** *British Journal of Psychiatry*, 1970(Dec), Vol. 117(541), 679-

680.—Nivalin and syntostigmin were tested with 14 epileptic patients. Results indicate that syntostigmin, which has a good tolerance and no toxic effect, was an effective therapeutic agent capable of producing positive improvement in 6-9 mo. of treatment.—*R. L. Sulzer.*

11366. Viukari, N. M. (U. Helsinki, Finland) **Low potassium levels in the cerebrospinal fluid of forty mentally subnormal epileptics.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 191-195. —Studied cerebrospinal fluid samples of 40 14-40 yr. old Ss in 3 serial determinations. The potassium levels were below the average of 3.3 meq/l. Several significant correlations were found between serum potassium, other electrolytes, and potential of hydrogen. Insufficient activation of glycolysis and adenosine triphosphatase by potassium in relation to their activation by sodium is postulated to play a part in epilepsy. (20 ref.)—*R. V. Hamilton.*

MENTAL RETARDATION

11367. Baker, Bruce L. & Ward, Michael H. (Harvard U.) **Reinforcement therapy for behavior problems in severely retarded children.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 41(1), 124-135.—6 severely retarded 6-9 yr. old children (IQ below 25) were treated in a small home-like living unit. The project emphasized the "total milieu" use of reinforcement techniques by regular attendants trained as therapists, and the behavioral measurement of both Ss and matched ward controls. Ss were evaluated by results obtained on the Peabody Picture Vocabulary Test and the Denver Developmental Screening Inventory. Treatment was generally effective, with less success obtained for retarded Ss who also presented psychotic behavior. (23 ref.)—*Journal abstract.*

11368. Baumeister, Alfred A. & Butterfield, Earl. (Eds.) (U. Alabama, Center for Developmental & Learning Disorders) **Residential facilities for the mentally retarded.** Chicago, Ill.: Aldine, 1970. vi, 405 p. \$12.95.—Presents papers by leading professionals in the field of mental retardation, including information on the history, structure, philosophy, goals, and operations of American residential facilities for the retarded, and suggestions for the more effective programming of institutions.

11369. Bixler, Edward O. (U. New Mexico) **The visual evoked potential and reaction time in the retardate.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6276.

11370. Brogle, James F. (U. Florida) **Performance of normals and retardates on Piaget's conservation tasks.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6870-6871.

11371. Carr, Janet. (U. London, Inst. of Education, England) **Mental and motor development in young mongol children.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 205-220.—A 2-yr longitudinal study of 45 mongol babies reared at home and 9 placed in foster homes and institutions with a matched (age, sex, and social class) normal control group revealed that the mongol children were significantly below the control group on the Bayley Infant Scales of Mental and Motor Development at 6 wk., declined rapidly to 10 mo., and less rapidly after that to 2 yr. Mean scores of boarded-out mongols were significantly below those who were reared in the home. Mean mental scale scores of mongol

boys were significantly ($p < .05$) below those of the girls.—*R. V. Hamilton.*

11372. Carter, C. H., Smith, G. F., & Schindeler, Joan. (Sunland Training Center, Orlando, Fla.) **Choanal atresia and bifid thumb associated with an abnormal D group chromosome.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 221-226.—Presents the case study of a mentally retarded male baby. S had an abnormally long lower limb of a D-group chromosome. The major clinical findings were: low birth weight, wide set eyes, broad base of nose, epicanthal folds, choanal atresia, large low set ears, micrognathia, congenital heart defect, genital abnormalities, puffiness and creasing of skin of the upper limbs, broad bifid terminal phalanx of thumb, clubbed feet, and delayed physical and mental development. It was not possible to identify the source of the extra chromosomal segment; the chromosomes of both parents and sibling were normal. (15 ref.)—*R. V. Hamilton.*

11373. Cowie, Valerie. (Queen Mary's Hosp. for Children, Carshalton, England) **Amniocentesis: A means of pre-natal diagnosis of conditions associated with severe mental subnormality.** *British Journal of Psychiatry*, 1971(Jan), Vol. 118(542), 83-86.—If fetal cells are obtained from the amniotic fluid in the 10th-18th wk. of pregnancy of a woman with high risk of bearing a subnormal child, diagnosis can lead to reassurance or the recommendation of therapeutic abortion. With amniocentesis, genetic counseling can move from quoting risk of recessive defects of 1 in 4 to positive prediction. This can result in relief from months of anxiety, and it is significant that mothers who have borne mongols are beginning to ask for amniocentesis when they become pregnant again.—*R. L. Sulzer.*

11374. Craft, Michael. (Oakwood Park Hosp., Conway, Wales) **A North Wales experiment in subnormality care.** *British Journal of Psychiatry*, 1971(Feb), Vol. 118(543), 199-206.—With perhaps 1,800 subnormals/million population in North Wales, about 845/million receive nursing care in hospital, while a program of extensive retraining, reemployment, and resettlement of subnormals makes it possible for the others to reside in local authority hostels or homes, or in private or approved lodgings financed by the government. Up to 1/2 the hospital population could leave, and would probably be better and happier in the community, but the financing of extra consultant leaders, improvement in staff, buildings, social workers, etc., seems questionable. (25 ref.)—*R. L. Sulzer.*

11375. Fabia, Jacqueline & Drolette, Margaret. (Harvard U., School of Public Health, Boston, Mass.) **Life tables up to age 10 for mongols with and without congenital heart defect.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 235-242.—Sex-specific life tables for the 1st 10 yr. of life were constructed for a series of 2,421 children with Down's syndrome born alive from 1950-1966 and for 2 subgroups, 691 mongols with congenital heart defect (CHD) and 1,730 mongols without CHD. The life tables showed that CHD mongols had much higher mortality rates. There was a sex differential in mortality among CHD mongols. The girls were least apt to survive the early years of life. There was no similar sex differential among non-CHD mongols. The higher mortality rates for CHD females were reflected in a significantly lower survival rate for females in the total group. (19 ref.)—*R. V. Hamilton.*

11376. Farnham, Rita C. (Boston U., School of Nursing) **The effect of group therapy and grief on mothers' attitudes toward retarded children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6713-6714.
11377. Florin, Irmela & Tunner, Wolfgang. (U. Constance, W. Germany) **Prinzipien des operanten Konditionierens bei der Behandlung schwer retardierter Kinder.** [Principles of operant conditioning in the treatment of severely retarded children.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 253-259.—The principles of positive and negative reinforcement, punishment, extinction, conditioned reinforcement, token reinforcement system, reinforcement schedules, shaping, chaining, and differential reinforcement are explained, and their application to the behaviors of eating, dressing, body hygiene, toilet training, speech, and social interaction in severely retarded children is discussed. (34 ref.)—H. A. Euler.
11378. Forehand, Rex L. (U. Alabama) **Rate of stereotyped body rocking as a function of frustration of goal-directed behavior and alternate activity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6286.
11379. Freundt-Thurne, Jaime L. & Sturmman, Erika. (Anglo-American Clinic, Lima, Peru) **Fenilketonuria: A propósito de dos observaciones en el Perú.** [Phenylketonuria: Two cases observed in Peru.] *Revista de Neuro-Psiquiatría*, 1970(Sep), Vol. 33(3), 189-203.—Reports on the 1st 2 diagnosed cases of phenylketonuria in Peru. The metabolic disorder, the symptomatology, and the importance of an early diagnosis are stressed in order to begin treatment as soon as possible and therefore obtain good results in the prevention of mental retardation. The diagnostic methods and the dietary treatments are discussed. (French & German summaries) (26 ref.)—English summary.
11380. Hambert, G. & Olanders, S. (U. Göteborg, Psychiatric Research Centre, Hisings Backa, Sweden) **Prevalence of excess Barr bodies in Swedish institutions for the mentally handicapped.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 263-265.—A buccal smear survey of all institutionalized mentally retarded males in 3 western counties in Sweden indicated that 6 of 778 Ss (.77%) were chromatin positive. The chromosomes of 4 Ss were examined and each had XXY sex chromosome complement. 1 of the Ss had symptoms of Down's syndrome and an extra G-group chromosome. The results confirmed that the incidence of chromatin positive males is less than that of antisocial mentally retarded males.—R. V. Hamilton.
11381. Jeffree, D. M. & Cashdan, Asher. (Manchester U., Hester Adrian Research Centre, England) **The home background of the severely subnormal child: A second study.** *British Journal of Medical Psychology*, 1971(Mar), Vol. 44(1), 27-33.—28 severely subnormal children living at home were matched individually with normal children for MA, sex, and socioeconomic background. It was predicted that the subnormal Ss would show a relative deficit on both stimulation and affection measures. On parental interview assessment the groups did differ significantly both overall and in the affection area; the difference in the stimulation area did not reach statistical significance. On 4 objective tests of experiences there were clear differences overall as well as on 3 of them taken individually. (20 ref.)—Journal summary.
11382. Kessler, Jane W., Ablon, Grith, & Smith, Edith. (Case Western Reserve U., Mental Development Center) **Separation reactions in young, mildly retarded children.** *Children*, 1969(Jan), Vol. 16(1), 2: 7.—Discusses the necessity of acknowledging the presence of anxiety upon separation from mother in retarded children, and suggests that all retardate nursery school and day care centers determine methods for dealing with separation reactions. The concept of retardates' readiness for nursery school is handled within the context of A. Freud's stages of school readiness. An experiment was carried out to examine how mildly retarded children react to their mothers' leaving. Children with CAs of 18-32 mo. and MAs of 19-32 mo. were divided into 2 groups (mildly retarded and average), 18 Ss each. Ss had not previously attended nursery school. Ss were observed in play groups when mothers were present and also when they were absent. With mothers present, both groups played on the same level; both groups regressed in play with mothers absent. Retardates appeared less able to cope with anxiety. Play groups for retarded children used as a transitional step to nursery school at a mental development center are discussed. Case Western Reserve University Groups accomplish progression from solitary to parallel play along with adjustment to gradual separation from mothers.—D. T. Lekarczyk.
11383. Koehl, R. H., Solitare, G. B., & Heffner, R. R. (Yale U., Medical School) **Lipomatous hamartoma involving the midbrain and cerebellum of a mentally retarded man.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 227-234.—A postmortem study of the quadrigeminal plate and the cerebellar vermis of a 32-yr-old mentally retarded male revealed malformations of the interior colliculi, cerebral aqueduct, several cerebellar folia, and the absence of a portion of the anterior medullary velum and cerebellar vermis. The common association of malformations of the brain and spinal cord, often of a dysraphic type, with CNS lipomata as well as the less well-defined relationship between intracranial lipomata and mental retardation is discussed. (28 ref.)—R. V. Hamilton.
11384. Martin, Jerry A. (U. North Carolina, Chapel Hill) **Controlling non-reinforced imitative behavior in severely retarded children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6946.
11385. Mikkelsen, Margareta & Stene, J. (U. Copenhagen, Denmark) **Genetic counselling in Down's syndrome.** *Human Heredity*, 1970, Vol. 20(5), 457-464.—Reliable risk figures are available for regular trisomy G cases and the more common translocation types. In trisomic Down's syndrome risk figures depend on maternal age. In the maternal age group below 30 the available materials lead to an estimated risk of recurrence of 1-2%. In translocation cases the risk depends on the type of translocation and the sex of the carrier. In (DqGq) translocations, risk figures of about 10% have been estimated for female carriers. Nearly the same risk was obtained for females with (21q22q) translocation. For male carriers the risk could not be estimated separately, but it is considered to be small (at most a few per cent). (33 ref.)—Journal abstract.
11386. Narayanan, H. S., Rao, B. S., & Reddy, G. N. (Government Mental Hosp., Bangalore, India) **A report on two cases of phenylketonuria (PKU) detected during a chemical and chromatographic screening of mentally retarded patients.** *Transactions of All-India Institute of Mental Health*, 1969(Dec), Vol. 9, 31-

33.—Routine chemical and chromatographic screening of urine from 706 mentally retarded cases has detected 2 phenylketonuria cases in a sibship. The 1st case, a 7-yr-old male, was brought to the outpatient department for consultation with the complaint of restless behavior, peculiar sideways rocking movement of both hands, and inability to speak. His younger sister displayed more marked chemical and chromatographic tests. Her symptoms included marked hypotonia in both limbs, brisk reflexes, and elicitation of knee jerk results in an ankle clonus.—S. R. Diamond.

11387. Rundle, A. T. & Sylvester, P. E. (St. Lawrence's Hosp., Caterham, England) **The influence of retarded maturation on growth abnormalities in the mentally defective girl.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 196-204.—2 groups of mentally retarded girls, 52 with normal menarche (menarche before 14.4 yr.) and 35 with late menarche (after 14.4 yr.), were compared on the basis of linear growth. While it was possible to show that a late onset of maturation does contribute to delayed growth in stature, there were no detectable differences in several anthropometric criteria. (23 ref.)—R. V. Hamilton.

11388. Schneider, Robert J. (U. Alabama) **Success-striving and failure-avoiding in mental retardates: Learning and developmental correlates.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6303.

11389. Turner, Gillian; Turner, Brian, & Collins, Edith. (Grosvenor Hosp., Sydney, New South Wales, Australia) **X-linked mental retardation without physical abnormality: Renpenning's syndrome.** *Developmental Medicine & Child Neurology*, 1971(Feb), Vol. 13(1), 71-78.

11390. Unkovic, Charles M. & Zook, Linn. (Florida Technological U., Orlando) **Mental retardation: The role of the counselor in the effective application of the case history and the family interview.** *Journal of School Health*, 1969(May), Vol. 39(5), 337-342.—Discusses the role of the counselor in helping parents of mentally retarded children.—G. S. Spitzer.

11391. Yanagisawa, S. & Shuto, T. (Yamaguchi U., Medical School, Japan) **Sex chromatin survey among mentally retarded children in Japan.** *Journal of Mental Deficiency Research*, 1970(Sep), Vol. 14(3), 254-262.—Sex chromatin screening tests, on Japanese mentally retarded children, were carried out on buccal mucosal cells, and sex chromosome constitutions were confirmed by peripheral blood leucocyte cultures. 18 of 2,164 males (.83%) and 12 of 1,519 females (.79%) were found to have sex chromatin abnormalities. The mean IQ of XXY males (60.4 ± 32) was higher than that of XXX females (46.3 ± 11.9). The males with an XXY sex chromosome constitution, although having greater individual variation, tended to be found among groups which were mildly subnormal. Thus, XXY males were frequently found more as pupils in special classes for mentally retarded than as inmates of institutions. (43 ref.)—R. V. Hamilton.

Learning & Motor Ability

11392. Baumeister, Alfred A. & Campbell, Cecil. (U. Alabama) **Formation of backward associations in paired-associates learning by normal children and retardates.** *Journal of Experimental Psychology*, 1971(Aug), Vol. 89(2), 298-305.—Compared the performances of normal and retarded children matched for MA on paired-associate (PA) learning tasks. In Exp. I,

128 Ss were stopped at different points in forward PA learning and tested for backward associations. Exp. II with 72 Ss compared unidirectional (A-B) and bidirectional (both A-B and B-A) PA learning. Results indicate that forward learning was only slightly stronger than backward learning for both S groups, and backward association strength remained fairly constant over the course of PA learning. Conditional probability analysis revealed that complete associative symmetry did not characterize the PA learning of normal Ss and retardates. Both normal children and retardates appeared to learn as well spontaneously in the backward direction as they did when they were required to form bidirectional associations.—*Journal abstract.*

11393. Dye, Murlon H. (North Texas State U.) **Some effects of social satiation and visual ambiguity upon retardates and normals.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6238.

11394. Gordon, Donald A. (U. Alabama) **The use of verbal mediation in the retarded as a function of developmental level and response availability.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6288-6289.

11395. Lange, Ernest K. (U. New Mexico) **A comparison of the response times of mongoloid children and normal children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6383-6384.

11396. Montroy, Pheryl; McManis, Donald, & Bell, Donald. (Eastern Washington State Coll.) **Development of time concepts in normal and retarded children.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 895-902.—Tested 18 normal and 18 retarded children, matched for MA at 3 levels (6, 9, and 11), for understanding of the time concepts of (a) simultaneity, (b) equality of synchronous intervals, and (c) order of events. For both groups, active ordering of observed events was more difficult than understanding of simultaneity or of equality of synchronous intervals. Understanding increased steadily with increases in MA, and a sequential order of development in time concepts was indicated. Ss at lower MAs understood simultaneity and equality of synchronous intervals better than active ordering of events, whereas at higher MAs these concepts were understood essentially equally. Results suggest a slower rate of development by retardates than by normals. Unequivocal acceptance of this finding was cautioned against due to confounding of IQ with MA level in the retarded Ss.—*Journal abstract.*

11397. Mulhern, Thomas J. (U. Alabama) **A study of the reaction times of normals and retardates as a function of stimulus-response compatibility and complexity.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6264.

11398. Parnes, Jay S. (New Mexico State U.) **The effect of visual stimulus meaningfulness and perceptual ability on paired-associate learning of retardates.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6410.

11399. Wilcox, Susan M. (U. Wisconsin) **Acquisition of the conditioned eyelid response by normal and retarded subjects as a function of interstimulus interval and trace versus delay conditions.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6309-6310.

Training & Vocational Rehabilitation

PHYSICAL ILLNESS

11400. Abram, Harry S. (Vanderbilt U., Medical School) **The prosthetic man.** *Comprehensive Psychiatry*, 1970(Sep), Vol. 11(5), 475-481.—Presents problems confronting the psychiatrist in working with patients with artificial heart valves, cardiac pacemakers, and artificial kidneys. (20 ref.)—D. Prager.
11401. Alluisi, Earl A., Thurmond, John B., & Coates, Glynn D. (U. Louisville, Performance Research Lab.) **Behavioral effects of infectious diseases: Respiratory *Pasteurella tularensis* in man.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 647-668.—Average efficiency in the work of 8 male volunteers, as measured with the mean percentage of base-line performance, fell about 25% during the period of Ss' infection with *Pasteurella tularensis*. Behavioral measures included a multiple-task performance battery which required an S to time-share the performances of 6 tasks. Recovery 3 days after treatment had begun was incomplete, with performance averaging 10-15% below that of controls (2 double-blind hospital controls and a separate control group of 10 Ss).—*Journal abstract*.
11402. Burke, Jon F. (U. Oregon) **Relationship of life changes to illness.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6236.
11403. Gerstein, Offra B. (New York U.) **The relationship between perception of parental behavior, level of dependency, and vocational interest pattern in hemophilic young adults.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6401.
11404. Henrichs, Theodore F., MacKenzie, James W., & Almond, Carl H. (U. Missouri, Medical School, St. Louis) **Psychological adjustment and psychiatric complications following open heart surgery.** *Journal of Nervous & Mental Disease*, 1971(May), Vol. 152(5), 332-345.—Open heart surgical patients were examined for postoperative psychiatric complications. An MMPI was administered to assess psychological factors. Male patients suffered more postoperative complications than females. Males' protocols revealed anxiety, depression, and physical complaints; females' protocols revealed more anger, depressive discord, and "bizarre feelings." Preoperative psychiatric consultations are recommended for all open heart surgical patients. (28 ref.)—R. Denis.
11405. Liss, Jerome & Sharma, C. N. **Multi-generational dynamics in a case of ulcerative colitis.** *Psychiatric Quarterly*, 1970(Jul), Vol. 44(3), 461-475.—Examined the relationship between the patient's mother and her mother (the maternal grandmother) and the specific causes and consequences of ulcerative colitis symptomatology in a 36-yr-old housewife. The symptoms of ulcerative colitis began on the S's honeymoon 12 yr. before and are considered to reflect her anxiety over the loss of the symbiotic relationship with her mother. Data were obtained through interviews and the patient's medical records. Interviews with the patient's mother about her relationship to her mother revealed that the mother had been placed in foster home shortly after birth. Both women (a) seemed to participate in the fantasy that the patient was in some sense the grandmother, (b) perceived men as depriving and defective, and (c) treated their children in a manner encouraging a dependency which they could not satisfy. From the foster grandmother to the eldest son of the patient, aggressive behavior was noted to center around bowel movements and toilet facilities.—S. Knapp.
11406. Monteiro, Lois A. (Brown U.) **Social factors influencing the outcome of heart attacks.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6717.
11407. Rahe, Richard H., Gunderson, E. K., & Arthur, Ransom J. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Demographic and psychosocial factors in acute illness reporting.** *USN Medical Neuropsychiatric Research Unit Report*, 1970, No. 69-35, 245-255.—Followed 2,684 Navy and Marine Corps personnel aboard 3 United States Navy cruisers during a 6-8 mo. overseas deployment in terms of all reported illnesses, with special reference to type and severity. $\frac{1}{3}$ of the Ss had no dispensary visits during the cruise. $\frac{1}{4}$ reported a single illness episode, and the remainder experienced multiple illnesses during their time at sea and in port. The great majority of illnesses reported were minor in severity, i.e., respiratory, gastrointestinal, genito-urinary, dermal, and musculo-skeletal disorders. Illness reporting was seen to be greater for younger than for older Ss; it was higher among Negroes as compared to Caucasians, and was the lowest for Filipinos; and it was higher for Ss with lower than average educational attainment. Illness reporting varied according to the S's occupation and showed a negative, linear correlation with job satisfaction. The timing of illness reporting was seen to vary according to the ship's operational schedule—reaching its peak during times when ships approached and took part in combat operations. Times of lowest illness reporting were seen when the Ss were relaxed and experiencing light work loads, and also during periods where they were meeting a new and challenging situation. A positive and roughly linear relationship was suggested between the number and/or intensity of Ss' precruise life changes and their cruise period illness rates.—*Journal abstract*.
11408. Rahe, Richard H., Mahan, Jack L., & Arthur, Ransom J. **Prediction of near-future health change from subjects' preceding life changes.** *USN Medical Neuropsychiatric Research Unit*, 1970, No. 70-18, 401-406.—Tested the life change and subsequent illness hypothesis utilizing 2,664 men aboard 3 United States Navy cruisers, who completed a life changes questionnaire prior to a 6-8 mo. cruise. Cruise period illness data were subsequently gathered on over 90% of those Ss sampled by questionnaire. Results, across ships, indicate a low-order, positive relationship between Ss' precruise life change intensity and number of reported illnesses throughout time at sea. In support of previous retrospective pilot studies, a linear relationship was seen between the Ss' recent life changes intensities and their cruise period illness rates. (23 ref.)—*Journal abstract*.
11409. Richards, Whitman. (Massachusetts Inst. of Technology) **The fortification illusions of migraines.** *Scientific American*, 1971(May), Vol. 224(5), 88-96.—Visual displays (fortification figures) during ophthalmic migraines provide evidence of feature detectors in the human visual cortex. Reverberation of the arc of fortifications suggests a neuronal network of reciprocal inhibition. The fortification figures suggest that detection of lines of a particular length and orientation characterizes the human visual system. Complex analyzers do not seem to be present at the level of the migraine disturbance. Serrations in the boundaries of fortification figures suggest that the neural substrate of the cortex is organized into discrete elements. The substrate of line detectors is apparently organized into a regular lattice, each line element having only 1 of 3 orientations and sampling visual space in the pattern of an asterisk (*).—P. Tolin.

11410. Smith, Ivor; Kellow, A. H., Mullen, P. E., & Harington, Edda. (Middlesex Hosp. Medical School, London, England) **Dietary migraine and tyramine metabolism.** *Nature*, 1971(Mar), Vol. 230(5291), 246-248.—Investigated tyramine metabolism in normal controls and in dietary migraine Ss. All Ss (age 45 and over) were placed on diets free of drugs and of foods containing tyramine. 24-hr urine samples were collected initially and during the 2nd day following oral administration of 100 mg. tyramine. Tyramine excretion was determined via Oate's extraction procedures followed by additional isolation via chromatography. Results demonstrate that migraine Ss excreted significantly less tyramine than did controls both before and after ingestion of the 100-mg dose of tyramine ($p < .01$). Ingestion of 100 mg. of tyramine increased free tyramine excretion by .1 mg. It is suggested that if the total urinary tyramine were of dietary origin, it would, of necessity, have to correspond to a dietary intake of 500 mg. In addition, the patient would suffer from a constant migraine headache. It is concluded that urinary tyramine is endogenously derived, and that ingested tyramine is rapidly oxidatively deaminated. It is also proposed that dietary migraine results from a lack of the enzyme which is responsible for sulphate conjugation of tyramine.—B. A. Stanton.

11411. Smith, Marie A. (U. Denver) **Menstrual disorders: Incidence and relationship to attitudes, manifest needs, and scholastic achievement in college freshman women.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6354.

11412. Stanfiel, James D., Tompkins, William G., & Brown, Harriet L. (Howard U., Counseling Service) **A Daily Activities List and its relation to measures of adjustment and early environment.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 691-699.—Describes the Daily Activities List (DAL) as a self-report measure developed for a study of cancer patients which contains items denoting ordinary behavior of daily life (e.g., work and recreation). Correlations were obtained in 21 cancer patients receiving radiotherapy for DAL activity level with indices of current emotional well-being and certain factors of developmental history. More active Ss (high scorers on DAL) tended to manifest less anxiety and other kinds of psychological distress and received more favorable ratings of early environment. Reliability data are presented and issues of validity and conceptual interpretation are discussed.—*Journal abstract.*

11413. Vartapetov, B. A. & Demchenko, A. N. **Polovye rasstroistva pri patologicheskom klimakse u muzhchin.** [Sexual disorders in cases of pathological climax in men.] In B. A. Vartapetov & A. N. Demchenko, "Predstatel'naya zheleza i vozrastnye narusheniya polovoï deyatel'nosti." (See PA. Vol. 46: Issue 5) 139-167.—Discusses in terms of the available data and current theories (a) the factors which contribute to normal erection and ejaculation, and (b) those which impair performance in each regard at various age levels. A predominance of the inhibitory or the excitatory process in the cerebral cortex affects sexual activity differently. Characteristic of the former case is weakening of erectile capacity; characteristic of the latter is premature ejaculation. Sexual disorders may arise from exhaustion of the spinal erectile and ejaculatory centers. Spinal impotence is traced to either organic or functional injury of the cerebrospinal sexual centers. In the latter case, it is a consequence of bad sexual practices (prolonged masturbation, sexual overindulgence, coitus

interruptus). The hypothalamic-hypophyseal-gonadal system plays an important role in the genesis of sexual disorders. The so-called neuroreceptor form of impotence involves lesion of the peripheral receptors of the afferent pathways, primarily in the glans penis, prostate gland, seminal vesicles, and the posterior urethra. Weakening of erection with normal aging is gradual and accompanied by ejaculatory difficulties; with "pathological climax" it is sudden and is accompanied by premature ejaculation. Psychogenic factors either are involved in the latter case or become part of the ensuing complications.—I. D. London.

COMMUNITY SERVICES

11414. Abramson, Marc F. (San Mateo County Mental Health Consultation Service, Courts & Corrections Unit, Calif.) **Participant observation and attempted mental health consultation in a public defender agency.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 964-969.—Describes some problems of the psychiatrist working in a public defender agency. He deals particularly with plea bargaining, differences between therapeutic and legal approaches to offenders, the various "models" of criminal justice, and the public defender's comfort in his role. It is concluded that the mental health consultant may be more effective working with police, judges, or probation officers than with lawyers.—*Journal abstract.*

11415. Arnsen, Alan N. & Collins, Ruby. (National Inst. of Mental Health, Chevy Chase, Md.) **Treating low-income patients in a neighborhood center.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 111-113.—Describes clinical experiences in an outpatient program of a neighborhood multiservice center with special emphasis on milieu therapy. Various techniques to make the service more accessible and appropriate to the population served are described. These include flexibility of time, the use of neighborhood resources, and avoidance of the medical model. It is noted that low-income patients tended to use the facility in a situational crisis and to stay away when problems improved. It is suggested that brief contacts with such patients may be sufficient in contrast to the more traditional "course of therapy" used in the treatment of middle-class patients.—R. Sivley.

11416. Bill, Aydin Z. (Southern New Castle Community Mental Health Center, Del.) **Social clubs help prevent readmission.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 161-162.

11417. Black, Bertram J. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Social work in health and mental health services.** *Social Casework*, 1971(Apr), Vol. 52(4), 211-219.—Explains directions and administration for delivering better health and mental health services. The main emphasis is on linking "geographic" system with "whole person" system and addressing it to needs of groups of people in local communities. Relevant social issues involved in planning services, and role of social workers in these areas are brought out.—M. W. Linn.

11418. Erickson, Gerald D. & Macht, Arthur J. (U. Manitoba, Winnipeg, Canada) **Providing local services for rural counties.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 128-129.—Outlines the need for small, community-based facilities to provide rehabilitation and moderate- to long-term treatment for the mentally ill. The history of Wisconsin's county mental hospital system is briefly described. Recent

changes in the organization of that system provide a program of care for 4 largely rural counties with a population of 150,000. The plan utilizes a county psychiatric rehabilitation facility, a hospital providing moderate- to long-term care, especially for alcoholics, and a general hospital unit for patients with acute illnesses. State hospitals are rarely used and all types of care are considered appropriate for local services. It is concluded that aspects of this program may be useful to other mental health planning organizations.—S. Knapp.

11419. Fishman, Robert. (U. Pennsylvania, Medical School) **A conglomerate model for community mental health.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 127-128.—Describes the conglomerate model of organizational development and its application to the field of community mental health. It was determined that the usual single-agency organization would be inadequate for the needs of a large urban area. The conglomerate model which evolved had a close relationship to 5 independent agencies and the state hospital system. Approximately $\frac{1}{2}$ the funds received by the center were distributed in the form of subcontracts to cooperating agencies for the provision of specialized services, e.g., treatment for alcoholics and psychiatric treatment for children. It is suggested that the conglomerate model (a) expands professional services within a geographic area, (b) reduces overhead costs, (c) increases professional efficiency, and (d) increases funds and services by utilizing a core of professionally trained staff. Although the effectiveness of the system has not been fully assessed, the reduction in admission rates in the state hospital from 23/mo to 1/mo is regarded as promising.—S. Knapp.

11420. Gottesfeld, Harry, et al. (Roosevelt Hosp., New York, N.Y.) **Community mental health.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 275-292.—Presents digests of 15 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include crisis intervention in community mental health; day care centers; community and patient feedback in mental health planning; community resources through university and government social service agency collaboration; various aspects of community mental health planning; mental health administration dilemmas; use of volunteers; and services to the aged blind.

11421. Kramer, Milton & Young, Calvin. (U. Cincinnati, Medical School) **Ohio's professional workers receive training in community mental health.** *Hospital & Community Psychiatry*, 1970(May), Vol. 21(5), 153-155.

11422. Lennard, Henry L. & Bernstein, Arnold. (U. California, San Francisco Medical Center) **Dilemma in mental health program evaluation.** *American Psychologist*, 1971(Mar), Vol. 26(3), 307-310.—Considers 2 themes important to understanding problems of evaluating mental health programs: (a) new programs produce unintended consequences whatever their intended target, and (b) consensus on criteria to be applied is becoming difficult to achieve. It is suggested that a preferred strategy is to assume as broad a perspective as possible and to be continuously aware of unexpected "fall out" in the operation of the system. A primary task now is to discover more effective ways of monitoring the effect of new programs.—P. McMillan.

11423. Linn, Louis. (Columbia U.) **Psychoanalysis and community psychiatry: A new challenge and responsibility.** *Journal of the Hillside Hospital*,

1967(Jul), Vol. 16(3-4), 234-254.—Professional help is being extended to a large group of patients who were previously disregarded in the very communities in which they lived. Planning has recently been extended to include a vast new group of disorders which are a consequence of family and community disorganization. Psychoanalysis and "community psychiatry" are discussed in relation to 4 spheres: the world of normal living; the patient and client world; the comprehensive community mental health center; and a complex of local, state, and federal government agencies regulating patient care as well as private foundations. If the analyst is to do more than identify the psychopathology when it emerges and treat those patients who cross his path, he cannot remain indifferent to social forces which disrupt family life. Group psychology and the problem of leadership is discussed, and practical applications to community psychiatry are developed. (36 ref.)—S. R. Diamond.

11424. Lowenkopf, Eugene L. & Zwerling, Israel. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Psychiatric services in a neighborhood health center.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 916-920.—Describes the operation of a neighborhood health center, with particular emphasis on psychiatric services. The main unit effecting delivery of all services is the health team, consisting of both professional and nonmedical personnel. The role of psychiatrist as consultant is discussed in this team context. 3 case examples are presented to illustrate problems of team leadership and the role of paraprofessionals.—*Journal abstract.*

11425. Mumford, Emily; Brown, Fred, & Kaufman M. Ralph. (Mt. Sinai School of Medicine, New York, N.Y.) **A hospital-based school mental health project.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 920-924.—Describes a pilot project designed to provide the wide range of services of a hospital-based team to a group of about 150 1st-3rd grade school children and their families. The team found numerous physical, mental, and social problems that had interfered with the ability of the target families to avail themselves of health services. It is concluded that the use of hospital-based teams working in the schools may offer the best approach to providing comprehensive and continuous help.—*Journal abstract.*

11426. Neufeldt, Aldred H. (Saskatchewan Dept. of Health, Saskatoon, Canada) **Planning for comprehensive mental health programs.** *Canada's Mental Health*, 1971(Mar), Suppl. 67, 12 p.—The planner of mental health services should concern himself with at least 3 phases of development: (a) he needs to identify and clarify the program's basic concepts so that clear goals can be established; (b) the actual structure of the program's operation, i.e., a consideration of personnel, facilities, and other resources needs to be drawn up; and (c) the actual program must be introduced so that some evaluation of its impact can be obtained. Of these 3, mental health planners characteristically expend the most time and effort on the 2nd phase to the detriment of the 1st and 3rd. An effort to foster keener awareness of the process of conceptualization (phase 1) and program implementation (phase 3) is attempted. Also comment is made on the use of available resources. (15 ref.)—*Journal abstract.*

11427. Ozarin, Lucy D., Feldman, Saul, & Spaner, Fred E. (National Inst. of Mental Health, Div. of Mental Health Service Programs, Chevy Chase, Md.) **Experience with community mental health centers.**

American Journal of Psychiatry, 1971(Jan), Vol. 127(7), 912-916.—Reports on experiences from site visits to federally funded mental health centers (245 are currently in operation). The most important findings were: (a) the formation of public and nonprofit corporations to serve as planning and fiscal agents facilitates the growth of local interagency networks of service; (b) the organizational structure of a center program determines its capability to deliver services; (c) citizen participation is vital for community support and program planning; and (d) manpower utilization is enhanced by the use of auxiliary mental health workers.—*Journal abstract*.

11428. Rogawski, Alexander S. & Edmundson, Betty. (U. Southern California, Medical School, Div. of Social & Community Psychiatry) **Factors affecting the outcome of psychiatric interagency referral.** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 925-934.—Only 42% of 334 patients referred to various community resources by a metropolitan evaluation unit completed the referral. Data about the Ss, referring professionals, referral technique, and receiving agency were correlated with the rate of completed referrals. The most significant success factor was the interest and involvement of the referring professional; surprisingly, patient characteristics and distance of patient residence from the community resource did not have a significant effect. (24 ref.)—*Journal abstract*.

11429. Schoonmaker, John & Thomas, Claudewell S. (State U. New York, Upstate Medical Center, Syracuse) **Mental health center attempts interracial public education.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 123-126.—Describes 3 discussion programs in which mental health professionals and residents of an Italian-Negro community attempted to deal with sex, drugs, and community problems. There were 4 preliminary discussions and fall and spring sessions of 5 discussions each. The majority of the sessions were preceded with brief lectures on selected subjects, e.g., sex education, and were followed by discussions in small groups led by a professional. Although the participants expressed satisfaction with the professionals' ability to help them clarify issues and deal with them maturely, there was growing dissatisfaction with the inability of the professionals to provide quick and effective solutions to the community's problems. It is suggested that the programs might have been more effective if fewer professionals had taken part, the introductory lecture had not been used, and intimacies from the participants had been discouraged.—S. Knapp.

11430. Scoles, Pascal & Fine, Eric W. (West Philadelphia Community Mental Health Consortium, Pa.) **Aftercare and rehabilitation in a community mental health center.** *Social Work*, 1971(Jul), Vol. 16(3), 75-82.—Describes a program in which the community, state mental hospitals, and a community mental health center cooperate in providing an environment conducive to the continued well-being of chronic mental patients discharged from state hospitals. Data are presented from 64 female and 36 male patients who had been hospitalized for a mean duration of 9.1 yr., and were predominately schizophrenic and unmarried. Day care facilities were located as close as possible to Ss' place of residence. The Ss' self-government council determined and implemented programs for individuals and groups of patients. Activities involved learning social, interaction, and occupational skills. Individual and group counseling facilities are described, and problems of Ss living in the community are noted. Evaluation of the program after 3

yr. indicates (a) a 9% recidivism rate after 18 mo. (b) yearly costs of approximately \$1,000 that required for state hospitalization, and (c) reduction in the amount of medication required for 63% of the Ss.—S. Knapp.

11431. Stubblebine, J. M. & Decker, J. Barry. (Dept. of Public Health, Community Mental Health Services, San Francisco, Calif.) **Are urban mental health centers worth it?** *American Journal of Psychiatry*, 1971(Jan), Vol. 127(7), 908-912.—On the basis of experience in San Francisco, it is proposed that the community mental health center offers a viable and economical alternative to state hospital care for the mentally ill. Such centers are functioning reasonably well, and growing in size and range of tasks. However, serious problems remain, including the challenges of drug abuse, alcoholism, and childhood mental illness, as well as a wide range of organizational and administrative problems.—*Journal abstract*.

11432. Woodyard, Elsie B. (Michigan State U.) **A study of pre-intake dropout at St. Lawrence Community Mental Health Center.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6916-6917.

GERIATRICS

11433. Burnside, Irene M. (U. California, San Francisco) **Loss: A constant theme in group work with the aged.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 173-177.—Discusses problems of the aged, gained from experience in working with a group of nursing home patients. The loss theme was observed most poignantly in cases with a deceased spouse. Other painful losses included (a) deaths of friends and relatives; (b) disabilities (particularly the loss of eyesight and memory); (c) loss of money and economic security; (d) loss of personal possessions (especially clothing); (e) loss of dignity; and (f) loss of independence. It is suggested that nurses can do much (by bringing creativity and enthusiasm) to their responsibilities to help ease the pain of such losses. Group work is considered useful in that it allows patients to discuss and share their losses.—P. Hertzberg.

11434. Burvill, P. W., Gruenberg, E. M., & Solomon, M. (U. Western Australia, Perth) **Comparative study of elderly Dutchess County patients in mental hospitals and nursing homes.** *Social Psychiatry*, 1971(May), Vol. 6(2), 61-65.—Compared point prevalence data for 3 populations of patients, aged 65 yr. and over: (a) mental hospital patients who became 65 yr. of age in hospital, (b) mental hospital patients who were 65 yr. old before admission, and (c) nursing home patients. The significance of similarities and differences between the 3 populations are discussed. The mental hospitals had 2 distinct geriatric populations: the aged-in and the aged-out. The aged-out population had more in common with nursing home patients than with the aged-in patients. It is suggested that the geriatric patients' place of abode, when the decision for long-term hospitalization was made, was a potent factor in determining whether he went to a mental hospital or a nursing home. (French & German abstracts)—*Journal abstract*.

11435. Levy, Raymond; Isaacs, Anthony, & Hawks, Gail. **Neurophysiological correlates of senile dementia: I. Motor and sensory nerve conduction velocity.** *Psychological Medicine*, 1970(Nov), Vol. 1(1), 40-47.—Investigated the relation between senile dementia and slowing of the peripheral nerve conduction velocity. 28 dementia patients and 19 controls were rated

clinically, given psychological tests, and their physiological reactions were recorded. Results were: (a) motor conduction was slower in dementia Ss than in controls, however, the difference was not significant; (b) demented S's scores above 7 had nerve conductions significantly slower than those with 7 or less; (c) a significant correlation was found between severity of dementia and the slowing of motor nerve conduction; (d) in patients who had rested 1 yr., increase in dementia was correlated with further slowing of motor conduction; (e) deficiency of thiamine, nicotinic acid, and vitamin B₁₂ were not significant. However, some patients showed low folate levels, which may be significant for the dementia and/or the peripheral nerve slowing. (33 ref.)—*Journal abstract*.

11436. Pichot, P., Girard, B., & Dreyfus, J. C. **L'échelle d'appréciation gériatrique de Stockton (S.G.R.S.): Etude de sa version française.** [The Stockton Geriatric Rating Scale (SGRS): Report of a factor analysis of a French-language version.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(4), 245-254.—The 33-item Stockton Geriatric Rating Scale permits quantification of the degree of physical disability, apathy, willingness to communicate, and socially irritating behavior. Results are also reported of use of the scale for predicting adjustment to institutionalization and some type of treatments.—K. J. Hartman.

11437. Williams, Joseph R., Kriaciunas, Romualdas, & Rodriguez, Arthur. (Kankakee State Hosp., Ill.) **Physical, mental, and social rehabilitation for elderly and infirm patients.** *Hospital & Community Psychiatry*, 1970(Apr), Vol. 21(4), 130-132.—Describes a state hospital program for the intensive rehabilitation of chronic geriatric and nongeriatric patients with physical infirmities. The staff and physical facilities used are outlined. Screening of patients with potential for rehabilitation and community adjustment was accomplished by 5 members of the rehabilitation staff. Treatment involved physical, social, and occupational training. The treatment history of a 73-yr-old male who had been hospitalized for 11 yr. for chronic brain syndrome associated with senile brain disease is presented. After 10 mo. of treatment, the patient had progressed from a wheel chair to walking with 2 canes or a walker. He had become independent in his daily activities and his depression had been replaced with cheerfulness. Follow-up after discharge to a nursing home revealed a good adjustment. Of the 67 patients treated over a 1-yr period, 63 were discharged with a less than 5% readmission rate. Improvements were noted in mobility, speech, independence, sociability, mental efficiency, and behavior. Benefits to the hospital itself from increased and outside resources are noted.—S. Knapp.

EDUCATIONAL PSYCHOLOGY

11438. Altman, K. I. & Linton, T. E. (U. Wisconsin, Milwaukee) **Operant conditioning in the classroom setting: A review of the research.** *Journal of Educational Research*, 1971(Feb), Vol. 64(6), 277-286.—Presents a review which (a) summarizes the research following an applied behavioral analysis with relevance for public school classrooms, and (b) discusses important considerations involved in an applied behavioral analysis of classroom behavior. Studies in this area are grouped into the following categories according to the nature of the reinforcement employed and assessed: teacher attention,

peer attention, token reinforcement, and vicarious reinforcement. The problems of obtaining teacher cooperation, valid and reliable measurements, and confirmation of stimulus control through design of the experiment are discussed. The implications of these studies for classroom behavior control are explored. (38 ref.)—*Journal abstract*.

11439. Cox, Brian J. (Langley School District, Murrayville, British Columbia, Canada) **Validity of a preschool colour vision test.** *Journal of School Health*, 1971(Mar), Vol. 41(3), 163-165.—A preschool color vision test utilizing finger tracing was used as a screening device to detect children with defective color vision. "The phi co-efficient of efficiency indicates that the pre-school test is somewhat better than classification of normals and defectives purely by chance. However, considerable uncertainty remains."—G. S. Spitzer.

11440. George, Rickey L. (U. Missouri, St. Louis) **Resident or commuter: A study of personality differences.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 216-219.—Investigated the differences in personality structure and other variables between students choosing to attend a nearby college and commute, and those planning to live on campus at more distant institutions. The EPPS was completed by 418 high school seniors in 1969. The only significant factor turned out to be socioeconomic status. Thus, students whose fathers' occupation could be classified as professional-managerial were more likely to attend a college away from home. Compared to resident students, commuters seem to have a greater need for autonomy and dominance, while the former have a greater need for change and aggression.—R. H. Mueller.

11441. Hannah, Beth H. (Bryn Mawr Coll.) **Cooperation and competition in the classroom: Effects of the degree of similarity of the task on behavior in children's groups.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6402.

11442. Jung, Steven M. (American Inst. for Research, Palo Alto, Calif.) **Criterion measures for educational incentives.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 121-128.—Examined the advantages and disadvantages of available techniques for incentive delivery based upon measures of student performance. It is suggested that measurement procedures include standardized norm-referenced achievement tests, criterion-referenced measurements, and behavioral observations.—H. Kaczowski.

11443. Kaufman, Roger A. (United States International U., Graduate School of Human Behavior, San Diego, Calif.) **A possible integrative model for the systematic and measurable improvement of education.** *American Psychologist*, 1971(Mar), Vol. 26(3), 250-256.—Offers a possible rationale for cooperation and interdependence between professional educational practitioners who are working to improve the products and processes of education. A possible generic model for educational management is presented, identifying 6 steps for problem solving. Tools currently being used for the quantifiable improvement of education are briefly discussed and an attempt is made to relate these tools to the suggested process model of education. A possible taxonomy of educational planning is also offered. (29 ref.)—*Author abstract*.

11444. Linn, Robert L., Werts, Charles E., & Tucker, Ledyard R. (Educational Testing Service, Princeton, N.J.) **The interpretation of regression coefficients in a school effects model.** *Educational & Psychological*

Measurement, 1971(Spr), Vol. 31(1), 85-93.—Illustrates the concrete and detailed mode of thinking required in the interpretation of regression coefficients in relation to several alternative strategies for allocating school resources. A linear regression model is presented containing 3 classes of variables typically found in school effects studies. They are measures of (a) student "input," (b) student "output," and (c) the "school characteristics." The assumptions necessary for use of the model are discussed along with an illustrative example of its use.—R. W. Covert.

11445. McDaniel, Sylvia P. (U. Alabama) **The effects of selected teacher personality variables on reading readiness, self-concept, and changes in IQ in culturally deprived five-year olds.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6409.

11446. Mehrotra, C. M. (Educational Testing Service, Princeton, N.J.) **Behavioral cognition as related to interpersonal perception and some personality traits of college students.** *Educational & Psychological Measurement*, 1971(Spr), Vol. 31(1), 145-153.—A battery of tests including 4 measures of behavioral cognition measures, CPI prediction test, an adjective checklist, Behavior Postdiction Test, the Fundamental Interpersonal Relations Orientation-Behavior questionnaire, the Myer-Briggs Type Indicator, the Kuder Preference Record, and the Study of Values, was administered to 200 undergraduates. The 4 behavioral cognition measures were found to be moderately intercorrelated. Cognition of behavioral implications was found to be independent of interpersonal prediction. Multiple Rs for the 4 behavioral cognition variables ranged from .23 to .60.—N. M. Chansky.

11447. Monks, T. G. & Kawwa, T. (Devon County Education Authority, Exeter, England) **Social psychological aspects of comprehensive education.** *International Review of Education*, 1971, Vol. 17(1), 66-76.—The British school system has been selective since the beginning of the 20th century. Few changes have been effected since then. The usefulness of a comprehensive school has been strengthened by the increasing decline of intelligence testing as a selective device and the variety of research reports showing the influence of milieu on the intellectual development of the child. The report examines the inschool structure in terms of efficiency and prestige.—R. F. Wagner.

11448. Nichols, Robert C. (State U. New York, Buffalo) **Where the brains are.** *National Merit Scholarship Corporation, Research Reports*, 1969, Vol. 5(5), 17 p.—An index of the concentration of talented students in the various standard metropolitan statistical areas of the United States was developed from the 1966 administration of the National Merit Scholarship Qualifying Test. In 1966, 390,000 boys and 398,000 girls were tested. Correlations of this index with other characteristics of the metropolitan areas revealed that talented students tend to be concentrated in areas with large populations that are economically well off and have a high educational level, a high proportion of foreign born, a low proportion of nonwhites, and low fertility.—*Journal abstract*.

11449. Novick, Melvin R. (Educational Testing Service, Princeton, N.J.) **Bayesian considerations in educational information systems.** *ACT Research Report*, 1970(Nov), No. 38, 10 p.—Surveys the development during the past decade of guidance-oriented educational testing programs and the resulting need for statistical methods for educational information systems.

Bayesian methods are described as being uniquely capable of combining prior, collateral, and direct experimental information to provide probabilistic statements about parameters descriptive of students, educational programs, and their relationships. The Bayesian statistical methods needed for these applications are described. (24 ref.)—*Journal abstract*.

11450. Railo, Willi S. **Physical fitness and intellectual achievement.** *Scandinavian Journal of Educational Research*, 1969, No. 2, 103-120.—Examined (a) the interaction of physical fitness (maximal oxygen intake measured on cycle ergometer) in schoolchildren with their intelligence and school achievement, (b) interaction changes from 4th-7th grade, and (c) the correlation of parental socioeconomic status with the children's development of physical fitness. Results with 414 children indicate (a) a significant negative relationship between physical fitness and intelligence, which was significantly less pronounced in grade 7 than in grade 4; (b) no relationship between physical fitness and school achievement; and (c) a significant relationship between the socioeconomic status of the parents and the children's physical fitness. (29 ref.)—*Journal abstract*.

11451. Rogers, R. S. & Wright, E. N. (Toronto Board of Education, Ontario, Canada) **A study of children's drawings of their classrooms.** *Journal of Educational Research*, 1971(Apr), Vol. 64(8), 370-374.—Summarizes a large scale study of approximately 40,000 children's drawings of their classrooms conducted by the Toronto Board of Education. The drawings were collected under standardized conditions from junior kindergarten to 4th grade. A taxonomic approach to the drawing content through an objective coding framework is described and summaries of ad hoc examinations of the data are given along with experimentation involving the actual drawings. Findings, which were parallel to those in the literature on children's drawings, suggest that measures of skill of execution (drawing intelligence) are more stable and reliable than measures of inferred mood, attitude, or personality.—*Journal abstract*.

11452. Shotland, Robert L. (Michigan State U.) **The communication patterns and the structure of social relationships at a large university.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6883.

11453. Watley, Donivan J. (National Merit Scholarship Corp., Evanston, Ill.) **Black and nonblack youth: Does marriage hinder college attendance?** *National Merit Scholarship Corporation, Research Reports*, 1971, Vol. 7(5), 28 p.—Investigated the effect of marriage on the college attendance behavior of a total of 28,800 National Merit Scholarship Qualifying Test participants. Ss composed 72 subsamples formed on the basis of race (black or nonblack), sex, ability level, and geographical region of residence. While only 64% of nonblacks and 52% of blacks returned a 1-page questionnaire used in the study, a number of tentative conclusions were considered justified. Marriage appeared to be a more important factor in the college attendance behavior of nonblack than black males. The marital status of a woman of either race was especially significant as a determinant of college attendance: a married woman, regardless of color, was even less likely to attend than her male counterpart. Marriage also affected the type of college entered, the grades received, and whether the freshman year was completed.—*Journal abstract*.

11454. Werts, Charles E. & Linn, Robert L. (Educational Testing Service, Princeton, N.J.) **Analyzing school effects: ANCOVA with fallible covariate.**

Educational & Psychological Measurement, 1971(Spring), Vol. 31(1), 95-104.—Discusses the use of reliability estimates to correct for fallible covariates. 2 particular instances are examined: (a) where the errors of measurement in the covariate are distributed randomly with a zero mean for the total sample irrespective of group, and (b) where the errors of measurement in the covariate are distributed randomly within groups and have a zero mean within groups. The results show that in the absence of prior knowledge of the distribution of errors the more conservative approach is to assume the group means are fallible and use the reliability estimates in the appropriate formula provided.—R. W. Covert.

ATTITUDE & ADJUSTMENT

11455. Agarwal, Mahesh C. (Inst. of Social Sciences, Agra, India) **Adjustment among college students.** *Indian Psychological Review*, 1970(Jan), Vol. 6(2), 85-87.—Investigated the problem of adjustments of college students in relation to various areas and sex of Ss. An adjustment inventory (in Hindi) consisting of items relating to college adjustment, home adjustment, personal and health, and social areas was prepared and administered to 200 17-24 yr. old college students. Results using individual t tests showed that: (a) arts students were better adjusted than science students, (b) girls were better adjusted than boys, and (c) adjustment of arts boys in the college adjustment area was poorest compared to other areas. Adjustment of arts girls was best in the home adjustment area but poor in the personal and health area.—K. C. Panda.

11456. Alfert, Elizabeth & Suczek, Robert F. (Wright Inst., Berkeley, Calif.) **Personality development and cultural change.** *Journal of Higher Education*, 1971(Jan), Vol. 42(1), 21-26.—In the past decade an increasing number of studies have been concerned with personality development of students during their college years. In such studies the changes which occur can be considered as related to factors, e.g., the attitudes and personality organization already present, the atmosphere of the college community, and maturational factors. However, in the course of studies at a major university it was observed that students entering in succeeding years tend to become more sophisticated (in 1965 seniors and freshmen were very similar in attitudes). Therefore the 3 conditions of personality change during college years are not likely to be the cause of the change. The common influence could be the social revolution taking place especially in the younger generation throughout the world.—S. R. Diamond.

11457. Andes, Steven & Kulhavy, Raymond W. (U. Illinois) **Political attitude and scholastic achievement in ROTC students.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 878.—Administered a questionnaire assessing political attitudes to 372 ROTC and 29 general college students. The resulting scales were correlated with Ss' all-college GPAs. ROTC Ss showed little relationship between GPA and attitude whereas the control Ss yielded marked correlations. It is hypothesized that ROTC Ss adopt the strategy of less political commitment because of peer pressures.—Author abstract.

11458. Astin, Alexander W. (American Council on Education, Washington, D.C.) **Two approaches to measuring students' perceptions of their college environment.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 169-172.—Investigated the rela-

tionship between the Inventory of College Activities (ICA) and the College and University Environment Scales (CUES), both of which are instruments that attempt to measure students' impressions of their college environment. Ss at 59 institutions were sampled and the results indicate a considerable degree of overlap between the scales of the 2 measures. It was found that more of the CUES variance could be predicted from ICA factors than vice versa. Despite the fact that each of the scales comprising the ICA were based on only 3 items, highly reliable estimates were obtained.—R. H. Mueller.

11459. Bassham, Robert A. (U. Minnesota) **The relation of test anxiety to aggression in fourth grade boys.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6275.

11460. Bonney, Merl E. (North Texas State U.) **Assessment of efforts to aid socially isolated elementary school pupils.** *Journal of Educational Research*, 1971(Apr), Vol. 64(8), 359-364.—Describes a study with approximately 300 3rd 6th graders from 3 schools, who were in the lowest 4th of social status in their classes. During 1 semester in 4 classes, the effects of 17 different kinds of socializing experiences were assessed as compared with social status scores the preceding term and similar data collected in control schools. All group differences were statistically insignificant, but a few Ss made marked gains. These largely negative findings are explained on the bases of concepts from sociometrics, social psychology, Gestalt principles, and the psychology of perception. School personnel are warned against assuming that most socially low pupils can be aided by socializing experiences. (16 ref.)—Journal abstract.

11461. Brainard, Stephen R. & Dollar, Robert J. (U. Missouri) **Personality characteristics of leaders identifying with different student subcultures.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 200-203.—Examined the personality characteristics of student leaders affiliated with 3 different campus subcultures—vocational, academic, and collegiate—to determine whether all leaders have similar traits. The Stern Activities Index was completed by 85 leaders of campus organizations. Leaders in the vocational and academic subcultures had very similar profiles with the exception that the former scored higher than the latter on applied interests. Leaders in the collegiate subculture scored significantly higher than their counterparts in the vocational subculture on closeness, friendliness, and expressiveness-constraint. The academically and collegiately oriented leaders also differed on 3 factors—motivation, closeness, and friendliness. These findings indicate that student leaders apparently differ according to their campus reference groups.—R. H. Mueller.

11462. Braskamp, Larry A. & Flessner, Duane. (U. Nebraska) **The congruency between parental and entering freshman expectations.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 179-185.—Investigated the relationship between student and parental expectations concerning college. The Expectation Survey was completed by 195 parents and 114 students at a midwestern state university. This instrument is comprised of 5 scales measuring purposes and goals for attending college, several items measuring educational aspirations, and a section listing 18 occupational choices. Parents and students generally did not indicate the same relative importance of goals. Biographical data including the educational level of the

parents was found to be not very useful in predicting degree objectives, expected grades, or studying time. Also, no relationship existed between the educational level of the parents and their expectations of their offspring on items measuring academic performance and degree objectives. (22 ref.)—*R. H. Mueller.*

11463. Bryant, Bunyan I. (U. Michigan) **Intergroup conflict and the instructional process in seven secondary schools.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6395.

11464. Buckley, H. Donald. (Cumberland County Coll.) **A comparison of freshman and transfer expectations.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 186-188.—Investigated the expectations and perceptions of the college environment by freshmen, transfer students, and upperclassmen. 428 students completed the College Characteristics Index which attempts to measure the students' perception of the college environment. The scores of the freshmen and transfer students were typically much higher than those of the upperclassmen. Both freshmen and transfer students tended to have extraordinarily high levels of expectation for both academic and nonacademic activities. The results suggest that despite previous college experience, transfer students seem to begin with expectations that are no different from freshmen. Implications for orientation programs involving enculturation of transfer students along with freshmen are provided.—*R. H. Mueller.*

11465. Dodgens, Clarence E. (North Carolina State U., Raleigh) **A comparison of college resident and commuter students on certain psycho-sociological characteristics.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6360-6361.

11466. Frede, Martha C. (U. Houston) **Sexual attitudes and behavior of college students at a public university in the Southwest.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6898-6899.

11467. Gonnet, C. (National Center of Special Pedagogy, Beaumont-sur-Oise, France) **La prévention des inadaptations en milieu scolaire.** [Prevention of maladaptation in school.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(Nov), Vol. 26(5), 352-356.—Describes various services provided by the French government to help children at all levels of schooling in difficulties of adaptation and development.—*M. G. Strobel.*

11468. Grubb, Richard D. (Ferndale Schools, Mich.) **The relationship between reported adjustment and disparities between mental age and educational grade placement in elementary school children.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 110-114.—Studied the relationship between behavioral observations of adjustment (rated by teachers on the Peterson-Quay Behavior Problem Checklist) and disparities in children's grade placement and learning potentials in the cases of 417 urban and rural elementary schoolchildren. Correlations between the disparities and the Behavior Problem Checklist were negative suggesting that children whose grade placements were higher than their MAs were more likely to be seen as behavior problems than were those whose MAs were higher than their grade placements. Urban children's grade placements were more in harmony with their mental levels but rural children were observed to manifest fewer maladaptive behaviors.—*H. Kaczowski.*

11469. Harneson, Vernon F. (U. North Dakota) **A comparative study of social behavior of children: Kindergarten through grade three as identified by teacher rankings, the California Test of Personality and the Hewett Teacher Rating Scale.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6403.

11470. Haynes, Linda E. & Kanfer, Frederick H. (U. Cincinnati) **Academic rank, task feedback and self-reinforcement in children.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 967-974.—Explored the non-intellectual correlates of academic achievement from the perspective of research on self-regulation. The relationship of class standing and self-reinforcement patterns and the effects of positive, negative, or no feedback were studied in 150 3rd and 4th grade boys. Ss evaluated their guesses on a perceptual task as very good or bad. Boys of high class-standing were significantly more self-critical than boys of low class-standing. High Ss decreased more rapidly in self-criticism than low Ss in the feedback condition. Different feedbacks had no different effects on self-reinforcement rates, but low Ss tended to show more absolute change after feedback. (19 ref.)—*Journal abstract.*

11471. Heuser, Kenneth H. (U. Illinois) **A study of factors of satisfaction and dissatisfaction of selected high school students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6278.

11472. Ivey, Allen E. & Wilson, Ray. (U. Massachusetts) **Perceptions of college environment: A four-year longitudinal study.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 177-178.—Replicated a previous study in order to determine whether any changes in perceptions of campus environment had occurred between 1964-1968. 101 students completed the College Characteristics Index. 4 of the 11 environmental factors compared were found to be statistically significant on the basis of a series of t tests. Surprisingly, lower scores were obtained on the aspiration and self-expression factors. However, Ss also viewed the university as less concerned with social form and social skills (social form factor) as well as less vocational in terms of academic climate (vocational climate factor). The results reflect a profile of an institution in transition.—*R. H. Mueller.*

11473. Kaplan, Bert L. (Queens Coll., City U. New York) **Anxiety: A classroom close-up.** *Elementary School Journal*, 1970(Nov), Vol. 71(2), 70-77.—Asserts that anxiety is a normal and necessary emotion. But when anxiety becomes overwhelming, or when the individual is unable to respond in a constructive way, greater understanding of the nature of anxiety is necessary. How anxious a child feels depends on his ego strength, that is his flexibility in handling the stresses of life, his ability to face stress without resorting to defenses that lead to neurotic symptoms, character defects, or psychoses. Every stage of development has particular conditions for anxiety, and each stage has danger situations appropriate to it. The teacher needs to understand the type of anxiety a child is experiencing in order to be able to respond in a way that will improve his performance, and overcome his learning difficulties.—*S. R. Diamond.*

11474. Koutrelakos, James. (Hunter Coll., City U. New York) **Perceived parental attitudes and demographic variables as related to maladjustment.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 371-382.—Investigated the relative contribution of perceived

parental attitudes and of demographic variables to student maladjustment in 80 undergraduates who attended a college offering majors in the performing arts. 2 questionnaires were employed: the Inter-University Drug Survey and the College Survey, an instrument designed for this investigation. As predicted the perception of parents as encouraging independence was negatively associated with maladjustment and better predicted maladjustment in the students than did the 7 demographic variables employed. Factor analysis identified 4 parental attitudinal patterns: mother's trust in S's judgment, father's trust in S's judgment, parental encouragement of independent living, and parental encouragement of independent effort. Although the joint father and mother attitude encouraging independent living was significant, it was the father's trust in the student's judgment which was found to be most important to the student's adjustment. (20 ref.)—*Journal abstract*.

11475. Lee, Randolph M. (U. Massachusetts) **Interpersonal development during college: An assessment of its dimensions and the influence of some important intrapersonal and environmental variables.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6262.

11476. Lewis, Judith A. (U. Michigan) **A study of the characteristics of a group of high school student activists as compared with characteristics of a group of peers not associated with the activist movement.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6345.

11477. Lord, Sharon B. (Indiana U.) **Self-concepts of Appalachian children: A comparative study of economically poor and economically advantaged children using the Piers-Harris Self-Concept Inventory.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6406.

11478. Lynch, Robert C. & Sedlacek, William E. (U. Maryland) **Differences between student and student affairs staff perceptions of a university.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 173-176.—The College and University Environment Scales was completed on 2 different occasions by 21 administrators and 626 freshmen. Significant differences were obtained between administrators' perceptions, administrators' ideal, freshmen expectations, and freshmen perceptions. Freshmen expectations and the administrators' ideal generally were rather similar. On only 1 scale (Propriety) was sex a significant factor among administrators' perceptions, and there was no sex difference on any of the scales for the administrators' ideal. The basic finding was that there is a large discrepancy between the ideal institution and the perceptions of both students and administrators.—R. H. Mueller.

11479. Mueller, Ronald H., Roach, Paul J., & Malone, John A. (U. New Hampshire) **College students' views of the characteristics of an "ideal" professor.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 161-167.—Administered a 25-item questionnaire (Students' Views of an Ideal Professor) to 642 undergraduates. Results are very similar to the findings of other researchers. Students tend to rank knowledge of subject, interest in subject, and flexibility as most important, and writing, participation in community, and appearance as least important.—H. Kaczkowski.

11480. Nelson, Dennis E. (Prairie View A. & M. Coll.)

The college environment: Its meaning to academically successful and unsuccessful undergraduates. *Journal of Educational Research*, 1971(Mar), Vol. 64(8), 355-358.—42 honor roll and 42 academic probation students responded to 11 concepts relevant to the university environment along 9 semantic differential scales representing 3 major dimensions of meaning (i.e., evaluative, potency, activity). The nature of any differences in ratings by these 2 groups was sought. A score for each group along each of these dimensions for each concept was derived, resulting in 33 t test comparisons. The evaluative dimension accounted for 7 of the 14 differences found to be significant at $p < .05$ or beyond. The concepts of "grades," "myself as a student," and "studying" yielded the greatest and most consistent differences. These concepts were rated as less positive, less potent, and less active by unsuccessful Ss with 1 exception: "studying" was viewed as much more active by unsuccessful than by successful Ss.—*Journal abstract*.

11481. Osborn, William P. (U. California, Berkeley) **Adjustment differences of selected foreign-born pupils.** *California Journal of Educational Research*, 1971(May), Vol. 22(3), 131-139.—By comparing the mean Bell Adjustment Inventory scores of foreign-born pupils and matched native-born pupils, it was determined that foreign-pupils do not differ greatly in adjustment from their native counterparts. However, an item analysis of the responses to the Bell scales indicated that adjustment differences unique to foreign-born pupils include self-consciousness, shyness, and fear of victimization by fate. *Journal abstract*.

11482. Patjas, Eeva. **On the anxiety associated with school attendance and the grammar school entrance examination.** *Research Bulletin, Institute of Education, U. Helsinki*, 1968(May), No. 20, 16 p.—Investigated the interdependence of anxiety and school achievement as well as associations between anxiety and pupils' social background and sex in the 4th grade. Ss were 229 4th grade pupils in an urban elementary school. Anxiety was assessed by the MA scale, and Sarason's Test Anxiety Scale for Children and General Anxiety Scale for Children. Main results are as follows: (a) in boys, the relationship between anxiety and school achievement was nonlinear; (b) in girls, the relationship was negative and linear; (c) there was no association between social background and school achievement; and (d) girls were somewhat more anxious at school than boys.—P. McMillan.

11483. Reiner, John R. & Robinson, Donald W. **Perceptions of college environment and contiguity with college environment.** *Journal of Higher Education*, 1970(Feb), Vol. 41(2), 130-139.—The College and University Environment Scales was administered to faculty, administrators, sophomores, freshmen, trustees, and 1956 and 1966 alumnae at a Midwestern 2-yr women's college. 5 chi-square analyses indicate that the 7 groups did not differ significantly ($p > .05$) on the Practicality scale, but they did differ ($p < .05$) on the Community, Awareness, Propriety, and Scholarship scales. Results suggest freshmen expectations are similar to sophomore and faculty ideals but quite different from perceptions of actual environment by faculty, sophomores, and 1966 alumnae. Perceptions of actual environment by trustees and 1956 alumnae were grouped with freshmen at the upper end of the distribution. Administration perceptions tended to be intermediate. Freshman expectations need investigation to determine

whether freshmen have faulty knowledge about their chosen college or whether such expectations are typical at all institutions.—*E. L. Tatham.*

11484. Ritt, Lawrence G. (U. Florida) **The relationships between role conflict, satisfaction and the dropout potential of college students.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6910-6911.

11485. Schermerhorn, Wanda S. (U. California, Berkeley) **The neglected child's perception of the public school experience.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6352-6353.

11486. Schmidt, Marlin R. (U. Florida) **Relationship between sorority membership and changes in selected personality variables and attitudes.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 208-213.—Attempted to determine whether sororities have a differential effect in changing the attitudes and values of their members over a 4-yr college experience. 314 females completed several tests including the American College Survey, the Vocational Preference Inventory, the Interpersonal Competency Scale, the Rokeach Dogmatism Scale, and the Student Orientation Survey. These measures tap personality characteristics, educational aspirations, attitudes, and vocational preferences. Results indicate that there were few differences in attitudinal and personality changes between sorority members and independents over a 4-yr period.—*R. H. Mueller.*

11487. Schoo, Philip H. (U. Michigan) **Students' self-concept, social behavior, and attitudes toward school in middle and junior high schools.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6322.

11488. Sturtz, Sue A. (Iowa State U.) **Age differences in college student satisfaction.** *Journal of College Student Personnel*, 1971(Mar), Vol. 12(3), 220-222.—The College Student Satisfaction Questionnaire was administered to 110 adult female students and 123 college-age female students in an effort to determine whether several hypotheses concerning student satisfaction would be supported. It was found that adult women students are more satisfied with quality of education than are the younger students, and that young college students are less satisfied with policies and procedures than their older counterparts. Thus, the results suggest that older female students may be generally more satisfied with college than are younger female students.—*R. H. Mueller.*

11489. Werdelin, Ingvar. (School of Education, Malmö, Sweden) **A study of the relationship between teacher ratings, peer ratings, and self ratings of behavior in school.** *Scandinavian Journal of Educational Research*, 1969, No. 3, 147-169.—Administered a rating scale for student behavior to 16 mathematics teachers and peer and self-rating scales to their 178 male and 238 female 9th grade students. The teacher and self-rating scales were factor analyzed, separately for each sex, and all 3 scales were jointly factor analyzed. Relations with behavior and intellectual variables were found. Close connection appeared between teacher ratings (including school marks) and peer ratings, while self-ratings differed considerably from these.—*Journal abstract.*

11490. Withycombe, Jeraldine S. (U. Connecticut) **An analysis of self-concept and social status of Paiute Indian and white elementary school children in Nevada.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6420.

11491. Zirkel, Perry A. & Moses, E. Gnanaraj. (U.

Connecticut) **Self-concept and ethnic group membership among public school students.** *American Educational Research Journal*, 1971(Mar), Vol. 8(2), 253-265.—Investigated the possible relationship of self-concept with ethnic group membership and mixture in the school setting. 120 Negro, Puerto Rican, and Caucasian students were selected from the 5th and 6th grades of 3 schools, each of which had a different 1 of these ethnic groups in a majority. Results on the Coopersmith Self-Esteem Inventory indicated that the self-concept of these children was significantly affected by their ethnic group membership but not by the majority-minority mixture of groups within the schools. The significant effect was ascribed to the lower self-concept of the Puerto Rican children in the study. (3 p. ref.)—*Journal abstract.*

TESTING

11492. Armstrong, Robert J. & Mooney, Robert F. (Salem State Coll. Center for Education Research, Mass.) **The Slosson Intelligence Test: Implications for reading specialists.** *Reading Teacher*, 1971(Jan), Vol. 24(4), 336-340.—Suggests that scores obtained from the Slosson Intelligence Test administered by either a test specialist or a teacher can be used with as much confidence as scores obtained from the Stanford-Binet administered by a test specialist. The results reinforce Slosson's purposes, i.e., to develop an abbreviated test that (a) can be used as a valid screening and retesting instrument, (b) does not require specialized training to administer and score, and (c) can be administered in 1/4 of the time required by the Stanford-Binet.—*P. D. Leedy.*

11493. Berringer, Dalton E. (U. Northern Colorado, Greeley) **An examination of geometric errors in the WAIS Block Design Test and the effects upon performance as a function of spatial relations ability.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6393.

11494. Cirino-Gerena, Gabriel. (Purdue U.) **The development of a vocational interest inventory.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6313.

11495. Costello, Joan & Ali, Faizunisa. (Yale Child Study Center, New Haven, Conn.) **Reliability and validity of Peabody Picture Vocabulary Test scores of disadvantaged preschool children.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 755-760.—Administered the standard and a modified form of the Peabody Picture Vocabulary Test to 36 4-5 yr. old black preschoolers and 31 4-5 yr. old Head Start students in a partial replication of N. A. Milgram and M. N. Ozer's study (see PA, Vol. 41:13597). Test-retest correlations over a 2-wk period for the preschoolers was .77 for the standard Peabody test; values of .87 and .80 were obtained for the modified format. Quite modest validity was suggested by correlations of the standard test with 2 other psychological tests assessing intellectual behaviors and with teachers' ratings of several classroom verbal behaviors. It is concluded that, while Form A of the Peabody could be used as a 1st approximation in a continuing assessment program, scores cannot be considered alone for either intellectual or language evaluation.—*Journal abstract.*

11496. Cowen, Emory L., Dorr, Darwin A., & Orgel, Arthur R. (U. Rochester) **Interrelations among screening measures for early detection of school dysfunction.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2),

135-139.—Investigated the interrelations among the following 4 primary grade screening devices: Teachers Behavior Rating Scale, Teachers Adjective Checklist, Ottawa School Behavior Survey, and AML Behavior Rating Scale. All 90 r's were significant at $p < .01$. It is suggested that the 4 measures reflect common variables despite different content and differences in level of item specificity across scales.—H. Kaczowski.

11497. **Darlington, Richard B.** (Cornell U.) **Another look at "cultural fairness."** *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 71-82.—4 definitions of "cultural fairness" are examined and found to be not only mutually contradictory, but all based on the false view that optimum treatment of cultural factors in test construction or test selection can be reduced to completely mechanical procedures. If a conflict arises between the 2 goals of maximizing a test's validity and minimizing the test's discrimination against certain cultural groups, then a subjective, policy-level decision must be made concerning the relative importance of the 2 goals. The terms in which this judgment should be made are described, and methods are described for entering the result of this judgment into mechanical procedures for constructing a "culturally optimum" test. Such a test will not necessarily fit any of the 4 definitions of "cultural fairness."—*Journal abstract*.

11498. **Fagin, Margaret C.** (U. Missouri, St. Louis) **Analysis of the performance of adult women in Missouri on three general examinations of the College Level Examination Program.** *Adult Education*, 1971(Spr), Vol. 21(3), 148-165.—Administered the English, Social Sciences, and Natural Sciences examinations of the College Level Examination Program to 319 25-73 yr. old females and compared their performances with those of regularly enrolled freshmen and sophomore college females. Personal data were examined to determine variables significantly related to performances. It was found that (a) CA had no effect on performance, (b) recency of formal education experience was significantly related to scores on the Natural Science examination, (c) level of formal education affected performance significantly on all 3 examinations, (d) participation in informal educational activities significantly affected performance, (e) only scores on the English examination were significantly affected by current or previous employment, and (f) the group scores most nearly approximated those for the regularly enrolled students in the social sciences. Implications for counselors of adults, college admissions officers, and employers of mature women are discussed.—*Journal abstract*.

11499. **Fleming, Elyse S. & Anttonen, Ralph G.** (Case Western Reserve U.) **Teacher expectancy or My Fair Lady.** *American Educational Research Journal*, 1971(Mar), Vol. 8(2), 241-252.—Examined the effects of teacher expectancy on changes in intelligence, controlling for differences in sex, socioeconomic status, and teacher opinion about standardized tests. 1,087 2nd graders in 39 classes representing 2 socioeconomic levels were randomly assigned to 1 of 4 treatment conditions within classrooms. The teachers completed a lengthy questionnaire about standardized tests which provided the basis for classifying high, middle, and low opinion groups. Teachers were provided with 1 of 4 kinds of test information: (a) Kuhlmann-Anderson IQ reported as tested, (b) IQs inflated by 16 points, (c) Primary Mental Abilities percentiles, and (d) intelligence test information withheld entirely. Following May retesting, teachers

were asked to assess IQ accuracy for each child. No IQ differences were observed between the treatment conditions. Significant differences were found between teacher opinion, socioeconomic status, for the interaction and between the sexes. A generalized self-fulfilling prophecy phenomenon failed to be supported.—*Journal abstract*.

11500. **Gaffney, Richard F. & Maguire, Thomas O.** (U. Alberta, Edmonton, Canada) **Use of optically scored test answer sheets with young children.** *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 103-106.—By testing a sample of 840 schoolchildren from an urban school district, the practical limitations of the use of an optically scored answer sheet were examined. The independent variables were grade (2-9) and degree of instruction and practice (3 levels). The dependent variable was the number of easy items (embedded within a set of ordinary test items) that were correctly answered. The easy items, which were different for the various grades, were selected because other children, comparable to those used in the experiment, were able to answer them virtually without error when answering on a test booklet rather than on the answer sheet. The findings indicate that students in Grades 2 and 3, in the fall of the year, were unable to make valid responses. Students in Grades 4 and 5 seemed able to make valid responses only after receiving specific instructions and a practice session. Above Grade 5, students made valid responses regardless of the types of instructions they received.—*Journal abstract*.

11501. **Hall, Joseph C. & Chansky, Norman M.** (Cheyney State Coll.) **Relationships between selected ability and achievement tests in an economically disadvantaged Negro sample.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 741-742.—Administered the Goodenough-Harris Drawing Test, the Revised Visual Retention Test (A. L. Benton) and the Peabody Picture Vocabulary Test to 46 randomly selected disadvantaged Negro 1st graders. After 7½ mo., achievement tests were given: (a) Stanford Achievement Test, (b) Informal Reading Inventory, and (c) Daniels Word Recognition List. Correlations with achievement ranged from .05-.57. Combining Peabody with Benton scores yielded multiple Rs ranging from .55-.65, suggesting some predictive validity for this small sample.—*Journal abstract*.

11502. **Hartman, Robert K.** (U. Connecticut) **An investigation of the incremental validity of human figure drawings in the diagnosis of learning disabilities.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6403.

11503. **Irving, Doug & Henderson, Don.** (Rice U.) **On the validity of the portable Rod-and-Frame Test.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 434.—Scores of 25 male and 9 female 4th graders on portable and stationary versions of the Rod and Frame Test (RFT) correlated with $r = .83$. In an earlier study, contamination of the stationary RFT scores by a small light leak apparently reduced the portable-stationary correlation to .44. The commercially available portable RFT should be checked before use to avoid contamination by peripheral vision.—*Author abstract*.

11504. **Johnson, Eugene B.** (U. Michigan) **Pygmalion in the testing setting: Nonverbal communication as a mediator of expectancy-fulfillment.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6716.

11505. **Johnson, Marjorie S. & Kress, Roy A.** (Temple U.) **Task analysis for criterion-referenced tests.**

Reading Teacher, 1971(Jan), Vol. 24(4), 355-359.—Criterion-referenced tests can be constructed and used by individual teachers as well as by professional test makers. In either case, however, they must be relevant to the learning opportunities which have been provided for the child. When adequately constructed to reflect the actual steps of the learning process and appropriately used, criterion-referenced tests appear to offer real promise for the guidance of instruction.—P. D. Leedy.

11506. Kaiser, Henry F. & Carter, Harold D. (U. California, Berkeley) **A geometric representation of the notions of reliability, relevance, and validity.** *California Journal of Educational Research*, 1971(May), Vol. 22(3), 122-125.—The geometric representation offers a basis for some interesting discussions concerned with the improvement of tests. Further figures may be constructed, showing what happens when tests suffer from some of their allegedly common limitations. For the essay-type test, these might include not only low reliability, but low relevance and, thus, low validity due to inadequate coverage, permission of choice among questions, giving credit for knowledge not pertinent to the purpose of the examination, and other factors which may occur to the individual teacher. For the objective test, the limitations might include the use of trivial items, lack of cohesiveness among fragments, inappropriate levels of difficulty and discrimination power among items, bias due to the selection of items by the individual teacher, and other factors which, like those listed, affect not only reliability and relevance but consequently also validity.—*Journal summary.*

11507. Keeling, B. & Seddon, R. (U. Canterbury, Christchurch, New Zealand) **A test battery for Form III entrance classification.** *New Zealand Journal of Educational Studies*, 1969(May), Vol. 4(1), 57-68.—Reports some general information concerning the construction of a battery of aptitude tests designed for use in classifying secondary school entrants to Form III. Justification of the need for such a battery, a discussion of some of the theoretical and practical considerations for the battery's composition, an account of present progress and future intentions, and a discussion of some problems, especially those associated with norming and validating the battery, are presented. (18 ref.)—*Journal abstract.*

11508. Klonoff, Harry. (U. British Columbia, Vancouver, Canada) **Factor analysis of a neuropsychological battery for children aged 9 to 15.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 603-616.—Gave to 200 9-15 yr. old normal children a neuropsychological battery comprised of 29 Halstead-Reitan variables, 2 Benton variables, 1 Reitan-Klove variable, 16 Klove variables, and the 12 WISC variables. Results of a principal component factor analysis indicate that at least 19 different dimensions were being measured. The dimensions of neuropsychological functioning were: (a) directional sequencing of visual stimuli, (b) verbal fluency, (c) static motor steadiness, (d) directed motor steadiness, (e) tactile discrimination speed, (f) coordinated motor speed, (g) undirected motor speed, (h) manipulative dexterity, (i) patterned critical discrimination, (j) form reproduction accuracy, (k) cross-modality consistency, (l) set for provisional solutions, (m) cue resultant shifting of attention, (n) tactile retention, (o) alternation between conceptual realms, (p) directed motor speed, (q) analytic-synthetic visual-motor ability, (r) form reproduction speed, and (s) auditory recognition. Regression weights and composite score

formulae for estimating S's scores on these 19 dimensions are presented. Dimensions corresponded to the verbal-performance division of the WISC. 14 factors were found to be relatively independent of psychometric measures of intelligence; 3 factors were interdependent with WISC performance variables; 1 factor was interdependent with a WISC verbal variable; and 1 factor derived from WISC verbal variables. The derived factors were related to other factor analytic studies.—*Journal abstract.*

11509. Ladd, Eleanor M. (Temple U., Reading Clinic) **More than scores from tests.** *Reading Teacher*, 1971(Jan), Vol. 24(4), 305-311.—There is more information in the results of standardized tests than is ordinarily used. Among the techniques through which it is possible to gain additional information from the administration of standardized reading tests are (a) an item analysis, (b) an analysis of patterns of performance, (c) the observation of student's behavior during the taking of the test, (d) an untimed performance score, (e) the Durost reading reinforced by hearing technique, and (f) the use of a bivariate distribution chart to show the relationship between 2 scores simultaneously.—P. D. Leedy.

11510. Lambert, Philip; Hansen, Lee H., & Borgatta, Edgar F. (U. Wisconsin) **Intelligent word associations in high school students.** *Journal of Educational Research*, 1971(Feb), Vol. 64(6), 269-270.—Discusses the place of word associations in measures of verbal abilities. A study is reported involving 269 high school students selected as representative of a normal population in ability. 2 verbal abilities tests were administered at the same time: the Verbal Power Test and the Quick Word Test. A test devised of word associations was found reliable in this sample, and not only well related to measures of verbal abilities, but equal to them in ability to predict the level of English class to which the student had been assigned.—*Journal abstract.*

11511. Laslandes, Henry. **Etude sur un groupe d'élèves des classes de troisième et le passage en seconde.** [A study of a group of grade eleven students promoted to grade twelve.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(Nov), Vol. 26(5), 310-326.—Presents the results of a battery of 6 paper-and-pencil tests from over 12,000 Paris high school students who had been promoted to the final year of study. Students of both sexes in the art section had better than average results in verbal intelligence. Inversely, students in the science and technical section had better results in the nonverbal performance tests. Performance of male students in verbal as well as in nonverbal tests was superior to that of female students. The science and technical section was superior to the art section.—M. G. Strobel.

11512. Marschner, Günter. (Eschweiler Mining Works Assoc., Psychological Consultation Service, Aachen, W. Germany) **Der Revisions-Test als allgemeiner Leistungstest: Beiträge zur Standardisierung und Validierung des Revisions-Testes nach B. Stender.** [The Revisions Test as a general achievement test: Attempts at standardization and validation of the revisions test of B. Stender.] *Diagnostica*, 1971, Vol. 17(1), 14-26.—The Revisions Test consists of checking the correctness of arithmetic examples, including 34 sample exercises. The experiment was designed to test for (a) standardization and reliability, (b) empirical validity, and (c) trends and age norms. Ss were 1272 males of 5

age norms. Results verified the 3 work hypotheses, i.e., that the Revisions Test (a) showed a high correlation to other general achievement tests, (b) showed a lesser correlation to intelligence tests, and (c) satisfied the correlation between test results and subsequent job achievement. However, it is stated that further work, particularly with female Ss, is needed as well as further validity research along industrial-psychological and school-psychological lines of inquiry. It is concluded that the Revisions Test can be considered an economical, objective, general achievement test of sufficient correlation, construct, and predictability validity.—*H. Malki.*

11513. **Marsh, R. W.** (Victoria U. of Wellington, New Zealand) **Notes on sampling in the standardization of the Progressive Achievement Tests.** *New Zealand Journal of Educational Studies*, 1969(May), Vol. 4(1), 69-73.—The stimulus to develop the Progressive Achievement Tests originated in the recommendations of the Currie Commission which proposed the development of attainment tests designed with specific relevance for New Zealand needs and conditions. The purposes suggested for them were 2-fold: (a) to permit the identification of individual pupils in need of special attention as well as the direction this attention should take by indicating the pupils' specific strengths and weaknesses; and (b) to enable a survey to be made of national standards in school subjects every 5 yr., with a view to detecting any changes therein. Much discussion has followed in the intervening period, and the form and purposes given in the original suggestions have changed in some respects. Nevertheless the original view, that the tests should relate essentially to New Zealand conditions, has been followed.—*Journal abstract.*

11514. **Marx, Melvin H.** (U. Missouri) **Increased probability of error repetition as a function of number of successive prior repetitions.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 544-546.—Data collected from 37 college students on a Thorndikian multiple-choice associative learning task indicate that errors were repeated more frequently the more often they had previously occurred. Neither differential preexperimental strength nor Thorndikian spread of effect was supported as a causative factor.—*Journal abstract.*

11515. **Okhowat, Valiollah.** (U. Oklahoma) **Multiple discriminant analysis applied to American College Test scores for three groups of college majors in four Oklahoma state colleges.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6879-6880.

11516. **Rohlf, Richard J.** (Duke U., Counseling Center) **A higher-order alpha factor analysis of interest, personality, and ability variables, including an evaluation of the effect of scale interdependency.** *Educational & Psychological Measurement*, 1971(Sum), Vol. 31(2), 381-396.—Ss were 400 scholarship candidates. A 60 × 60 correlation matrix was factor analyzed using an alpha factor analysis. The resulting factor matrix was then rotated to simple structure with both orthogonal and oblique rotations. A 2nd-order factor analysis was run on the intercorrelation between factors after the oblique rotation. A similar procedure was followed on 2,500 randomly answered MMPIs and SVIBs to assess the effect of scale interdependency. The results show 10 1st-order factors accounting for 76.7% of interscale variance of the original variance. The 2nd-order analysis procedures form alpha factors including a personality factor, 2 interest factors, and a factor which has loading from both interest and personality domains.

Effects of scale interdependence are discussed.—*R. W. Covert.*

11517. **Saunders, Bruce T. & Vitro, Frank T.** (U. Maine) **Examiner expectancy and bias as a function of the referral process in cognitive assessment.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 168.

171.—Investigated the effects of bias that may be created in examiners within the public school setting as a partial function of the referral process itself. 60 2nd and 3rd graders rated as having "average mental ability" by their teachers were randomly assigned to groups labeled retarded and gifted. 6 graduate students were asked to administer a Binet to each child so that they could be referred to the appropriate special program. Results indicate that clinical cognitive assessment is not influenced by examiner bias as in experimental or nonclinical assessment.—*H. Kaczkowski.*

11518. **Siebel, Cynthia C., Faust, William L., & Faust, Margaret S.** (Pitzer Coll.) **Administration of design copying tests to large groups of children.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 355-360.—Through testing in over 250 classrooms during the past 4 yr., efficient and effective procedures have been developed for the administration of design-copying tasks to groups of 24-35 children. The procedures have been used in Grades 1-4 and adapted (additional demonstration and discussion) for groups of kindergartners. An examining team of 2-4 persons gave the instructions and supervised the test. Designs were presented on large cards in the front of the classroom and were reproduced by the Ss in 8½ × 11 in. paper booklets, using standard beginners' pencils. Model designs were not removed until all Ss indicated completion. Overall length of administration varied from 10-35 min., depending upon the particular characteristics of different classrooms, their usual work habits, and Ss' awareness of their own errors.—*Journal abstract.*

11519. **Smith, Stanley A. & Solanto, Joseph R.** (Carmel Central School District, N.Y.) **An approach to preschool evaluations.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 142-147.—Describes an evaluation process of kindergarten children that is comprised of 3 parts: (a) parent questionnaire that called for physical and health information, home-child relationships, play interests, experiences, and independence; (b) formal evaluation of vocabulary skills, numerical skills, visuo-motor skills, new learning, immediate recall ability, intelligence level, and psychosocial maturity; and (c) discussion of results and feedback to parents.—*H. Kaczkowski.*

11520. **Thorndike, Robert L.** (Teachers Coll., Columbia U.) **Concepts of culture-fairness.** *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 63-70.—Fairness of a test relates to fair use. 1 definition of fair use states that a common qualifying score may be used with 2 groups if the regression line based on 1 group does not systematically over- or under-predict criterion performance in the other. However, it is shown that when the 2 groups differ appreciably in mean test score, the above procedure, which is "fair" to individual members of the group scoring lower on the test, is "unfair" to the lower group as a whole in the sense that the proportion qualified on the test will be smaller, relative to the higher-scoring group, than the proportion that will reach any specified level of criterion performance. An alternate definition would specify that the qualifying scores on a test should be set at levels that will

qualify applicants in the 2 groups in proportion to the fraction of the 2 groups reaching a specified level of criterion performance.—*Journal abstract.*

11521. Trider, Mary S. (ESEA State Dept. of Education, Concord, N.H.) **The right to read and standardized testing: A necessary dimension.** *Reading Teacher*, 1971(Jan), Vol. 24(4), 320-330.—The "right to read" has been established nationally as the top educational priority for the next decade. Educators are charged with finding all the alternative roads to success that exist. One can no longer admit to the naive assumption that any 1 reading series or method is adequate for all children within a class, much less a district. Accountability will be the key word. The communication gap that has existed for so long between the ideals and philosophies of the educator and the tax dollars and support of the public must be eliminated. In New Hampshire a very practical step toward the solution of the problem has been taken by implementing "a State testing program."—P. D. Leedy.

11522. Weissgerber, Joseph. (U. Louvain, Lab. of Experimental Pedagogy, Belgium) **Quelques modes d'approche du travail des écoliers: Le classement scolaire: Approche psychométrique.** [Some approaches to school work: Scholastic classification: Psychometric approach.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 13-33.—Demonstrates the lack of agreement between independent judges of the same school work. Compares, as alternatives, the jury, objective tests, and the "quantified" essay examination. 4 kinds of examinations are distinguished: narrative, mathematical, linguistic, and literary. There are also closed and open examinations, i.e., those having a limited set of tasks to be met and those calling for free and creative expression. For the closed type, the number of errors may be counted; for the open type an index of quality and quantity (N^2/n), where n is the number of errors and N is some unit of length, e.g., number of lines, may be used. When those who evaluated examinations followed a detailed procedure for noting the specific elements on which an assigned mark was based, results improved considerably. Findings from this initial study are considered sufficiently significant to merit replication and application to oral examinations. The Gaussian distribution model is rejected. (Flemish & English summaries)—S. S. Marzoff.

11523. Wells, Clinton G. (U. Northern Colorado, Greeley) **A comparative study of children grouped by three basic score patterns on the Wechsler Intelligence Scale for Children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6444.

11524. Wijnen, W. H. **Betrekkelijkheid van de bezwaren tegen relatief meten: Naar aanleiding van Warries: Het relatief meten van leerprestaties in het onderwijs.** [The relevance of the objections against relative measurement: With reference to the consideration by Warries: The relative measurement of learning achievement in instructional processes.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1971(Feb), Vol. 26(2), 135-139.—E. Warries' (see PA, Vol. 45:2957) article raises a number of implications with respect to testing, the definition of the norm and the underlying philosophy of relative measurement. Particularly, the problem of relativity in measurement raises questions about the comparative validity of teacher-made tests vs. administration-made

tests, the factor of unmeasured resources of the testees, and the problem of the characteristics of efficient and desirable teachers, as reflected in pupil performance.—A. J. Ter Keurst.

SPECIAL EDUCATION

11525. Bloom, Jean L. (U. Pittsburgh, Research & Training Center in Vocational Rehabilitation) **Sex education for handicapped adolescents.** *Journal of School Health*, 1969(Jun), Vol. 39(6), 363-367.—Discusses the effects of presenting a sex education course to a group of severely physically disabled and a group of severely emotionally disturbed adolescents. A positive brief for such courses is presented.—G. S. Spitzer.

11526. Dymont, Paul G., Lattin, John E., & Hebertson, Leon M. (William Beaumont General Hosp., Pediatric Service, El Paso, Tex.) **The value of the electroencephalogram in evaluating children with minimal cerebral dysfunction.** *Journal of School Health*, 1971(Jan), Vol. 41(1), 9-11.—Questions the routine use of the EEG in evaluating children with minimal cerebral dysfunction. Some current medical opinions are reviewed on the subject. "It would appear that the EEG is not an essential part of such an evaluation, and school placement committees should be discouraged from insisting that it be obtained as a prerequisite for admission to special education classes."—G. S. Spitzer.

11527. Neifert, James T. & Gayton, William F. (Amherst H. Wilder Child Guidance Clinic, St. Paul, Minn.) **Prerequisite skills for use of a multisensory method.** *Academic Therapy*, 1971(Sum), Vol. 6(4), 381-383.—Teaching requisite sensory skills may be necessary prior to the use of multisensory approaches to learning. A learning disability and its treatment are described.—C. J. Walther.

Gifted

11528. Jacobs, Jon C. (Plymouth Community Schools, Mich.) **Effectiveness of teacher and parent identification of gifted children as a function of school level.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 140-142.—Parents and teachers of 654 kindergartners were asked to nominate those children they thought were gifted. 16 of the 26 nominated by parents were gifted. Only 2 of 44 nominated by teachers were gifted. It is concluded that parents were more conservative than teachers when naming their child as gifted and were much more accurate in their decisions.—H. Kaczkowski.

Remedial Education

11529. Wu, Julia T. (Hunter Coll., City U. New York) **A multiple group setting for ability-grouped reading.** *Academic Therapy*, 1971(Sum), Vol. 6(4), 355-358.—Presents a rationale and structure for large group ($n = 8$) instruction in a special class.—C. J. Walther.

Sensory & Physical Handicaps

11530. Baker, Georgia A. (Purdue U., Achievement Center for Children, Special Education Section) **Behavior problem or auditory interferences?** *Academic Therapy*, 1971(Sum), Vol. 6(4), 385-389.—Learning may be interfered with by difficulties in auditory perception

which may vary from day to day. Figure-ground, discrimination, memory-span, and cross-mode translation and integration are discussed as areas of auditory development subject to diagnosis and treatment.—C. J. Walther.

11531. Chambers, Jean F. (U. Arizona) **Predicting the academic achievement level of deaf students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6396.

11532. Crawford, Frances. (Pennsylvania Dept. of Public Welfare, Bureau of the Visually & Physically Handicapped, Harrisburg) **Present-day concepts and practices of rehabilitation teaching.** *New Outlook for the Blind*, 1971(Apr), Vol. 65(4), 120-125.—Present-day concepts and practices of rehabilitation teachers stem from concepts of home teachers for the blind whose usual qualification was their own blindness. The struggle of home teachers for professional identification led to their recognition, establishing training programs, and the recent adoption of a new name as rehabilitation teacher. Rehabilitation teaching means teaching blind adults using methods different from those with children because of adults' greater heterogeneity, maturity, structuredness, and rigidity in behavior. The primary role of rehabilitation teachers consists of teaching skills for living emphasizing rehabilitation for maximum adjustment in family and community and with consideration of social and emotional problems. Focus is on individual rather than subject matter. Instruction is client-centered. Helping professions act as consultants. Principles especially appropriate for use in rehabilitation teaching are those of clients' involvement, of problem solving, and of conceptual approach.—M. J. Stanford.

11533. Hummel, Cora J. **The value of music in teaching deaf students.** *Volta Review*, 1971(Apr), Vol. 73(4), 224-228, 243-249.—A literature search in the fields of music therapy and the education of the deaf reveals a long-standing advocacy and use of music in the education of the deaf. In addition to being enjoyable and facilitating personal self-realization, music has been used to teach rhythm and other aspects of speech, to teach and test sound perception, and to encourage language development. These methods seem worthy of further investigation and employment. (4 p. ref.)—W. A. Hass.

11534. Knight, John J. **Building self-confidence in the multiply handicapped blind child.** *New Outlook for the Blind*, 1971(May), Vol. 65(5), 152-154.—Teaching a class of multiply handicapped blind children made the author aware of their lack of self-confidence, and their pervasive attitude of inadequacy and bewilderment which resulted in reluctance to cope with novel situations and quick abandonment of their efforts. This behavior had detrimental effect upon school work. To counteract this attitude new activity was found in producing an in-class radio show resembling almost "the real thing." Means used were a tape recorder, a 5-min script prepared by the teacher, and a phonograph for music. The class was seated in a semicircle and listened to the teacher's reading of the child's line and after practicing the child spoke the line into the tape recorder which was immediately shut off. The same procedure continued with other students. Sound effects were also produced by the children. They considered these shows as entertainment values and socially approved worth of their efforts. The building of self-image was helped and self-confidence was fortified. A sample script is included.—M. J. Stanford.

11535. Packard, Bruce L. (Temple U.) **Performance of blind and sighted on tactual-kinesthetic perceptual tasks.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6443.

11536. Ray, Wilbert S. & McDonald, C. Edgar. (Bethany Coll.) **The blind student and the Skinner box.** *Psychological Record*, 1971(Win), Vol. 21(1), 35-36.—Describes modifications in instructional psychology laboratory apparatus for utilization by blind students. The modification of a Skinner box is outlined. Inputs and outputs used by a blind undergraduate are noted. In addition to training the rat, the student was able to feed, water, transport, and weigh the animal.—*Journal abstract*.

Mental Retardation & Learning Disorder

11537. Ames, Louise B. (Gesell Inst. of Child Development, New Haven, Conn.) **True and pseudo slow learners.** *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Jul), Vol. 17(2), 112-118.—Focuses on the important distinction between the slow learner who learns slowly because of low intelligence or because of some serious neurological or other impairment, and the one who learns slowly simply because he is too immature for the learning response required of him by the school. Also discussed is the child who is considered to be a slow learner because the school neglects to identify children who are capable of learning only at a Level I or associative level, but who are taught by the school as if capable of abstract or Level II learning.—*Journal summary*.

11538. Auxter, David. (Shippery Rock State Coll.) **Perceptual motor characteristics of preschool children with suspected learning disabilities.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 148-151.—Compared differences between normal children and children who were diagnosed as having learning disabilities on parameters of general motor development, strength, flexibility, and perceptual motor tasks that possess different loadings of perceptual content. Significant differences in favor of the normal preschool group were found on the 2-footed standing broad jump, dynamic flexibility, and ball catching. No significant differences were found on tests of strength of grip or the toe touch.—H. Kaczowski.

11539. Coppel, L. **La dyslexie et ses conséquences pour l'avenir scolaire.** [Dyslexia and its consequences for academic development.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(Nov), Vol. 26(5), 338-342.—Reports on a study of 1st grades (27 boys and 27 girls of a Paris district) using the Binet-Simon test for time-space relations, a language exam, an interview with the child, and an interview with the parents. At the end of the 1st yr. 40% were judged to be poor achievers. No correlation existed between the test at the beginning of the year and any specific difficulty, so no predictions were possible. Sociocultural environment and the attitude of the family toward school were of major importance. Personality factors of the child were fundamental (adult-child relationships, anxieties, insecurities, identification). The pedagogical method used was less influential than the personality of the teacher. Exterior factors such as absence due to illness also played a determining role. The central aspects of

reading in education and professional life and the disastrous effects of a dyslexic handicap are discussed.—M. G. Strobel.

11540. Evans, Valerie E. (U. Houston) **A typological approach to the study of individual differences in children with learning disabilities.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6927-6928.

11541. Fitzhugh, William P. (U. Miami) **A comparison of the performance of normal and retarded readers on a dichotic listening task.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6898.

11542. Ginsburg, G. P. & Hartwick, Ann. (U. Nevada) **Directional confusion as a sign of dyslexia. Perceptual & Motor Skills**, 1971(Apr), Vol. 32(2), 535-543.—In an effort to reduce the ambiguity of the concept, 429 2nd graders were tested for primary reading errors and for 2 nonreading characteristics often mentioned as signs of dyslexia. Through analyses based in large part on the logic of mixed-group validation, confusion in identification of left and right was implicated as a sign of dyslexia, and crossed hand-eye dominance was tentatively rejected. Thus, severe reading errors and directional confusion appear intertwined as components of dyslexia. Moreover, the study provided some support for the conceptual and practical potentials of the logic on which it was based. An appendix describing the tests is included.—*Journal abstract*.

11543. Heath, Earl J., Bender, Miriam L., & Early, George J. (Purdue U., Achievement Center for Children, Special Education Section) **Motor and reflex evaluations: Some new insights.** *Academic Therapy*, 1971(Sum), Vol. 6(4), 413-416.—"Teaching the child where he is" may need to be extended to the integration of the symmetric tonic neck reflex into more complex movement patterns. Residual tonic activity of the tonic neck reflex is reported in a significant number of Ss with learning disabilities. Treatment of this immature reflex is seen as contributing to the success of remediation at preacademic levels.—C. J. Walther.

11544. Hiers, Margaret H. (U. Georgia) **A comparison of the readiness test performance of a group of primary-level educable mentally retarded children instructed on visual-motor perceptual tasks and a comparable group receiving no prescribed instruction.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6440.

11545. Marchi, Jack U. (U. California, Berkeley) **Comparison of selected Piagetian tasks with the Wechsler Intelligence Scale for Children as measures of mental retardation.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6442.

11546. Miller, Wilma H. (Illinois State U.) **How can we best teach reading to slow-learning children in the primary grades?** *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Jul), Vol. 17(2), 107-111.—Proposes a primary-grade reading program for slow-learning children which may best enable them to achieve up to the limits of their capability. Personal characteristics used to identify slow-learning children are reviewed. The proposed program includes reading readiness activities. The language-experience and basal reader approaches are discussed. The importance of the role of the teacher in the teaching of slow-learning children is emphasized. An extended readiness period can include the development of meaningful experiences, oral language, ability, visual

perception, and auditory discrimination. C. A. Newcomer.

11547. Notz, Irmgard. (Berlin-Zehlendorf District, School Psychological Advisory Bureau, W. Germany) **Linkshändigkeit mit LRS gekoppelt?** [Left-handedness correlated with dyslexia?] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1979(Oct), Vol. 19(7), 259-261.—In a population of about 1,000 2nd graders, 12-13% were left-handed. The populations of left-handed pupils on the 1 hand and dyslexic pupils on the other overlapped only about 1%. More than 2% of the dyslexic pupils were not left-handed, 2/3 of all the left-handed pupils were not dyslexic. Enforced change from writing with the left hand to writing with the right hand did not appear to affect orthography negatively.—H. A. Euler.

11548. Peck, Bruce B. (Bowling Green State U.) **A communication analysis of family decision making in normal and reading-problem families.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6410.

11549. Rosner, Stanley L. (Temple U., Reading Clinic) **Word games in reading diagnosis.** *Reading Teacher*, 1971(Jan), Vol. 24(4), 331-335.—Contents that in the diagnosing of reading disabilities many teachers use terms loosely and inaccurately. Because of this inexact use of terms much of the jargon of the profession has tended to slide toward meaninglessness in communication. Labels are assigned to reading disability according to socioeconomic status rather than because of a specific etiology. Dyslexia, minimal brain damage, and specific learning disability occur with striking frequency among the affluent. It is suggested that a conference be organized to arrive at some standard terminology in reading.—P. D. Leedy.

11550. Smith, Maxine M. (Claremont Graduate School & University Center) **Patterns of intellectual abilities in educationally handicapped children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6415.

11551. Smith, William. (1890 Beacon St., Brookline, Mass.) **The visual system in reading and learning disabilities.** *Journal of School Health*, 1969(Feb), Vol. 39(2), 144-150.—Studied the problem of dyslexia (reading disability) as an optometrist concerned with the function of the visuo-motor-sensory-spatial-perceptual performances, their role in reading and learning, and the correction of their defects. In June 1967, 36 children with reading and learning disabilities and who had been tested by sundry specialists were treated following performance tests of functions involved in visual perception. In all Ss, unsuspected and obscure deficiencies were uncovered, although the visual system as a factor in the child's learning disability had been discounted. 2 mo. of orthoptic treatment resulted in reading improvement. It is concluded that not all reading and learning disabilities can be blamed on the visual system. However, it is the 1st to become involved in reading, and even in the presence of neurologic and other factors, the visual system may be indirectly involved.

11552. Thompson, Lloyd J. (U. North Carolina, Chapel Hill) **Mental retardation and dyslexia.** *Academic Therapy*, 1971(Sum), Vol. 6(4), 405-406.—Exceptional children may not be immune to dyslexia. Dyslexia may be an important factor in any grouping of exceptionality.—C. J. Walther.

11553. Wadsworth, H. G. & Wadsworth, Joanna B. (Community Consolidated School District 59, Ridge

School, Elk Grove Village, Ill.) **A problem of involvement with parents of mildly retarded children.** *Family Coordinator*, 1971(Apr), Vol. 20(2), 141-147.—About 94% of the 6,000,000 retarded individuals in this country are a little-studied group that is offered negligible service on special education programs of the schools. The parents of these mildly or borderline retarded children have not organized in an effort to receive better services. Several reasons are suggested for this lack of involvement by the parents: (a) unwillingness to admit to a significant intellectual problem with their child, (b) indifference, and (c) dependence on special education programs of the school. Questionnaires were sent to parents of mildly retarded children in special education classes to try to involve these parents in their child's education. 2 conclusions are discussed: (a) Significant differences were found between respondents and non-respondents on socioeconomic status and children's IQ level. The possible reasons for this are discussed and some selected questions are presented and response examples given. (b) Those who did respond evidenced intense feelings toward the problem—the classificatory labeling of the children. Parental responses reinforced changes planned by the school and showed a need for parent education programs to provide an opportunity for increased involvement and to strike at many misconceptions of retardation.—*M. W. Linn.*

Emotional Disorder

11554. Coleman, Richard. (Weston Public Schools, Mass.) **An economical model of the engineered classroom.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 963-966.—Developed a behavior modification model for a special class of 5 disturbed male children following the collapse of a previous program. Specific appropriate classroom behaviors were identified for each child. The goal of the program was to increase the frequency of these appropriate behaviors to the extent that the child could function full-time in a regular class. The organization of the class and behavior modification procedures are described.—*Journal abstract.*

11555. Lewis, Clayton D. (U. Michigan) **An assessment of the later adjustment of some emotionally disturbed children after termination on in-patient psychiatric treatment.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6440-6441.

11556. Pedrini, Bonnie C. & Pedrini, D. T. (U. Nebraska, Omaha) **Reinforcement procedures in the control of encopresis: A case study.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 937-938.—Describes the treatment of an 11-yr-old boy with encopresis. The 1st 3 wk. were used to establish a base rate. S defecated in class, once every few days. After S was programmed with reinforcers (charting and coupons toward book purchases), he had only 1 accident for the remainder of the school year (8 wk.). Follow-up through the 7th month of the next school year indicated 1 accident. During this 7-mo period, S was not programmed with book coupons or any other specific reinforcer. S had internalized a previous external model of control.—*Journal abstract.*

11557. Sewell, Sandra. (Autistic Children's Assn., Queensland, Brisbane, Australia) **The teacher's contribution to the treatment of infantile autism.** *Slow Learning Child: The Australian Journal on the Education of Backward Children*, 1970(Jul), Vol. 17(2), 89-96.—Proposes 4 major areas into which the education of

autistic children can be divided: (a) training of perceptual discrimination skills, (b) training of sensory and motor skills, (c) training in social behavior, and (d) preparation for normal school education and for normal peer and family activities. The author's 5-yr association with autistic children forms the basis for the viewpoint presented. It is noted that there is a need for more teachers trained in special education and for greater recognition of the educational needs of the atypical child.—*C. A. Newcomer.*

11558. Willis, Jerry W. (U. Alabama) **Contingent token reinforcement in an educational program for emotionally disturbed children.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6271.

COUNSELING & GUIDANCE

11559. Amos, Jimmy R. (West Virginia U.) **Similarity, interpersonal attraction and uniformity in sensitivity training groups.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6336.

11560. Barbee, Ruth E. (U. North Dakota) **Personality variables related to the use of interaction analysis in a counseling practicum experience.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6336.

11561. Blackburn, Laura F. (U. Missouri, Kansas City) **Intern counseling competence as a function of supervisor and intern personality characteristics.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6338.

11562. Burrell, Leon & Rayder, Nicholas F. (Michigan State U.) **Black and white students' attitudes toward white counselors.** *Journal of Negro Education*, 1971(Win), Vol. 40(1), 48-52.—To examine the nature of black and white student attitudes toward white counselors at a large inner city high school, a small sample of students, proportional to the population in terms of race, and 1/2 male and 1/2 female, was asked to respond to a short 12-item attitude scale. Results were summarized and chi-square analyses were applied to see if there was a difference in the way black and white, females and males responded. Student responses did not reflect an overwhelmingly favorable attitude toward the counseling situation. When analyzed by race, the results did indicate that black student responses to attitudinal statements directed toward the counseling situation were significantly lower than white responses to that same counseling situation. Black females reflected a slightly lower attitude than the black males. Methodological limitations and interpretations of results are given.—*W. E. Sedlacek.*

11563. Conklin, B. C., Altmann, H. A., & Hengel, Helen. (U. Calgary, Alberta, Canada) **Appropriateness of problems for discussion with counsellors.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 43-48.—The Warman Counselling Appropriateness Checklist (WCAC) was administered to counselors, principals, and counselor educators. WCAC requires respondents to indicate on a 5-point scale the extent to which they considered 66 items appropriate to discuss with counselors. Groups differed with regard to appropriateness of discussing adjustment and love, religion, and morality with counselors. They did not differ in their views toward discussing educational and vocational problems with the counselor.—*N. M. Chansky.*

11564. Cosby, Arthur. (Louisiana State U.) **Black-**

white differences in aspirations among Deep South high school students. *Journal of Negro Education*, 1971(Win), Vol. 40(1), 17-21. —Attempted to test the hypothesis that black youth have lower levels of hypothetical aspirations than white youth. 5,992 10th graders in the Deep South were interviewed using a standard schedule. Results indicate that 66% of the white students had high level occupational aspirations vs. 60% for blacks. When socioeconomic variables were controlled there was a failure "to find a consistent tendency for whites to express higher aspirations . . . the black students had higher level aspirations in the majority of comparisons . . ." No statistical significance tests are reported. Differences between this study and others on the topic are explained as due to controls applied in this study and increased aspirations of Southern blacks.—W. E. Sedlacek.

11565. Cottingham, Harold. (Florida State U.) **Group process in counselor education: Some issues and concerns.** *National Catholic Guidance Conference Journal*, 1971(Spring), Vol. 15(3), 167-171.—Discusses 3 areas of issues (philosophical, administrative, curricular) and 4 problem areas (faculty involvement, student-faculty relationships, administrative and curricular difficulties, and relationships with the academic community). (21 ref.)—A. M. Cawley.

11566. Dann, Joyce E. & Abrahams, Norman M. **Use of biographical and interview information in predicting Naval Academy disenrollment.** *U.S. Naval Personnel & Training Research Laboratory Research Report*, 1970(Sep), No. SRR 71-7, 15 p.—In previous research, the Naval Academy Personal History Booklet (PHB) has shown some validity as a predictor of Academy disenrollment. The present research evaluated a new method of coding and scoring the PHB and compared its validity with that of the psychiatric screening interview and the SVIB. PHBs administered in 1961-1963 as part of Academy application were obtained for 256 men who later disenrolled from the Academy and for 245 men who graduated with their classes. 8 attrition prediction scales were constructed and employed in a double cross-validation design. $\frac{1}{2}$ of the scales used only items of the PHB, while $\frac{1}{2}$ included items based on the screening interview. A single rating based on the interview was also evaluated. The 8 experimental scales showed key-development validities of .59-.61 and cross validities of .11-.22. Screening interview items contributed only .01 to validity of the best scales, while the single interview rating showed validities of only .11 and .07. By contrast, cross validities of SVIB disenrollment keys have ranged from .34-.43. It is concluded that the PHB scales are not recommended for operational use in predicting Academy disenrollment, as they have already been surpassed in predictive efficiency by the SVIB.—*Journal abstract.*

11567. Dawson, Lorene. (U. Missouri, Kansas City) **Occupational development as an expression of personality: Implications for counselor education.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6341.

11568. Dinkmeyer, Don. (DePaul U.) **Group approaches to understanding and changing behavior.** *National Catholic Guidance Conference Journal*, 1971(Spring), Vol. 15(3), 163-166.—Group processes with teacher and parent groups are organized around such factors as collaborating, consulting, clarifying, confronting, caring, being concerned, confidential, and

committed—the "C" group concept. The teacher is concerned with these in relation to instructional aspects of guidance and is challenged to competency in 1 or more of the 8 areas of group counseling.—A. M. Cawley.

11569. Dizenhuf, Israel M., et al. (Central Psychiatric Clinic, Cincinnati, O.) **School mental health.** *American Journal of Orthopsychiatry*, 1971(Mar), Vol. 41(2), 307-314.—Presents digests of 6 of the papers presented at the 48th annual meeting of the American Orthopsychiatric Association in 1971. Topics covered include the liaison educator, in-service mental health training for teachers, group methods for modifying aggressive behavior in elementary schools, and school-based and community-based mental health consultation.

11570. Doverspike, James E., Weis, David M., & Wangerin, Mary B. (U. Akron) **Themes of individual and group counseling sessions.** *National Catholic Guidance Conference Journal*, 1971(Spring), Vol. 15(3), 180-182.—Data for 341 elementary through senior high school counselees were derived from case studies of 72 practicum counselors. General topic areas were stated as: (a) self topics; (b) significant others, i.e., authority figures; (c) significant others, i.e., peers; and (d) ideas, places, things, and time topics. Significant differences were discovered between individual and group sessions at all levels on all themes except self topics.—A. M. Cawley.

11571. English, Richard A. (U. Michigan) **The educational aspirations of black and white youth.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6730.

11572. Frank, Austin C. (U. California, Berkeley) **Men's Strong Vocational Interest Blank Academic Achievement scale: An attempted validation.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 324-331.—The Academic Achievement scale (AACH) introduced in the SVIB was said in the 1969 Manual Supplement to be more related to persistence in school than to level of performance. This proposition, the scale's predictive validities for 1-, 3-, and 4-yr GPAs, and its effectiveness with potential counseling subgroups were examined with the SVIB, the School and College Ability Test, and follow-up questionnaire data on a representative sample of 200 university men. No relationship was found to persistence or between entering 1st-yr AACH scores and 4-yr GPA ($r = .13$). Comparisons with a scholastic ability test were unfavorable, other results ambiguous, and caution seems indicated in using the scale.—*Journal abstract.*

11573. Frey, Diane E. (U. Illinois) **Client modeling influence on counselor behavior in a quasi-therapeutic situation.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6342.

11574. Grant, Sallie J. (U. Illinois) **The effects of a basic encounter group experience on supervision by supervisor trainees.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6343.

11575. Jones, Edward V. **A public health approach to emotional handicap in the schools.** *Journal of School Health*, 1969(Nov), Vol. 39(9), 627-632.—Makes a plea for a public health approach to emotional handicaps in the schools. A joint attack by departments of public health and the schools, based on extensive longitudinal observations of elementary schoolchildren, is called for.—G. S. Spizer.

11576. Kadzin, Alan E. (Northwestern U.) **The role of instructions and reinforcement in generalization of**

behavior changes in token reinforcement programs. *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6259-6260.

11577. Kriegman, George. (Medical Coll. of Virginia) **Homosexuality and the educator.** *Journal of School Health*, 1969(May), Vol. 39(5), 305-311.—Discusses the educator's role as preventive and curative with the homosexual student.—G. S. Spitzer.

11578. Lane, Myrna E. (Michigan State U.) **Achievement motivation, level of academic achievement and therapy outcome.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6906-6907.

11579. Lassegard, Dick. (Mitchell Public Schools, S.D.) **A day in the life of a school psychologist.** *Elementary School Journal*, 1970(Apr), Vol. 70(7), 345-350.

11580. Lucero, Donald L. (U. New Mexico) **An analysis of the relationship of values and needs to counselor effectiveness in a selected group of counselors in training.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6346.

11581. MacDonald, James A. (Arizona State U.) **The effects of an intensive, small group learning experience on counselor empathy and congruence.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6346.

11582. Martin, Barbara T. (Claremont Graduate School & University Center) **A study of achievement oriented behaviors of poverty black and white mothers with their preschool sons.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6347.

11583. Messing, Jeffrey & Elliott, Jacob J. (U. Toledo) **Game playing techniques in secondary school counseling groups.** *National Catholic Guidance Conference Journal*, 1971(Spr), Vol. 15(3), 176-179.—"As conceptualized, games are techniques for moderately structuring a group situation to assist in initially acquiring momentum or cohesiveness." 5 games devised by juniors and seniors in a vocational school are described. "The counselor must be selective in utilizing or encouraging the use of games only when he finds they can facilitate the group interaction or learning experience."—A. M. Cawley.

11584. Mickelson, Douglas J. & Stevic, Richard R. (U. Wisconsin, Milwaukee) **Differential effects of facilitative and nonfacilitative behavioral counselors.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 314-319.—Investigated the differential effects of behavioral counselors. It was hypothesized that behavioral counselors who were facilitative, i.e., high in their offerings of warmth, empathy, and genuineness, would be more effective than nonfacilitative behavioral counselors, i.e., low in these offerings. 48 11th grade students served as Ss. Both types of Ss received an equal amount of training in verbal reinforcement procedures. The criterion variable was frequency of verbal information-seeking responses. Results support the hypothesis. (18 ref.)—*Journal abstract*.

11585. Naor, Nehama K. (U. North Carolina, Chapel Hill) **Configurational analysis of the Strong Vocational Interest Blank (SVIB) and concomitant personality correlates.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6908-6910.

11586. O'Reilly, Robert P. & Wightman, Lawrence E. (New York State Education Dept., Albany, N.Y.) **Improving the identification of anxious elementary school children through the use of an adjusted**

anxiety scale. *Journal of Educational Measurement*, 1971(Sum), Vol. 8(2), 107-112.—Investigated interrelationships among anxiety (defensiveness), intelligence, and achievement. Ss were 165 6th graders who participated in a separate study involving programmed learning. Error scores from responses to the program and a criterion achievement test scores provided the necessary data. Other data used were obtained from the preinstruction administrations of the Test Anxiety Scale for Children (TASC), the Lie Scale for Children (LSC), and the Lorge-Thorndike Intelligence Test. Anxiety scores (TASC) were adjusted for defensiveness (LSC) by an equally weighted summation of the 2 scores. Examination of the correlations of TASC and TASC (adjusted) scores with achievement and IQ scores showed that the adjusted anxiety scores were markedly superior in validity to that of the uncorrected scores.—S. B. Mitra.

11587. Pellegrine, Robert J. (U. Rochester, River Campus Coll.) **Repression-sensitization and perceived severity of presenting problem of four hundred and forty-four counseling center clients.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 332-336.—Administered the Repression-Sensitization (R-S) scale to 444 university counseling center applicants. Normative data indicated that counseling centers may draw from the body of data generated by research with the instrument. The bulk of the client load was composed of sensitizers and a smaller proportion of repressors who were seeking assistance with personal-social problems. 3 levels of severity of client presenting problem were defined. A discriminant function analysis was 77+ % successful in identification of severity groups. It is concluded that the most potent discriminator is the R-S scale score, and the instruments may be employed in place of intake interviews during times of increased client demand, thus freeing counselor time.—*Journal abstract*.

11588. Prediger, Dale J. (American Coll. Testing Program, Iowa City, Ia.) **Data-information conversion in test interpretation.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 306-313.—Test results, when viewed in the context of decision theory, can play an important role in vocational development. Objective procedures for converting test data into counseling information are discussed and illustrated, emphasizing similarity scores and similarity score profiles. The profiles, when used in conjunction with success estimates, avoid many of the pitfalls inherent in Parsonian approaches to test interpretation. Local validity studies are needed to support data-information conversion procedures. Computer-based test interpretation systems designed to serve the practitioner are predicted. (24 ref.)—*Journal abstract*.

11589. Rankin, Richard C. (Arizona State U.) **Attitudinal perceptions of black students and white students as influenced by an instrumented laboratory experience.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6351.

11590. Reinhardt, Rose L. (Advisory Bureau for the Elderly, Adolescents & Children of the Rural Districts of Herford, W. Germany) **Zehn Jahre Erziehungsberatung in einem Landkreis.** [Ten years of educational counseling in a rural county.] *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 1970(Oct), Vol. 19(7), 265-268.—In a large rural county the applications of an educational counseling clinic are necessarily different from those in a

city. In the former the tasks and possibilities are primarily of a diagnostic and counseling nature. For 4225 referred and tested children and adolescents the statistics were compared over a 10-yr period. Over this time the 6-14 yr. olds made up a constant 75%. Family and living situations had normalized increasingly. Symptom clusters as well as single symptoms within these clusters maintained their frequencies of appearance.—H. A. Euler.

11591. Scales, William R. (Indiana U.) **A study of the effects of the distribution of time spent in group interaction on specified group outcomes.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6352.

11592. Schmidt, Lyle D. & Strong, Stanley R. (Ohio State U.) **Attractiveness and influence in counseling.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 348-351.—Studied the effects of counselor "attractiveness" on counselor influence in counseling. 41 experimental and 13 control college males rated their need for achievement before, following, and 1 wk. after a short interview exploring their need for achievement. In experimental but not control conditions the interview ended with an interviewer attempt to influence the Ss' need for achievement ratings. 2 interviewers and attractive or unattractive roles determined 4 conditions. Experimentals changed their ratings more than controls. While Ss perceived interviewers as intended, the roles were not differentially effective. However, attractive role Ss were less aware of the attempt to influence than were unattractive role Ss. Different long- and short-term effects of attractiveness are suggested.—*Journal abstract*.

11593. Schoon, Craig G. & Stahmann, Robert F. (U. Iowa) **Use of the Psychological Screening Inventory in a university counseling service.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 367-368.—Evaluated the effectiveness of the Psychological Screening Inventory (PSI) in meeting the diagnostic needs of a university counseling service. PSI scales include Alienation, Social Nonconformity, Discomfort, Expression, and Defensiveness. The instrument yielded highly significant discriminations between clients with personal adjustment and vocational-educational problems. 379 male and female clients served as Ss. It is concluded that the PSI could give useful diagnostic information to counselors.—*Journal abstract*.

11594. Singh, R. P. (Bureau of Psychology, Allahabad, India) **Stability of interest patterns.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 14-15.—Reports on the stability of interest patterns of high school students over a 2-yr period using a cross-sectional approach. The Allahabad Psychological Bureau Interest Inventory (in Hindi) designed after the Kuder Preference Record was administered to 222 and 336 students of Grades XII and X, respectively. Results indicate a significant decrease in mean interest scores as a function of increase in educational level in 6 different areas: outdoor, mechanical, scientific, artistic, musical, and social service. Interest patterns in the areas of computational, persuasive, literary, and clerical activities were stable over 2 yr.—K. C. Panda.

11595. Smith, Ada M. (U. Texas) **The relationship of ninth and twelfth grade rural high school students' perceived parent-child attitudes and their vocational preferences.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6414-6415.

11596. Spivack, James D. (Michigan State U.) **The use of developmental tasks for training counselors**

using Interpersonal process recall. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6883-6884.

11597. Thomas, Arthur H. & Stewart, Norman R. (U. Kansas) **Counselor response to female clients with deviate and conforming career goals.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 352-357.—Attempted to determine whether secondary school counselors respond more positively to female clients with traditionally feminine (conforming) goals than those with traditionally masculine (deviate) goals. 18 female and 44 male practicing counselors served as Ss. 5 stimulus interviews with high school girls elicited information concerning their home, school, self-description, and personal values. These were presented on audiotape to Ss and their responses were analyzed by sex and experience. Instruments developed and used include an adaptation of the Gough Adjective Check List, an Appropriateness of Career Choice Scale, and a Need for Further Counseling Scale. Results were as follows: (a) female counselor gave higher Acceptance scores to both deviate and conforming clients than did male Ss; (b) Ss, regardless of sex, rated conforming goals as more appropriate than deviate; and (c) Ss, regardless of sex, rated female clients with deviate career goals to be more in need of counseling than those with conforming goals.—*Journal abstract*.

11598. Wachowiak, Dale G. (Southern Illinois U.) **Model-reinforcement counseling with internally and externally controlled college males.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6248.

11599. Wagman, Morton. (U. Illinois) **Clinical and research use of the Strong Vocational Interest Blank Academic Achievement scale.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 337-340.—Studied the clinical and statistical uses of the Academic Achievement scale (AACH) of the SVIB by comparing measures of GPA, scholastic aptitude, and counseling progress of 193 undergraduate and graduate counseling clients. Statistical findings include a correlation coefficient of .35 between AACH and GPA; .39 between AACH and School and College Ability Test (SCAT) total; and .39 between GPA and SCAT total. Clinical findings indicate that relatively low AACH scores generally predict changes of occupational planning toward business and other applied directions, whereas higher AACH scores are associated with changes toward more academic and scientific orientations. These regularities were modified for clients with moderate to severe personal problems.—*Journal abstract*.

11600. Wechsler, Jill D. (Human-Dynamics Workshop, Boulder Creek, Calif.) **Improving the self-concepts of academic underachievers through maternal group counseling.** *California Journal of Educational Research*, 1971(May), Vol. 22(3), 96-103.—Investigated small group encounter-type counseling designed to improve the attitudes of mothers toward their academically underachieving sons, and of the subsequent effects on the boys' self-acceptance and perceived maternal-acceptance. Differences between Q-sort derived measures of Self-Acceptance and Perceived Maternal-Acceptance were compared for 20 boys whose mothers participated in counseling sessions, and 20 boys whose mothers did not participate. The matched groups of school-identified underachieving boys were in the 4th and 5th grades, and of average intelligence. Follow-up measures of differences between the groups 3 wk. and 6

mo. following termination of counseling indicated a sustained improvement in the Self-Acceptance ($p < .01$) and Perceived Maternal-Acceptance ($p < .05$) of the 20 boys whose mothers had received counseling. Maternal encounter-type group counseling may provide a method of improving the characteristically inadequate self-concepts of academic underachievers without individual counseling information.—*Journal abstract*.

11601. Werry, John S. & Quay, Herbert C. (Auckland U., Medical School, New Zealand) **The prevalence of behavior symptoms in younger elementary school children.** *American Journal of Orthopsychiatry*, 1971(Jan), Vol. 4(1), 136-143.—Studied the frequency of 55 behavior symptoms in the entire kindergarten through the 2nd grade population (926 boys and 827 girls) of a Midwestern university town. Many symptoms proved to be of high frequency; boys had a greater number of symptoms with a marked excess of acting out than did girls. Generally speaking, the mean number of symptoms/child decreased with age in both sexes.—*Journal abstract*.

11602. Williams, Constance M. (U. North Dakota) **Personality factors, value patterns, and occupational choices of male graduate students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6357.

11603. Witters, L. A. & Miller, H. G. **College advising: Analysis of advisor-advisee roles.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(2), 36-40.—A questionnaire was constructed from data received from a pilot study of student comment. Using this instrument, 300 students and 14 staff members revealed data about advisor-advisee relationships. 4 areas were investigated: (a) student expectations of college advisers, (b) characteristics of good advisers, (c) student roles in the advising process, and (d) faculty relationships. Recommendations included an approach to make advising become an integral part of the total learning experiences of the student. This advising-supervising-instructing relationship must be based upon experience-oriented programs and definite performance criteria.—*S. M. Amatora*.

PERSONNEL

11604. Barclay, James R. (U. Kentucky) **Descriptive, theoretical, and behavioral characteristics of sub-doctoral school psychologists.** *American Psychologist*, 1971(Mar), Vol. 26(3), 257-280.—Reports an analysis of theoretical and behavioral characteristics of a group of applicants and enrollees to an advanced National Defense Education Act Institute held for school psychologists in 1967. Data collected are discussed in relationship to the training, background, theoretical orientation preferences, work load and time allocation to alternate school psychology activities, and behavioral characteristics of applicants and enrollees. Findings suggest that theoretical orientation does appear to effect dimensions of school psychology practice. Factor analyses and step-wise regressions were completed on both paper-pencil measures and observational data obtained from video tape analysis. Results suggest that school psychologists have been recruited for the most part from the ranks of teachers and counselors within the public school setting. Traditional and novel predictors and multiple criteria are discussed in relationship to the emergence of a task-oriented social-learning model for

school psychology training and practice.—*Author abstract*.

11605. Brickman, Robert L. (Claremont Graduate School & University Center) **School climate: A reflection of the principal's personality.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6293-6294.

11606. Brown, Frank. (U. California, Berkeley) **Need satisfaction of educational administrators.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6295.

11607. Moses, H. & Delaney, D. J. (U. Illinois) **Status of school personnel.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(2), 41-46.—163 men and 145 women graduate students in education in 14 different classes responded to a questionnaire that listed in random order the 18 most common positions in the public school. Data were analyzed according to age, sex, teaching experience, type of degree held, and current position. Results indicate that these variables had very little influence on how the counselor position was perceived. On the total scores for the rank-order scales, the counselor ranked 6th. This was below administrators and teachers but above other "special" personnel. It is concluded that the school counselor position has relatively high prestige among school personnel.—*S. M. Amatora*.

11608. Pazdur, Helen C. (U. California, Medical Center, San Francisco) **Innovation: The school nurse as a mental health specialist.** *Journal of School Health*, 1969(Sep), Vol. 39(7), 449-457.—Discusses the concepts of the school nurse as a mental health specialist and the implications it has on the future of school nursing.—*Journal summary*.

11609. Rothe, Jack O. (U. California, Berkeley) **An exploratory study of changes in perception and group behavior of certain principals.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6287.

11610. Vrooman, Theodore H. (Syracuse U.) **The perceptions and expectations of superintendents and their high school principals with regard to leadership style and delegated formal task-performance.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6326-6327.

Teachers & Teacher Training

11611. Auger, Terrance J. (U. Illinois) **Some effects of peer evaluation on the performance of elementary education students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6392.

11612. Bonnin, Robert M. (U. California, Berkeley) **An assessment of relationships between certain personality variables and teacher performance in teaching assignments of higher and lower difficulty.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6446.

11613. Bromberek, Benon. **Nauczyciel w rolach społecznych.** [Social duties of a teacher.] *Prace Wydziału Filozoficzno-Historycznego: Seria Psychologia-Pedagogika*, 1970, No. 17, 175-231.—The importance of teachers in industrialized societies is on the increase. In consideration of this fact, a teacher's social duties are discussed, which involve his relations to his students, to the school principal, to the school, to youth organization, and to the parents. These duties include the guidance of the extracurricular activities of the students, special

programs, his presence at meetings of students with representatives of the industry, and consultations with parents about the abilities and aspirations of their children. Further duties of a teacher result from his position in the nonprofessional social structures—the family, social and political organizations, clubs, unions, etc. The conflicts arising from the various duties of a teacher are discussed. Special attention is paid to the feminization of the teaching profession and its social effects. It is believed that teachers should be freed, as far as possible, from their extracurricular duties. A teacher's activities should be concentrated on the organization and further development of educational centers. (78 ref.)—*P. von Toot.*

11614. Brooks, Fred O. (U. North Dakota) **Effect of personal values and open-closed mindedness on student teacher anxiety.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6447.

11615. DeBlassie, Richard R. (New Mexico State U.) **A comparative study of the personality structures of persistent and prospective teachers.** *Journal of Educational Research*, 1971(Mar), Vol. 64(7), 331-333.—Administered the 16 PF to 16 male and 16 female teachers and 16 male and 16 female teachers-in-training. An analysis of variance indicates that the 4 subgroups were significantly different on only 4 of the 16 personality factors. Results suggest that only slight personality differences exist between teachers with an undergraduate teacher training background and prospective teachers with an undergraduate liberal arts background.—*Journal abstract.*

11616. Delaney, Edmund T. (U. Illinois) **The effects of a group experience on the self-awareness of supervisor trainees and teacher trainees in supervision.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6397.

11617. DeVries, David L. (Johns Hopkins U., Center for Social Organization of Schools) **Sources of influence on faculty behavior.** *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1971(Jun), No. 106, 26 p.—Investigated the effects of shared values and expectations on the behavior of 290 faculty members of a large public university. The expectations the faculty member had for himself, those his colleagues had for themselves, and those of his employing organization predicted positively and significantly the behaviors of the respondents. The self-expectations of the departmental executive officer did not relate significantly to faculty behavior. Behavioral conformity with collegial self-expectations was significantly related to degree of alienation, to the cosmopolitan-local dimension, and to departmental size. Implications of the results are examined for the role theory of D. Katz and R. Kahn and for the understanding of faculty member behavior. (22 ref.)—*Journal abstract.*

11618. DeVries, David L. (U. Illinois) **The relationship of departmental and personal role expectations to the role behaviors of university faculty members.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6713.

11619. Frankel, Alan. (U. Portland) **Uses and abuses of status in teacher-student relationships.** *Rehabilitation Counseling Bulletin*, 1970(Dec), Vol. 14(2), 95-101.—Discusses the social psychology of the differential roles of a teacher and student in a class. Mention is made of the various motivations of the teacher as well as of each of the students. It is suggested that there is a

parallel relationship between the doctor-patient situation and that of a teacher-student. It is proposed that both teachers and students formulate their respective goals, both cognitive and affective. The teachers should announce such goals and the students should articulate them.—*A. J. Ter Keurst.*

11620. Hanks, J. E., Houston, S. R., & Usher, R. (Eastern Washington State Coll.) **Researching the effective college teacher: A perceptual approach.** *Journal of the Student Personnel Association for Teacher Education*, 1970, Vol. 9(2), 51-56.—Using 4 instruments—perception of teacher conceptual systems, perception of level of learning, classroom teaching, and overall rating scale—2,114 college students rated their 74 teachers. The teachers rated themselves on the This I Believe test and on levels of learning. The 20 predictor variables provided moderately efficient prediction of college teacher effectiveness for all 13 criteria. Teachers in the research and statistics, education, and psychology areas were generally rated higher on all 13 criteria than were teachers in the administration and business areas.—*S. M. Amatora.*

11621. Innis, Mary N. (U. Houston) **An analysis of sensitivity training and laboratory method in effecting changes in attitudes and concepts.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6404.

11622. Isaacs, Dan L. (U. Illinois, Instructional Materials Div.) **A self-instruction laboratory teaches audiovisual equipment usage.** *Audiovisual Instruction*, 1971(Mar), Vol. 16(3), 70-71.

11623. Johnson, Helen H. (McMichael Junior High School, Detroit, Mich.) **Teacher attitude and ghetto language.** *Viewpoints*, 1971(Mar), Vol. 47(2), 73-81.—Discusses some of the harmful teacher attitudes and lists important considerations for the ghetto teacher who expects to have any influence on the child's language development.—*G. Lowe.*

11624. Kakkar, S. B. (State Coll. of Education, Patiala, India) **Influence of teacher training on student's values.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Dec), Vol. 13(4), 192-202.—The influence of teacher training was estimated through the use of the Allport-Vernon-Lindzey Study of Values. Ss were 100 male and 50 female graduate teacher trainees. The test was administered at commencement and again at the end of the teacher training course. Significant sex differences were revealed on all 6 values on both occasions. Except in social and economic values, minimal changes occurred. Differences between Indian and British students may be attributable to cultural differences.—*R. D. Nance.*

11625. MacLeod, Robert B. (Cornell U.) **The teaching of psychology.** *American Psychologist*, 1971(Mar), Vol. 26(3), 245-249.—Concerns the beginning teacher of psychology, educational objectives, selection of subject matter, teaching methods, student interests, and the teacher's own preparation for teaching. It is suggested that a beginner will be on the way to becoming a good teacher if he (a) has enthusiasm for his subject; (b) has respect for his students; (c) is open-minded about method, willing to challenge tradition and experiment with new procedures; and (d) regards his subject as a meaningful part of a larger educational enterprise.—*Author abstract.*

11626. Mizell, Al P. (Indiana U.) **Aptitude treatment interactions: A search for personality factors which**

interact differentially with structured and unstructured teaching strategies. *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6474-6475.

11627. Null, Eldon J. (Purdue U.) **Relationships between personal variables of teachers and their perception of the behavior of school personnel.** *Journal of Educational Research*, 1971(Apr), Vol. 64(8), 351-354.—Attempted to determine whether relationships exist between personal variables of teachers, as measured by the Minnesota Teacher Attitude Inventory and the 16 PF, and their evaluation of the behavior of their principal and fellow teachers in responses to items of the Organizational Climate Description Questionnaire (OCDQ). The sample consisted of 1,691 teachers in 81 elementary schools. Data were analyzed through the use of coefficients of correlation and multiple regression equations. The examination of 138 null hypotheses indicate that certain personality factors of teachers, along with their attitudes toward children, are related to the evaluation of certain dimensions of behavior as indicated by scores on the 8 subtests of the OCDQ. —*Journal summary.*

11628. Passalacqua, Benedict J. (U. Michigan) **Teacher job satisfaction based on the Herzberg theory.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6315.

11629. Pestonjee, D. M. & Akhtar, S. Sultan. (Banaras Hindu U., Varanasi, India) **Occupational values of university teachers.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 22-25.—Compared the occupational values of university teachers belonging to the faculties of science (N = 106) and engineering (N = 87). The samples were drawn randomly. The Job Value Cards developed by Centers were individually administered to the Ss. Each S was asked to rank the 10 occupational values in order of preference. Differences in median values using the Kolmogorov-Smirnov test showed only 1 of the 10 values, i.e., independence, to be significant. Science teachers preferred independence more than engineering teachers.—K. C. Panda.

11630. Racz, Leslie L. (State U. New York, Buffalo) **A study of teacher alienation and its relationship to individual needs and leadership behavior.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6319.

11631. Raina, T. N. (Regional Coll. of Education, Ajmer, India) **An application of the F-Scale to Indian student-teachers.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 4-7.—Analyzed the personality characteristics of a group of student teachers. The California F Scale (Forms 45 and 40) was administered to 145 20-45 yr. old student teachers, 136 male and 9 female. Results showed that student teachers were more authoritarian than other samples. Arts students showed more authoritarianism than science students. Ss over 30 yr. of age were less authoritarian than younger Ss. High social status (caste) was associated with lesser authoritarianism. High income had an inverse relationship with authoritarianism. Rural Ss were more authoritarian than urban Ss. The reliability of the scale was high in these groups. Results are interpreted in terms of the cultural milieu from which the Ss came.—K. C. Panda.

11632. Raina, T. N. & Raina, M. K. (Regional Coll. of Education, Ajmer, India) **Perception of teacher-educators in India about the ideal pupil.** *Journal of Educational Research*, 1971(Mar), Vol. 64(7), 303-306.—Attempted to (a) determine what concepts teacher-

er-educators in India have of the ideal student in terms of characteristics they believe should be encouraged and discouraged, and (b) compare the results with concepts of teachers in the United States. Torrance's Ideal Pupil Checklist was administered to 100 teachers of education in teacher training colleges in Rajasthan. When the 62 characteristics of the Checklist were ranked, a rank-order coefficient of correlation of .76 was obtained between the ranks assigned by the Rajasthan teacher-educators and United States teachers. In general, the Rajasthan Ss emphasize the receptive nature of man and deemphasize man's self-acting nature more than United States teachers.—*Journal abstract.*

11633. Rian, Håvard. (U. Oslo, Inst. of Educational Research, Norway) **Teacher leadership and pupil reaction: The authoritarian-democratic dimension revisited.** *Scandinavian Journal of Educational Research*, 1969, No. 1, 1-15.—Conducted a $2 \times 3 \times 2 \times 2$ factorial experiment varying (a) teacher directivity, (b) 3 student teachers, (c) pupil preferences for teacher behavior, and (d) pupil scholastic ability. 144 male and female 7th graders served as Ss. Results indicate that teacher directivity and student achievement and satisfaction were not significant. It is suggested that the authoritarian-democratic dimension for evaluating teacher style may contain variables for which significance has not been determined. (40 ref.).—S. Knapp.

11634. Steer, Robert A. (Columbia U.) **The relationship between satisfaction with retirement and similarity of self-ratings for past occupation and present activity in educators.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6416.

11635. Strom, Robert D. (Ed.) (Arizona State U.) **Teachers and the learning process.** Englewood Cliffs, N.J.: Prentice-Hall, 1971. x, 534 p.—Presents a collection of articles discussing issues that are emerging from the changing educational scene. Topics covered include (a) respecting differences among pupils; (b) diminishing obstacles to achievement; (c) relating as a professional; (d) learning theory, a resource for method; (e) educating for creative behavior; (f) evaluation in the classroom; and (g) mental health and personality development.

11636. Ungerleider, Charles S., et al. (U. Massachusetts) **Strength training for beginning teachers.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 66-74.—As a person is not a valid judge of the quality of his own behavior, teacher-training programs should include means by which a cadet teacher obtains a better perspective of his performance, as interpreted by the pupils, than by appraising his own performance. The article presents a means to accomplish the objective of self-observation by the cadet teacher. The teacher performs to a class of adults who assume the roles of ordinary pupils. Later these adults indicate to the teacher his teacher strengths and weaknesses.—A. J. Ter Keurst.

11637. Zaborik, John A. (U. Wisconsin, Milwaukee) **Pupil's perception of teachers' verbal feedback.** *Elementary School Journal*, 1970(Nov), Vol. 71(2), 105-114.—Developed an instrument containing 28 segments of classroom dialogue. Each segment consisted of 3 parts: teacher solicitation, pupil response, and teacher verbal feedback. These 28 segments containing 28 types of feedback were presented to a randomly selected group of 42 3rd and 6th graders. The pupils were asked to identify with the script and then answer questions on the effect of the feedback. The types of feedback that nearly all the pupils saw as stimulating feeling and as giving

information on correctness contained simple praise-conformation. None of the types that were not seen as stimulating feeling or giving information contained simple praise-conformation, with the exception of one. The types of feedback that are regularly used are not necessarily the types that are the most valuable for provoking feeling and providing information on correctness, explanation, and directness.—S. R. Diamond.

11638. Zimmerman, Robert E. (U. North Dakota) **Teacher perceptions and personality characteristics associated with innovation.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6462.

SCHOOL LEARNING & ACHIEVEMENT

11639. Anderson, Gary J. (McGill U., Montreal, Quebec, Canada) **Effects of classroom social climate on individual learning.** *American Educational Research Journal*, 1970(Mar), Vol. 7(2), 135-152.—14 social climate properties of school classes were related to gains on 4 measures of learning in an attempt to explore group influence on the individual. Step-wise multiple regression analysis with product and quadratic terms was employed to relate characteristics of the class, represented by class mean scores on the Learning Environment Inventory, to residually adjusted measures for learning for individuals within the class. A large number of statistically significant relationships occurred between climate dimensions as class intimacy, cliqueness, friction, and difficulty, and the 4 learning criteria. The findings suggest that classroom social climate does affect individual learning, and that climate properties affect learning differentially for various measures of learning and for students differing in sex and mental ability. (19 ref.)—*Journal abstract*.

11640. Ausubel, David P. & Tenzer, Amy G. (City Coll., City U. New York, Center for Advanced Study of Education) **Components of and neutralizing factors in the effects of closed-mindedness on the learning of controversial material.** *American Educational Research Journal*, 1970(Mar), Vol. 7(2), 267-273.—Closed-mindedness was conceptualized as consisting of 3 components: dogmatism, a general affective component, attitudinal bias, a specific affective component, and informational bias, a specific cognitive component. Dogmatism significantly impaired the learning of an unfamiliar pro-Hanoi passage on the Vietnam war, and was suggestively counteracted by a neutralizing introduction. Pro-Hanoi Ss on the Attitudinal Bias Scale suggestively learned the passage more effectively than did the anti-Hanoi Ss. Informational bias had no significant effect on the learning of the passage. The failure of the cognitive component to influence learning was attributed to the Ss' lack of a stable, organized, and internally self-consistent system of beliefs regarding this particular controversial issue.—*Journal abstract*.

11641. Bennett, Stanley W. (U. Michigan) **The key vocabulary in organic reading: An evaluation of some of Ashton-Warner's assumptions about beginning reading.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6393.

11642. Blair, John R. (U. Michigan) **The effectiveness of three classes of reinforcement on the performance of normal and low achieving middle class boys.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6394.

11643. Bonboir, Anna. (U. Louvain, Lab. of Experimental Pedagogy, Belgium) **Quelques modes d'approche du travail des écoliers: Etude des apprentissages scolaires: Cadre général.** [Some approaches to school work: Study of school learning: General outline.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 5-12.—Scientific pedagogy ensures a continuing exchange between researchers and practitioners regarding the nature of the learner and best educational practices. This article serves as an introduction to 3 research reports. (English & Flemish summaries)—S. S. Marzolf.

11644. Briggs, Richard D., Tosi, Donald J., & Morley, Rosemary M. (Bowie State Coll.) **Study habit modification and its effect on academic performance: A behavioral approach.** *Journal of Educational Research*, 1971(Apr), Vol. 64(8), 347-350.—Determined the effects of a treatment procedure which combined psychological conditioning with a well-known study technique (SQ3R) by F. P. Robinson (see PA, Vol. 35:5511) on the academic performance of "high-risk" female undergraduates (N = 20). It was hypothesized that Ss exposed to this procedure would demonstrate higher GPA's than a comparable control group. Results are in the predicted direction.—*Journal abstract*.

11645. Brilhart, Barbara L. & Brilhart, John K. (U. Nebraska, Omaha) **Field independence and academic achievement of engineering students.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 443-446.—Used the Hidden Figures Test as a group measure of field independence with 184 male engineering students. Scores did not correlate significantly with cumulative GPA or with freshman aptitude scores. Aptitude scores were a better predictor of success in an engineering program than the field-independence scores.—*Journal abstract*.

11646. Cantwell, Zita M. (Brooklyn Coll., City U. New York) **Teacher's perceptions of levels of performances of students from an economically disadvantaged urban area.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 593-594.—Tested the hypothesis of whether teachers' perceived levels of performance by grade (5th and 2nd) and subject area (language arts and mathematics) would be independent of performances on the Coloured Progressive Matrices by 175 5th graders and 216 2nd graders. Significant chi-squares suggested a direct relationship between perceptions and Matrices scores.—*Journal abstract*.

11647. Farley, Frank H. & Truog, Anthony L. (U. Wisconsin) **Academic achievement and resultant and academic achievement motivation.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 843-848.—Studied academic achievement, measured by a standard test over 4 subject matter areas, and a GPA score, as a function of resultant achievement motivation (RAM) and academic achievement motivation (AAM) in 76 undergraduates. The contribution of RAM to achievement was negligible and nonsignificant. Although AAM correlated significantly in a negative direction with achievement in natural science, the importance of this finding was discounted. It is concluded that achievement was not a significant function of achievement motivation, as measured. Directions for future research are outlined. (16 ref.)—*Journal abstract*.

11648. Froehlich, Edna B. (Columbia U.) **The relationship between visual memory for designs and early reading achievement.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6399-6400.

11649. Green, Richard B. (U. California) **Social class and ethnic differences in responsiveness to demands for cognitive functioning.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6401-6402.
11650. Henderson, Norman B., Goffeney, Barbara; Butler, Bruce V., & Clarkson, Quentin D. (U. Oregon, Medical School) **Differential rates of school promotion from first grade for white and Negro, male and female 7-year olds.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 101-109.—Studied the retention policy of schools in the Portland, Oregon, area. The sample represented all children ($N = 901$) who had completed a 7-yr examination and were part of the Oregon Collaborative Study. Promotion-retention rates were analyzed by race, sex, standardized test performance, and socioeconomic level. Chi-square analysis of the data indicated that whites were retained more frequently than blacks and boys more frequently than girls. It is suggested that this differential promotion rate appears to result from both a higher incidence of extremely poor reading achievement (especially for white boys) and a more liberal promotion policy in the lower socioeconomic schools.—H. Kaczkowski.
11651. Henrikson, Harold A. (U. Illinois) **An investigation of the influence of teacher expectation upon the intellectual and achievement performance of disadvantaged children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6278.
11652. Howe, Michael J. & Cavicchio, Patricia M. (U. Alberta, Edmonton, Canada) **Retroactive interference in a meaningful learning task.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 49-53.—96 women studying to be dental assistants were assigned to 1 of 4 experimental conditions: 2 variations of interpolated tasks, similar and dissimilar to the original learning, and 2 variations of activity following interpolated passage, recall vs. read different materials. The scoring of the recall passage was divided into 20 successive units of nontrivial material. No statistically significant differences in recall were found between the 4 groups: similar interpolated material, recall required; similar interpolated material, recall not required; dissimilar interpolated material, recall required; and dissimilar interpolated task, recall not required.—N. M. Chansky.
11653. James, Pamela E. (U. Liverpool, England) **Video feedback in learning beginning trampoline.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 669-670.—Explored (a) the effect of visual feedback (supplied by videotape) compared with verbal feedback in learning beginning trampoline, and (b) the effect of verbal ability on Ss' interpretation of feedback. 18 11-12 yr. old boys were assigned to 2 groups: Group V (visual), $N = 8$; Group NV (nonvisual), $N = 10$. The groups were matched for performance on beginning trampoline, general physical ability, and verbal ability as measured by the Mill Hill Vocabulary Scale, Form 1, Junior. Results show some superiority of Group V over Group NV ($p > .05$). However, Ss at all levels of verbal ability benefitted from visual feedback, while only Group NV Ss with high verbal ability achieved a high performance score ($r = .6$, $p < .05$).—*Journal abstract.*
11654. Khoury, Marcia A. (U. Alabama) **Reading achievement of second grade pupils taught by teachers with understanding attitudes toward pupils and by teachers with evaluative attitudes toward pupils.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6405.
11655. Kuenne, Janet B. (U. Pennsylvania) **Cues associated with recognition of aural stimuli in the primary grades.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6406.
11656. Kyöstiö, O. K. & Vaherva, T. (U. Oulu, Teachers Coll., Finland) **Reading and forgetting among young children.** *Scandinavian Journal of Educational Research*, 1969, No. 3, 129-146.—Conducted an experimental study to assess the effectiveness of the synthetic and analytic methods of teaching, the amount of forgetting, the occurrence of spontaneous learning, and the optimal age at which children may be taught to read. 108 male and 108 female kindergartners in experimental groups and 100 male and 88 female 1st graders in control groups were tested to measure their reading ability before and after a period of learning, and after the summer interval. 33 male and 46 female kindergartners were tested without having experienced any reading instruction. Results indicate that (a) Ss were able to learn to read earlier than the present starting age in Finnish schools; and (b) intelligence, age, social status, and teaching method affected learning. Procedural difficulties which diminish the generalizability of the results are discussed. The case histories of a good and a poor performer in the study are presented. (33 ref.)—S. Knapp.
11657. Lawton, Peter A. (New York U.) **Peer relationships and mathematical achievement: A study of relationship of peer acceptance and peer acceptability to achievement in mathematics.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6281.
11658. Little, Sara J. (U. Maryland) **An investigation of the relationships between perceptual-motor proficiency, intelligence and academic achievement in a population of normal third-grade children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6441.
11659. Mandola, John. (Michigan Dept. of Public Health, Lansing) **The role of color vision anomalies in elementary school achievement.** *Journal of School Health*, 1969(Nov), Vol. 39(9), 633-636.—Results indicate that achievement scores of elementary school-children at various grade levels were independent of any color deficiency factor.—G. S. Spitzer.
11660. Marburg, Galen S. (U. Maryland) **The relationship between classroom climate and creative performance among fifth grade elementary school children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6407.
11661. Matheson, Neil E. (U. Southern California) **Midmorning nutrition and its effect on school-type tasks.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6408.
11662. McKeachie, W. J. & Lin, Yi-Guang. (U. Michigan) **Sex differences in student response to college teachers: Teacher warmth and teacher sex.** *American Educational Research Journal*, 1971(Mar), Vol. 8(2), 221-226.—Few studies of teaching effectiveness have taken into account sex of instructor as a relevant variable. Analysis of data in 5 different studies involving introductory psychology, mathematics, and French courses indicated that the effect of teacher warmth on student achievement depends not only upon the sex and need affiliation of students but also upon the sex of the

instructor. Results previously appearing to be non-replicable turned out to be replicated when analyzed separately for male and female instructors. For women instructors a warm, interpersonally oriented style was effective; for men teachers, such a style was effective only for women students and for men high in need affiliation.—*Journal abstract.*

11663. Mehta, Prayag & Kanade, H. M. (Indian Inst. of Mass Communication, New Delhi, India) **Motivation development for educational growth: A follow up study.** *Indian Journal of Psychology*, 1969, Vol. 44(1-4), 20.—Reports results of a follow-up study conducted 2 yr. after an experiment in motivation training of teachers and their pupils at some secondary schools. There was a significant drop in their level of need for achievement as compared to that obtained by them immediately following the training. Results support the view that the impact of motivation training on scholastic performance might be felt more later than sooner. In 1 school out of 20 it was reported that the pupils developed qualities like diligence, responsibility, and cooperativeness.—*B. Roy.*

11664. Niskanen, Erkki A. (U. Helsinki, Finland) **School achievement and personality: Description of school achievement in terms of ability, trait, situational and background variables: II. Operations at the variable level.** *Research Bulletin, Institute of Education, U. Helsinki*, 1968(Oct), No. 22, 124 p.—Presents the method-centered portion of a 4-part study on school achievement and personality. The construction of the variables used in the study, their psychometric properties, the combination of dimensions, and the mathematical and statistical operations performed are emphasized. Ss were 7th grade children attending a citizenship school over a 2-yr period. Separate studies involved 177, 165, and 157 Ss. An average of 570 test stimuli were administered to each S. Results and discussion are presented in Part IV. (53 ref.)—*P. McMillan.*

11665. Nyiri. **Latéralité et difficultés scolaires.** [Laterality and difficulties in school.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(Nov), Vol. 26(5), 343-351.—Laterality of hand, foot, ear, and eye were established for 150 13-17 yr. old Ss, and the various proportions of unilateral and mixed lateral Ss in 4 academic achievement groups counted. In a 2nd phase a diagnostic test by LeFavrais (Alouette) was used on 42 8-12 yr. old dyslexic children. Among the 31 positively identified dyslexics 27 had mixed sensory-manual laterality. Changes in laterality were observed on twins.—*M. G. Strobil.*

11666. O'Brien, Robert B. (Wayne State U.) **Achievement motivation as a function of perceived possession and value of ability and expected knowledge of results.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6968.

11667. Pascal, Charles E. (McGill U., Montreal, Quebec, Canada) **Instructional options, option preference and course outcomes.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 1-11.—Ss were 185 undergraduates enrolled in a course which permitted them to select 1 of 3 instructional options: independent study, lecture, and lecture and discussion. Assignment to groups was on a random basis. All Ss received the same criterion test of cognition, a test of cognitive achievements, an attitude toward psychology questionnaire, course evaluation, and evaluation of a novel article. No difference in grades was found between

the 3 instructional methods; students in lecture and lecture-discussion sections scored higher on the achievement test than did those in the independent study group. Students assigned to an instructional option of their choice held more favorable attitudes toward psychology. Groups did not differ with regard to application of course material. Those in the independent study group scored better than the other groups on the evaluation of the novel article.—*N. M. Chansky.*

11668. Peters, Nathaniel A. (U. Wisconsin) **The application of Jensen's bidimensional model of learning to the reading process.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6411.

11669. Rusch, Reuben R. (State U. New York, Albany) **Note on the validity of the claim that final closure is related to reading achievement.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 394.—Determined whether good and poor 1st grade readers scored differently on the Higgins-Wertman Test of Visual Closure. The sample consisted of 30 boys and 30 girls (the highest and lowest scoring Ss) from 7 1st grade classes. Results of the factorial design provide a type of concurrent validity for the claim that the Higgins-Wertman Test was developed to assess intellectual functioning, particularly with respect to reading readiness and disability.—*Author abstract.*

11670. Samtur, Susan J. (City Coll., City U. New York, School of Education) **The effects of noise on a complex task.** *Graduate Research in Education & Related Disciplines*, 1969(Spr), Vol. 4(2), 63-81.—Investigated the effect of a constant or fluctuating noise on a complex reading task and considered the effect of the noise on easy and difficult problems within the test. Ss were 25 3rd graders, 13 boys and 12 girls, and the group served as its own control. Most of the previous literature suggests that noise does affect achievement, when the task presented is difficult and long enough to permit fatigue. Results of a few studies were in contradiction to the hypothesis of this experiment and most other experiments, generally because the factors of task complexity and sustained periods of time were absent during the testing. The tests were administered under 3 conditions—quiet, constant noise, and intermittent noise—to the same S group. Overall findings do not support the hypothesis. Rather, the Ss, especially the boys, did significantly better under the noisy conditions. Various explanations are considered. (15 ref.)—*Journal abstract.*

11671. Schoenfeldt, Lyle F., Bayer, Alan E., & Brown, Marsha D. (U. Georgia) **Delayed and normal progress college students: A comparison of psycho-social characteristics and career plans.** *American Educational Research Journal*, 1970(Mar), Vol. 7(2), 235-250.—Compared persons who delayed entrance into college with those who made "normal" college progress. Groups were selected from the over 100,000 11th graders who participated in the 1960 Project TALENT testing and responded to the follow-ups in 1962 and 1966. Delayed entrants represent a probable increment to the baccalaureate pool of 12% for the males and 4% for the females. Scores of the delays on selected cognitive and noncognitive variables (including socioeconomic status) were generally below those in the normal progress group. Entrants with a higher percentage of delay were black, relied on savings or bank loans to go to college, had peers who did not attend college, and changed career goals. (18 ref.)—*Journal abstract.*

11672. **Shah, Farhat.** (U. Wisconsin) **Socio-psychological determinants of academic achievement of children in Pakistan.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6288.—academic achievement, father's occupation & parental interest in education & parental control & self-esteem, high school students, Pakistan
11673. **Shrable, Kenneth & Sassenrath, Julius M.** (U. California, Davis) **Effects of achievement motivation and test anxiety on performance in programmed instruction.** *American Educational Research Journal*, 1970(Mar), Vol. 7(2), 209-220.—114 college Ss were administered an achievement motivation, a test anxiety, and an initial achievement test and were categorized as being either high (above the median) or low on each. Ss then completed a programmed instruction task and their performance on 3 dependent variables was assessed: (a) time to complete the program, (b) errors, and (c) retention. The results theoretically most interesting were: (a) there were no significant differences in errors due to achievement motivation, (b) high-test-anxious Ss had fewer errors than low-test-anxious Ss, (c) the interaction effect of achievement motivation and test anxiety on errors was significant, (d) high-achievement-motivated Ss had lower retention scores than low-achievement-motivated Ss, and (e) there was no reliable difference in retention due to test anxiety. Implications of these findings for the theory of achievement motivation and research on programmed instruction are discussed. (27 ref.)—*Journal abstract.*
11674. **Silverblank, Francine.** (New York U.) **Sense of responsibility, level of anxiety, and sociability in suburban male high school seniors who are talented in mathematics and those talented in English.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6414.
11675. **Stevens, Howard L.** (U. Georgia) **A study of creative and causal thinking skills and student-faculty perceptions in a Mexican institution.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6416-6417.
11676. **Stieglitz, Francine B.** (Columbia U.) **The effect of sentence length and grammatical structure on repeatability of sentences by native and foreign speakers of English.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6417.
11677. **Tadin, Ivan & Perko, Anera.** (Community Office for Employment, Split, Yugoslavia) **Razlike u specifičnom treningu u gimnazijama i uspešnost na studiju.** [Efficiency in university curriculum as related to the science or human orientation in high school.] *Revija za Psihologiju*, 1970, Vol. 1(2), 23-30.—The number of students enrolling the 3rd semester was insignificantly different whether they had graduated from a science-oriented or a humanities-oriented high school and then enrolled at some science-oriented faculty. The same was true for students studying on humanistic faculties.—*English abstract.*
11678. **Thompson, Diane D.** (U. Connecticut) **Attributions of ability from patterns of performance made by advantaged and disadvantaged children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6418.
11679. **Thomson, Eric W. & Galloway, Charles G.** (U. Victoria, British Columbia, Canada) **Material reinforcement and success in spelling.** *Elementary School Journal*, 1970(Apr), Vol. 70(7), 395-398.—Ss were 91 8-14 yr. old boys and girls in 3 classrooms of an elementary school in British Columbia. During the 1st 3 mo. of the school year, the teachers taught spelling by the method of their choice. During the 2nd 3-mo period spelling was taught and tested in the same manner as during the 1st 3-mo period. However, with the spelling record of the previous week as a basis of comparison, material reinforcement paired with social reinforcement was given to each S who equaled or bettered his or her score of the previous week. During the 3rd 3-mo period, material reinforcement was issued on an intermittent schedule and social reinforcement maintained on a continuous basis. Results "indicate that a continuous schedule of material reinforcement paired with social reinforcement given for appropriate spelling responses seems to produce an increase in children's spelling proficiency as measured by weekly spelling tests."—*S. R. Diamond.*
11680. **Walberg, Herbert J. & Ahlgren, Andrew.** (U. Wisconsin) **Predictors of the social environment of learning.** *American Educational Research Journal*, 1970(Mar), Vol. 7(2), 153-167.—Several earlier studies demonstrated the predictability of cognitive and non-cognitive class learning from student perception of the social environment of learning. As a basis of formulating hypotheses for experiments, the present correlational study investigated the predictability of the social environment variables from 6 pretests, 7 personality scales, 20 biographical items, 4 course-experience variables, 2 class size terms, IQ, and the fraction of girls in the class. With 144 high school physics classes as the units of analysis, canonical and multiple correlation revealed that significant ($p < .001$) variance in the class mean environment scores can be predicted from class means on any 1 of the 5 predictor batteries or single predictor variables. The composition of the class in terms of the biological characteristics of its members appears to be the most potent predictor. (22 ref.)—*Journal abstract.*
11681. **Walker, Larry D.** (Mississippi State U.) **The effect of reactive inhibition and extroversion on the standardized test scores of selected groups of students.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6249.
11682. **Whalley, Judi K.** (U. Illinois) **The effect of reinforcement contingencies indigenous to college classrooms.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6419.
11683. **White, Conrad L.** (U. Illinois) **The effects of ability and practice patterns on learning a perceptual-motor task.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6490.
11684. **Wightman, Lawrence E.** (Cornell U.) **Achievement as a function of interactions between student characteristics and teacher behaviors.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6419.
11685. **Yeatts, Pearlina P. & Strag, Gerald A.** (U. Georgia) **Flexibility of cognitive style and its relationship to academic achievement in fourth and sixth grades.** *Journal of Educational Research*, 1971(Apr), Vol. 64(8), 345-346.—Investigated whether students who tend not to shift cognitive styles will achieve equally high on verbal and quantitative tasks as students who shift cognitive styles. The Kagan Cognitive Style test and the California Achievement Test were given to 62 4th graders and 59 6th graders. Of the 31 Ss who did not change their cognitive style, 25 were identified as inflexible and performing below grade level

and only 6 at grade level. Findings suggest that (a) it is inappropriate to consider 1 cognitive style superior to another, and (b) academic performance is a function of the interaction of cognitive flexibility and fluency and the specific task requirements.—*Journal abstract.*

Prediction

11686. Burgdorf, Kenneth D. (Northwestern U.) **The meaning of merit: Toward an improved operational definition.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6236.

11687. Dispenzieri, Angelo; Giniger, Seymour; Reichman, Walter, & Levy, Marguerite. (Baruch Coll., City U. New York) **College performance of disadvantaged students as a function of ability and personality.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 298-305.—Compared the academic motivation of 492 disadvantaged undergraduates in a special community college program to that of 257 regular matriculants. Several ability and aptitude tests were administered including the WAIS, the Otis Group Intelligence Scale, and the Preliminary Scholastic Aptitude Test. Multiple-regression analyses were made of measures of ability and several other personality characteristics as predictors of academic success for the special-program students. While the groups did not differ in degree of motivation, somewhat different patterns emerged, regular matriculants being more concerned with social evaluation and special students with self-worth. Predictors most similar to activities required for successful college performance were those most highly correlated with the criteria. High school average, Otis IQ, study habits and attitudes, and reality of aspiration level were the best predictors. It is concluded only 22% of the variance in college success can be accounted for among the special-program students. (15 ref.)—*Journal abstract.*

11688. Powers, Sandra M. (U. Connecticut) **Long-term reliability and predictive validity of the Vane Kindergarten Test.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6411.

11689. Rausher, Shirley R. (New York U.) **The relationship between achievement on Piagetian conservation and spatial measures and reading readiness: A comparison of Piagetian measures with the New York City Prereading Assessment Test as predictors of reading in kindergarten and first grade.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6411-6412.

11690. Stanley, Julian C. (Johns Hopkins U., Center for Social Organization of Schools) **Predicting college success of educationally disadvantaged students.** *Center for Social Organization of Schools Report*, Johns Hopkins U., 1970(Sep), No. 79, 40 p.—Reviews the literature and concludes that admission to selective colleges should be based substantially on test scores and high-school grades, whether or not the applicant is from a minority racial, ethnic, or socioeconomic group. "Open admissions" is seen as applicable to state and local systems of higher education, but not to every individual college and university. Principles of prediction, learning, and guidance would lead to the placement of college applicants in institutions that are neither too difficult nor too easy for each individual. The gap between the academic promise of educationally disadvantaged applicants and the usual minimum demands of the institution should not be greater than provisions for

remediation, tutoring, coaching, and perhaps curricular reform can bridge. (6 p. ref.)—*Journal abstract.*

Overachievement & Underachievement

11691. Elliott, Katherine K. (Wayne State U.) **A cross-cultural study of non-intellectual correlates of achieving and low achieving boys.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6872-6873.

11692. Haider, Santosh J. (U. Illinois) **Parental attitudes and child-rearing practices as related to academic underachievement.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6402.

11693. Hirsch, Jay G. & Costello, Joan. (Inst. for Juvenile Research, Chicago, Ill.) **School achievers and underachievers in an urban ghetto.** *Elementary School Journal*, 1970(Nov), Vol. 71(2), 78-85.—Presents some psychiatric and psychological findings from a group of 23 intensively studied children evenly divided between boys and girls and achievers and underachievers. With intelligence quotient, determined by the Lorge-Thorn-dike Intelligence Tests, and family circumstances controlled, differences in academic achievement as measured by school grades and standardized achievement tests could reasonably be expected to reflect variations in individual characteristics of the children and variations in their family experience of a more subtle nature than merely the fact of the presence of 2 parents in the home. The psychiatrist saw the children in 3 sessions and the psychologist administered the WISC, TAT, Rosenzweig Picture-Frustration Study, a sentence completion test, tests of visual and auditory perception, and a test for impulse control. The variables that seemed most important for distinguishing between achievers and underachievers were the psychiatrist's and the psychologist's ratings of the children's interpersonal relationships and self-concepts.—S. R. Diamond.

11694. Williams, Julia A. (U. Illinois) **Sex role conflict and academic achievement: A study of superior women students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6419-6420.

CURRICULUM & PROGRAMS

11695. Adams, Leah D. (U. Michigan) **The effect of training on the linear ordering ability of prekindergarten disadvantaged children.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6391.

11696. Alschuler, Alfred. (Harvard U.) **Psychological education and growth communities.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 172-183.—The problems of psychological education are comparable to others that represent a major breakthrough in knowledge. The extrinsic problems of psychological education include the lack of facilities that offer training to prospective workers in that area and the lack of concern of most educators in the training of the whole child. Among the intrinsic problems are the lack of clarity, and whether or not psychological educational training has a lasting effect on the trainee. Another problem is the identification of the ingredients of the courses in psychological education that produce long-term desirable effects. The history of growth communities that nurtured psychological education has been discouraging. Over 200 of such utopian communities have failed. The longest-lived utopian communities that emphasize psy-

chological education are the kibbutzim that are held together by the daily problem of life and death.—A. J. Ter Keurst.

11697. **Alschuler, Alfred.** (Harvard U.) **The origins and nature of psychological education.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 1-16.—A new approach is discerned that combines education with psychology courses for the purpose of developing the human potential in normal persons. Some of these emphases in ideal adult functioning include achievement motivation, creative thinking, interpersonal sensitivity, identity, self-reliance, and value clarity. The origin of this newer emphasis in psychology is the shift away from almost complete concern about the abnormal to the life of the normal. This new emphasis is also the result of the dissatisfaction with the program of the secondary schools in their underemphasis on the students' preparation for mature adulthood. The goals of psychological education are the development within a person of a constructive dialogue with one's fantasy life, the use of nonverbal exercises as found in meditation, the exploration of one's emotional responses to the world, and realizing the importance of adjustment to the "here and now." Courses in psychological education should result in voluntary internalized behavior and individual responsibility.—A. J. Ter Keurst.

11698. **Alschuler, Alfred & Thompson, Roy.** (Harvard U.) **How to increase achievement motivation.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 95-108.—The achievement motive can be described as "entrepreneurial" behavior by which a person seeks to attain high standards of excellence. The person with a high achievement motivation is generally restless, self-confident, seeks out situations that he can control, is sensitive to the feedbacks to his behavior, and is socially mobile upward. Increasing one's achievement motivation is usually indirectly accomplished by implanting a striving for excellence, such as emphasizing the importance of self-motivation and self-reward. Several examples are discussed in which the emphasis on group norms of performance in the classroom fails to reinforce positively the achievement motives of the individual pupil.—A. J. Ter Keurst.

11699. **Belasco, Simon.** (Pennsylvania State U.) **C'est la guerre? Or can cognition and verbal behavior co-exist in second language learning.** *Modern Language Journal*, 1970(Oct), Vol. 54(6), 395-412.—Disputes the assumption that a cognitive approach is mutually exclusive with a verbal-behavior approach. Nonetheless, nothing new in terms of developing language rather than practicing speech can be accomplished by merely replacing the term "grammar translation" by the term "cognition." Primacy must be given to listening and reading over the other skills. Vocalizing does help, but it must be preceded in great depth by the acquisition of the listening skill. It is asserted that the center of the entire pedagogical philosophy of acquiring language is the undergraduate foreign language major. Real language will not develop within departmental programs dominated by linguistic, literary, educational, anthropological, or psychological philosophies.—*Journal summary.*

11700. **Bilker, Larry M.** (U. Florida) **Locus of I-E control expectancy and expectancy changes of disadvantaged mothers.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6869.

11701. **Bjork, Robert M.** (George Peabody Coll. for Teachers) **An international perspective on various**

issues in sex education as an aspect of health education. *Journal of School Health*, 1969(Oct), Vol. 39(8), 525-537.—Includes (a) an overview of sex instruction in public schools, (b) the degree of student sophistication, (c) the morality of premarital intercourse and conception, and (d) masturbation.—G. S. Spitzer.

11702. **Boe, Sue.** (Pharmaceutical Manufacturers Assn., Consumer Services, Washington, D.C.) **Philosophy and objectives for a drug education program.** *Journal of School Health*, 1971(Jan), Vol. 41(1), 11-16.—A curriculum guide is offered for use by "teachers from kindergarten through grade twelve" in implementing drug education programs for youth. A multidisciplinary approach is presented.—G. S. Spitzer.

11703. **Bonboir, Anna.** (U. Louvain, Lab. of Experimental Pedagogy, Belgium) **Quelques modes d'approche du travail des écoliers: Contribution à la pédagogie expérimentale de la langue maternelle.** [Some approaches to school work: A contribution to the experimental pedagogy of the mother tongue.] *Revue de Psychologie et des Sciences de l'Education*, 1971, Vol. 6(1), 34-47.—Presents some considerations about grammatical analysis teaching, and results of research on the knowledge of grammatical functions of 6th-yr elementary schoolchildren. The problem was whether the grammatical terminology of functions was possessed to the same extent as the capacity to "grasp" these functions. 2 types of tests were used: Analysis I which was concerned with the formal aspect, i.e., knowledge of the functions and the nature of words or sets of words, together with their exact denomination. Analysis II concerned the functional aspect, i.e., the understanding of the meaning of functions, i.e., the existing relationships among words or word sets of a sentence excluding any terminology. 3 parallel forms were established for each test. The formal analysis appeared to be more difficult than the functional one. The synthesis of collected observations shows the existence of lags and confusions about the different analyzed notions. (Flemish summary)—*English summary.*

11704. **Boroughs, Mary C.** (Michigan State U.) **The stimulation of verbal behavior in culturally disadvantaged three-year-olds through a program of mother-child interaction at home using children's books.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6890-6891.

11705. **Breyer, Norman L., Calchera, David J., & Cann, Christine.** (U. Connecticut) **Behavioral consulting from a distance.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 172-176.—Investigated the efficacy of behavior modification in a 5th grade classroom taught by a 1st-yr teacher. The behavior modification program was conducted by 2 consultant Os who were supervised by a practicum supervisor located in a university setting. Results show a significant and stable improvement in both teacher and classroom behavior.—H. Kaczowski.

11706. **Brown, George I.** (U. California, Santa Barbara) **An introduction to humanistic education: A weekend workshop for educators.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 138-155.—Describes a weekend seminar for educators in the use of affective teaching techniques. Included among the techniques is the formation of dyads between strangers who seek to communicate by means other than by mouth noises. The general theory of the various exercises was that participants in the program should learn to communicate by dispensing with the use of the "psy-

chological masks" behind which individuals hide.—A. J. Ter Keurst.

11707. Coop, Richard H. & Sigel, Irving E. (U. North Carolina, Chapel Hill) **Cognitive style: Implications for learning and instruction.** *Psychology in Schools*, 1971(Apr), Vol. 8(2), 152-161.—Reviews the theory and research in the area of cognitive style. It is concluded that models for individualized instructional programs are difficult to develop because of the variability in information processing. It is suggested that teachers should become aware of the relationship between teaching strategies and information processing.—H. Kaczkowski.

11708. Core, Harry M. (Lake County Mental Health Clinic, Mentor, O.) **Mental health consultation in a Head Start program.** *Hospital & Community Psychiatry*, 1970(Jun), Vol. 21(6), 183-185.—Describes a 1968 Head Start (HS) program in which an HS caseworker was assigned to go with clinic consultants on all classroom visits. The consultant's main task was to help teachers reduce their expectations to a realistic level and recognize limited gains made by their students. They also helped establish communications between teachers and their students' parents. By the end of the 7-wk HS program, 105 out of 180 children showing maladaptive behavior had shown marked improvement and many referrals had been made to other agencies. The socializing process and enriched environment were considered major influences in modifying the Ss' behavior.—P. Hertzberg.

11709. Dearden, Marlin H. & Jekel, James F. (Griffin Hosp., Drug Education Program, Derby, Conn.) **A pilot program in high school drug education utilizing non-directive techniques and sensitivity training.** *Journal of School Health*, 1971(Mar), Vol. 41(3), 118-124.—"On the basis of . . . 5 hypotheses . . . it was decided to allow . . . [12 high school] students to develop a drug abuse questionnaire and to administer it to the student body of the school. The ultimate goal however, was the development of a method of drug education based upon the group process that took place among the students as they developed and administered the questionnaire." A discussion of the student questionnaire and evaluations of the student discussion groups are included.—G. S. Spitzer.

11710. Di Salvi, R. Daniel. (Newark State Coll.) **A remedial program for undergraduate evening students.** *Adult Education*, 1971(Spr), Vol. 21(3), 186-195.—Conducted a factorial experiment with 100 undergraduate evening students to evaluate 5 degrees of treatment and 2 levels of college experience. Results are reported in terms of postmeasure gains on 4 dependent variables: (a) study orientation, level of comprehension, (b) speed of comprehension, and (c) GPA. Differences between means of all treatment groups were not statistically significant except for speed of comprehension, which was also statistically affected by the amount and kind of treatment received. Levels of experience did not contribute significant differences to mean performances. It is concluded that evening students will voluntarily participate in a reading-study skills program, and that participation is accompanied by improvement in academic performance. (24 ref.)—*Journal abstract.*

11711. Engle, John D. (Princeton High School, Cincinnati, O.) **Giftedness and writing: Creativity in the classroom.** *Gifted Child Quarterly*, 1970(Win), Vol. 14(4), 220-229.—Although the necessity of instruction in practical writing techniques is acknowledged, it is

stressed that creative writing must also be a part of the curriculum. The approach for initiating projects is extremely open in that it is begun with a single word or picture and pupils are told to follow whatever thought impulses they receive. In addition to this technique, the capacities of the mind are stressed, and an attempt is made to convince pupils that any limitations they experience are self-imposed. Another of the goals is to get society to view writing for its own merit and not allow factors of the author's age or status to interfere.—S. Krippner.

11712. Feshbach, Seymour & Adelman, Howard S. (U. California, Los Angeles) **An experimental program of personalized classroom instruction in disadvantaged area schools.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 114-120.—Describes the general conceptualization of personalized instruction that was initiated in 8 disadvantaged area-elementary schools. Emphasis is placed on pupil responsibility in the learning process as manifested in self-direction, self-selection, self-evaluation, and interstudent cooperation. Some implications for future investigations are suggested.—H. Kaczkowski.

11713. Fransen, Forest J. & Landholm, Joanne. (Thomas A. Edison School, Denver, Colo.) **Changing behavior by personalizing learning.** *Journal of School Health*, 1971(Feb), Vol. 41(2), 70-73.—Describes a program in an elementary school where members of multidisciplinary teams met with groups of students for discussion sessions. Goals were set to: (a) effect a change in behavior, (b) improve self-image, and (c) effect an improved climate in group living. No research design was utilized. Results of the program are discussed.—G. S. Spitzer.

11714. Freiheit, Beryle R. (United States International U., San Diego, Calif.) **Effectiveness of a daily auditory training program for Spanish-speaking children learning English.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6399.

11715. Friedman, Sonya K. (Wayne State U.) **A structured curriculum in perceptual development designed to increase the reading readiness scores of kindergarten children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6874.

11716. Gendel, Evalyn S. & Green, Pauline B. (State Dept. of Health, Topeka, Kan.) **Sex education controversy: A boost to new and better programs.** *Journal of School Health*, 1971(Jan), Vol. 41(1), 24-28.—Reports on a survey of education about human growth and development, family life, and sex education in Kansas schools. Short-term objectives are delineated as are the strengths and limitations of the study. A list of recommendations is included.—G. S. Spitzer.

11717. Harvey, Ann L. (Cornell U.) **Goal-setting behavior in high school girls.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6403-6404.

11718. Harvey, Dexter A. (Indiana U.) **The effects of level of aspiration and team competition as motivational techniques upon children's performances on selected sports skill tests.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6383.

11719. Herman, A. B. (U. Calgary, Alberta, Canada) **Effects of high school program choice on self-concept.** *Alberta Journal of Educational Research*, 1971(Mar), Vol. 17(1), 13-18.—A 51-item Q-sort was administered to 174 "matriculation" and 131 vocational, business, or general course 10th graders. Ss were required to indicate actual as well as ideal self. No significant

difference in self-rating was noted when matriculated Ss were compared with the others. Neither were any between group sex differences noted. Females within the nonmatriculated groups rated themselves higher than did males within that group. Other significant differences were noted in both matriculated and nonmatriculated groups with respect to intelligence. Those Ss above average in intelligence were found to rate themselves higher than did those below average in intelligence.—*N. M. Chansky.*

11720. **Hoyman, H. S.** (U. Illinois) **Our most explosive sex education issue: Birth control.** *Journal of School Health*, 1969(Sep), Vol. 39(7), 458-470.—Calls for the availability of birth control information in sex education. Included is a summary description of sex education in Sweden, and the implications it has for American schools.—*G. S. Spitzer.*

11721. **Johnson, Carl I.** (U. Denver) **A descriptive study of the relationship of certain critical values and motivational achievement to self-concept in reticent and non-reticent speakers.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6757-6758.

11722. **Katz, Richard.** (Brandeis U.) **A solo-survival experience as education for personal growth.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 38-53.—Presents a personal account of reactions to a 3-day solo-survival experience on an uninhabited wooded island. Such an experience can lead to personal growth in keeping with the person's abilities to rely on his own character resources, such as initiative, responsibility, and self-discipline. Comparison is made between solo-survival experiences and certain initiation rites of the Plains Indians, religious retreats of the Jesuits, and meditation exercises of the Zen Buddhists.—*A. J. Ter Keurst.*

11723. **Kleinerman, Gerald; Grossman, Michael; Breslow, James, & Goldman, René.** (St. Luke's Hosp. Center, Div. of Community Psychiatry, New York, N.Y.) **Sex education in a ghetto school.** *Journal of School Health*, 1971(Jan), Vol. 41(1), 29-33.—Teaching-learning about sex is a complex enterprise wherein issues of content and process deserve careful attention. This report describes a particular approach, the purposeful solicitation of questions on sex from the students by the teacher. Its value is twofold: (a) concrete documentation of the details of student concern in sexual matters, and (b) facilitation of the actual educational process in ways beneficial to both teacher and student. The student questions are categorized and presented. They stand as sufficient testimony to the necessity and potential usefulness of sex education programs in the school system today.—*Journal summary.*

11724. **Lake, Dale.** (Boston U.) **Sensitivity training: Some cautions and hopes.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 156-171.—The training (T) group or sensitivity training is not an end in itself but a means to an end. As suggested by J. P. Campbell and M. D. Dunnette (see PA, Vol. 42:16204), there are few, if any, educational problems for which the T group represents a sufficient solution. The T group may be considered as a tool which may assist persons in facing the ordeal of change. 1 of the results of a T group experience is the concept of self-renewal. By this concept the organization and its environment are constantly appraised in the light of its objectives. This process may result in the clarification of objectives and an exami-

nation of the means developed to attain such objectives.—*A. J. Ter Keurst.*

11725. **Larsen, Ronald L. & Boody, Charles G.** (Ohio U.) **Some implications for music education in the work of Jean Piaget.** *Journal of Research In Music Education*, 1971(Spr), Vol. 19(1), 35-50.—Presents a short summary of Piaget's research on the qualitative development of intellectual structures, followed by discussion of 2 implications: (a) "The teacher must provide needed concrete data (generally 'perceptions' in the case of music) for the child to manipulate." (b) "The learning situation must be structured so that the child is only required to use 1 grouping at a time in his thought manipulations."—*D. Higbee.*

11726. **Lempert, Henrietta.** (South Shore Protestant Regional School Board, Montreal, Quebec, Canada) **Volunteers as tutors of exceptional children.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 129-134.—Describes a pilot study to determine the feasibility of establishing a learning clinic staffed by supervised parent volunteers within an elementary school located in a culturally disadvantaged neighborhood.—*H. Kaczkowski.*

11727. **Machen, Robert B.** (American U.) **The effect of ten hours of instruction in sex education on anxiety related to sex concepts.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6407.

11728. **Mantz, Genelle.** **A mental health unit for fourth and fifth grades.** *Journal of School Health*, 1969(Nov), Vol. 39(9), 658-661.—Describes a brief mental health project wherein certain goals were established to foster the mental health of 4th and 5th graders.—*G. S. Spitzer.*

11729. **McConnell, Freeman & Horton, Kathryn B.** (Vanderbilt U., Medical School) **Effects of early language training for culturally disadvantaged preschool children.** *Journal of School Health*, 1969(Nov), Vol. 39(9), 661-665.—Describes a 4-yr project wherein early language training for culturally disadvantaged preschool children is emphasized. Preliminary results are discussed.—*G. S. Spitzer.*

11730. **Nevala, Leo R.** (U. Wisconsin) **A study of the relationships of selected socio-psychological and demographic factors to the proclivity to continue education and training in a program for disadvantaged adults.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6333.

11731. **Nicholas, John R.** (U. California, Berkeley) **Modality of verbal instructions for problems and transfer for a science hierarchy.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6409-6410.

11732. **Page, William T.** (U. Illinois) **The development of a test to measure anticipated communicative anxiety.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6760.

11733. **Rice, James A.** (U. Houston) **Heart Start screening: Effectiveness of a teacher-administered battery.** *Perceptual & Motor Skills*, 1971(Apr), Vol. 32(2), 675-678.—Studied a number of issues for 153 Head Start children (66 Negroes, 71 Latins, and 16 Caucasians). Screening instruments included (a) the Otis-Lennon Mental Ability Test, the Auditory Vocal Sequencing subtest of the Illinois Test of Psycholinguistic Abilities. Experimental Edition, and the Bender Gestalt Test. The principal conclusions are: (a) these children are significantly more deficient in the perceptual-motor areas, race notwithstanding, than in either the areas of mental

ability or auditory memory, (b) the battery has effectively selected children for individual psychological evaluation insofar as measured intelligence is the criterion, (c) even within the scope of a single program, community differences may exist, and as a wide consequence, no single set of training procedures is likely to be adequate for all communities, and (d) ethnic differences in the various skill areas were significant.—*Journal abstract.*

11734. Schneiderman, Gerald M. (New York U.) **The relationship of cognitive differentiation of types of black history course content and attitude change of black seventh-grade students.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6413.

11735. Simon, Sidney B. (Temple U.) **Promoting the search for values.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 75-84.—The difficulty in teaching values is that they are not usually the outcome of direct verbal instruction but are implanted by indirect non-verbal means, such as the modeling processes. The strategies for value clarification or value structuring include the use of weekly individual-reaction questionnaires by which the S indicates his gripes and high points, the use of autobiographies, time diaries, and reactions to ambiguous situations. Some of the criteria that structure the teaching of values are: the values should be socially cherished, a part of a repeated pattern, chosen from alternatives, freely chosen after due reflection, socially reinforced, and become motives for action.—A. J. Ter Keurst.

11736. Slapo, Daniel. (City Coll., City U. New York, School of Education) **The effect of problem-solving training on the creative art work of sixth grade students.** *Graduate Research in Education & Related Disciplines*, 1969(Spr), Vol. 4(2), 42-62.—Studied how to help children incorporate more original ideas into their art production. Ss were 30 6th graders. The instructional material was a series of problem-solving tasks presented in detective stories with cartoon illustrations in booklet form. There were 16 lessons with an average of 35 pages each. An opaque projector was used in order for the trainer to read to the entire class at 1 time and was followed up by oral discussions of the problems. The test was a framed 6" x 9 1/2" paper on which the S drew a picture appropriate to children playing in a school yard. Ss' drawings were evaluated by 4 art teachers as to whether they were stimulus-free or stimulus-bound, and on originality. Results indicate that the experimental group of 15 did significantly better on these variables than did the 15 controls. Findings suggest that school children are trained to give responses similar to teachers' directions. Training by projecting the lessons on a screen to the entire class encouraged oral discussion and produced enthusiasm and involvement. Further study is needed to see if this creative expression remains with these Ss or if continuous training is necessary. The study indicates that creative expression can be stifled or developed in accord with atmosphere and curriculum variables. (34 ref.)—*Journal abstract.*

11737. Stevens, Virginia R. (U. Akron) **Changes in self-concept resulting from participation in college compensatory education programs as measured by Edwards' Personality Inventory.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6417.

11738. Stine, Oscar C., Saratsiotis, John S., & Furno, Orlando F. (U. Maryland, Baltimore) **Selected neurologic and behavioral findings of children entering an**

early school admissions project from culturally deprived neighborhoods. *Journal of School Health*, 1969(Sep), Vol. 39(7), 470-477.—Describes and discusses the frequency of selected neurological measurements in children categorized as culturally deprived who were introduced to public education at age 4. The process consisted of: (a) parent interview, (b) health measurements, and (c) mental measurement. The importance of the multiple-discipline evaluative approach in helping culturally disadvantaged children is stressed.—G. S. Spitzer.

11739. Whitman, Myron & Whitman, Joan. (U. Illinois, Chicago Circle) **Behavior modification in the classroom.** *Psychology in the Schools*, 1971(Apr), Vol. 8(2), 176-186.—Reviews the theoretical rationale for behavior modification and compares it to traditional psychotherapies. Some behavior modification techniques for the classroom management of maladaptive behavior are suggested.—H. Kaczowski.

11740. Wolfe, Barry E. (U. Florida) **A comparison of the impact of two kindergarten programs on the creative performance of disadvantaged Negro children.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6886.

Teaching Methods & Teaching Aids

11741. Bjerstedt, Åke. (School of Education, Malmö, Sweden) **System analysis in instructional programming: The initial phases of the program construction process.** *Didakometry*, 1971(Apr), No. 30, 119 p.—Describes the construction of a self-instructional system as a process with 3 main phases: (a) system analysis: preparatory work; (b) system synthesis: construction of a preliminary system version; and (c) system modification and evaluation: postconstruction control and improvement. An introductory discussion of some basic principles of instructional programming is presented, and major subphases within the preparatory work are discussed.—*Journal abstract.*

11742. Bjerstedt, Åke. (School of Education, Malmö, Sweden) **System synthesis in instructional programming: The intermediate phases of the program construction process.** *Didakometry*, 1971(May), No. 32, 82 p.—Considers the system synthesis phase, the construction of a preliminary system version, in the building of a self-instructional system. Various aspects of the writing of a preliminary version, e.g., choice of flow model, working out the information component of instructional units, designing response requests, and result indications are discussed.—*Journal abstract.*

11743. Bohac, Joseph J. & Frank, Peter R. (United States International U., San Diego, Calif.) **The effectiveness of the teaching machine as a method of teaching vocabulary and the relationships of personality types to the teaching machine as a method of instruction.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6394.

11744. Boudin, Henry M. (U. Michigan) **The ripple effect in classroom management.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6395.

11745. Brown, Bobby R., Hansen, Duncan N., Thomas, David B., & King, Arthur D. (Florida State U.) **Learner control of automated instruction.** *NAVTRADEVCEEN, Technical Report*, 1970(Aug), No. 68-C-0071-3, 32 p.—Investigated the effects of 3 variations of learner control and 1 instructor control condition: (a) selection of media-device and information load,

(b) selection of repetition by branching, and (c) selection of topic sequence. 15 undergraduate and 40 graduate students served as Ss. By means of the IBM 1500 system, material was presented via (a) CRT instructional terminals with light pen response, (b) typewriter instructional terminals with keyboard response, and (c) a manually operated multiple tape deck player with multiple sets of earphones for individual audio presentations with written responses. Significant pre-post improvement was observed across all groups. However, learner control did not improve performance in comparison to the no learner control group. Data reveal that the no learner control condition was superior on the posttest. The pattern of choices of information level (terse, medium, redundant) which learners made under learner control of presentation device and redundancy level seems to indicate that Ss did choose device redundancy level combinations which tended to optimize the memory load of the device-material combination. Results observed for learner control of sequence suggest that the amount of information presented to guide student decisions in sequencing may be a critical variable. (19 ref.)—*Journal abstract.*

11746. Bruininks, Robert H., Lucker, William G., & Gropper, Robert L. (U. Minnesota) **Psycholinguistic abilities of good and poor reading disadvantaged first-graders.** *Elementary School Journal*, 1970(Apr), Vol. 70(7), 378-386.—Disadvantaged children who had attended Grade 1 in either 1964 or 1965, and had participated in experimental reading and language development projects, served as Ss. 1 group of 171 Ss were taught to read with a series that used the initial teaching alphabet and another group of 160 were taught to read with a series that used traditional orthography. All were finally classified as "good" or "poor" readers. Toward the end of Grade 1, Ss in both reading approaches were given the Illinois Test of Psycholinguistic Abilities, Experimental Edition. The prediction that poor readers would be significantly inferior to good readers on psycholinguistic abilities was partially supported. Findings suggest "the need to incorporate intensive auditory perception and language training into the reading readiness program for disadvantaged 1st-graders who have auditory deficits." (26 ref.)—S. R. Diamond.

11747. Coleman, Richard G. (U. North Carolina, Chapel Hill) **An operant technique for elementary classrooms.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6872.

11748. Froseth, James O. (U. Wisconsin) **Using MAP scores in the instruction of beginning students in instrumental music.** *Journal of Research in Music Education*, 1971(Spring), Vol. 19(1), 98-105.—The Musical Aptitude Profile (MAP) was administered to 190 5th and 6th graders prior to their receiving any instrumental music instruction. Using ratings of tape-recorded performances of etudes at the end of the 1st yr. of instruction as a criterion, it was found that students did significantly better (although the differences were small) when teachers had knowledge of MAP scores than when they did not.—D. Higbee.

11749. Greenberg, Marvin & Huddleston, Don R. (U. Hawaii) **A program for developing aural discrimination of instrumental tone colors using a video-sonic teaching machine.** *Journal of Research in Music Education*, 1971(Spring), Vol. 19(1), 51-61.—Discusses programmed instruction in music and the development

of a program on "the instruments of the orchestra."—D. Higbee.

11750. Hartley, James. (Memorial U., St. John's, Newfoundland, Canada) **Factors affecting the efficiency of learning from programmed instruction.** *AV Communication Review*, 1971(Sum), Vol. 19(2), 133-148.—Reports results of the Factors Affecting the Efficiency of Learning from Programmed Instruction project carried out between March 1967 and September 1970. 3 main areas were investigated: (a) programmed learning in pairs, (b) the teacher and programmed learning, and (c) the effects of pretesting on posttest performance. Methodology, results, and discussion are provided in each area. Summaries of 14 technical papers which grew out of the project are also provided.—D. E. Anderson.

11751. Harvey, William L. (U. Southern California) **A study of the cognitive and affective outcomes of a collegiate science learning game.** *CAI Center Technical Report*, 1970(Nov), No. 17, 147 p.—Examined the effects of playing a science education game on (a) attitudes toward science, (b) general confidence in mastery of science, (c) general achievement in science, and (d) mastery of specific scientific concepts. 78 black teachers enrolled in science education courses were assigned to 2 classes using either the learning game or the traditional lecture-discussion approach. Pretest scores for each group did not differ significantly, but posttest scores revealed significantly superior scores for the experimental group in all areas examined. Stepwise multiple regression analyses for high and low achievement groups indicate that low achievers benefited most from the gaming strategy. The learning game thus reduced the differences in achievement detected in the pretest, while raising the achievement mean score for the entire group. Results suggest that a learning game of this type may be an effective agent in providing a learning environment that fosters growth in the cognitive and affective domains. (54 ref.) *Journal abstract.*

11752. Hoffnung, Priscilla S. (U. Cincinnati) **Test anxiety and feedback in programmed learning.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6903.

11753. Ives, John M. **A strategy for instructional television research.** *AV Communication Review*, 1971(Sum), Vol. 19(2), 149-160. Discusses the role of closed-circuit TV in the general understanding of the education process. The approach proposed begins with specific programs, identified effects that the program may produce, defines more rigorously the variables that may produce these effects, and subsequently undertakes experimental studies to investigate further the variables and their effects. Techniques based on test item totals and intercorrelations are suggested as a means of building a body of knowledge based on empirical generalizations.—D. E. Anderson.

11754. Jackson, Kenneth M. (U. Washington) **A communication approach to programmed instruction.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6240-6241.

11755. Johnston, James M. & Pennypacker, H. S. (U. Florida) **A behavioral approach to college teaching.** *American Psychologist*, 1971(Mar), Vol. 26(3), 219-244.—Describes a program of research on teaching methods and their results, comparing these techniques with other instructional procedures. The research was conducted from the philosophical and methodological

perspective of an empirical approach to instructional procedures in higher education. The techniques included using skilled students to teach other students, precise specification of curricula, continuous recording and graphing of performance data, individualized definition of performance criteria, and frequent assessment integrated with teaching. The roles of a number of variables critical to the success of such teaching activities are discussed. (25 ref.)—*J. M. Johnston.*

11756. **Kamedula, Eugeniusz. Efektywność nauczania przy pomocy filmu.** [Teaching effectiveness by means of films.] *Prace Wydziału Filozoficzno-Historycznego: Seria Psychologia-Pedagogika*, 1970, No. 17, 297-331.—Studied the effects of films used as educational aids (a) for the mastery of subjects presented, (b) for a better retention of the instruction offered, and (c) for subject matter memorized by low achievers. It was found that the subject presented was mastered better by 14% in lessons with films than in lessons without them. Ss who had 4 or more unsatisfactory marks before memorized 20.8% more information than in conventional classes. The retention of knowledge acquired, after a mo. had elapsed, was 12.6% higher for students taught by audiovisual techniques than for those taught by conventional methods. For low achievers in biology, the difference amounted to 20.3%. In general, all marks of Ss taught by audiovisual methods were much higher than the marks of Ss taught without them. It is emphasized, however, that these results should be regarded just as indicative, as only a few students were involved and this experiment was of short duration. (23 ref.)—*P. von Toal.*

11757. **Leja, Leon. Audiowizualne techniki nauczania: I. Ich efektywność.** [Audiovisual teaching techniques: I. Their effectiveness.] *Prace Wydziału Filozoficzno-Historycznego: Seria Psychologia-Pedagogika*, 1970, No. 17, 269-296.—Studied the effectiveness of audiovisual and semiprogrammed teaching in several public schools, high schools, and vocational schools by specially trained teachers with a teaching experience up to 15 yr. During the experimental lessons, the subject matter was presented verbally, and films were used additionally for further information. The achievements of the students were compared with those of students taught by conventional methods. It was found that in classes using audiovisual teaching the retention was much better than in the control classes. This was proven by the marks earned by the students which were, at an average, 19.3% higher for the students taught by audiovisual methods. The economic aspects of the audiovisual teaching techniques are discussed. In spite of the high initial costs, the introduction of these techniques is believed to be advisable, due to the better teaching effects obtained. (18 ref.)—*P. von Toal.*

11758. **Milan, Mikuláš & Barišová, Margita.** (Pedagogical Research Inst., Bratislava, Czechoslovakia) **K problémů zásadnej zmeny vyučovacieho procesu.** [Fundamental changes in the teaching process.] *Jednotná Škola*, 1970(Nov), Vol. 22(9), 833-849.—Studied the effectiveness of the classical-programming teaching method for the instruction of 2,158 3rd graders from 81 classes in the towns and villages of Slovakia and Moravia. The method was applied 4 hr/wk over 1 school yr. Only 3.2% of the students failed the course, 51% for irregular school attendance. Results of a questionnaire returned by the teachers indicate a highly positive response to the nontraditional method of teaching. 91%

indicated that they would continue to use the combined classical-programming method. (Russian summary)
—*English summary.*

11759. **Mordant, Gilberte.** (U. Brussels, Belgium) **La méthode Romain et l'éducation des attitudes.** [The Romain method and the education of attitudes.] *Revue Belge de Psychologie et de Pédagogie*, 1970(Jun), Vol. 32(130), 50-62.—Reviews the method developed by S. Romain for the education of aptitudes and attitudes. The student is presented with various problems, objects, and tasks, some of which call for fixed responses, others which permit creativity. These situations are intended to provide illustrations of the student's basic thought processes, operational behaviors, reactions to success or failure, etc. Evidently, there is general agreement that the Romain method seems to be a promising tool for assessing these dimensions of the personality, and assisting the individual to develop them during the formative years within the educational process.—*L. A. Ostlund.*

11760. **O'Reilly, Robert P. & Illenberg, Gregory J.** (New York State Education Dept., Albany) **Relationship of classroom grouping practices to diffusion of students' sociometric choices and diffusion of students' perception of sociometric choice.** *California Journal of Educational Research*, 1971(May), Vol. 22(3), 104-114.—Students in classrooms organized by pupil teams for instruction and students in conventionally structured classrooms were administered a sociometric device designed to measure the extent of social diffusion along the 3 dimensions of liking, school competence, and social power. Results were also analyzed in terms of the graded or nongraded structure of the sample schools. Classrooms organized by pupil teams for instruction were consistently less diffuse in social structure than were the conventionally organized classrooms, both graded and nongraded. This lack of social diffusion is interpreted to be the result of the unique instructional setting of the team learning classroom as opposed to the conventionally structured classroom.—*Journal abstract.*

11761. **Payne, Beryl.** (Boston U.) **Uncovering destructive self criticism: A teaching technique based upon general semantics.** *Educational Opportunity Forum*, 1969(Fal), Vol. 1(4), 85-94.—The work of A. K. Korzybski is cited to indicate the amazing rates of progress in the sciences against the relatively meager advancements in the social studies. It is posited that the vocabulary and language patterns of the latter are absolutistic while in the former they are relativistic. Some of the results of the latter are "either-or," "all-inclusiveness," and "2-value logic" mechanisms of thinking. The relativistic emphasis of science results in thinking characterized by "degrees of truth," "varying degrees of values," "dynamic and flexible conclusions," and "specificity with respect to time and place." Excessive self-criticism can develop an absolutistic perception of one's work to the erosion of creative problem solving. Examples are given by which students can counterbalance the results of excessive, destructive self-criticism.—*A. J. Ter Keurst.*

11762. **Pellegrino, Dominick D.** (Iowa State U.) **The class is a group.** *National Catholic Guidance Conference Journal*, 1971(Spr), Vol. 15(3), 157-162.—Most teachers neglect to apply interpersonal techniques and group dynamics to classroom situations. Consultation techniques and concepts are presented for use by counselors

when interacting with teachers to use their classes as groups.—A. M. Cawley.

11763. Scott, Joseph A. (U. Wisconsin) **The effects on short- and long-term retention and on transfer of two methods of presenting selected geometry concepts.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6413.

11764. Stallings, Jane A. (Stanford U.) **Reading methods and sequencing abilities: An interaction study in beginning reading.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6415-6416.

11765. Sullivan, Howard J., Okada, Masahito, & Niedermeyer, Fred C. (Southwest Regional Lab. for Educational Research & Development, Inglewood, Calif.) **Learning and transfer under two methods of word-attack instruction.** *American Educational Research Journal*, 1971(Mar), Vol. 8(2), 227-239.—Investigated the effectiveness of 2 methods of word-attack instruction for beginning readers: the single-letter (SL) approach involving letter-by-letter sounding out of new words, and the letter-combination (LC) technique in which children are taught ending VC and VCC combinations as single grapheme-phoneme units. 2 randomly assigned, matched groups of 1st graders ($N = 48$) received a systematic group instruction employing either SL or LC training on a 25 min/day basis for 27 days. The dependent variable was performance on an 80-item posttest assessing Ss ability to read (a) words and letter sounds practiced during training, and (b) transfer words composed of practiced grapheme-phoneme units. Analysis of variance revealed a significant Treatment \times Ability interaction. Low-ability SL-trained Ss scored 15 points higher ($p < .05$) on the posttest than low ability LC Ss, while high ability SL Ss scored 10 points lower than their LC counterparts. The very substantial learning and transfer gains registered by both the SL and LC groups indicated the desirability of frequent and systematic word-attack instruction for beginning readers.—*Journal abstract.*

crewmen judgments than the less effective crew Os.—HumRRO.

11767. Cory, Charles H. (U.S. Naval Personnel & Training Research Lab., San Diego, Calif.) **A comparison of retention of category IVs and non-IVs in fifty-eight navy ratings.** *U.S. Naval Personnel & Training Research Laboratory Report*, 1971(Mar), No. SRR 71-13, 10 p.—Analyzes data based on the men retained from a sample of approximately 19,500 after an average of 9 yr. service in the United States Navy. After categorizing them by mental level within each of the ratings present in the sample, ratings and types of ratings most suitable for Navy Category IV men in terms of long-term retention were determined. Ratings having few or no IVs to which IVs might be suited for assignment were identified. Category IV Ss were found to have been retained at a substantially lower rate and to be present in substantially fewer ratings than Ss in the other mental levels. Despite the overall lower than average rate, for many ratings IVs had rates of retention substantially higher than other mental levels.—*Journal abstract.*

11768. Marcus, Edward E. (Public Personnel Assn., Chicago, Ill.) **What do you mean, "evaluation?"** *Personnel Journal*, 1971(May), Vol. 50(5), 354-358, 411.—Discusses reductionistic models of evaluation, e.g., value determination by mass, extension, assay, and consensus or negotiation, and evaluation as feedback and as a postmortem. Also, discussed are the semantics of evaluation, e.g., evaluation upon completion, at timed intervals and critical junctures, by exception and random sampling, and continuous evaluation.—S. Knapp.

11769. Martin, Roger D. (U. Saskatchewan, Saskatoon, Canada) **Personality correlates of life insurance underwriters.** *Studies in Personnel Psychology*, 1971(Apr), Vol. 3(1), 63-67.—The effectiveness of Gough's Adjective Check List was evaluated as an indicator of potential life underwriter sales success as measured by total sales. 13 Ss from 1 branch of 1 company participated in the study. 2 test groups of those Ss in the upper and lower thirds of the total group in total sales were compared. Significant differences between high- and low-sales groups are claimed on the Defensiveness, Favorable Adjectives Checked, and Self-Control subscales. No significant differences were found between groups on the Self-Confidence, Endurance, and Exhibition subscales. (French abstract)—J. G. Tiedemann.

11770. McFann, Howard H. (HumRRO, Div. No. 3, Monterey, Calif.) **HumRRO research and project 100,000.** *HumRRO Professional Paper*, 1970(Dec), No. 33-70, 4 p.—Presents information on 3 major HumRRO projects concerned with training and performance of men of varying ability levels, as determined by their Armed Forces Qualification Test (AFQT) scores. Ss were approximately 1600 tank crewmen, vehicle mechanics, supply clerks, and cooks. Project I compared on-the-job performance; Project II concentrated on literacy requirements for military jobs; and Project III concerned developing and testing instructional programs appropriate for simultaneously training men of various ability levels. Results indicate that (a) performance in all jobs improved as a function of AFQT level and with increasing time on the job; (b) job knowledge varied as a function of AFQT level and time on job; (c) job experience was more highly related than AFQT level to job performance and information concerning the job; and (d) although the difference between Negroes and

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11766. Baldwin, Robert D., Frederickson, Edward W., & Hackerson, Edward C. (HumRRO Div. No. 5, Ft. Bliss, Tex.) **Aircraft recognition performance of crew chiefs with and without forward observers.** *HumRRO Technical Report*, 1970(Aug), No. 70-12, 25 p.—Describes a test of aircraft recognition accuracy and decision speed, comparing the performance of single Os and 4-man crews. Ss were 48 army men of 3 different rank groups. The test used miniaturized simulations of aircraft which were moved at scaled speeds, altitudes, and distances. The validity of the simulation was evaluated, and judged acceptable, by comparing the results of the miniaturized test with results obtained from a previous full-scale test. Comparison of single Os with crews revealed that approximately 50% of Os performed more effectively alone than with a crew, in terms of both accuracy and decision speed. The remaining Os performed either equally well, or more effectively with a crew than alone. These 2 groups of Os were found to prefer different communication sequences. The more effective crew Os tended to be less dependent upon other

Caucasians on the AFQT was about 18 points, they performed equally well on the job sample and job knowledge tests.—*HumRRO*.

11771. Pinto, Patrick R. (U. Georgia) **Subgrouping in prediction: A comparison of moderator and actuarial approaches.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6969.

11772. Schmidt, Frank L. (Purdue U.) **The relative efficiency of regression and simple unit predictor weights in applied differential psychology.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6969-6970.

VOCATIONAL CHOICE & GUIDANCE

11773. Astin, Helen S. & Myint, Thelma. (University Research Corp., Washington, D.C.) **Career development of young women during the post-high school years.** *Journal of Counseling Psychology*, 1971(Jul), Vol. 18(4), 369-393.—Utilized the Project TALENT Data Bank, to study the career development of 5,387 women during the 5-yr period after high school. Multiple-discriminant analysis was the primary method of analysis utilized. From the predictor variables employed, the post-high school experiences were the best determinants of career outcomes. Educational attainment and marital-familial status best predicted whether women would choose to pursue careers in the sciences, professions, and teaching, or to be housewives and office workers. Of the personal variables, scholastic aptitudes—particularly those related to mathematics—and socioeconomic status, as well as early career choices were the best predictors. Concerning the patterns of stability and change in career plans over time, it is concluded that brighter women either maintain or raise their vocational aspirations whereas the less academically capable women plan on less demanding careers. (38 ref.)—*Journal abstract*.

11774. Cartwright, Lillian K. (U. California, Berkeley) **Women in medical school.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6237.

11775. Greenhaus, Jeffrey H. (New York U.) **Self-esteem and career salience as influences on vocational choice and vocational satisfaction.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6966.

11776. Guinn, Nancy; Tupes, Ernest C., & Alley, William E. **Demographic differences in aptitude test performance.** *USAF AFHRL Technical Report*, 1970(May), No. 70-15, 23 p.—Investigated the joint and independent relationships between aptitude test performance and certain demographic-cultural variables, and the relationships between these variables and the aptitude test factor content. 5 test batteries were administered to groups of approximately 1,900 airmen each. Multiple linear regression analyses indicate that there were significant interaction effects for 6 of the selected tests. The relationship between the cultural variables combined and each aptitude test was significant for all tests. Significant net relationships of race, educational level, and geographical area were found with a majority of tests although wide differences were found among aptitude tests in their sensitivity to demographic-cultural influences. With regard to factor content, race appeared to be related to tests in most factor areas, with its highest relationship in the mechanical area. Education had the highest relationships with verbal, numerical, and reasoning factors and the lowest relationships with the mechanical area. No discernible trend with regard to

factor content was noted for geographical area.—*Journal abstract*.

11777. Hogan, Robert; Hall, Robert, & Blank, Esther. (Johns Hopkins U., Center for Social Organization of Schools) **An extension of the similarity-attraction hypothesis to the study of vocational behavior.** *Center for Social Organization of Schools Report, Johns Hopkins U.*, 1971(Jun), No. 105, 8 p.—Investigated the relationship between similarity of interests and likability, using methods comparable to those used in previous research on the effects of similarity of attitudes or personality on likability. 122 male undergraduates completed an activity preference scale. Ss were then assigned to groups and 4 wk. later rated answer sheets which, in comparison with their own, were (a) in complete agreement, (b) $\frac{1}{2}$ in agreement and $\frac{1}{2}$ in disagreement, and (c) in complete disagreement. A strong positive relationship was found between interest similarity and rated attraction. Implications of these findings for a major theory of vocational behavior are discussed.—*Journal abstract*.

11778. Lau, Alan W. & Abrahams, Norman M. **Reliability and predictive validity of the Navy Vocational Interest Inventory.** *U.S. Naval Personnel & Training Research Laboratory Report*, 1971(Feb), No. SRR 71-16, 18 p.—Presents an investigation of the reliability and validity of the Navy Vocational Interest Inventory (NVII) for a group of men retested 2 yr. after leaving the Navy. Previous findings on NVII test-retest reliability have been based on the responses of reenlistees. Since reenlistment may indicate stability of vocational preferences and nonreenlistment a need for vocational change, an analysis of scale reliability for a sample of nonreenlistees is reported. A 2nd purpose was to obtain evidence for the predictive validity of the NVII. NVII retest scores of 174 Ss who took the NVII in 1964 were compared to scores earned 6 yr. earlier, present civilian occupation, and self-reports of job performance and satisfaction. The relationship between reason for leaving and scale scores was also examined. Results indicate that (a) NVII scores tended to be stable whether based on responses from reenlistees or nonreenlistees; (b) the NVII has acceptable predictive validity; (c) moderate relationships between NVII scores and reports of civilian job satisfaction and performance were found; and (d) low scores were associated with separation from the Navy because of dissatisfaction with rating.—*Journal abstract*.

11779. Miller, Robert E. **Development and standardization of the Air Force Officer Qualifying Test Form K.** *USAF AFHRL Technical Report*, 1970(Jun), No. 70-21, 9 p.—Describes a new form (K) of the Air Force Officer Qualifying Test (AFOQT), standardized for implementation in Fiscal Year 1970. It closely resembles its predecessor in content, organization, and norming strategy, and yields pilot, navigator-technical, officer quality, verbal, and quantitative composite scores. Standardization involved utilization of the Project TALENT battery to relate AFOQT scores to performance of Air Force Academy candidates and 12th grade males in the original Project TALENT national survey. AFOQT Form K extends the practice by which conversion tables are adjusted for the effects of formal education on raw scores. The Form K scoring manual contains 3 sets of conversion tables corresponding to less than 2 yr. of college, 2 or more yr. but not graduation, and graduation from college at the time of testing.

Corrections were made in the adjustment of the pilot composite for educational effects on the basis of operational experience with AFOQT-68 which showed that the adjustment was excessive. A revision of the AFOQT Manual for Interpretation, published simultaneously with AFOQT Form K, contains information not peculiar to any 1 form. The revision includes a more extensive summary of technical data and brief explanation of each technical concept introduced.—*Journal abstract.*

11780. Mullins, Cecil J., Massey, Iris H., & Riederich, Larry D. **Why airmen enlist.** *USAF AFHRL Technical Report*, 1970(Aug), No. 70-29, 32 p.—Administered the Air Force Questionnaire to 41,098 newly enlisted airmen. 1-way distributions were made of all responses, and then 2-way distributional relationships were computed between reasons for enlistment and other selected variables. Educational opportunity was the reason most frequently given for Air Force enlistment, followed by wide choice of assignments, and then opportunity to travel. Reasons for enlistment appear to be associated with various other variables, e.g., indications of S's attitude toward enlistment in the absence of a draft, his career intentions, previous work experience, race, educational level, and mental ability.—*Journal abstract.*

11781. Nuttall, Ronald L. & Fozard, James L. (Boston Coll., Inst. of Human Sciences) **A reexamination of the structure of the General Aptitude Test Battery aptitudes.** *Industrial Gerontology*, 1971(Win), Vol. 8, 1-18.—Examination of age and socioeconomic status of the 12 subtests of the General Aptitude Test Battery indicated that the intelligence factor (G) was composed of subtests which did not respond to these 2 variables. Parallel factor analyses on a sample of 1,146 28-83 yr. old men defined a new, 7-factor structure in which Factor G is replaced by information processing ability (Factor IPA), and Factors P and Q, by perceptual detail discrimination (Factor PDD). Other factors in this new scheme are manual dexterity (MD), pattern analysis capability (PAC), finger dexterity (F), motor coordination (K), and verbal ability (V). "The replacement of the present 9 aptitudes with the new 7... should allow greater stability of aptitudes with older workers." (18 ref.)—A. M. Cawley.

11782. Pratt, Ann B. (U. Minnesota) **Meanings of popular and unpopular occupations on the Strong Vocational Interest Blank for Women.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6317-6318.

11783. Singh, L. C. (National Inst. of Education, New Delhi, India) **Development of a bilingual occupational differential.** *Indian Journal of Psychology*, 1969, Vol. 44(1-4), 71-92.—The occupational differential was developed mainly based upon the procedure used by Osgood, et al., for their semantic differential scale, in 2 Indian languages—Hindi and Kannada. The major steps were: selection of concepts in English, elicitation of Hindi/Kannada translation equivalents, production and selection of scales including determining the qualifier domain and opposite elicitation. 3 more criteria were used for selecting occupational titles. The occupational differential was made up of 12 scales. 4 scales with highest loadings on each of the 3 factors were selected to represent dimensions of efficiency, work morality, and appearance.—B. Roy.

11784. Thomas, James M. (U. Nebraska, Omaha) **Retention of scientists and engineers in the Air**

Force: A modified model for interpreting correlates of career intent. *USAF AFHRL Technical Report*, 1970(Jun), No. 70-27, 29 p.—Identified factors related to career intentions of scientists and engineers in the Air Force and examined assumptions underlying organizational retention research for relevance to Air Force retention studies. A literature review was conducted and a theoretical discussion of typical assumptions in retention research presented. A survey of scientists and engineers (N = 449) was then analyzed, using a modified model based on the theoretical discussion. Results suggest that career-oriented scientists and engineers may have a different need structure than their non-career-oriented counterparts. Needs for managing and applied research characterized the career-oriented scientist, while needs for pure research and scientific achievement characterized the non-career-oriented scientist. Career-oriented officers were generally more optimistic about satisfying important needs while in the Air Force, and preferred a professional-officer to a professional-scientist identity. Correlations between various aspects of active duty experience and career intent suggest that precommitment attitudes should be investigated further. Career-oriented scientists and engineers may start out career-oriented and their active duty experiences sustain that orientation. Non-career-oriented scientists and engineers may perceive active duty experiences as supporting their initial attitudes regarding a military career. This leaves only the initially undecided group to be significantly influenced by the quality of their active duty experiences. (42 ref.)—*Journal abstract.*

11785. Valentine, Lonnie D. & Vitola, Bart M. **Comparison of self-motivated Air Force enlistees with draft-motivated enlistees.** *USAF AFHRL Technical Report*, 1970(Jul), No. 70-26, 18 p.—To understand the impact of a move toward volunteer armed services on the characteristics of Air Force input, 2 groups of basic trainees were defined in terms of their draft vulnerability at the time of enlistment and their stated attitude toward enlistment in the absence of a draft. These groups, identified as self-motivated and draft-motivated enlistees, with 209 and 347 Ss, respectively, were compared on a number of dimensions. From comparative data derived from Ss responses to the Career Attitude Survey and the Airman Biographical Survey, statistically significant differences were found between the 2 groups. Compared with draft-motivated Ss, self-motivated Ss were less well educated, came from a lower socioeconomic background, and performed less adequately on ability tests. They were generally attracted to service by the opportunity to learn a trade and were not firmly committed to a military career at time of initial entry to service. Data also suggest that military service can be made more attractive to draft-motivated Ss by structuring the personnel system to allow the individual more control over his fate.—*Journal abstract.*

SELECTION & PLACEMENT

11786. Curtis, Ervin W. & Alf, Edward F. **Validity, predictive efficiency, and practical significance of selection tests.** *U.S. Naval Personnel & Training Technical Bulletin*, 1970(Aug), No. STB 71-1, 13 p.—Questions the practice of accepting validity coefficients at face value as measures of practical significance. This practice is evaluated by examining each functional relationship between 3 indexes of predictive efficiency— r , r^2 , and E —and 3 measures of practical significance

—the increase of the criterion mean, the expected proportion "satisfactory," and the expected proportion in 10 criterion categories. The validity coefficient, r , is a linear function of the increase of the criterion mean and very nearly a linear function of the other 2 measures of practical significance; r^2 and E are related to these 3 measures in a more curvilinear manner. A table is presented that gives the proportion expected in each of 18 criterion categories as a function of r and the selection ratio.—*Journal abstract.*

11787. Hooke, James F. & Krauss, Herbert H. (Virginia Commonwealth U.) **Personality characteristics of successful police sergeant candidates.** *Journal of Criminal Law, Criminology & Police Science*, 1971(Mar), Vol. 62(1), 104-106.—Data were collected as part of a study of usefulness of objective personality inventories in the selection and promotion of police officers. The following tests were administered to candidates who had successfully passed the oral examination: (a) the MMPI, a widely used personality test designed to assess the presence of severe psychopathology; (b) the Allport-Vernon-Lindzey Study of Values, intended to measure basic value orientation; and (c) the Gough Adjective Check List, a list of adjectives considered useful in determining self-concept. The test material indicates that the successful candidates and their matched controls were psychologically normal. The group of successful candidates, however, seemed better suited for leadership and disciplinary roles than their matched controls. Within the group of successful candidates for sergeant, men who were rated by established sergeants as good police officers were also rated as potentially good sergeants. Conversely, those who were rated as relatively poorer officers were also seen as poorer sergeant material. The psychological tests did not differentiate between the candidates rated as good sergeant material and the group rated as relatively poorer candidates. Many explanations for this seem reasonable.—*R. Gunter.*

11788. Lacey, David W. (Ohio State U.) **Holland's vocational models: A study of work groups and need satisfaction.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6316-6317.

11789. Thomas, Patricia J. **The improvement of selection to Personnelman "A" school.** *U.S. Naval Personnel & Training Research Laboratory Technical Bulletin*, 1970(Oct), No. STB 71-3, 37 p.—Administered tests of intermediate memory ability, the Navy Vocational Interest Inventory (NVII), a peer rating, and an instructor's rating, at 3 Personnelman (PN) "A" schools with a total of 217 students. The final school grade (FSG) of each S was used as a criterion. In addition, the efficacy of the NVII for predicting the performance of rated PNs in the fleet was investigated with 788 Ss. Midway through the testing phase of this research, a major course revision was instituted at the PN schools. The validity coefficients prior to this change were markedly higher than after. A comparison of the test performance of recruit and fleet input to the schools showed that virtually all of the validities were higher for recruit input although the fleet men earned higher FSGs. The NVII key developed to predict the PN supervisor's rating achieved a cross-validated r of .23, as compared with the General Classification Test (GCT) validity of -.02 and the Arithmetic Test (ARI) validity of -.01. It was recommended that: (a) GCT and ARI be retained for recruit classification; (b) ARI be the sole Basic Test

Battery selector for fleet input to the schools; (c) the Ss in this study be followed to determine what effect the curriculum change had upon their on-job performance; and (d) consideration be given to increasing the proportion of fleet men in PN "A" school.—*Journal abstract.*

TRAINING

11790. Blaiwes, Arthur S. & Regan, James J. (Human Factors Lab., Orlando, Fla.) **An integrated approach to the study of learning, retention, and transfer: A key issue in training device research and development.** *NAVTRADEVCE Technical Report*, 1970(Aug), No. IH-178, 48 p.—Summarizes the approach, rationale, and some of the results of an effort being made at the Naval Training Device Center Human Factors Laboratory to acquire information on learning, retention, and transfer which can be applied toward the solution of military training problems. A review of some relevant psychological theories and an analysis of the relevant research literature are included. (181 ref.)—*Journal abstract.*

11791. Dick, Walter; Rivers, LeRoy; King, Arthur D., & Hansen, Duncan N. (Florida State U.) **Development of a model for adaptive training via computer-assisted instruction utilizing regression analysis techniques.** *NAVTRADEVCE Technical Report*, 1970(Jun), No. 68-C-0071-2, 44 p.—Investigated the efficacy of a dynamic decision model for an ongoing learning situation presented via computer-assisted instruction. Ss were 2 groups of 11 enlistees each in the Naval Reserve. In addition to correctness on learning frames within a concept, criterion frames testing the concepts, and correctness of end of unit quiz questions, this study was concerned with such variables as latencies for each of the above measures, and the S's confidence of his response on the criterion and quiz questions. The 1st step involved the investigation of the relationship of these variables with performance on the final examination for the 2-hr course on concepts of Boolean algebra. Based on the results of correlation and regression analysis with the final exam as the dependent measure, the relevant variables were incorporated into the decision model. The adaptive decision model was shown to be effective in identifying Ss who needed remedial instruction. However, the use of the model did not significantly improve performance on a course presenting basic concepts of Boolean algebra when compared with Ss who did not have the benefit of the adaptive model. (18 ref.)—*Journal abstract.*

11792. Hammell, Thomas J. & Mara, Thomas D. (General Dynamics, Electric Boat Div., Groton, Conn.) **Final report: Application of decision making and team training research to operational training: A translatable technique.** *NAVTRADEVCE Technical Report*, 1970(Apr), No. 68-C-0242-1, 60 p.—Describes a technique developed to translate findings of laboratory decision-making research into a form applicable to the operational ASW/AAW training environment. This technique is composed of 2 categorization schemas—a decision skill taxonomy and a behavioral deficiency taxonomy—through which the experimental tasks studied and resultant findings are translated. Applicability of the translated research findings to operational systems is demonstrated by an analysis of submarine fire control data from training device and real-world exercises. Data

and associated information from the operational analysis are classified and unpublished. Observations indicate that decision making training could be implemented on existing devices, without the need for new hardware. A method of applying the translated findings, used in conjunction with proper training techniques, is offered as the means for implementing decision making training on both new and existing devices. Further operational application and validation are needed to refine these training procedures and demonstrate the applicability to tactical training systems. (3 p. ref.)—*Journal abstract.*

11793. Hansen, Duncan N. & Dick, Walter. (Florida State U.) **Memory factors in computer-controlled maintenance training.** *NAVTRADEVEN Technical Report*, 1969(Aug), No. 68-C-0071-1, 35 p.—Prepared a training course in electronic circuit analysis that utilized concepts from Boolean algebra, logic, and set theory for use in both a CRT and a typewriter terminal oriented computer-controlled training (CCT) system. This course was field tested while investigating the influence of massed vs. distributed schedules of training as they affect memory processes. 26 undergraduate volunteers were Ss. The efficacy of CCT graphic presentations and the benefit of CCT memory aids during training were investigated. Results indicate the feasibility of a CCT electronic circuit analysis course in that it is available on at least 2 different CCT systems. The differentiation of implementation roles into those of author, editor, computer illustrator, and computer coder facilitated the preparation of the course. Memory processes and related criterion performance were facilitated by graphic presentations via CCT which appeared to minimize interference effects and facilitate the memory search and retrieval processes. The availability of CCT memory aids while applying complex concepts and relationships led to improved performance and a 64% savings in response time. Ss having some prior knowledge utilized memory aids more effectively.—*Journal abstract.*

11794. Klier, Sol & Gage, Howard. (Grumman Aerospace Corp., Bethpage, N.Y.) **Motion factors in flight simulation.** *NAVTRADEVEN Technical Report*, 1970(Dec), No. 68-C-0007-1, 39 p.—Investigated the effect of different simulator motion conditions on pilot performance, intended to explore the cueing function of simulator motion. 5 pilots with differing degrees of experience performed a simulated air-to-air gunnery task under 4 conditions of motion where the frequency components of such motion inputs were limited to 0 (no motion), 0-1, 0-2.5, and 0-3.5 Hz., respectively. These conditions were hypothesized to interact differentially with concomitant visual motion cues. Results of performance accuracy (e.g., percent time-on-target) indicate a tendency for the order of conditions from best to worst to be 0-2.5, 0-1, 0-3.5, and 0 Hz. However, the treatment effects did not meet the predetermined level of statistical significance. Simulator motion produced better accuracy performance than no motion. There was a significant learning or practice effect as a result of continued exposure to the task. Other performance parameters showed no systematic differences as a function of experimental condition. These variables may have been affected by "noise" in the response of the motion platform which tended to mitigate differences among the experimental conditions. In general, results confirm indications in previous studies that simulator motion need not be a faithful reproduction of real-life motion to provide essential motion cues.—*Journal abstract.*

11795. Livingston, Samuel A. (Johns Hopkins U., Center for Social Organization of Schools) **Two types of learning in a business simulation.** *Center for Social Organization of Schools Report*, Johns Hopkins U., 1971(Jun), No. 104, 12 p.—Randomly assigned 28 male high school students to (a) an experimental group which participated in a business simulation game for 5 hr., and (b) a control group which received no treatment. All Ss took tests designed to measure their knowledge of business facts and concepts and their ability to evaluate business decisions (Business Operations Quiz and Situation Test). The simulation group outperformed the control group on both tests, but the difference approached statistical significance only for the test of facts and concepts.—*Journal abstract.*

11796. Martinez, Pete. (U. Maryland) **An experimental analysis of perceptual direction as a factor in learning a psychomotor task.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6377.

11797. Matheny, W. G., Lowes, A. L., Baker, G., & Bynum, J. A. (Life Sciences, Inc., Ft. Worth, Tex.) **An investigation of visual, aural, motion and control movement cues.** *NAVTRADEVEN Technical Report*, 1971(Apr), No. 69-C-0304-1, 100 p.—Examined the means by which multisensory cues can be simulated and effectively used in the training of pilots. An analytical basis and cue taxonomy were developed and cues postulated on the basis of information gained from the outside visual world, sounds generated by the aircraft, and aircraft motion and control movements. Description and measurement of the physical characteristics of the postulated cues were emphasized. Hypotheses were developed based upon the effects of postulated cues as they function independently and interact with cues in other modalities. (104 ref.)—*Journal abstract.*

11798. Miller, Elmo E. (HumRRO, Div. No. 5, Ft. Bliss, Tex.) **Prompting and guessing in tank identification.** *HumRRO Technical Report*, 1970(Dec), No. 70-21, 18 p.—Describes an experimental program designed to explore aspects of developing effective general methods for learning to identify and name objects. 3 general methods of reducing excessive guessing were evaluated (4 × 2 × 3 factorial design, 96 basic army trainees), in terms of time to reach mastery. The comparisons were: (a) 4 different schedules of prompting; (b) instructions discouraging guessing and absence of such instructions; and (c) an introduction pointing out the distinguishing features of the tanks being studied, an introduction naming the tanks on audio, and no introduction. None of the treatments had a statistically significant effect upon time required to reach mastery, although discouraging guessing did result in less time spent guessing and a smaller percentage of guessing on test items. (24 ref.)—*HumRRO.*

11799. Plante, L. & Stewart, C. P. **The prediction of keypunch training success.** *Studies in Personnel Psychology*, 1971(Apr), Vol. 3(1), 77-86.—4 variables—the Mental Ability Test, a typing test, age, and an aptitude test consisting of name-checking and number substitution subtests—were correlated with a Keypunch Skill Test to identify the best test or combination of tests as predictors of keypunch success. Ss were 740 keypunch trainees. Although all 4 variables correlated significantly at the .01 level with scores on the Keypunch Skill Test, it is concluded that the Mental Ability Test does not contribute a sufficiently important positive prediction to warrant its further use in the selection of keypunch

trainees. The combination of tools giving the best prediction of training success was that including aptitude test total scores, gross typing speed, and age (multiple $R = +.6465$). (French abstract)—J. G. Tiedemann.

11800. Puig, Joseph A. (Human Factors Lab., Orlando, Fla.) **Motion in flight training: A human factors view.** NAVTRADEVEN Technical Report, 1970(Oct), No. IH-177, 57 p.—Reports an in-house study reviewing the status of simulation technology as applied to training, with emphasis on human factors problems encountered in visual and motion simulation. The effects of incorporating motion in ground-based visual simulators is considered with respect to its influence on training and its role on a possible inhibitor of simulator sickness. The position of the Human Factors Laboratory is expressed on several aspects of simulation related to training technology. (66 ref.)—*Journal abstract.*

11801. Ruocco, J., Klier, S., Gage, H., & Vitale, P. **Design factors in environmental simulation.** NAVTRADEVEN Technical Report, 1970(Dec), No. 66-C-0019-1, 70 p.—Investigated the relationships between various aspects of cockpit motion and pilot performance. The task of landing approach was carried out by 10 experienced pilots in the simulator and in the aircraft. Results indicate that: (a) both experimental apparatus and design variables operated to limit the conclusions to be drawn; (b) comparisons between pilot performance in the simulator and the actual aircraft were possible but not meaningfully related to the experimental questions; and (c) with respect to the test of the relationships between pilot performance and variations in the motion characteristics, meaningful conclusions were not possible because of experimental apparatus and design difficulties. The study provided valuable knowledge for definition and quantification of simulator motion which should prove useful in future investigations of the effect of simulator motion on performance and transfer of training.—*Journal abstract.*

11802. Weingarten, Kenneth; Hungerland, Jacklyn; Brennan, Mark, & Alfred, Brent. **The development of a low-cost performance-oriented training model.** HumRRO Professional Paper, 1970(Dec), No. 32-70, 8 p.—Describes (a) a training model featuring peer instruction in a functional job-simulated context; and (b) the objectives and practical constraints that led to its development.—*HumRRO.*

11803. Weingarten, Kenneth; Hungerland, Jacklyn; Brennan, Mark, & Alfred, Brent. **The APSTRAT instructional model.** HumRRO Professional Paper, 1971(May), No. 6-71, 9 p.—Describes a low-cost instructional model suitable for multiaptitude training populations, stressing (a) individualized, self-paced learning in an operational functional context, and (b) utilization of peer instruction. The model, developed in pilot studies involving the Army's Field Wireman Course, is designed as a generalizable instructional system.—*HumRRO.*

TASK & WORK ANALYSIS

11804. Bergström, Bengt & Arnberg, Peter. (Inst. of Military Psychology, Stockholm, Sweden) **Heart rate and performance in manual missile guidance.** Perceptual & Motor Skills, 1971(Apr), Vol. 32(2), 352-354.—Earlier stress studies under laboratory conditions show that heart rates from 100-110 bpm are associated with significant decrements in missile-tracking per-

formance. Data from real missile tracking by 8 operators with no stress deliberately induced indicate, however, that performance is unaffected up to 135 bpm, and only moderately affected in the 135-170 bpm region. The disagreement between the 2 sets of results highlights the difficulties in generalizing from stress experiments.—*Journal abstract.*

11805. Borg, Gunnar; Bratfisch, Oswald, & Dornić, Stanislav. (U. Stockholm) **On perceived difficulty.** Reports from the Institute of Applied Psychology, U. Stockholm, 1970, No. 10, 13 p.—Describes the development and meaning of the concept of "perceived difficulty" emphasizing the differences between physical and mental work. Results of experiments with 30 20-30 yr. old trainee women teachers are presented. Analysis of the concept of perceived difficulty and the problems and possibilities of measurement are also presented. The concept of perceived difficulty is dealt with in a differential connection and a model for interindividual comparisons is suggested. It is emphasized that a systematic investigation of perceived difficulty is both possible and useful, and that it yields an opportunity to improve and facilitate the construction of psychological tests.—*Journal abstract.*

11806. Borg, Gunnar; Edgren, Bengt, & Marklund, Gustaf. (U. Stockholm) **A flexible work test with a feedback system guiding the test course.** Reports from the Institute of Applied Psychology, U. Stockholm, 1970, No. 8, 20 p.—Presents a flexible work test which gives a behavioral measurement of physical working capacity in the form of the highest work load on which an S is able to work for 4 min. The test is designed to have all Ss work for the same duration on a series of subjectively equal work loads. For practical and administrative reasons the test should be kept short—about 10 min.—and the initial work load fairly high. To meet this requirement the test is divided into 2 main parts (initial and final work periods) and a feedback system based on physiological and psychological stress indicators is constructed to guide the test course. The flexible work test was applied to a bicycle ergometer with a group of 25 soldiers. Results indicate the possibility of designing a test according to the principles proposed. (25 ref.)—*Journal abstract.*

11807. Borg, Gunnar; Edström, Carl G., & Marklund, Gustaf. (U. Stockholm) **A new method to determine the exponent for perceived force in physical work.** Reports from the Institute of Applied Psychology, U. Stockholm, 1970, No. 4, 6 p.—Applied a new method for psychophysical scaling in an experiment concerning perceived force (perceived pedal resistance) for work on a bicycle ergometer with an electronic braking system. The stimulus intensity was varied as a function of time and the S's task was to report how he perceived the variation. Ss were 20 20-25 yr. old male students. The method with stimulus variation as a function of time was combined with a classical psychophysical method for threshold determinations. When the work load increased as the .4 or decreased as the .6 power of time, the variation was judged to be linear. The exponents of the corresponding psychophysical functions are 2.3 and 1.6 (15 ref.)—*Journal abstract.*

11808. Ettema, J. H. & Zielhuis, R. L. (U. Amsterdam, Coronel Lab. of Occupational Hygiene, Netherlands) **Physiological parameters of mental load.** Ergonomics, 1971(Jan), Vol. 14(1), 137-144.—Discusses the essential aspects of the terms "load" and "capacity,"

as used in work physiology, as being valid for mental load in the following ways: (a) the question of the physiological costs (biological consequences) of a given performance; (b) external load to be measured in units of performance/time (signals/time, choices/time); (c) capacity, dependent on time of endurance; (d) physiological changes correlating with load; and (e) pathological symptoms due to extreme load. An experiment with 24 20-25 yr. old students is discussed, where a simple binary choice task is used with several frequencies of signals to be answered, thus providing different loads. Systematic changes were found in heart frequency, sinus arrhythmia, systolic and diastolic blood pressure, rate of respiration, etc. It is suggested that these changes are due to a simultaneous rise in sympathetic and in vagal tone. (French & German summaries)—*Journal abstract*.

11809. Hamar, N. & Novák, E. (National Inst. of Labour Health, Budapest, Hungary) **A telemetric method for assessing mental performance.** *Ergonomics*, 1971(Jan), Vol. 14(1), 129-135.—In a previous paper a telemetric accelerograph was described which had proved to be a good instrument for assessing mental performance under industrial working conditions, if the work was characterized by periodically repeated stereotyped movements. Since then the instrument has been developed and comprises perceptive FM transmitting sets, attached to the right and left hand like wristwatches, 2 1-channel FM receivers, aerials, and a recorder. Each receiver is mounted with a part for filtering high-frequency components at various levels. An analysis of the accelerogram from viewpoints of time and structure seems to be appropriate for assessing changes in mental performance during shift work. (French & German summaries)—*Journal abstract*.

11810. Kogi, K. & Saito, Y. (Railway Labour Science Research Inst., Tokyo, Japan) **A factor-analytic study of phase discrimination in mental fatigue.** *Ergonomics*, 1971(Jan), Vol. 14(1), 119-127.—Attempted to discriminate phases in the course of diurnal variation of cortical functions for 8 operators in a train control center. Critical flicker fusion frequency was measured at different periods of a 24-hr shift. Correlation coefficients among periods were computed and 3 underlying factors were extracted. In accordance with these, the shift periods were classified into the morning-rise phase, the intermediate phase, night-and-early-morning phase, and after-overnight-vigil phase. The last phase, although in the morning hours, did not show the features of the 1st phase, but was characterized by markedly different factors as compared with the early morning. Distribution of observed fusion frequencies was not normal in the phases of night or intermediate factors. Similar factors and phases could be demonstrated also for choice RT. It is concluded that phase discrimination of cortical functions by means of factor analysis would be of use for detecting the overfatigued conditions in operators. (French & German summaries)—*Journal abstract*.

11811. Matsui, K. & Sakamoto, H. (Mie Prefectural U., Medical School, Tsu, Japan) **The understanding of complaints in a noisy workshop.** *Ergonomics*, 1971(Jan), Vol. 14(1), 95-100.

11812. Ohtani, A. (Industrial Products Research Inst., Tokyo, Japan) **An analysis of eye movements during a visual task.** *Ergonomics*, 1971(Jan), Vol. 14(1), 167-174.—Describes 3 experiments, with approximately 18 normal-sighted adults, in which the distributions of the interval of saccadic movements were analyzed during

different visual situations. These distributions were composed of 3 kinds of movement which have different properties: involuntary, voluntary, and fixation. Involuntary movements occurred when an S ran his eyes along a line, or when he searched some targets on an object. Also, corrective movements to a fixation point were considered as involuntary. The interval of these movements was less than 270 msec. When the S voluntarily moved his eyes among targets in succession, the intervals were distributed from about 270-500 msec. In the case of more than about 500 msec, the S gazed at a target carefully, or he was not required to see any special object. From these results, a side view of a visual task may be inferred from an analysis of the interval of saccadic movements. A criterion for the estimation of the load of a paced visual task, e.g., an inspection task on a conveyor belt, may be proposed. (French & German summaries)—*Journal abstract*.

11813. Takakuwa, E. (Hokkaido U., Medical School, Sapporo, Japan) **Maintaining concentration (TAF) as a measure of mental stress.** *Ergonomics*, 1971(Jan), Vol. 14(1), 145-158.—Studied fatigue evaluation using the TAF test, which has been devised as a new quantitative fatigue test based on the function of concentration maintenance. The average level of the TAF curve and its standard deviation were compared for pre- and postwork values among different groups statistically. In studying qualitative or psychological aspects, it is generally accepted that stress stimuli bring about certain neurophysiological changes. The mecholyl test is recognized as a reliable means of showing the strength of homeostatic defense in the hypothalamus. However, compared to the dangers of the mecholyl test, the Cold Pressure Test (CPT) swing degree may safely be used to identify the qualitative nature of the stress. It is concluded that fatigue can be dealt with quantitatively by the TAF test and qualitatively by the CPT swing degree. (French & German summaries)—*Journal abstract*.

11814. Yoshitake, H. (Inst. for Science of Labour, Tokyo, Japan) **Relations between the symptoms and the feeling of fatigue.** *Ergonomics*, 1971(Jan), Vol. 14(1), 175-186.—Assessed the work load of 121 bank clerks and 49 broadcasting workers who rated the degree of their feelings of fatigue using a 9-point scale. Results were investigated in relation to a subjective symptoms test of fatigue. Results show (a) a high correlation between the frequency of complaints of fatigue and the feeling of fatigue; and (b) the amount of fatigue differed for the type of symptom. It is presumed that some change in the quality of the complaints of symptoms happens. (French & German summaries)—*Journal abstract*.

PERFORMANCE & JOB SATISFACTION

11815. Arvey, Richard D. (U. Minnesota) **An experimental investigation of the effects of two kinds of expectancies on the performance of a laboratory task.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6313.

11816. Colquhoun, W. P. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Circadian rhythms, mental efficiency and shift work.** *Ergonomics*, 1970(Sep), Vol. 13(5), 558-560.—Discusses the "circadian" or "24-hr" rhythms in human per-

formance and considers the possibility of reducing their effects on work efficiency by manipulations of duty schedules. It is noted that these "time of day" effects have been studied experimentally in the laboratory. Waking day and round-the-clock studies are briefly reviewed and compared. In 1 of these, it is noted that mental efficiency follows the body temperature rhythm whether or not this rhythm is altered as a result of new sleep-waking routines imposed by working at unusual hours. (22 ref.)—P. McMillan.

11817. Coyle, Harold S. & Gorman, Charles D. (U.S. Air Force Academy) **The utility of OER word pictures as discriminators.** *USAF AFHRL Technical Report*, 1970(Jul), No. 70-23, 8 p.—Determined whether the word picture portion of the Officer Effectiveness Report can be used to discriminate performance. From a sample of 200 1st lieutenant effectiveness reports, 4 comparable sets of 10 reports were created. Rank order criteria were established on each set by 4 groups of 5 judges (Js), all experienced with the rating system. After establishing an actual rank order within each set of 10 ratings, the word descriptions alone were given to 4 groups of 10 Js for rank ordering. Within each set of word pictures, average Spearman-rho correlations were computed for each group of 10 Js to assess inter-J reliability. Rank order statistics were also computed for differing numbers of Js from the 10 from each group to assess whether optimum reliability would occur with fewer than 10 Js. Finally, a composite rank order for each set was computed by averaging the rankings across each word picture. The composite rank orders were correlated with the actual criteria ordering. Results indicate that the rank order correlations across each set of word pictures were below statistical significance. No improvement in inter-J reliability was found with any random combination of fewer than 10 Js. The composite orders did not correlate significantly with the actual rank orders. A displacement effect was noted in that Ss who had received high numerical ratings tended to be ranked lower by Js than they actually ranked. The question is raised as to whether word descriptions can be used as performance discriminators.—*Journal abstract*.

11818. Day, Gerald J. (Indiana U.) **The behavioral effects of wage inequity in work groups.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6965-6966.

11819. Engel, John D. (HumRRO Div. No. 2, Ft. Knox, Ky.) **Development of a work sample criterion for general vehicle mechanic.** *HumRRO Technical Report*, 1970(Jul), No. 70-11, 27 p.—Describes a work sample criterion test for general vehicle repairman. Military Occupational Specialty 63C30 and 63C40. Test items covered 3 task categories: troubleshooting, corrective action, and preventive maintenance. 38 organizational mechanics were tested. Data were also collected on the quality of performance, e.g., use of good procedures, test equipment, etc. The study indicates that (a) the test appears to have a high degree of reliability ($r = .82$); (b) on the average, 60% of the test exercises were successfully completed by Ss; (c) there was a moderate relationship between performance and length of experience; and (d) there were indications of unfamiliarity with technical publications, and a lack of skill in the use of special tools and equipment.—*HumRRO*.

11820. Engel, John D. & Rehder, Robert J. (HumRRO Div. No. 2, Ft. Knox, Ky.) **A comparison of correlated-job and work-sample measures for gen-**

eral vehicle repairman. *HumRRO Technical Report*, 1970(Oct), No. 70-16, 24 p.—Compared 2 correlated-job measures with the work-sample criterion developed for the general vehicle repairman in earlier HumRRO research. 30 organizational mechanics who had been Ss in the earlier study were given paper-and-pencil tests for their military occupational specialty. Later they were given the Metropolitan Achievement Test to determine the relation between reading level and performance of the written and work-sample tests. 3 peer ratings were obtained for each S. Statistical analysis was performed to compare the validity and reliability of these 2 measures with the work-sample criterion. Data suggest that (a) while the present methods of evaluation for the journeyman level general vehicle repairman are relatively reliable, they are inadequate for measuring what a mechanic does on the job; and (b) the work-sample criterion is not a reasonable evaluation alternative because of prohibitive administrative and cost factors when used for thousands of enlisted men.—*HumRRO*.

11821. Evans, Martin G. (U. Toronto, Ontario, Canada) **Herzberg's two factor theory: One more test.** *Studies in Personnel Psychology*, 1971(Apr), Vol. 3(1), 45-49.—Personality differences are presumed to account for people relating the good aspects of their job to its intrinsic aspects (responsibility, achievement) and the poor aspects of their job to its extrinsic aspects (policy, supervision, co-workers). This study investigated the impact of an external (chance, luck, etc.) vs. an internal (self-determination) orientation upon responses to Herzberg-type questions as to what contributed to feeling good or bad about the job. 3 hypotheses were tested: (a) internals will give more intrinsic responses; (b) internals will give balanced responses to good and bad job sequences; and (c) externals will give unbalanced responses. Data on 28 Canadian college Ss from a nonwork population did not support any hypothesis, although results tended in the direction of Hypotheses b and c. (French abstract)—J. G. Tiedemann.

11822. Hagihara, Hiroko; Aramaki, Sadahito; Ito, Tomohiko, & Nagasawa, Yuko. (Aeromedical Lab., Tokyo, Japan) [Experimental study of "two-men effect" on performance: I.] *Reports of Aeromedical Laboratory, Japan*, 1969(Jun), Vol. 10(1), 24-30.—Describes 3 experiments which attempted to find out the difference in performance between 1 man and 2 men. Studies were made to (a) find the difference of effect between 1 man and 2 men regarding the kind of task; (b) compare side-by-side arrangement with tandem by means of 2 men effect; and (c) analyze 2 men effect modified to difficulty in tasks. Main results were: (a) 2-men become effective in target finding and monitoring tasks but are not effective on mental tasks. (b) Side-by-side arrangement with 2 men is more effective than tandem; but it should not be overlooked that difference in arrangement gives a different situation to communication. (c) Performance of 2 men becomes more effective as task becomes difficult. And (d) an effective pair consisted of members of main operator with high score and co-operator with low score, and 2 operators with high score.—*English abstract*.

11823. Hane, Edward Z. (U. Southern California) **Performance evaluation based on multidimensional job behaviors.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6966.

11824. Heneman, Herbert G. (U. Wisconsin) **An empirical investigation of expectancy theory pre-**

dictions of job performance. *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6967.

11825. Hill, Richard E. (Purdue U.) **The leadership role as a factor in commitment and satisfaction among registered nurses.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6314.

11826. Hoggatt, Ralph S. & Hazel, Joe T. **Reliability of Individual versus group job pay ratings.** *USAF AFHRL Technical Report*, 1970(May), No. 70-10, 18 p.—Investigated 2 approaches for obtaining job ratings to determine which procedure provided the most stable ratings, given a constant number of raters. Specifically, it compared reliability estimates determined by averaging across individually obtained job ratings obtained from individuals and from groups or panels of raters, 450 basic airman rated 100 brief job descriptions under 3 conditions: (a) individually, (b) in a 3-man panel, and (c) in a 5-man panel. Analyses reveal that estimates of mean reliability were larger for individually obtained ratings than for 3- or 5-man panel ratings. There was also a trend for mean rating time to increase with an increase in panel size. Findings tend to support the procedure of averaging across individual ratings, rather than the use of ratings from panels, in order to obtain more stable results. In terms of reliability, time required, and number of raters, the individual approach appears more economical and efficient than the board or panel procedure.—*Journal abstract*.

11827. Jain, Harish C. (McMaster U., Hamilton, Ontario, Canada) **Supervisory communication effectiveness and performance in two urban hospitals.** *Personnel Journal*, 1971(May), Vol. 50(5), 392-395.—The relationship between supervisory communication effectiveness and performance as rated by employees is affirmed. Samples consisted of 122 and 90 employees, respectively, interviewed in 2 hospitals. Other research indicates that supervisors' communication behavior is important to subordinate workers' morale and performance and to patient recovery rates. Further research is urged and appropriate techniques are discussed.—*P. L. Crawford*.

11828. Johnson, Ronald D. (Indiana U., Graduate School of Business) **An investigation of the interaction effects of ability and motivational variables on task performance.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6967-6968.

11829. Kakimoto, Yukiko; Kuroda, Isao, & Kurihara, Yoshinori. (Aeromedical Lab., Tokyo, Japan) [Relationships between flying safety and human factors from job-satisfaction in JASDF: III.] *Reports of Aeromedical Laboratory, Japan*, 1969(Jun), Vol. 10(1), 31-47.—Analyzed the following problems through a questionnaire consisting of 3 categories and 13 items: working environment, human relations, and work itself. The analyses described were done as a function of career fields, rank orders, age, service yr., educational background, total flying hr., and types of aircrafts. 8 major results were found. Maintenance groups indicate the highest rates of dissatisfaction while pilot groups had the lowest rates. The pilot group of the air transport wing indicates the highest rates of dissatisfaction while the training groups generally indicate low rates. The housing item is the highest rated among the areas of dissatisfaction; the 2nd and 3rd are promotion and pay in the maintenance, administrative, and personnel groups, but in pilot groups "working time" and "supervisor" items are given as 2nd and 3rd. Rates of dissatisfaction are low

in high rank groups, but high in low rank groups; in pilot groups, however, the rates are low even in low rank orders. The more age and service yr. increase, the lower the rates of dissatisfaction, except with young pilot groups (under 30 yr. old). Concerning educational backgrounds, rates of dissatisfaction are the lowest in the Defense Academy group, the most difference being in areas of promotion and pay. Concerning total flying hr., rates of dissatisfaction increase till 3000 hr., then decrease. High rates of dissatisfaction are indicated in the pilot group assigned C-46.—*English abstract*.

11830. Lane, Irving M. (Michigan State U.) **Behavioral strategies in wage distribution.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6968.

11831. Martin, Maurice A. **A study of the concurrent validity of the Computer Programmer Aptitude Battery.** *Studies in Personnel Psychology*, 1971(Apr), Vol. 3(1), 69-76.—The Computer Programmer Aptitude Battery (CPAB), which was designed as a selection instrument, was hypothesized to discriminate among experienced programmers on the basis of job efficiency. Ss were 67 civilian and 87 military employees in an agency of the Canadian Forces grouped as beginning and working level, and working and/or supervisory level. Variables investigated included age, years of education, months of experience, months on the job, months under rater's supervision, source of qualification, CPAB total, and job performance rating average. 35 of 112 correlations were significant. The CPAB predicted rated job efficiency for both military subsamples, but not for either civilian subsample.—*J. G. Tiedemann*.

11832. Mukherjee, Bishwa N. (York U., Downsview, Ontario, Canada) **Interrelationships among measures of job satisfaction and job involvement.** *Indian Journal of Psychology*, 1969, Vol. 44(1-4), 21-32.—Attempted to determine the relationship between an overall measure of job satisfaction such as the Brayfield-Rothe scale and the composite score on a multifaceted job satisfaction questionnaire such as Mukherjee's Job Attitude Inventory, Friedlander's Job Satisfaction Questionnaire, etc. The results clearly indicate that the relationship between the above 2 variables, although positive, is not so strong as has been claimed by other investigators, e.g., Blai, Ewen, and Evans. Since the working conditions in the mills under study are known to be quite satisfactory and the workers feel either neutral or satisfied, the reported findings support in certain ways the 2-factor theory of Herzberg and others. (21 ref.)—*B Roy*.

11833. Prasannarao, B. (Psychological Research Ministry, New Delhi, India) **Morale: A review of researches.** *Indian Psychological Review*, 1969(Jul), Vol. 6(1), 37-44.—Reviews research studies on morale from 1957-1968. Summaries and discussions of findings are arranged under 5 major headings: definition, measures, instruments, reliability and validity measures, and methodology. The need for clear conceptualization of morale and use of experimental methodology for understanding the determinants of morale are stressed. (69 ref.)—*K. C. Panda*.

11834. Ruh, Robert A. (Michigan State U.) **Ego need gratification, extra-work socialization, and attitudes toward the job.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6969.

11835. Stary, Dinko. (Workers U. "Moša Pijade," Zagreb, Yugoslavia) **Mogu li članovi radne grupe biti uzajamno isto toliko dobri ocjenjivači profesionalne**

uspešnosti kao i rukovodioci. [Reciprocal ratings of work efficiency of coworkers and ratings obtained from supervisors.] *Revija za Psihologiju*, 1970, Vol. 1(2), 3-12.—Investigations conducted with 6 large groups of workers have shown that mutual ratings of co-workers and ratings obtained from supervisors about work efficiency are significantly correlated. On the basis of this, it is concluded that mutual ratings of co-workers can be interpreted with the same confidence as ratings obtained from supervisors. (34 ref.)—*English abstract*.

11836. Vineberg, Robert & Taylor, Elaine N. (HumRRO, Div. No. 3, Monterey, Calif.) **Performance in four jobs: The role of mental ability and experience.** *HumRRO Professional Paper*, 1970(Dec), No. 31-70, 14 p.—Presents data from research on job performance of men at different ability levels. Performance was tested for approximately 780 Ss in 4 jobs; armor crewman, vehicle repairman, supply specialist, and cook, of various Armed Forces Qualification Test levels over specified periods of time. Results indicate that (a) high aptitude Ss outperformed low aptitude Ss in each behavior category; (b) the level of performance decreased for lows and highs alike as complexity increased; (c) decrements in performance increased in a positive manner at each successive level of complexity; and (d) the overall effect in named tasks was a decreasing difference between lows and highs as complexity increased; and on unnamed tasks, differences grew wider with complexity.—*HumRRO*.

11837. Waters, L. K. & Roach, Darrell. (Ohio U.) **Comparison of unweighted and importance-weighted job satisfaction measures for three samples of female office workers.** *Psychological Reports*, 1971(Jun), Vol. 28(3), 779-782.—Correlated multiplicative importance-weighted and unweighted composites of job-satisfaction components with separate measures of over-all job attitudes and a termination criterion. Ss were 167, 311, and 160 female office workers. In no case did the use of weighting for importance result in higher correlations with criteria than the use of raw score unit weights.—*Journal abstract*.

11838. Wilkins, Walter L. **Attitudes and values as predictors of military performance.** *USN Medical Neuropsychiatric Research Unit Report*, 1967, No. 67-6, 276-282.—Reports outcomes of the study of attitudes of Marines in basic training as related to later ratings of military adaptation. Results indicate that a Marine Corps recruit's judgment of the Corps goes up during recruit training. Attitude items related to the rise in opinion are the recruit's appreciation for the training instruction, the discipline enforced, and the mutual respect shown by the officers and men. It is concluded that via such an atmosphere, a majority of young men undergo a "dramatic, although not necessarily permanent, reformulation of life goals and values."—P. Hertzberg.

MANAGEMENT & ORGANIZATION

11839. Jones, Kenneth V. (U. Missouri) **Role conflict: Perception and experience.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6314-6315.

11840. Karmel, Barbara M. (Purdue U.) **The influence of mediating variables on member satisfaction and effectiveness in group decision making.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6315-6316.

11841. Klimoski, Richard J. (Purdue U.) **Intragroup forces and intergroup conflict resolution.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6316.

11842. Maire, F. & Rousson, M. **Le questionnaire de R. Likert et son application à la gestion d'entreprise.** [R. Likert's questionnaire and its application to the administration of a business enterprise.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(4), 213-230.—Presents a factorial analysis of a French-language version of Likert's questionnaire for measuring communication skills, decision-making processes, and 4 lesser management skills. Analysis of the original test resulted in its reduction by half. The possibilities of using the scale for comparisons between and within organizations are discussed.—K. J. Hartman.

11843. Mulder, Mauk; Ritsema van Eck, Jan R., & de Jong, Rendel D. (Netherlands School of Economics, Foundation for Business Science, Rotterdam) **An organization in crisis and non-crisis situations.** *Human Relations*, 1971(Feb), Vol. 24(1), 19-41.—Studied leadership patterns in a Royal Navy flotilla on active duty. A distinction was drawn between crisis and noncrisis situations. "From comparison of means, correlational and factor analysis, it may be concluded that at least 1 '3rd factor' manifests itself. Besides a 'good chap-leader' factor, including social-emotional-orientation as well as Other's referent power, an identification relationship of Person with Other, and a salient leadership factor, including task-orientation of Other, it was possible to identify: A 'potentially-effective power in organization' factor, including Other's power-upward (theoretically crucial for the link between subsystem and total system). This factor has also a content of power in crisis. A 'powerful self-confident leadership' factor, to which especially the individual prominence contributes. 'Expert power,' which contributes to the content of the last mentioned 2 factors, or is identifiable as a separate factor." The Other's power-upward and individual prominence is especially connected with crisis situations, while noncrisis situations seem more related to mild person-leader relationship. (36 ref.)—W. W. Meissner.

11844. Penzer, W. N. **Managing motivated employees.** *Personnel Journal*, 1971(May), Vol. 50(5), 367-371.—IBM, Armonk, N.Y.—While job development offers insights and opportunities in the motivational area, it also suggests organizational changes and adaptation. Its successful application implies a major restructuring of the management systems of an organization.—P. L. Crawford.

11845. Price, Karl F. (U. Pennsylvania) **A study of role conflict in the relationship between the art museum director and his board of trustees.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6318.

11846. Richardson, Roy. (U. Minnesota) **An empirical study of fair pay perceptions and time span of discretion.** *Dissertation Abstracts International*, 1971(Apr), Vol. 31(10-B), 6318-6319.

11847. Smoley, M. J. & Slivinski, L. W. **Discriminant analysis of the Self Descriptive Inventory for middle managers and first level supervisors.** *Studies in Personnel Psychology*, 1971(Apr), Vol. 3(1), 33-44.—The Self Descriptive Inventory (SDI) was administered to 244 middle managers and 92 1st-level supervisors in the Canadian Federal Public Service to test the hypothesis that persons filling middle management and 1st-level supervisor positions possess different personal charac-

teristics. Of the SDI's 11 test traits, middle managers demonstrated significantly more Supervisory Ability, Intelligence, Initiative, Self-assurance, Achievement Motivation, and Need for Self-actualization ($p < .001$). 1st-level supervisors demonstrated significantly more Working Class Affinity ($p < .001$) and Need for Job Security ($p < .05$). No significant difference between groups was obtained on Decisiveness, Need for Power, or Need for High Financial Reward. A comparison of the SDI scores of Canadian and American middle managers indicated Canadians demonstrated significantly more Intelligence, Initiative, and Self-assurance; Americans demonstrated significantly more Decisiveness and Working Class Affinity; while no significant difference was found for Supervisory Ability, Achievement Motivation, Need for Self-actualization, Need for Power, Need for High Financial Reward, and Need for Job Security. It is concluded that the ability of the SDI to distinguish middle level managers from 1st-level supervisors has been clearly demonstrated. (French abstract)—*J. G. Tiedemann.*

11848. **Whitley, Richard & Frost, Penelope A.** (Manchester Business School, England) **The measurement of performance in research.** *Human Relations*, 1971(Apr), Vol. 24(2), 161-178.—Discusses the standards by which individual and organizational performance is evaluated in scientific research on both the pure and applied levels. Scientific performance is not a standard set of events that can be measured across different institutional settings. Environments refer to the conceptual and material technological and institutional settings in which problems are solved. Measurement of performance becomes the understanding of how different solutions are produced to technical problems in different environments. The problem of measuring performance in scientific research, then, is part of the problem of understanding how knowledge is created and used in society. (78 ref.)—*W. W. Meissner.*

11849. **Woody, Robert H. & Woody, Jane D.** (Grand Valley State Coll.) **Behavioral science consultation.** *Personnel Journal*, 1971(May), Vol. 50(5), 382-391.—Discusses 3 basic approaches to consultation to organizations—process, psychodynamic, and behavioral models—and guidelines for accepting consultation.—*P. L. Crawford.*

SPECIAL ENVIRONMENTS

11850. **Fröberg, Jan, et al.** **Behaviour and social interaction in an experimental shelter.** *Reports from the Laboratory for Clinical Stress Research, Karolinska Sjukhuset*, 1969(Dec), No. 11, 16 p.—27 young healthy men, all volunteers from different companies of the same Swedish infantry division, were confined in a shelter for a 52-hr period, under conditions of overcrowding (.75 sq. miles/person) and moderately high temperature, relative humidity and CO₂ concentration (27-30° C, 80%, and 2% respectively). They had no contact with the outside world during the confinement. Behavior and social interaction in the shelter were observed and revealed through questionnaires. Absence of individual role or subgroup differentiation, subdued activity, and generally positive and bland interpersonal perception were noted. Adverse reactions were minor and infrequent, except in the case of 1 S, who ultimately became the focus of the group. The observed lack of differentiation is discussed

in terms of the homogeneity of the group, and the limited time of confinement. (24 ref.)—*Journal summary.*

11851. **Hori, Hayao; Takigawa, Sakurako, & Okaue, Miyako.** (Aeromedical Lab., Tokyo, Japan) [The study of mental hygiene for pilot: The evaluation of "Mental Health Check List of Pilot."] *Reports of Aeromedical Laboratory, Japan*, 1969(Jun), Vol. 10(1), 16-23.—The Mental Health Check List of Pilot (MHCP), was established through inventories referring to the Cornell Medical Index (CMI), MA scale, Flight Anxiety Scale, and use of medicines. This list was made for the purpose of screening early symptoms to lower pilots' tolerance and adjustment in their flight duty and daily life. Evaluating validity of MHCP, 68 high scored pilots were chosen among 685 pilots in 13 Japanese air bases. The 68 pilots were interviewed with face-to-face technique. Finally the result of psychological interview was compared with the result of MHCP for the validity evaluation. The following was found: (a) the MHCP is effective for more quickly determining problems of Ss; (b) the critical scale used in choosing 68 pilots is satisfactory; and (c) the selected pilots were classified into 2 groups: 70% having mental, somatic, and psychosomatic problems and 30% having no problems.—*English abstract.*

11852. **Lidberg, Lars & Seeman, Kenneth.** **Psychomotor performance before and after confinement in a shelter.** *Reports from the Laboratory for Clinical Stress Research, Karolinska Sjukhuset*, 1969(Nov), No. 9, 7 p.—27 healthy military recruits underwent shooting exercises before and after a 52-hr confinement in an experimental shelter. Ss were exposed to various conditions of physical discomfort during confinement, including (a) relatively high temperature, relative humidity, and CO₂ concentration; (b) minimal space/person (.75 sq. mile); and (c) the necessity of eating cold food. Machine pistol shooting performance was measured several days before and immediately after confinement, at the same time of day on both occasions. 1 shooting task required precision shooting, and the other, motor speed and rapid decisions. While no significant differences were found in group mean scores on either task before and after confinement, there were considerable differences in performance between the individuals. These differences did not bear any significant relationship either to initial shooting skill or to behavioral traits exhibited by Ss during confinement.—*Journal summary.*

11853. **Rubin, Robert T., Rahe, Richard H., Clark, Brian R., & Arthur, Ransom J.** (760 Westwood Plaza, Los Angeles, Calif.) **Serum uric acid, cholesterol, and cortisol levels: Interrelationships in normal men under stress.** *USN Medical Neuropsychiatric Research Unit Report*, 1970, No. 69-22, 815-819.—Repeat determinations of serum uric acid, cholesterol, and cortisol were done 3 times/wk on 20 healthy young Navy men during a 16-wk underwater demolition team training course, a period of considerable physical and psychological stress. The intraindividual correlations between uric acid and cholesterol, uric acid and cortisol, and cholesterol and cortisol all showed a considerable range of values, both positive and negative, and several of the correlations were statistically significant. However, across-S correlations of the mean values of these measures were of low order, indicating that a cross-sectional sampling design can mask the considerable variability in intraindividual values. This variability

indicates that there can be a considerable individuality in patterns of biochemical response and adaptation to stress. (34 ref.)—*Journal abstract*.

11854. **Tagigawa, Sakurako; Kakimoto, Yukiko, & Hori, Hayao.** [A survey on troubles, frustrations and personality trends in jet-pilots, JASDF.] *Reports of Aeromedical Laboratory, Japan*, 1969(Dec), Vol. 10(3), 121-130.—Surveyed 70 jet pilots to ascertain their problems and frustrations and to study the relationship between their methods of resolving trouble and personality trends. A 250-item questionnaire, the Y-G Personality Test, and Picture Frustration Test were used as measures. Main problems in order of frequency mentioned concerned how to spend leisure time, economic conditions, job and adjustment, human relations, personality, morals and religion, health, sex and marriage, and family. Results of the Picture Frustration Test indicate that Ss' average scores were considerably different from those of Japanese adult men. Trends of special responses were as follows: (a) frustrations and hostility with barriers or disturbances were not manifested considerably outside the ego, (b) scores of self-manifestation and self-torturing were considerably lower, and (c) problems and frustrations were resolved by depending on others, helping themselves, or by not channeling complaints and emotional disturbances. Results from the Y-G Test indicate that more than 70% of Ss could be classified as emotionally stable, cooperative, and well adjusted.—*English abstract*.

ADVERTISING & CONSUMER PSYCHOLOGY

11855. **Aaker, David A.** (U. California, Berkeley) **Using buyer behavior models to improve marketing decisions.** *Journal of Marketing*, 1970(Jul), Vol. 34(3), 52-57.—A powerful class of descriptive buyer behavior models has been developed during the past decade. This article explores productive managerial uses for these models. It focuses on exploiting the predictive abilities of the models and gaining information from structural analyses. The intent is to help bridge the communications gap between model builders and those who use and influence the design of computer-based information systems. (18 ref.)—*Journal abstract*.

11856. **Becker, Boris W. & Myers, John G.** (Oregon State U., School of Business & Technology) **Yeasaying response style.** *Journal of Advertising Research*, 1970(Dec), Vol. 10(6), 31-37.—"Significant distortions in semantic differential ratings" are reported which show that "yeasayers" are likely to exaggerate their ratings in both positive and negative directions. The "tendency of 'yeasayers' to prefer intuitive and perceptive modes and 'nayayers' to prefer sensory and judgmental modes ... [has] implications for advertising management."—*J. C. Franklin*.

11857. **Green, Paul E.** (U. Pennsylvania, Wharton School of Finance & Commerce) **Measurement and data analysis.** *Journal of Marketing*, 1970(Jan), Vol. 34(1), 15-17.—Discusses recent developments in multi-dimensional scaling and nonmetric methods in analyzing associative data. It is speculated that such techniques will lead ultimately to more realistic prescriptive models and more rigorous formulations of buyer behavior. Criticism is directed at the proliferation of methods in the area of cluster analysis, in particular, and the lack of a firm theoretical base.—*R. R. Shepps*.

11858. **Howard, John A.** (Columbia U., Graduate School of Business) **Buyer behavior and related**

technological advances. *Journal of Marketing*, 1970(Jan), Vol. 34(1), 18-21.—Reports on the future of consumer behavior research. It is anticipated that the development of comprehensive theories of buyer behavior will help researchers more systematically decide which facts to collect, and will facilitate the development of effective marketing information systems made possible by improved technology. Some of the implications for the marketing executive, the public policy maker, and the researcher are spelled out.—*R. R. Shepps*.

11859. **Hunt, Shelby D.** (U. Wisconsin, Graduate School of Business) **Post-transaction communications and dissonance reduction.** *Journal of Marketing*, 1970(Jul), Vol. 34(3), 46-51.—Evaluates the question of whether posttransaction communications from retailer to recent purchasers are effective in assisting customers in reducing cognitive dissonance. Possible benefits that retailers might derive from providing posttransaction communications are also discussed. Results of an experiment in which each of 3 purchaser groups received a different posttransaction message are presented. The group receiving a posttransaction letter had a higher intention of future purchase at the store; the group receiving a posttransaction telephone call had a lower future purchase intention.—*R. R. Shepps*.

11860. **Kamen, Joseph M. & Toman, Robert J.** (Indiana U. Northwest, Gary) **Psychophysics of prices.** *Journal of Marketing Research*, 1970(Feb), Vol. 7(1), 27-35.—This study in pricing finds that for gasoline a "fair price" or "expectancy" theory of pricing rather than Weber's law best explains the purchases.—*J. C. Franklin*.

11861. **Kanter, Donald L.** (U. Southern California) **Communications theory and advertising decisions.** *Journal of Advertising Research*, 1970(Dec), Vol. 10(6), 3-8.—Criticisms of current advertising research are made concerning "the use of simplistic criterion variables ... failure to take proper account of the complexity and subtlety of control variables or predisposing factors ... and general obscurity regarding the internal dynamics of advertising response."—*J. C. Franklin*.

11862. **Lodish, Leonard M.** (U. Pennsylvania, Wharton School) **Empirical studies on individual response to exposure patterns.** *Journal of Marketing Research*, 1971(May), Vol. 8(2), 212-218.—The use of the MEDIAC model "to interpret ... empirical studies provided structural hypotheses to examine and a common base for discussion of important advertising phenomena of response and forgetting." The studies examined "support the MEDIAC response model as a reasonable, flexible, consistent structure to use in evaluating alternative media plans."—*J. C. Franklin*.

11863. **Mason, Joseph B. & Mayer, Morris L.** (U. Alabama) **The problem of the self-concept in store image studies.** *Journal of Marketing*, 1970(Apr), Vol. 34(2), 67-69.—Reports the results of an investigation of in-store interviewee bias in store image studies. The findings suggest that in-store questioning can inject significant bias into the results obtained, which can be attributed to the self-concept of customers.—*Journal abstract*.

11864. **Myers, James H.** (U. Southern California) **Finding determinant buying attitudes.** *Journal of Advertising Research*, 1970(Dec), Vol. 10(6), 9-12.—The results of 2 studies (using regression analysis), 1 on cat food and the other on a snack product, raise questions concerning the "relationship between component ratings

and overall favorability ratings as buying determinants."—J. C. Franklin.

11865. Nagashima, Akira. (Daily & Assoc., Los Angeles, Calif.) **A comparison of Japanese and U.S. attitudes toward foreign products.** *Journal of Marketing*, 1970(Jan), Vol. 34(1), 68-74.—Measured the cross-cultural image of "made in..." products as perceived by both Japanese and United States businessmen. The semantic differential method was used, supplemented by unaided product recall and national image questions. Products made in the United States, Japan, England, Germany, Italy, and France were so examined.—R. R. Shepps.

11866. Petz, Boris. (Inst. of Psychology, Faculty of Philosophy, Zagreb, Yugoslavia) **Eksperimentalno ispitivanje "Slike proizvoda."** [An experimental investigation of the "product image."] *Revija za Psihologiju*, 1970, Vol. 1(2), 87-96.—Describes and illustrates the application of the semantic differential method and the checklist of attributes for obtaining the "product image" of different kinds of cars.—English abstract.

11867. Ray, Michael L. & Wilkie, William L. (Stanford U., Graduate School of Business) **Fear: The potential of an appeal neglected by marketing.** *Journal of Marketing*, 1970(Jan), Vol. 34(1), 54-62.—Presents a marketing-oriented discussion and summary of research on the fear appeal. A search of marketing literature shows that fear appeals are either not mentioned or guardedly rejected on the basis of Janis and Feshbach's research in the area of dental hygiene. This is contrasted with findings that high fear is more effective or that neither extremely strong nor extremely weak fear is particularly effective. Various segmentation hints are drawn from the research. (29 ref.)—R. R. Shepps.

11868. Russell, John T. (U. Illinois) **Consumer perception and recall as a function of selected variables.** *Dissertation Abstracts International*, 1971(Jun), Vol. 31(12-A), 6642.

11869. Seggev, Eli. (Syracuse U.) **Brand assortment and consumer brand choice.** *Journal of Marketing*, 1970(Oct), Vol. 34(4), 18-24.—Examined brand assortment and consumer brand choice in the light of a study of the stability of choice of brands over time. Results indicate that there are several types of brand-choice strategies potentially useful for segmentation purposes. The promise of the new method used to examine stability of such choice over time is stressed.—R. R. Shepps.

11870. Seipel, Carl M. (Stockholm School of Economics, Economic Research Inst., Sweden) **Premiums: Forgotten by theory.** *Journal of Marketing*, 1971(Apr), Vol. 35(2), 26-34.—Attempted to define and identify elements of behavioral theory relevant to the problem of the marketing effectiveness of free vs. low cost premium promotions. Dissonance and social-exchange theory are reviewed. Controlled experimentation with 480 Stockholm housewives used 3 levels of demanded "reciprocation" from the consumer (request by mail, and low and moderate charge for premium). Free premiums did not necessarily make such offers more attractive. (18 ref.)—R. R. Shepps.

11871. Slocum, John W. & Mathews, H. Lee. (Pennsylvania State U.) **Social class and income as indicators of consumer credit behavior.** *Journal of Marketing*, 1970(Apr), Vol. 34(2), 69-74.—Examined the

effect of social class membership and income on credit usage. It was found that social class was not necessarily a more significant determinant of consumer behavior in this area than amount of income. Behaviors examined included usage of credit cards for installment purposes and a Likert attitude scale measuring attitude toward credit card use.—R. R. Shepps.

11872. Stuteville, John R. (California State Coll., Long Beach) **Psychic defenses against high fear appeals: A key marketing variable.** *Journal of Marketing*, 1970(Apr), Vol. 34(2), 39-45.—Selectively reviews well-known literature of the last 20 yr. on the effect of high and low fear communications. Conditions likely to lead to acceptance or rejection of the communication are identified with particular emphasis on how this may be used in advertising or marketing. Examples of such marketing efforts are cited. Considerable emphasis is placed on psychodynamic defenses such as "denial of the validity of the message," the belief that "I am the exception" and "defusing" the communication of its true significance.—R. R. Shepps.

11873. Summers, John O. (Indiana U., School of Business) **The identity of women's clothing fashion opinion leaders.** *Journal of Marketing Research*, 1970(May), Vol. 7(2), 178-185.—Studied demographic, sociological, personality, attitudinal, and mass media exposure factors and involvement with clothing fashions in an effort to identify and profile fashion opinion leaders. Those identified "represent a target market with high sales potential" and were found to be "important change agents in disseminating fashion information during the fashion season." J. C. Franklin.

11874. Wheatley, John J. (U. Washington, Graduate School of Business Administration) **Assessing TV pretest audiences.** *Journal of Advertising Research*, 1971(Feb), Vol. 11(1), 21-25.—While sex and demographic characteristics, as such, "are important in determining test results," results of an experimental test of the issue suggest that the "effectiveness of a [TV] commercial can be evaluated without special consideration of whether or not the respondents in the audience are recent or regular users of the product being advertised."—J. C. Franklin.

11875. Wheatley, John J. (U. Washington, Graduate School of Business Administration) **Marketing and the use of fear- or anxiety-arousing appeals.** *Journal of Marketing*, 1971(Apr), Vol. 35(2), 62-64.—Reports on the experimental test of a hypothesis that anxiety-arousing advertising messages are more effective with nonowners of life insurance than with owners of the product. Ss were college students. Attitudes were measured in before and after message fashion by means of semantic differential scales. Difference in the observed mean attitude shift between the 2 groups was "significant at the .10 level" in favor of the nonowners, who showed the more positive reaction.—R. R. Shepps.

11876. Wheatley, John J. & Oshikawa, Sadaomi. (U. Washington) **The relationship between anxiety and positive and negative advertising appeals.** *Journal of Marketing Research*, 1970(Feb), Vol. 7(1), 85-89.—Students in the "low anxiety category exposed to negative [life insurance] copy experienced a more favorable attitude shift than those who were shown the positive copy" while "high anxiety Ss...responded more favorably to the positive copy than they did to the negative copy"—anxiety being measured by Sarason's

Lack of Protection Test and attitudes toward life insurance by 6 semantic differential scales.—J. C. Franklin.

11877. Zaltman, Gerald. (Northwestern U.) **Marketing inference in the behavioral sciences.** *Journal of Marketing*, 1970(Jul), Vol. 34(3), 27-32.—Discusses the more effective use of behavioral sciences in marketing. The process of scientific inference is discussed and reasons are offered for studying the behavioral sciences within the marketing context. It is concluded that the "value and applicability of the behavioral sciences in marketing are dependent upon 2 intuitive intellectual judgments represented... by the operational research epistemic gap and action epistemic gap." (16, ref.) *Journal abstract.*

ENGINEERING PSYCHOLOGY

11878. Maruyama, Richard T. **Visual detection of illuminating surfaces.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Oct), No. 26-70, 64 p.—Determining the requirements of helicopter lighting requires selecting the major factors that contribute to the lighting power of a surface light source. Since the light source must be functional, sky brightness, atmospheric attenuation, and other characteristics of light sources, e.g., size, shape, and angular velocity, must be studied. A model that looks at each of these variables separately is presented. More investigation is needed in the field of search time to improve the reliability of the model for given background luminances. The necessary light output for an area light source can be determined by methods described; in addition the required boundary range for a surface light source can be computed for almost all conditions.—*Journal abstract.*

11879. Prophet, Wallace W. & Boyd, H. Alton. (HumRRO Div. No. 6, Ft. Rucker, Ala.) **Device-task fidelity and transfer of training: Aircraft cockpit procedures training.** *HumRRO Technical Report*, 1970(Jul), No. 70-10, 44 p.—Evaluated the training effectiveness of 2 cockpit procedures training devices, differing greatly in their physical fidelity and cost, in the teaching of ground cockpit procedures for a twin-engine, turboprop, fixed-wing aircraft. Ss were 30 army aviators. 1 group received training in cockpit procedures in a relatively expensive, sophisticated, high-fidelity, computerized cockpit procedures trainer, while another group was trained in an inexpensive, low-fidelity mockup of the aircraft cockpit. Their subsequent performance in the actual aircraft was compared with that of a control group who received all of their procedures training in the aircraft. Results indicate that both training devices produced significant transfer of training, in terms of error and time reduction, in performance in the actual

aircraft. There were no significant differences in training effectiveness of the 2 devices, in spite of their great differences in physical fidelity and cost. Implications for the design of procedures training devices and associated training programs are discussed.—*Journal abstract.*

Displays & Controls

DRIVING & SAFETY

11880. Lucas, Richard L. (U. South Dakota) **Development and evaluation of a part task film simulation technique for training drivers on a critical passing skill.** *Dissertation Abstracts International*, 1971(May), Vol. 31(11-B), 6944-6945.

11881. McBride, Robin S. & Peck, Raymond C. (Dept. of Motor Vehicles, Sacramento, Calif.) **Modifying negligent driving behavior through warning letters.** *Accident Analysis & Prevention*, 1970(Dec), Vol. 2(3), 147-174.—Issued several types of warning letters varying in threat intensity and degree of personalized style (intimacy) to 14,620 negligent drivers. 3,019 control negligent drivers were sent cards requesting verification of addresses. 1/2 the Ss in each experimental group also received a questionnaire on attitudes toward enforcement policies and a congratulatory letter (reinforcement) for incident-free drivers in a 7-mo follow-up period. All letter treatment combinations resulted in lower accident and violation means when compared to the controls, with the low threat letter significantly better in the follow-up on accident criterion. Significant variable interactions between the letters and Ss were found. Letter effects appeared to diminish after 7 mo. Evidence for a reinforcement effect with the low threat/high intimacy letter was found. A cost/benefit analysis is presented. (French, German, & Spanish summaries) (21 ref.)—*Journal summary.*

11882. Shor, Ronald E. & Thackray, Richard I. (U. New Hampshire) **A program of research in "highway hypnosis": A preliminary report.** *Accident Analysis & Prevention*, 1970(Dec), Vol. 2(2), 103-109.—Describes an apparatus designed to include the essential features of the "highway hypnosis" situation. Preliminary results are presented which characterize the range of behavioral, psychophysiological and subjective phenomena observed with the device. (French, German, & Spanish summaries) (46 ref.)—*Journal summary.*

11883. Williams, Griffith W. & Shor, Ronald E. (Rutgers State U.) **An historical note on highway hypnosis.** *Accident Analysis & Prevention*, 1970(Dec), Vol. 2(3), 223-225.—Presents and discusses a 1921 report on the phenomena of highway hypnosis. (20 ref.)

Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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